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GALEN
HYGIENE
I

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GALEN

HYGIENE

BOOKS 1-4

EDITED AND TRANSLATED BY

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GENERAL IN...

BOOK I

BOOK II

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BOOK IV

To Susie Collis and Iain More

ACKNOWLEDGMENTS

Several people have made significant contributions toward the completion of this and the previous volume on Galen. It is my pleasure to acknowledge their help and thank them for their contributions.

Bob Milns read through the translations of Books 1 to 3 of the *Hygiene* against the Greek and made a number of very helpful corrections and suggestions. Greg Horsley and Niki Papavramidou looked at passages I was having difficulty with in the translations and offered their thoughts, which were invariably clarifying. Two doctors read through the translations with a critical medical eye—Steve Wilkinson, *A Method of Medicine to Glaucou*, and my daughter, Justine Johnston, the *Hygiene*—with the aim of helping to make some of Galen's more convoluted passages intelligible from the medical viewpoint.

I am especially grateful to my partner, Susie Collis, who read through the introductions and translations of both works at various stages in their evolution and was responsible for numerous improvements. She was also instrumental in obtaining various important materials. This work is dedicated to her and to my longtime friend Iain More, who has demonstrated so well the value of attention

ACKNOWLEDGMENTS

to general hygienic measures as he grapples with a long and difficult illness. He presents an inspiring example of the importance of mental state to physical well-being, which bears on Galen's point about the relation of hygiene to the strength of the soul.

GENERAL INTRODUCTION

Galen (AD 129–ca. 216) is rightly recognized as one of the greatest figures in the history of Western medicine. Moreover, he and his revered predecessor, Hippocrates (ca. 440–370 BC), are the only ancient doctors to have a substantial body of surviving writing.¹ Almost all the many other medical men who practiced and wrote prior to AD 300 are known only through fragments and testimonia,² many of which are to be found in Galen's writings. So not only are Galen's copious writings on the subject of ancient medicine of very considerable interest in themselves, they are also the repository for much of the material on writers whose own works no longer exist. Despite this, Galen has been roundly criticized on a number of grounds: arrogance and self-aggrandizement, intemperate attacks on predecessors and contemporaries, prolixity, tedious rep-

¹ The only other sizable surviving medical work from that period is Celsus' *De medicina*. Celsus (fl. AD 15–35) was not a practicing doctor. There is a complete English translation of this work, which is an excellent source of information on medicine as it was at the turn of the millennium, by R. G. Spencer, *Celsus, De medicina*, 3 vols. LCL 292, 304, and 336.

² Two notable exceptions for whom there is some surviving material are Soranus of Ephesus (fl. AD 98–138) and Aretaeus of Cappadocia (ca. AD 150–200).

etition, and convoluted sentence construction in his writings. He has also been criticized for having a stultifying effect on the development of medicine. The first group of criticisms may have some justification; the second charge, however, cannot be laid at Galen's feet. This is more a testament to the scope and quality of his work and, to a degree, the inadequacy of his successors. Certainly, Galen's influence was profound and enduring, lasting a century or more after William Harvey's discovery of the circulation of the blood, which necessitated a major revision of existing physiological concepts.³ Details of Galen's life, the medical milieu of his time, and the magnitude of his contribution have been well recounted in the excellent recent studies specifically on Galen by Veronique Boudon-Millot and Susan Mattern, and in general studies such as that by Vivian Nutton.⁴ His great importance is also tacitly acknowledged by the very substantial number of translations of his works: into Syriac and Arabic during the first millennium AD, into Latin during the Middle Ages and the Renaissance, and into modern Western languages over the last century or so.⁵

³ William Harvey's *On the Motion of the Heart and Blood in Animals* (*De motu cordis*) was published in Frankfurt in 1628.

⁴ On Galen specifically, see Boudon-Millot, *Galien de Pergame*, and Mattern, *Galen and the Rhetoric of Healing* and *The Prince of Medicine*. On ancient medicine generally, see Nutton, *Ancient Medicine*.

⁵ For full lists of Galen's extant works together with post-Kühn translations, see J. A. López-Férez, ed., *Galeno: Obra, Pensamiento e Influencia* (1991), 309–29, and Hankinson, *The Cambridge Companion to Galen*, 391–403.

Galen's *Hygiene*, often known by the Latin title *De sanitate tuenda* (*On the Preservation of Health*), is one of his most important works in terms of providing a comprehensive account of the practice of medicine. It is his substantial statement on one of the two major components of the art, which may be divided broadly into the preservation of health when it is present (hygiene) and the restoration of health when in it is vitiated by disease (therapeutics)—a division Galen himself explicitly makes. The *Hygiene* was written during one of Galen's most prolific decades (170–180); the date given by Bardong is 175.⁶ It is not mentioned in Galen's *On My Own Books*, but it is referred to in *On the Order of My Own Books* (in a damaged passage) and in the list of works given at the end of *The Art of Medicine*.⁷ In both these instances it is listed with the therapeutic works. The importance of the *Hygiene* is reflected in its inclusion in the *Summaria Alexandria*,⁸ the multiple editions of Linacre's Latin translation between 1517 (this was his first translation of a Galenic treatise) and 1559, and its mention in eighteenth-century writings. Indeed, it still has a practical relevance today in ways most of Galen's other works do not, although of course they still remain of considerable historical interest. Galen wrote two other short works on aspects of hygiene

⁶ See Boudon, *Galien*, 392n4.

⁷ In his translation of *De ordine librorum propriorum*, Singer, *Galen: Selected Works*, speaks of Galen's *Hygiene* as "this enormously influential work" (403–4). There are several references in *Ars M.*, in particular, I.404K.

⁸ See Johnston and Horsley, *Galen: Method of Medicine*, I.iii–liv.

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(*Thrasybulus* and *On Exercise with a Small Ball*), which are considered further below, as are a number of related works that he refers to in the *Hygiene*.

HYGIENE BEFORE GALEN

There was clearly a significant body of writing on hygiene and related matters prior to Galen. It is also clear that a substantial amount of this was available to Galen, but almost all of it is now lost. What remains are the origins in the Hippocratic corpus and fragments only of the others, predominantly preserved in Galen's own writings. The concepts of what constitutes health and the methods of maintaining it appear to have been largely similar throughout the ancient period, although of course there was a theoretical divide on the grounds of continuum versus atomist theories. Basically, the idea was that the maintenance of health depended on diligent attention to diet and activity and the judicious use of exercise, massage, and bathing. The measures could be supplemented with medicinal preparations aimed at preserving a balanced state by ensuring the body's proper evacuation of superfluities and attention to environmental factors. A passage from Galen's *Thrasybulus* that considers some historically important contributors is given below, followed by brief comments on relevant individuals.

Therefore, dismissing these people,⁹ for it is not base arts but arts we come to consider, let us call on

⁹ Galen is referring to gymnastic trainers who train athletes in abnormal ways.

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those who were truly knowledgeable in the gymnastic art—Hippocrates, Diocles, Praxagoras, Philotimus, Erasistratus and Herophilus, and those others who thoroughly learned the whole art concerning the body. Of course, we heard just now that Plato says there is no specific name. Accordingly, you should not seek one name relating to the whole art concerning the body, for you will not find it. But if at some time you are appointed to speak about this, let it suffice for you, imitating Plato, to recount [what he said]: "I say there is one treatment of the body which has two parts—the gymnastic and the medical."¹⁰ Obviously the gymnastic is for those who are healthy, while the medical is for those who are sick. But what is more worthy of inquiry is that Plato did not distinguish on logical grounds the hygienic art from the medical, as all those men previously mentioned did, of whom, if you wish, let us call to mind one, since his writings are available to all.

Accordingly, Erasistratus, in the first book of his *Hygiene*, says: "It is impossible to find a doctor who has dedicated himself to the matter of hygiene." And subsequently, "The *aepsias* occurring along with some affection, and the treatment of these, fall to medicine and not to the matter of hygiene." Then, going on still further: "If there is some ill health involving the body, due to which those things administered will always be destroyed, and in this way will come to the same *kakochymia* as those previously existing, it is for a doctor to resolve

¹⁰ Plato, *Gorgias* 464b.

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such a condition and not a hygienist.” Then, subsequently: “It is for the doctors to speak about these [conditions] and to resolve them; this should not fall to hygienists.”

It appears that Erasistratus not only named something the art of hygiene similar to all the others, but also named the practitioner of this art a hygienist, just as, I think, he named the practitioner of the medical art a doctor, so that, of the therapeutic art concerning the body, for which there was no specific name among the Greeks, there is a division into two primary parts. And just as we name these same arts medicine and hygiene, so too we name their practitioners hygienist and doctor. Many other doctors similarly used these names. (V.879–81K)

Hippocrates (440–370 BC): As in his other works, Galen’s main authority is Hippocrates, and his *Hygiene* contains a number of quotes (some recurring) from the Hippocratic corpus. The relevant works are *Regimen in Health*, the three books entitled *Regimen I*, *II*, and *III*, and *Airs, Waters, Places*. Reference is also made to *Aphorisms*, *Epidemics*, and *On Breaths*. The topics considered in the short *Regimen in Health*, a work which bears an uncertain relationship to *Nature of Man* (a work of major importance in Galen’s theorizing generally),¹¹ are as follows: (1) seasonal variations in food and drink (particularly wines), seen in terms of *krasis*; (2) types of physique and ages; (3) regimen determined on the grounds of age, season, ethos, place, and physique; (4) hygienic measures

¹¹ See E. M. Craik, *The ‘Hippocratic’ Corpus* (2015), 207–13.

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such as walking, working, and bathing; (5) regimen for those who are fat or thin; (6) emetics and purges (clysters); (7) care of infants and women; (8) regimen for athletes; (9) diseases arising from the brain. The conclusion stresses the importance of health: “It is necessary for a man who is wise to consider health the most worthwhile thing for people, and to learn from his own thought to be benefitted in disease.”¹²

Diocles of Carystus (4th c. BC): A Dogmatic by persuasion, Diocles is credited with at least twenty works, all of which are now lost. Manetti (EANS, 256–57) describes his *Matters of Health, to Pleistarchus* as his “most influential work”—a work which, like his work on foods, wines, and herbs (*On Rootcutting*) and that on olive oil, to Archidamus, was aimed, at least in part, at a nonspecialist audience. Six of the eleven fragments on hygiene collected by Van Der Eijk are from Galen. One long fragment from Oribasius is of particular interest, detailing the appropriate activities for the preservation of health over one day, from waking in the morning to retiring at night.¹³

Praxagorus of Cos (ca. 325–275 BC) is regarded as a Dogmatic. He was particularly noted for his development of the concept of humors, subdividing the basic four, on grounds of color, taste, and other aspects, to give a total of ten. Alteration of these humors was seen as the major cause of disease. Among the works credited to him, none of which are now extant, there is a work on dietetics, but

¹² See Hippocrates, *Regimen in Health*, trans. W. H. S. Jones, *Hippocrates IV*, LCL 150, 44–59.

¹³ See P. J. Van der Eijk, *Diocles of Carystus*, 2 vols. (2000), 1.292–331.

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none on regimen more generally or on hygiene *per se*. In the work on dietetics, he is said to have considered the powers or faculties of different foods, and also that people differ in nature and constitution, and therefore require different diets. Galen describes him as being concerned with the issue of preservation of health and as being a master of gymnastic prescription. Philotimus, his pupil, is said to have written a work entitled *Art of Cooking* and perhaps to have contributed to Praxagoras' work on dietetics.¹⁴

Herophilus of Chalcedon (fl. 280–260 BC): Von Staden, in his collection of fragments of Herophilus, includes four only under hygiene. Two of these are from Galen's *Thrasybulus*, where he is linked with others in regard to hygiene (as in the quote given above). One of the other two is from Sextus Empiricus and is given by Von Staden as follows: "Herophilus says in his *Regimen* that, in the absence of health, wisdom cannot be displayed, science is non-evident, strength not exerted in contest, wealth useless, and rational speech powerless."¹⁵

Erasistratus (fl. 260–240 BC): Like Herophilus, Erasistratus is included by Galen in *Thrasybulus*, in his two lists of those interested in hygiene. In one of these, given above, there is reference to a work on hygiene by Erasistratus. In Garofalo's collection of fragments, there are fifteen under hygiene, as follows: Galen, 7; Caelius Aurelianus, 5; and one each from Oribasius, Athenasus Dip-

¹⁴ F. Steckerl, *The Fragments of Praxagoras of Cos and His School* (Leiden: E. J. Brill, 1958).

¹⁵ Von Staden, *Herophilus*, 406–7.

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nosophus, and Celsus.¹⁶ One reference in Galen's own *Hygiene* is as follows: "Anyway, the movements in cradles, cots and their own bent arms were discovered by the nursemaids of children. And we might also come in some way to the other issue of what is most essential for the maintenance of health, although Asclepiades opposed and gave the clearest condemnation of exercises, while Erasistratus spoke less vehemently but displayed the same opinion as Asclepiades" (VI.37K).

Asclepiades of Bithynia (fl. 120–90 BC): He developed a theory of basic structure in which fragile corpuscles (*anarmoi onkoi*) were thought to move through non-observable channels (*poroi*) in the body; ill-health arose when this movement was reduced or increased. Although he is not credited with any work on hygiene, his treatment methods for diseases arising from variations in this process consisted largely of methods associated with hygiene—massage, diet, wine, mild exercise, and moderation in personal habits. Galen mentions Asclepiades several times in his *Hygiene*.¹⁷

Two noted Methodics, Themison of Laodicea (fl. 90–40 BC) and Thessalus of Tralles (1st c. AD) are credited with works on hygiene, although Galen doesn't mention such writings.

Theon of Alexandria (fl. AD 130–160) is described by Keyser (EANS, 795) as an "autodidact ex-athlete who

¹⁶ Garofalo, *Erasistrati Fragmenta*, 115–23.

¹⁷ For a general account of Asclepiades' theory and therapeutic methods, see J. Vallance, *The Lost Theory of Asclepiades of Bithynia* (1990).

wrote a work on exercise, and a longer work *Gymnastrion*, both only known from Galen." Galen gives detailed consideration to Theon's ideas on massage in his *Hygiene* and also mentions him in relation to baths. Although Galen is critical of Theon, his criticism is tempered to some degree with admiration.

GALEN'S SYSTEM OF HYGIENE

Although Galen's exposition of his system of hygiene is not altogether systematic due to his penchant for launching into substantial digressions from his stated intentions—something he explicitly acknowledges in the work itself—his conceptual approach is certainly systematic.

1. There are the foundations consisting of various definitions of health and its relation to the two other possible states, i.e., disease and a state intermediate between health and disease. The key components of these definitions are the structure and function of the body and its parts. Thus, there are bodies described as faultless in terms of structure and function that are entirely in accord with nature; there are bodies impaired in structure or function, which are contrary to nature; and there are those in between, which are deficient in structure or function to some degree, but not to the extent that there is actual disease.

2. There are the principles of hygiene that are the theoretical points and modes of the application of hygienic measures to the body.

3. There are the practical methods of hygiene. Each of these components will be briefly examined.

Foundations

Concepts and Definitions

Galen offers several clear but different definitions of health, usually in association with disease. As of course a clear concept of what constitutes health is essential to a discipline devoted to its preservation, several of these definitions are given below.

On the Differentiae of Diseases: "Here one must accept the agreed principle that all men, when they have the functions of the parts of the body faultlessly directed to serving the actions of life, persuade themselves they are healthy. On the other hand, when they are damaged in any one of these [parts], they consider themselves diseased in that part. This being so, health is to be sought in these two things: (i) the functions which accord with nature; (ii) the constitutions of the organs by which we function. So disease is either damage of function or constitution" (VI.836K).

The Method of Medicine: "In respect of each of the things signified, one thing is the same for all. It is like this too with being diseased and being healthy. What is in all those who are diseased and all those who are healthy is one and the same in either case. Just as by the term 'man' one thing is signified, so too is it the case for 'health'" (X.130K).

Hygiene: "Since health is a kind of balance, and every balance is brought about and expressed in a twofold manner, at one time coming to the highest point and being truly a balance and at another wanting slightly in perfec-

tion, hygiene too is a twofold balance. On the one hand, it is exact, optimal, complete and perfect; on the other hand, it is lacking this perfection, although not yet to such a degree that the organism is distressed" (VI.13K).

"We call health that state in which we neither feel pain nor are impeded in the functions pertaining to life" (VI.18K).

Medical Definitions:¹⁸ "Health is an *eukrasia* of the primary humors in us in accord with nature or functions of the physical capacities free from interference. Health is an *eukrasia* of the four primary elements from which the body is constituted—hot, cold, wet and dry. Other definitions include: a harmony of the heat and cold, wetness and dryness making up the person. What goes along with health? Three things: κάλλος (beauty), εὐεξία (a good bodily state) and ἀρτιότης (soundness, completeness) . . ." (XIX.382–83K). The remainder of this definition consists of an elaboration of these three terms.

A further quote from *Medical Definitions* concerns the terms κατὰ φύσιν and παρὰ φύσιν, which I have consistently translated "in accord with nature" and "contrary to nature," respectively:

Health is that which is in accord with nature. Disease is that which is contrary to nature. What is "natural" (φύσει) but neither "in accord with nature" nor already "contrary to nature" is like someone very thin, or dry, or thick-set, or fat, or sharp-nosed, or grey, or snub-nosed, or grey-eyed. Those

¹⁸ *Definitiones medicae* is regarded as spurious. Nonetheless, the definitions are relevant.

who are thus are not in a condition "in accord with nature" for they have gone beyond "balance," but neither are they "contrary to nature" for they are not hindered with respect to functions. Such a thing that is "non-natural" (οὐ φύσει) is neither "contrary to nature," nor "in accord with nature," nor "natural." Examples are those having *leuke*, leprous warts, warts and the like. For these are not "in accord with nature" as they are outside what accords with nature, but they are not "contrary to nature" for they do not hinder the functions that accord with nature. They are not, however, natural in that they do not occur from the beginning, nor are they from the initial genesis. They remain, therefore, "non-natural." What is "non-natural" by definition is close to what accords with nature and what is contrary to nature. (XIX.384–85K)

So health is something that exists; it is not simply the absence of disease. The key terms in the several definitions are constitution, as a stable state, function, accord with nature, and contrary to nature. In the terms of Galen's *On the Constitution of the Art of Medicine*, hygiene is one of the productive arts that either maintains something that already exists (i.e., health) or restores it if it is impaired, short of being actual disease. The issue of degrees or range of health is an important one and is inherent in the latitude of the component terms of his definitions.¹⁹

¹⁹ On this matter see particularly, Galen's *Ars M.*, Books 1–2.

Structure

Galen, in his various works, considers the structure of the body at several levels. First, he held firm views on the basic structure of the matter of which animal bodies (and other things) are composed. Of the two theories current in his time (continuum theory and atomist theory), he was an unequivocal supporter of the former. This originated with Empedocles and was espoused by Galen's most respected medical and philosophical predecessors, Hippocrates, Plato, and Aristotle. Simply stated, according to the continuum theory, the substance of bodies is a mixture of the four elemental "substances," fire, air, water, and earth, and the four elemental qualities associated with them—hot, cold, wet, and dry. This is not, of course, an observable structure and so cannot be directly assessed, although inferences can be drawn from perceptible qualities. Second, related at a macroscopic level to the four elemental qualities are the four humors—blood (hot and wet), yellow bile (hot and dry), black bile (cold and dry), and phlegm (cold and wet). Under certain circumstance, these humors can be observed, but in part their presence and movement must be inferred from perceptible phenomena. Third, Galen made a threefold division of observable macroscopic structures: (1) *homoiomeres*, which are bodily tissues of uniform structure—for example, bone, muscle, cartilage (see the section on terminology below); (2) organic parts, which are composite structures subserving a particular function or functions—for example, heart, brain, lungs; (3) the whole body. In the ideal healthy body, *homoiomereous* structures, both those existing separately and those contributing to the structure of organic parts,

have a proper balance of the four elemental qualities (*krasis*), while organic parts are normal in terms of size, conformation, number, and position.

Function

Four aspects of Galen's ideas on function are considered briefly below.

1. Capacity, function, and action (*dunamis*, *energeia*, *ergon*): As seen in the definitions above, function is a key term in the definition of health. It is best understood in relation to capacity and action. In simple terms, *dunamis* (as "capacity" or "faculty") is the potential to carry out a function, the function is what is carried out, and the action is the observed application of the function. For example, the legs have the capacity or faculty of walking; their function is to walk; their action is the actual process of walking. These three terms have caused some confusion. The three quotes given below are added in an attempt to provide some clarity on the matter of function in the general sense.

Phillips says of Galen's use of *dunamis* in *On the Natural Faculties* that "the notion of *δύναμις* in this book is very pervasive and mostly verbal, being a development in medicine, not of *δύναμις* as known in *Ancient Medicine*, but of the Aristotelian *δύναμις* as potentiality as contrasted with *ἐνέργεια*, activity or actuality, also Aristotelian."²⁰

The Soul's Dependence on the Body: "Many of the wise are openly in confusion on this matter, having an incorrect understanding of 'capacity' (*δύναμις*). They seem to me

²⁰ See E. D. Phillips, *Aspects of Greek Medicine* (1987), 176.

to wrongly conceive of capacity as something which dwells in substances, as we do in houses, not being aware that the effective cause of each thing that comes about is conceived of in relation to something else, and there is some name of this cause as of such a thing which is separate and *per se*. But in it, in relation to what is brought about from it, the capacity is of what is brought about, and because of this we say that substance has as many capacities as it has functions (*ἐνέργειαι*)” (IV.769K).

Hygiene: “One must not, therefore, determine those who are healthy and those who are diseased simply on the basis of the strength or weakness of the functions; one must apply the term ‘in accord with nature’ [*κατὰ φύσιν*] to those who are healthy and the term ‘contrary to nature’ [*παρὰ φύσιν*] to those who are diseased, as health is a condition in accord with nature productive of functions and disease a condition contrary to nature injurious to functions” (VI.21K).

2. Major functional systems: Galen identifies the following four major functional systems operating under the control of their principles:²¹

Brain, spinal cord, and the nerves, both cranial and spinal, responsible for sensory and motor functions.

Heart and arteries, responsible for the vital force, innate heat, and distribution of *pneuma*.

Stomach, liver, and veins, responsible for the reception, concoction, and distribution of nutriment to all parts of the body.

Testes and spermatic ducts, responsible for reproductive functions.

²¹ See his *Ars M.* 5, I.318–19K for his discussion of this.

3. Innate heat: The concept of innate heat is in significant part derived from Aristotle. In Galen’s formulation it is somehow provided at the time of the initial formation. This view, also held by Hippocrates, was by no means universal. Others, such as Erasistratus, Praxagoras, and Asclepiades, believed that the heat of the body was acquired from external sources. Galen’s view is clearly expressed in the following statement from his *On Tremor, Palpitation, Convulsion, and Rigor*.

We do not posit masses and pores as elements of the body, nor do we declare that heat comes from motion or friction or some other cause; rather we suppose the whole body breathing and flowing together, the heat not acquired nor subsequent to the generation of the animal, but itself first, original and innate. This is nothing other than the nature and soul of life, so you would not be wrong thinking heat to be a self-moving and constantly moving substance. (VII.616K)²²

This innate heat, according to Galen, has its seat in the heart and is distributed to the rest of the body by the arteries, which were, at the time, also thought to carry *pneuma*.

4. *Pneuma*: This plays an important role in Galen’s concepts of structure and function, and the relation of these

²² This work has been translated by D. Sider and M. McVaugh, “Galen on Tremor, Palpitation, Spasm and Rigor,” *Transactions and Studies of the College of Physicians, Philadelphia* (1979), 1.183–220, p. 199. See also May, *Galen On the Usefulness*, 1.50–52; and Siegel, *Galen’s System of Physiology and Medicine*, 164–68.

to health and disease. *Pneuma*, in Galen's view, is derived from the external air, drawn in either through the nose and cribriform plate, to be changed in the *rete mirabile* (a structure not actually present in humans) to *psychic pneuma*, or into the lungs for subsequent distribution via the arteries. In his *Method of Medicine*, he writes:

That syncope is an acute collapse of capacity has been stated by my predecessors. Since, however, the substance of the capacities controlling us lies in the *pneuma* and in the *krasis* of the solid bodies, what we must do is preserve these when they are present and restore them when they are weakened. How we must preserve them in a time of health has been shown in my work *Hygiene*. How we must preserve them in the diseases has already been stated in my earlier works and will be stated again now. Up to this point, however, the whole overview has not yet arrived at an appropriate general statement, nor does it have the kind of method that pertains to the other things considered earlier. Therefore, it is time to add what is lacking. What we must do is preserve the substance of the *pneuma* along with the solid bodies in diseases so that, in terms of both quality and quantity, they are in accord with nature as far as possible. If it is possible to make provision so that nothing of the substance of these is evacuated or changed in any way at all, this would be best.

Since, however, in my *Hygiene* it was shown to be impossible that such a thing should ever exist in the mortal body, what we must attempt is to correct

the outflow of the substance by an addition and restore what is being changed to *eukrasia* through an opposite change. If both the evacuation and the change occur gradually, then the correction of both will be gradual, and this is the work of the art of hygiene, as was shown. If, however, not only the evacuations, but also the additions occur all at once and in large amounts, this would constitute a disease and we would require a therapeutic method for its cure. Just as the correction of a small deviation to a contrariety to nature is the task of the art of hygiene, so too, the correction of a large deviation is the task of the art of therapeutics. Certainly, I showed clearly that the brain is a fount, as it were, of the *psychic pneuma*, which is refreshed and nourished by the inspiration of air and from what the net-like plexus arrangement (*rete mirabile*) provides. My exposition of the vital *pneuma* was not, however, similarly clear. It is certainly not implausible that it seems to be contained in the heart and arteries, this too being nourished particularly from the respiration but now from the blood as well. If there is also a physical *pneuma*, it too would be contained in the liver and the veins. There was a very full discussion about the substance of capacities in my work *On the Opinions of Hippocrates and Plato*.²³

The substance of the solid bodies needs, of course, to be of a certain quantity and, because of this, the

²³ See *Plac. Hippocr. Plat.*, V.181–805K—in particular, Book 6 (De Lacy, 1978, 2.360–427).

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nutriments preserve the class of living things. No less does it need the *eukrasia* of the constituent elements themselves that compose it, and it has been stated often already by what means we must preserve this in an *eukratic* state. But the collapse of the capacity, about which I now propose to speak, frequently occurs after the destruction of substance of solid [bodies] in the course of the most chronic diseases, when the organism is thinned by atrophy, and in the colliquative (*syntectic*) fevers that are acute. It arises after a change in *krasis* when [the solid bodies] have been disproportionately heated, cooled, made moist, made dry or are affected by some conjunction of these. The change of the *pneuma* occurs due to humors in a bad state and the bad quality of the ambient air when it has been brought to this on occasion for one reason or another, and further, due to the noxious potencies or poisons of venomous animals. (X.837–40K)

There is also a nonphysiological *pneuma* as described in *On the Causes of Symptoms*, which is generated in the stomach from phlegmatous humors and foods. This is termed “flatulent *pneuma*” and is responsible for eructations and *borborygmi* (VII.239–42K).

Principles

In considering Galen’s principles of hygiene, several aspects need to be taken into account, as follows:

1. where, in Galen’s system of structure and function, hygienic measures are to be applied

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2. what kind of people are the proper subjects of hygiene
3. what the overall aims of hygiene are

In the first case, the points of applications are, (1) the *krasis* of the *homoiomerous* structures, either alone, or where they exist as components of compound (organic) structures; (2) in organic structures as such, size and conformation of the four categories of variation in these (the other two being number and position); (3) the three major physiological systems (omitting the reproductive), in that the state of the *pneuma* is a potential point of application in relation to the nervous and cardiovascular systems, the innate heat in the case of the cardiovascular system, and the intake of food and drink, their processing, and the elimination of residual material in the case of the “digestive” system.

In the second case, Galen, in *Thrasymbulus*, lists three groups of people to whom hygienic measures may properly be applied: (1) those who are in a good state already (*euectic*); (2) those who are recovering from illness (*analectic*); (3) those who are in a state intermediate between health and disease, which includes those in the three states he gives particular attention to in his *Hygiene*—fatigues, old age, and “healthy” *dyskrasias*. To these, he adds a fourth group, which is of a different category than the first three—the prophylactic. On this, he makes the following statement in his *On the Constitution of the Art of Medicine*: “. . . there is a preventative part of the art, which they call specifically prophylactic . . . For whenever either some abundance or badness of humors, or a blockage, or some destructive power supervenes in the body, there is a

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danger to a degree not hitherto present that the person will become diseased, and sometimes the danger will be extreme. Such causes are difficult to diagnose because the person doesn't yet suffer pain."²⁴

In the third case, following on from the above, a basic twofold aim for hygiene may be identified: (1) there is the preservation of health in those who are already clearly healthy; (2) there is the restoration of health in those in whom there is a deviation from perfection that does not reach the stage of disease. In summary, Galen recognizes two groups of things that can adversely affect the structure and function of the body, so to preserve or restore health, hygienic measures must be able to prevent, ameliorate, or correct them. These things Galen divides into those that are "inevitable and innate," including progressive change in *krasis* with age, the constant flux of bodily material and the accumulation of superfluities, and those that are "external and contingent," like airs, waters, places, and regimen generally.

For a body to be in the best state, it must be *eukratic* throughout, have a normal amount of innate heat, *pneuma* normal in quality and quantity, and a sustained balance between what is lost from the body and what is gained to replace the loss. The points where hygienic measures can be effectively applied are in preserving the *krasis* of the body and its parts within the normal range, maintaining a satisfactory level of innate heat, preserving satisfactory levels of *pneuma*, regulating the amount and nature of the superfluities arising from concoction in the body, aiding

²⁴ *Const. Art. Med.*, I.296K; Johnston, *On the Constitution*, 120-23.

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replacement of lost material, and as far as possible controlling external factors.

Methods

Briefly described below are the measures Galen considers and describes in his *Hygiene*.

Diet: Dietary measures can affect *krasis* and can also facilitate concoction. An example of the former is the use of hot and wet foods to counter the coldness and dryness of old age. An example of the latter is the use of diet to help manage *plethora* and *kakochymia* in the fatigues. Galen considers several common foods and drinks that can be important in maintaining health. These include milk, in infancy with respect to the condition of the nurse providing it, and more generally with respect to its sources; bread, both how it is prepared and what it is taken with; and wine, the various kinds and their respective benefits and harms. There is also the question of how many meals a person should have per day in different circumstances.

Massage: Galen considers two aspects of massage: massage in itself and massage as an adjunct to something else, especially exercise. In Book 2 (chaps. 2, 3, and 6), he gives a detailed account of the kinds of massage, taking issue with Theon's classification. Basically, there is a threefold division in both quantity and quality: much, moderate, and little in the former, and hard/firm, moderate, and soft/gentle in the latter. Galen quotes Hippocrates' summarizing statement: in quantity, much massage reduces flesh while moderate massage enfleshes; in quality, firm massage binds while gentle massage loosens.

Exercise: Galen quotes Hippocrates' brief statement

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that exercise / exertion precedes food and expands on this. Variations in exercise involve speed, vigor, and violence. He describes specific exercises, from the simple to the complex. In general, the sequence should be, exercise, apotherapy, bathing, food, rest. Basically, exercise increases innate heat. The drying effect of exercise can be counteracted by apotherapy. In deciding on exercises for an individual, the important factors are environment, constitution of the body, age, and the observable effects.

Baths: These can influence *krasis* among other things. Variable factors are the kind of water used, water temperature, time of immersion, and preparatory measures. A young person with the best constitution has no need of baths for hygiene. Baths should be avoided in wet conditions.

Apothepy: This can be seen as a part of exercise or as a kind of exercise. The measures are massage, suppression of breath (*pneuma*), and bindings applied by the masseur. Its aims are evacuation of superfluities and the prevention of fatigue after exercise. Galen notes Asclepiades' objection to apotherapy as "filling the head."

Purging: This can be used in fatigues and generally to evacuate superfluities and help correct *plethora* and *kakochymia* if present.

Phlebotomy: This also gets rid of excessive humors in *plethora* and *kakochymia* and is particularly useful for the tensive fatigues. Galen comments on Erasistratus' opposition to phlebotomy.

Medications: These can be used to facilitate concoction in *plethora* and *kakochymia*. Galen describes a number of compound medicinal preparations—oxymel, apomel, the Diospoliticum medication—to help deal with uncon-

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cocted humors and to rid the body of superfluities, especially in the aged. He describes the medicinal preparation from quinces that stimulates appetite in the anorexias, improves concoction in the stomach, and strengthens that organ.

Other important hygienic measures are rest, sleep, regulation of sexual activity, attention to environmental factors, and the functions of the soul. At one point, Galen lists the components of a hygienic regimen as four: things to be administered, things to be done, things to be evacuated, and things to be applied externally. In essence, and following Hippocrates, a healthy regimen is based on moderation in all things, particularly exertion / exercise, food, drink, and sexual activity.

GALEN'S WRITINGS ON HYGIENE

Galen has three extant works specifically devoted to hygiene:

Hygiene (On the Preservation of Health—San. Tuend., VI.1–452K)

Thrasybulus, On Whether Hygiene Belongs To Medicine or Gymnastics? (Thras., V.806–98K)

On Exercise with a Small Ball (Parv. Pil., V.899–910K)

In addition, there are several short sections on hygiene in both his *On the Constitution of the Art of Medicine* and his *Art of Medicine*, primarily concerning the aims and subdivisions of the subject. Then there are five works referred to several times in his *Hygiene*: two on the constitution of the body (*On the Best Constitution of Our Body* and *On the Best State*) and three on foods and diet (*The*

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Powers of Foods, On the Good and Bad Humors of Nutri-ments, and On the Thinning Diet). Finally, the several works stating his fundamental views on the structure and functions of the body are important for a proper understanding of the concepts and practices of hygiene. Those particularly referred to are *On the Elements according to Hippocrates, On Mixtures (Kraseis), On the Natural Faculties*, and the four treatises on the classification and causes of diseases and symptoms.

The first of the three specific works listed, the treatise entitled *Hygiene*, is Galen's major work on the subject. It is the only substantial work on the subject that has survived from ancient times. In this, although he states his plan for the book and also offers summarizing sections at intervals, the plan is not strictly followed. The plan, as stated, was to set out, in the first five books, the requirements of a regimen for health for each of the stages of life in the case of a person with a faultless constitution. The stages are: infancy and early childhood (0–7), late childhood / early adolescence (8–14), late adolescence / early adulthood (15–21), the prime of life (?22–42), the postprime decline (?43–63), and old age (?64 to death).²⁵ The final book was intended to consider hygiene for the individual with a less than faultless constitution who is not yet diseased. In fact, while he broadly adheres to his plan in the first two books, books three and four are largely devoted to the fatigues, both following exercise and spontaneous, of which he gives a comprehensive account. Book

²⁵ Galen does not actually specify the ages for these stages in the *Hygiene*.

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five is largely about hygiene in old age, although it does include introductory material on hygiene in the "healthy *dyskrasias*." The final book completes his consideration of this subject and concludes with two chapters that seem something of an afterthought—one on issues associated with sexual intercourse in men and one on medicinal preparations from quinces.

Interwoven into the basic structure are detailed considerations of the major components of hygiene unrelated to age groups: exercises, massage, baths, and diet. Overall, the treatise provides a detailed and comprehensive account of the subject of hygiene, considering in depth both theoretical and practical matters. Put together with his *Method of Medicine*, and accepting his argument that hygiene is one of the two components of medical practice, the two works together offer a complete account of the practical aspects of that practice. Like a number of Galen's works, his *Hygiene* remained influential and useful over many centuries.

The second work, dedicated to the otherwise unknown Thrasybulus,²⁶ is of considerably less practical interest and much more of its time, so to speak. Ostensibly, it addresses the issue of whether hygiene falls within the purview of the doctor or the gymnastic trainer. It seems that at the time, such trainers were not only conducting the practice of hygiene (exercise, massage, bathing, etc.) but were also writing on the subject. Theon, whose views on massage are criticized in Galen's *Hygiene*, is a case in point. In the work

²⁶ The pseudo-Galenic treatise, *Opt. Sect.*, I.106–223K, is also dedicated to Thrasybulus.

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to Thrasybulus, Galen addresses the stated question and comes to the not unexpected conclusion that not only is hygiene the business of the doctor but also that gymnastic trainers tend to employ methods that are counterproductive as regards health, in pursuit of the particular ends of the athletes under their supervision.

The work comprises forty-seven short sections, which can be grouped, somewhat arbitrarily, as follows:

1–17: These deal with definitions and concepts pertaining to health and related matters. Galen makes this distinction between medicine and gymnastics: medicine is the art of restoring health in those who are diseased and preserving health in those who are healthy; gymnastics is the art of preserving health and producing good condition (*euexia*). He identifies three grades of health: (1) health per se, (2) natural good condition, (3) good condition in athletes. He reiterates his basic definition of health, found in a number of his writings—that is, functions in accord with nature in every part of the body and a constitution in accord with nature. A perfect constitution allows perfect functions.

18–21: These review the things with which the body must “interact”: ambient air (surrounding and inhaled), food and drink, rest and movement, sleep and waking. In preserving health, it is necessary to make small corrections in these things, as opposed to the large corrections necessary in treating disease.

22–29: These are predominantly about hygiene as an art, using the arguments regarding the definition of an art in his *On the Constitution of the Art of Medicine*.

30–31: These two long sections express ideas central to

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Galen's concept of health and hygiene. In particular, he identifies three components of hygiene: (1) starting with subjects who are *euektic* (in good health / condition) and keeping them so; (2) starting with subjects who are recovering from disease and restoring health in them (analeptic); (3) starting with subjects who are in between health and disease and restoring health in them (hygienic, or “*phylactic*”). He adds, as a fourth, prevention of disease (prophylactic).

32–35: He adds several corollaries to his basic thesis: (1) the *euektic* component is the province of gymnastics and involves regimen and exercise; (2) gymnastics is part of the hygienic art; (3) the materials considered by Hippocrates were airs, water, places, winds, seasons, food, drink, and daily activities.

36–40: In these he deals with further aspects of the original question, in part from a historical perspective. His basic conclusion is that the therapeutic art concerning the body is divided into two parts—medicine (*ιατρική*) and hygiene (*ὑγιεινή*). On the materials of hygiene, he extends his earlier division: substances taken (food, drink, medications), activities performed (ordinary daily activities, exercises), matter voided (urine, feces, sweat), external influences (air, waters, etc.).

41–47: In these final sections Galen addresses some specific issues about gymnastics as one part of the art of hygiene, which in turn is one part of the art of caring for the body, which ultimately is medicine. He makes one of his somewhat intemperate attacks, this time on gymnastic trainers, and particularly their efforts in the pursuit of extreme functions in athletes.

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In his concluding statement to the work, he writes:

It is not, therefore, unreasonable, when asked what art hygiene is part of, to answer "the medical art." Since the name has been extended further, and no longer signifies the part but the whole art concerning the body, Hippocrates and all the doctors of the present time are rightly so named, for they know the greatest parts of the art itself are two—therapeutic and hygienic. In turn, they know gymnastics is part of hygiene itself, as has also been shown before. (V.897–98K)

The third treatise (*On Exercise with a Small Ball*) is very short (V.899–910K). It is about a specific exercise that Galen describes as the most beneficial, although there is no actual description of the exercise itself in the work.²⁷ It may involve two people throwing and catching a small ball. It exerts the body in all parts, is a pleasure to do (delights the soul), requires no additional equipment, and is essentially without risk. Galen lists what he sees as the three key requirements of exercise: health of the body, harmony of the parts, virtue of the soul. The sequence should be: exercise, soft massage with olive oil, and a hot bath.

SPECIFIC ISSUES

There are three specific issues that are given extended treatment in Galen's *Hygiene*: fatigue, old age, and the so-called healthy *dyskrasias*. Each is considered below.

²⁷ There is apparently a detailed description of this exercise in Mercuriale's *De arte gymnastica* of 1569.

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Fatigue

Galen's discussion of the various forms of fatigue occupies the major parts of Books 3 and 4. In extant writings from the time prior to Galen, there are the following three significant accounts of the condition:

1. Hippocrates, *Regimen* 2:²⁸ Three groups are identified as suffering fatigue: those not in training who have overexerted themselves in exercise, those who are trained but have used unaccustomed exercises, and those who have overexerted themselves in their customary exercises. The condition is attributed to *σύντηξις* (*syntexis*, colliquescence) of flesh. If the products of this breakdown are not evacuated via sweat and breathing, they collect in the fleshy parts, which become hot and fatigued. The treatments include hot baths, purging, gentle walks, weight loss, rest, and sudorific unguents.

2. Aristotle, *Problems* 5:²⁹ This short chapter considers questions about several aspects of fatigue after exertions such as walking and running on uneven or inclined surfaces, and other gymnastic activities. The mechanism is again identified as *σύντηξις* (colliquescence) producing superfluities, which, if they remain in the body, cause fatigue. The aims of treatment are elimination of the causative superfluities and symptomatic treatment of the fatigue itself. Measures include further exercise, induced vomiting, baths, and massage. A distinction is made be-

²⁸ See Hippocrates, *Regimen* 2 (66), trans. W. H. S. Jones, LCL 150, 359–65.

²⁹ See Aristotle, *Problems* I–XXI, trans. W. S. Hett, LCL 316, 134–65.

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tween summer fatigues, best treated by bathing, and winter fatigues, best cured by anointing with oil.

3. Theophrastus, *On Fatigue*:³⁰ In his short treatise on the subject, Theophrastus adheres to the theory of *σύντηξις* (colliquescence) as the primary causative factor. If the products of this process are not excreted, or otherwise disposed of, fatigue occurs, with particular involvement of joints and sinews. Theophrastus also mentions *osteokopos*, which Galen includes as a fatigue-like condition. In addition, Theophrastus speaks of fatigue being generated by the body being dried out, corresponding to Galen's "fatigue-like" condition, which the latter adds to his three primary kinds of fatigue. For Theophrastus, management involves moistening agents (drinks, baths) and resolving fatigue with fatigue.

Galen significantly advanced thinking on fatigues, and his teaching remained influential for many centuries. First, he divided fatigues into nonspontaneous (following exercise) and spontaneous, citing a Hippocratic source.³¹ Second, he divided fatigues into three kinds—wound-like, tensive, and inflammation-like—based on the presenting symptom. To these he added a fourth, which he called a fatigue-like condition, characterized by thinness and dryness. He also used the term *osteokopos*, which he applied to describe the deep-seated nature of the pain and discomfort. Third, he considered the existence of "combina-

³⁰ In *Theophrastus of Eresus: On Sweat, On Dizziness and On Fatigue*, ed. W. W. Fortenbaugh, R. W. Sharples, and M. G. Solenberger (Leiden: E. J. Brill, 2003), 251–308.

³¹ Hippocrates, *Aphorisms* 2.5, *Hippocrates* IV, LCL 150, 108–9.

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tion" fatigues; if the "fatigue-like condition" is included, there are fifteen possible combinations, which he sets out diagrammatically. In Galen's view, the major causes of fatigues were *plethora* and *kakochymia*. He does not mention *σύντηξις* (colliquescence) in his *Hygiene*, but the process seems to be essentially the same as that described by earlier writers. There are two basic measures of management: evacuate the superfluity / humor by purging and / or phlebotomy, and change the superfluity / humor by facilitating concoction; this involves medicinal preparations such as oxymel, apomel, and the Diospoliticum medication.

Old Age

Galen's ideas on hygiene for the aged occupy the major part of Book 5 of his *Hygiene*. He, and others before him, saw the basic problem of aging as being an increasing dryness and coldness in *krasis*. Some degree of correction was achievable through heating and moistening agents—foods (using some and avoiding others); drinks, including wine (he gives details on wines); movement and exercise; hot baths; and massage. He also recommended the use of some medications to help get rid of superfluities. Exercise should be moderate and involve customary activities; weak parts should be rested (unlike in the young in whom they should be exercised). In general, care should take into account the condition of the body as a whole, customs, and any disturbing afflictions. Galen provides two interesting case reports of old men—Antiochus the doctor and Telephus the grammarian.

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"Healthy" Dyskrasias

Following some initial consideration in the final two chapters of Book 5, Book 6 is basically about hygiene in people who do not have the best constitution of the body or cannot follow the ideal regimen. He deals in succession with the various *dyskrasias* when they fall short of being diseases (i.e., still permit normal function). Both uniform and nonuniform (regular and irregular) *dyskrasias* are covered. The two important causes are *plethora* and *kakochymia*. Basic general measures in management are diet, bathing, massage, moderate exercise, and moderation in sexual activity. More specific measures are downward purging and phlebotomy.

TERMINOLOGY

The four groups of terms considered here are terms that have been transliterated. The basic reason for doing this is the absence of satisfactory terminological equivalents in English and that attempts to devise such are likely to be misleading. These terms are essentially technical terms in Galen's concepts of anatomy, physiology, and pathology and need to be understood in that context. Transliteration helps to identify them as such. In two instances the same term remains in use, albeit with a somewhat different meaning.

Homoiomeres / Organic Parts: There are several places where Galen clearly defines what he means by *homoiomeres*. Thus, in *On the Elements according to Hippocrates*, he describes them as ". . . the primary parts with respect to perception," and lists arteries, veins, sinews,

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ligaments, membranes, and flesh as *homoiomeres* in humans (I.493K). In *On the Opinions of Hippocrates and Plato*, the list differs slightly, including "cartilage, bones, sinews, membranes, ligaments and all other such things" (VIII.4.7-14, De Lacy, 2.500). Here he also provides the following definition, identifying the term's biological application as originating with Aristotle: "Therefore, bodies in one outline (*prosgraphe*) are often called *homoiomeres* because all their parts are similar to each other and to the whole, and they are also often called simple or primary." In *On the Differentiae of Diseases*, Galen lists arteries, veins, sinews, bones, cartilage, ligaments, membranes, and flesh as *homoiomeros* structures and clearly states that these are components of organic bodies and are themselves formed from the primary elements (VI.841K). Finally, in *The Method of Medicine*, he writes: "A part is *homoiomeros*, as the name itself clearly shows, that is divisible into similar parts throughout, like the vitreous and the crystalloid and the specific substance of the membranes of the eye" (X.848K). Galen wrote a book on the subject, *On the Differences of Uniform Parts*, which only survives in Arabic.³²

The basic meaning of "organ" as instrument is retained in Galen's use of the term, which he defines as follows: "I term an organ a part of an animal that carries out a complete function, like the eye with respect to vision, the tongue with respect to speech, and the legs with respect to walking. In this way too, artery, vein and sinew are organs and also parts of the animal. And according to this

³² CMG, Suppl. O, III, G. Strohmaier, *Galen De partium homoeomerium differentia libelli* (Berlin: Akademie Verlag, 1970).

usage of terms, at least as defined not only by us but also by the Greeks of old, the eye will be termed a 'constituent part,' a 'part,' and an 'organ'" (X.47K).

Krasis / Eukrasia / Dyskrasia: *Krasis* has a basic meaning of mixing, combining, or blending. In certain contexts it is translated as "temperament," and in fact Galen's treatise on *krasias*, *On Mixtures*, is titled in Latin *De temperamentis*. In his system of medicine, *krasis* refers specifically to the mixing or blending of the four elemental qualities (hot, cold, wet, and dry). If these are properly blended (this is a conceptual issue rather than an observational one, although inferences can be drawn from signs), the body or parts thereof are in a state of *eukrasia*. If there is a preponderance of one quality, or one of the four possible combinations of two qualities, this constitutes a *dyskrasia*. There are, then, four possible mono-*dyskrasias* and four compound *dsykrasias* in addition to *eukrasia*. In any given structure (whole body or body part), there can be a single mono-*dyskrasia* or a compound *dyskrasia*, or more than one type of *dyskrasia* can be present, creating an irregular (nonuniform, anomalous) *dyskrasia* in that structure. The other point of particular relevance in *Hygiene* is Galen's identification of what he calls a "healthy *dyskrasia*"—that is, a *dyskrasia* that is compatible with normal function. Once in *Hygiene* Galen uses the term *akrasia*, but the context suggests that this is used here for ἀκράτεια, meaning "debility" or "lack of self-control."

Euchymia / Kakochymia / Plethora: These terms apply to the amounts and states of the four humors in the body. The terms and what they represent are relevant generally to the maintenance of health and specifically to the etiology of fatigues. Thus, a person may be described as *euchy-*

mous if the four humors (blood, yellow bile, black bile, phlegm) are normal in quality and quantity. If there is excess of one or more, the term *kakochymia* applies; if all four are in excess, the term *plethora* applies. The terms *euchymous* and *kakochymous* are also applied to foods;³³ in this context they can be understood as relating to the power of a particular food to produce *kakochymia* in the body. Both *kakochymia* and *plethora* can produce a disturbance of health that falls short of being an actual disease, and then come within the province of hygiene. As mentioned above, an example is the nonspontaneous fatigues. The following quote is from Galen's *Method of Medicine*:

How you must take care of the whole body when it is in a pathological state is something I have spoken about at length, both throughout what has gone before and also in the work *On Plethora*.³⁴ Now I shall speak of the chief points of the discussion. When the humors are increased to an equal degree to each other, [doctors] call this "abundance" or *plethora*. On the other hand, when the body is already full of yellow or black bile, or phlegm, or the serous humors, they call such a condition *kakochymia* and not *plethora*. *Plethora* is treated by the letting of blood, and by numerous baths, exercises and rubbings, as well as by dispersing medications, and in addition by all fastings, which I treated fully in the treatise on hygiene. *Kakochymia*, however, is treated by the

³³ The title of Galen's short work on this subject is *On the Good and Bad Humors of Nutriments* (VI.749–815K). The Latin title is given as *De bonis malisque alimentorum sucis*.

³⁴ *Plenit.*, VII.513–83K.

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specific evacuation appropriate for each of the humors in excess. There was also discussion about this in the section on prophylaxis in my work, *Hygiene*. (X.891–92K)

Apepsia / Bradypepsia / Dyspepsia: With a primary meaning of softening, ripening or being changed by heat, *πέψις* is applied to food before and after ingestion, and to wine. In Galen's considerations of health and disease, the basic term and its derivatives are applied to processes that alter ingested food and allow it to be assimilated by the tissues of the body. These processes are not confined to the stomach, so concoction is preferred as the translation over digestion. The following definition is given in *On the Differentiae of Symptoms*:

Certainly, with regard to the alterative capacity in the stomach, there is the case of nothing occurring at all, when all such food as is taken in remains as it is in every quality. "Weakly" has acquired the specific term, *bradypepsia*, just as defectively is a change of the food to an unusual quality (*dyspepsia*), so that all three symptoms occur with the one failed function. Concoction (*pepsis*), as this function is called, is an alteration of the food to the quality appropriate for the animal. *Bradypepsia* is a change to the same quality, either over a long time or with difficulty. A change to another quality, one that is not in fact in accord with nature, they call *apepsia*. Privation of function is also referred to by the same term. But it is clearer for this alone to be called *apepsia*, the defective change, *dyspepsia*, and the weak (slow) change, *bradypepsia*. (VII.66K)

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TEXTS AND TRANSLATIONS

Three texts were used in the present translation:

Kühn, VI.1–452 (Greek and Latin)
Koch's Greek text in the *Corpus Medicorum Graecorum* series (V.4.2)
Linacre's Latin translation, 1547 edition

Diels lists Greek manuscripts in Berlin, Leipzig, London, Paris, Rome, and Venice. He also lists numerous Latin manuscripts, particularly in Rome, and several Arabic manuscripts. Koch used the following in the preparation of his 1923 edition:

the two Venice MSS—Marcianus 276, s. XII, f. 3–68;
Marcianus 282, s. XV, f. 101–53
the one Rome MS—Reginensis 173, s. XV, f. 233–352
and 361
the Latin translations of Burgundio of Pisa (1110–1193) and Niccolò da Reggio (fl. 1315–1348)
the works of Aëtius of Amida (Venice, 1534) and Orribasius, including Daremberg's French translation of the latter

Durling lists nine editions of Linacre's Latin translation as follows:³⁵ Paris, 1517; Venice, 1526; Cologne, 1527; Paris, 1530; Paris, 1538; Tübingen (edited by Fuchs), 1541; Lyons, 1547; Lyons, 1549; Lyons, 1559. He also lists a Latin translation by G. Tarchagnore, Venice, 1559. Linacre's translation of the *Hygiene* in 1517 was the first of his several valuable translations of Galen's treatises. It is

³⁵ Durling, "Chronological Census."

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said he had access to only one manuscript.³⁶ Fuchs says of his edited text: "Linacre's version is often so obscure as to be unintelligible without recourse to the original. Hence, Linacre has been blamed for excessive *severitas* and *gravitas*."³⁷

The present translation is based on the Koch edition. This has been compared with the Kühn text and points of significant difference noted (Ko = Koch, Ku = Kühn). Linacre's Latin translation is indicated by L. The most notable difference between Koch and Kühn is the transposition of approximately eight Kühn pages from chapter 3 of Book 5 (line 13, 321K to line 8, 329K) to chapter 10 of the same book, where the fragment is inserted after the penultimate word in line 9, 358K.

SUMMARIES OF THE SIX BOOKS

Book 1

The fifteen chapters of this book can be divided into five groups:

1. Preliminary Theoretical Considerations (1-4)

The difference between hygiene and therapeutics is that the former preserves the state of the body while the latter changes it. For both it is necessary to know, first, the condition of the body; second, that health is a balance of the qualities (hot, cold, dry, wet) in the *homoiomeres* and an

³⁶ See R. J. Durling, in Maddison et al., *Essays*, 86.

³⁷ See Maddison et al., *Essays*, editors' introduction, xxiii.

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accord with nature, in terms of conformation, size, number, and position, in the organic parts; and third, what harms may befall the body. (chap. 1)

Things that may harm or destroy the body fall into two classes: (1) those that are inevitable and innate, which are essentially the progressive change in *krasis* from that of the primary generative materials (blood and semen) from hot and wet to dry and cold, and the flowing away of bodily substance due to the innate heat; (2) "external" factors that are neither inevitable nor set in motion by ourselves. (chap. 2)

Hygiene is largely about the first class. Galen identifies three primary objectives of a healthy regimen: (1) replacement of things emptied out; (2) separation of superfluities; (3) avoidance of premature aging. (chap. 3)

In chapter 4 he repeats the basic division of causes of deterioration into those that are internal, intrinsic, and inevitable and those that are external and contingent. The former include aging, the constant flux of substance, and the accumulation of superfluities. The latter are basically divided into those that are ever-present (the environment) and those that are due to variably occurring external factors. He concludes this section by posing the question of whether the art of hygiene concerns all these things or only those that affect or change the four basic qualities.

2. Health and Hygiene (5-6)

Obviously, to preserve health, one must be clear what health is. It is a balance. But importantly it is a balance that allows of variation. The assessment of health is based

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on an evaluation of the functions of the body. Galen offers another definition of health: the absence of pain and any impediment to the functions of life. There are several digressions on aspects of these basic ideas, and in particular on the range that exists in healthy functions, which is in part dependent on the stage of life. Galen bases this on seven-year periods to include infancy and early childhood, late childhood and early adolescence, late adolescence and early adulthood, the prime of life, the postprime decline, and old age. (chap. 5)

The aims of hygiene are to keep the perfect perfect and to improve the imperfect. He reiterates his basic definition of the best constitution that is fundamental to his considerations of hygiene: "it is perfect *eukrasia* and, at the same time, the conformation of the parts being adapted perfectly to their functions, and in addition, provision in all cases of the number, size, and arrangement with each other of all these that is beneficial for the functions." (chap. 6)

3. Hygiene for the First Stage of Life (7–11)

Galen starts with the first seven years of life and bases his discussion on the infant with the best constitution of the body, dealing successively with the care of the newborn, including the provision of breast milk (chap. 7), movement and exercise (chap. 8), the state of the nurse responsible for the child (chap. 9), feeding more generally, massage and exercise (chap. 10), and drinks, especially water and wine (chap. 11). Although these chapters are ostensibly about the infant / child with the best constitution, there are several digressions.

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4. Superfluities and Their Excretion (12–14)

Although Galen begins chapter 12 by announcing his intention to consider hygiene for a child during the second seven-year period, after making two points briefly—that what the child (boy) intends to do in life is relevant to his early regimen and that attention must now be given to the care of the soul—the main focus of this and the next two chapters is on the creation of superfluities and their elimination. Superfluities are the unusable residues of concocted food and drink and are produced in different parts of the body—stomach, liver, arteries, and veins, and the individual parts. There are three points of excretion: the rectum for dry / solid superfluities, the urinary bladder for wet / liquid superfluities, and the skin for wet and vaporous superfluities through sweat and imperceptible transpiration.

He then considers the problem of retention of excretions and its management, identifying various causes of impaired excretion. (chap. 13)

The management of retained superfluities / excretions involves the exhibition of opposites, either by dietary adjustments or medications, baths and exercises. (chap. 14)

5. Synopsis (15)

Galen accepts the term "hygienist" for one who practices the art. Hygiene, like therapeutics, concerns bodies, signs, and causes—bodies that are to be kept healthy, signs that provide diagnostic information, and causes through which health is produced. He makes a fourfold division of causes into: (1) things to be administered; (2) things to be done;

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(3) things to be evacuated; (4) things to be applied externally.

Book 2

The twelve chapters in this book can be divided into five groups:

1. Hygiene for the Third Seven-Year Period (1-2)

Galen announces his intention to consider the role of hygiene in the care of a young person with the best constitution, particularly a male, during the third seven-year period (14-21). There is a brief digression on what "best" signifies, and on the differences in bodies and ways of life. "Best" is a person with a body of the best constitution living a life that affords complete freedom for the care of that body. (chap. 1)

The principles of hygiene for this age range are given in two quotes from Hippocrates: (1) exertions should precede food; (2) exertions, food, drink, and sex should all be in moderation. Three additional issues are addressed: (1) on sex—this is really only for those in the prime of life; (2) on the correspondence between exertion, movement, and exercise—this is largely terminological, concerning *ponos*; (3) on exercise—what are its benefits and how to judge the appropriate times and preparations. (chap. 2)

2. Massage (3, 4, and 6)

There is a long section on massage as a preparation for exercise, the varieties of massage, and the views of Theon,

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particularly in comparison to Hippocrates' much more concisely expressed views. (chap. 3)

The next chapter continues the discussion on massage, with a focus on Theon, identifying his errors (in Galen's view). Galen provides a table of nine varieties of massage based on the different combinations of the three different levels of quantity and quality. The basic effects of massage were clearly stated by Hippocrates: firm massage binds; soft massage loosens; much massage reduces flesh; moderate massage increases flesh. For a boy in the third seven-year period who is perfectly healthy, there should be no massage at all other than in preparation for and recovery from exercise—the latter is apotherapy. (chap. 4)

After the terminological section (chap. 5), Galen returns to massage, identifying a division between the good effects it has in itself and the benefits derived from it as an aid to other measures, especially exercise (chap. 6).

3. Terminology (5)

The four terms considered are the pairs, *skleros* and *malakos*, and *araios* and *puknos*. The components of the first pair are clear in meaning. The point Galen makes about the second pair, which I have generally rendered "loose-textured" ("rarefied") and "condensed," is that in the present context, they indicate large pores and small pores, respectively.

4. Exercises and Massage (7-11)

The initial chapter considers how to judge the appropriate amount of massage and exercise. Important determining

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factors are the ambient air, season, place, bodily constitution, age, and visible effects on the person being massaged. (chap. 7)

Galen then details various exercises and makes a distinction between exercises, activities, and preparation for activity. He stresses the importance of a proper balance between exercises and apotherapy. He speaks of variations in the exercises themselves in terms of speed, vigor, and violence, and the circumstances of the exercises. There is a digression on the difference between the hygienist, the gymnastic trainer, and the doctor—an issue addressed in detail in the work *Thrasybulus*. (chap. 8)

Galen considers the general effects of exercise regardless of the kind—in particular, increase of innate heat. Some further terminological issues are addressed. There are then descriptions of various exercises falling into the category of vigorous. (chap. 9)

Next he deals with rapid and violent exercises, the latter being a combination of vigorous and rapid. (chap. 10)

The final chapter in this group describes exercises specific for different parts of the body. There is a digression on the parts of the body and their ability to move independently as opposed to being dependent on other parts for their movement. He lists three types of movement: (1) initiated internally and intrinsically; (2) initiated externally; (3) compelled by medications. Finally, he considers the effects of various movements on the body. (chap. 11)

5. Conclusions (12)

Galen returns to the young lad in question. The gymnastic trainer must know what is best for him, bearing in mind

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the basic principle—what is best for the best constitution is to preserve it and not change it. Also, the choice of exercises must take into account the specific parts to be strengthened. The key for the body of the best constitution is moderation. Galen considers how to achieve this. Finally, there is mention of what should follow exercise: apotherapy, bathing, food, drink, sleep, and ambulation.

Book 3

The thirteen chapters in this book can be divided into six groups:

1. Introduction (1)

Galen presents a recapitulation of Books 1 and 2 and deals with the age ranges 0 to 14 and 14 to 21 concerning aspects of the appropriate regimen.

2. Apotherapy (2–3)

There is a long discussion of apotherapy considered in two ways: as a part of exercise and as a kind of exercise. The basic aims of apotherapy are: (1) to prevent fatigue after exercise; (2) evacuation of superfluities. The components of apotherapy are: (1) massage (Galen considers kinds); (2) suppression of the breath / *pneuma* (Galen considers mechanisms); (3) bindings applied by masseurs (chap. 2).

Galen then offers a defense against criticisms of his descriptions of apotherapy, dealing both with unnamed critics who accuse him of prolixity and with Asclepiades' specific criticism of suppression of the breath, which he claims has the adverse effect of filling the head. (chap. 3)

3. Baths (4)

Here the use of baths after exercise is considered, with attention given to the following: (1) the kinds of water; (2) different water temperatures; (3) time of immersion; (4) preparation, including massage. In hygiene for the person under consideration with the best constitution (14-21), there should be no need for bathing after exercise, but if there is bathing it should be regarded as part of apothecary. Galen provides details of the method of evaluating the effects of bathing.

4. Fatigues (5-9)

Fatigue which follows exertion is the term given to an abnormal sensation involving the whole body or parts thereof. There are three "simple" fatigues, distinguished by the nature of the abnormal feeling (wound-like, tensive, inflammation-like) and four possible combinations of these, giving a total of seven. In the wound-like fatigue there is an abundance of thin and acrid superfluities in the affected parts. In the tensive fatigue there is excessive stretching of the muscle fibers in direct line with the tension. In the inflammation-like fatigue the muscles are heated by superfluities being drawn in. There is also *ostokopos*, in which there is a deep pain, like bones being broken, and in addition a fatigue-like condition in which the whole body is parched and drawn tight. (chap. 5)

Wound-like fatigue has several causes: (1) *kakochymous* and excrementitious bodies; (2) recent *aepsias*; (3) too long in the sun; (4) too much exercise; (5) massage

with certain oils and movements. Cure is by dispersion of the superfluities, massage with certain oils, and movements. For the tensive fatigue the basis of treatment is relaxation, using soft massage with sweet oil warmed in the sun, *eukratic* baths, and a long period in warm water. (chap. 6)

Inflammation-like fatigue is characterized by the person feeling pain when touched and on movement, and being overly hot. It occurs following exercise in those unaccustomed to exercise. There are three aspects of the cure: (1) evacuation of superfluities; (2) relief of tension; (3) cooling of what seems inflamed. There is a fourth condition, which is fatigue-like but not truly a fatigue. Its features are thinness and dryness. (chap. 7)

In treating the fatigues, a specific diet is required for each kind. Either rest or activity may be appropriate—rest for the tensive and inflammation-like fatigues and further activity for the wound-like (excrementitious) fatigues. There is variation in opinion on the use of baths. There is general controversy about the fatigue-like condition—Galen considers Theon's views. (chap. 8)

There are four possible combinations of the three "simple" fatigues. In evaluating compound conditions, one must gauge the relative strength and importance of the components. Also, the fourth fatigue-like condition may be combined. Galen sets out the possible combinations in diagrammatic form to give fifteen possible conditions in all. Other possible combinations may occur if *stegnosis* (stoppage of the pores) is included. This is considered in the next chapter. (chap. 9)

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5. Stoppage of the Pores/*Stagnosis* (10)

Galen defines the term. The causes are thick and viscid superfluities, astringents, and cooling agents. The diagnostic features are listed. The cure is heating by more vigorous exercises, warmer baths, and oils.

6. Exercises (11–13)

Galen advises on exercises following sexual intercourse. Drying is identified as a consequence of both vigorous exertion (exercises) and sexual intercourse. Two approaches are recognized: preparatory exercises prior, and apotherapy following. Both have merit. Galen considers the circumstances that might favor one or the other. (chap. 11)

Brief consideration is given to exercises in other conditions—grief, insomnia, the *apepsias*, anger, lack of drink, and prolonged idleness. Massage should accompany the exercises. (chap. 12)

The final chapter gives brief details of the indications for and the techniques of morning and evening massage. (chap. 13)

Book 4

This book is largely about the spontaneous fatigues—i.e., those not associated with exercise / exertion. Galen here crosses the boundary between hygiene and therapeutics, as he acknowledges (VI.300K). Four groups of chapters are identified:

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1. Fatigue in General (1–3)

Before discussing the symptoms of the spontaneous fatigues, Galen questions whether the diagnosis and treatment of these fatigues falls under hygiene or therapeutics, again raising the issue of a category intermediate between health and disease. He states his intention of discussing, in this book, fatigues and related conditions occurring apart from exercise. (chap. 1)

There are three aspects to consider: (1) the symptoms of fatigue; (2) the condition of fatigue; (3) the causes of fatigues. In the wound-like fatigue, an abnormal sensation is the symptom; acidity of thin, warm fluids is the condition; the causes are movement/exercise and *kakochymia*. Spontaneous tensive fatigues are due to *plethora* stretching the parts, the causes being *plethora* and *kakochymia*. *Plethora* and *kakochymia* are also causes of inflammation-like fatigues. (chap. 2)

The two therapeutic options in the fatigues are to evacuate the offending superfluity or to change it. The actual means is specific to each case, but the basic principle is “opposites cure opposites.” (chap. 3)

2. Wound-like Fatigues (4–9)

The primary cause of wound-like fatigue is *kakochymia*. Galen goes into considerable detail on the recognition of the kind of abnormal humor, this being the major determining factor in treatment. Purging and phlebotomy are the means of evacuating the abnormal humor; change of the humor is effected by facilitating concoction through measures such as rest / sleep, bathing, massage, fasting,

certain foods, and medications. Details of the last are given. (chap. 4)

Galen considers the dangers of, and contraindications to, phlebotomy, exercise, and bathing. Details of certain compound medications are given, accompanied by an apology for such a detailed digression. (chap. 5)

Further details of the preparation of medications (oxymel, apomel) are given, followed by thoughts on the choice of wines. If these measures bring improvement, treatment can move on to bathing, anointing, massage, and exercise. Other factors causing undesirable movement of humors are considered. (chap. 6)

The essential pathophysiology of wound-like fatigues is excess of unconcocted humors, produced by exercise or heat, moving from the veins into the flesh. Massage and rest are important components of treatment. The preparation of the Diospoliticum medication is described. (chap. 7)

Further details on compound medications are given: from the seeds of the silver fir and from the blossoms of the black poplar. (chap. 8)

Galen describes a variant of the wound-like fatigue in which unconcocted humor is distributed throughout the whole body. Details of treatment are given. (chap. 9)

3. Tensive and Inflammation-like Fatigues (10)

The tensive fatigue apart from exercise is due to excessive stretching of certain parts. Phlebotomy is the treatment of choice if there is excess of blood in the veins. Galen considers Erasistratus' rejection of phlebotomy. The inflammation-like fatigues are characterized by heat

and swelling. Phlebotomy is again the treatment of choice. Nosebleeds and fierce sweats may help. The site of venesection is determined by the location of the symptoms. Adjuncts to phlebotomy are dietary measures, baths, and medications.

4. Some General Thought on Concoction / Digestion (11)

Galen mentions the three phases of concoction / digestion: in the stomach, in the veins, and in the individual parts. He refers to his work *On the Natural Faculties*, which covers these processes in detail.

Book 5

The twelve essays in this book can be divided into three groups:

1. General and Theoretical Considerations (1-2)

Galen begins by apologizing for the length of the whole treatise—it is necessitated by the subject. His approach has been to write about people who have been kept free of disease. He again stresses the variation that exists in healthy people and the need for different regimens for different people and different stages of life. He gives a brief account of his own life and how he benefitted from hygiene. (chap. 1)

He then focuses on the principles of diagnosis and treatment, considering first how to recognize different states of the body. The approach to management involves

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three stages: (1) identifying the problem; (2) determining the cause or causes; (3) correction using the measures of hygiene. The last include movement, exercises, foods, drinks, baths, massage, sleep, regulation of sexual activity, the environment, and the functions of the soul. (chap. 2)

2. Hygiene for the Aged (3–10)

The basic problem is a body that is becoming increasingly dry and cold in terms of *krasis*. Correction, as far as it is possible, is through heating and moistening agents—especially appropriate foods, movements and exercises, hot baths and massages, and wine. (chap. 3)

He recognizes the difficulty of maintaining health in an old person and ponders the issue of whether old age should be regarded as a disease, a morbid condition between health and disease, or an unstable state of health. Regardless, it is a stage of life during which people readily become diseased. He makes some specific recommendations on exercise and diet, and describes two cases: Antiochus the doctor and Telephus the grammarian. (chap. 4)

He then considers wine for old people. Beneficial are aged wines of the warmer variety that are thin in consistency and tawny-orange in color. He lists some specific wines. (chap. 5)

Next he considers foods that are likely to cause obstruction, dietary measures to avoid this, and medications to deal with obstruction that has already occurred. (chap. 6)

There is then a chapter on bread and milk specifically, both for old people and more generally. (chap. 7)

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He next considers several specific conditions that may afflict old people, the appropriate therapeutic measures, and the particular problems that may occur in the aged. (chap. 8)

Medications to rid the body of superfluities are detailed. Galen mentions premature aging due to disease and refers to his work *On Marasmus*. (chap. 9)

In the final chapter of this major group, exercises are considered, particularly for old people, but also more generally. Determining factors are: (1) the condition of the body as a whole; (2) customs; (3) troublesome afflictions. The particular principles of exercises in old people are that they should involve activities that are customary and that they should be moderate. Moreover, weak parts should be rested, unlike in the young. (chap. 10)

3. Correction of *dyskrasias* Compatible with Health (11–12)

The first of these two chapters focuses on some general therapeutic principles with reference to several Hippocratic statements and two of Galen's own works—*The Art of Medicine* and *On Mixtures*. The recurring theme of the need to recognize the individual variations among people is again raised and exemplified by a detailed case report on Premigenes, the Peripatetic philosopher, in relation to baths. (chap. 11)

The final chapter offers a review of the appropriate measures for different natures / *krasias* and considers also the kinds of disorders that are likely to affect particular natures. (chap. 12)

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Book 6

The fifteen chapters in this book can be divided into four groups:

1. General Considerations (1-2)

Galen starts by reviewing the essential points from the first five books. The basic issues are three: (1) what health is; (2) what is damaging to health, including the progressive change in *krasis* toward the dry and cold through the successive stages of life; (3) important components of a healthy regimen. The first five books focus on the person with the best constitution of the body who is free to devote himself to maintaining his health. This, the final book, considers those who do not have the best constitution and / or cannot follow the ideal regimen because of the demands on their time (e.g., civic affairs, work, servitude). (chap. 1)

In considering types of abnormal constitution, Galen returns to his basic division of bodily structure into *homoiomeres*, which may be affected by *dyskrasias*, organic parts, which are subject to disturbances of magnitude, conformation, number, and position, and the body as a whole. He makes some general points about the best *krasis* in relation to the stages of life for both physical and psychical functions. He refers to a third bodily state between health and disease (neutral or neither), considered in detail in his *Art of Medicine*. This state is characterized by freedom from disease but functions that are somewhat deficient. (chap. 2)

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2. *Dyskrasias*—Regular and Anomalous (3-8)

In the first of these chapters, Galen considers hot *krasias* and their combination with dryness and wetness. A hot *krasis* is characteristic of the early stages of life and is susceptible to diseases and symptoms caused by yellow bile, and to hepatic diseases. Diet, massage, and medications for preserving health in such *krasias* are considered. (chap. 3)

Next, Galen considers the cold *krasias* and their possible combinations: (1) with *eukrasia* in the other antithesis; (2) with wetness; (3) with dryness. In the first case the aim is a regimen steering a middle course between wetness and dryness. If associated with wetness, there should be avoidance of baths, appropriate exercises and diet, and certain unguents. If associated with dryness, there should be exercises, appropriate foods, hot wines, plenty of sleep, and attention to the evacuation of superfluities. (chap. 4)

Next, after a preamble about variations in regular and irregular (nonuniform, anomalous) *dyskrasias*, a broad definition of health as freedom from pain and unhindered functions, and the causes of deviation from health, Galen focuses on the person with a perfect constitution who is doomed to a life of servitude and can attend to his health only after sundown. (chap. 5)

Galen then considers the two main causes of persistent ill-health: excess / *plethora* and *kakochymia*. The principles of the regimen for the former are restoration of balance through diet, bathing, massage, and moderate exercise. With the latter, there is no single objective—it depends on the kind of *kakochymia*. Common features

are, however, downward purging of the stomach and moderation in sexual activity. He refers to three of his books: *The Powers of Foods*, *On the Good and Bad Humors of Nutriment*, and *On the Thinning Diet*. (chap. 6)

Next, he deals with ill-health due to a faulty constitution, considering particularly dietary measures: (1) how many meals per day; (2) what kinds of food; (3) measures to effect downward purging. Galen gives the example of himself on a typical day. He also considers *bradypepsias* (abnormally slow or reduced concoction) and their correction. (chap. 7)

Thinness and fatness are then considered. The former may be due to a dry and cold *dyskrasia* throughout the body or failure of the distributive and nutritive capacities. In treatment, pitch plasters are effective, but if this measure is resisted by the patient, alternatives include exercises, massage, and cold baths. In fatness, there is need to reduce the distribution of nutriment and increase evacuations from the body. Measures include downward purging and exercises, particularly running. (chap. 8)

3. Problems Due to Fluxes from the Head (9–13)

At the start of the next chapter, Galen announces his attention of dealing with nonuniform *dyskrasias*, previously defined. The main focus is, however, on the pathological effects of superfluities flowing from the head to structures below. The foundation of the therapeutic approach is to deal with the source, but symptomatic treatment of the secondarily affected structures include baths of medicinal waters and various oils. (chap. 9)

Galen then speaks of pain due to what are obviously

the vagus nerves. This is attributed to the flow of hot ichors from the head to the cardiac orifice of the stomach. He gives details of appropriate dietary measures and medications. (chap. 10)

Secondary effects such as nephrolithiasis and the arthritides are considered and details of the appropriate regimen (particularly diet) are given. (chap. 11)

Galen considers the adverse effects of fluxes to the eyes and ears, and their management. (chap. 12)

There is general consideration of the nature of the problems caused by the flow of superfluities from one part of the body to another—what determines the direction of flow and its ultimate end point, the role of external factors, and the general principles of treatment. (chap. 13)

4. Miscellaneous (14–15)

The first of the final two chapters considers hygiene for men in relation to sexual activity, starting with the description of a particularly debilitating condition associated with laxity of the cardiac orifice of the stomach due to the excessive emission of qualitatively abnormal semen, including nocturnal emissions. Galen also considers variations in the frequency of sexual activity and their relevance for health. (chap. 14)

The final chapter is added as an afterthought following a reminder from a friend. It describes the preparation made from the juice (and possibly the flesh) of quinces, which is useful for increasing the appetite in anorexias, improving concoction in the stomach, and generally strengthening that organ. (chap. 15)

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ABBREVIATIONS

WORKS OF GALEN CITED IN THIS EDITION

<i>Alim. Fac.</i>	<i>De alimentis facultatibus</i>	The Powers of Foods
<i>Animi Mores</i>	<i>Quod animi mores corporis temperamenta sequuntur</i>	The Soul's Dependence on the Body
<i>Ars M.</i>	<i>Ars medica</i>	The Art of Medicine
<i>Bon. Habit.</i>	<i>De bono habitu</i>	On Good Condition
<i>Bon. Mal. Suc.</i>	<i>De bonis malisque alimentorum sucis</i>	On the Good and Bad Humors of Nutriment
<i>Caus. Puls.</i>	<i>De causis pulsuum</i>	The Causes of the Pulses
<i>Comp. Med. Gen.</i>	<i>De compositione medicamentorum per genera</i>	On the Composition of Medications according to Kind

ABBREVIATIONS

<i>Comp. Med. Loc.</i>	<i>De compositione medicamentorum secundum locos</i>	On the Composition of Medications according to Places
<i>Const. Art. Med.</i>	<i>De constitutione artis medicae</i>	On the Constitution of the Art of Medicine
<i>Cur. Rat. Ven. Sect.</i>	<i>De curandi ratione per venae sectionem</i>	On Treatment by Bloodletting
<i>Defin. Med.</i>	<i>Definitiones medicae</i>	Medical Definitions
<i>Diagn. Puls.</i>	<i>De diagnoscendis pulsibus</i>	Diagnosis by the Pulses
<i>Diff. Puls.</i>	<i>De differentiis pulsuum</i>	The <i>Differentiae</i> of the Pulses
<i>Diffic. Resp.</i>	<i>De difficultate respirationis</i>	Difficulties in Breathing
<i>Elem. Hippocr.</i>	<i>De elementis secundum Hippocratem</i>	On the Elements according to Hippocrates
<i>Hipp. Fract.</i>	<i>In Hippocratis De fracturis commentarii</i>	On Hippocrates' <i>Fractures</i>
<i>Hipp. Off. Med.</i>	<i>In Hippocratis de officina medici</i>	On Hippocrates' <i>Surgery</i>
<i>Hist. Phil.</i>	<i>Historia Philosophia</i>	History of Philosophy

ABBREVIATIONS

<i>Hp. Aph.</i>	<i>Hippocratis aphorismos</i>	Commentary on Hippocrates' Aphorisms
<i>HVA</i>	<i>In Hippocratis de acutorum morborum victu</i>	On Hippocrates' Regimen in Acute Diseases
<i>Inaequal. Intemp.</i>	<i>De inaequali intemperie</i>	On Anomalous Dyskrasia
<i>Libr. Propr.</i>	<i>De libris propriis</i>	On My Own Books
<i>Marc.</i>	<i>De marcore</i>	On Marasmus
<i>Mixt.</i>	<i>De temperamentis</i>	On Mixtures (<i>Kra-seis</i>)
<i>MM</i>	<i>De methodo mendi</i>	The Method of Medicine
<i>Morb. Diff.</i>	<i>De morborum differentiis</i>	On the <i>Differentiae</i> of Diseases
<i>Nat. Fac.</i>	<i>De naturalibus facultatibus</i>	On the Natural Faculties
<i>Opt. Const.</i>	<i>De optima corporis nostri constitutione</i>	On the Best Constitution of our Bodies
<i>Opt. Sect.</i>	<i>De optima secta ad Thrasybulum</i>	On the Best Sect, to Thrasybulus
<i>Ord. Libr. Propr.</i>	<i>De ordine librorum propriorum</i>	On the Order of My Own Books

ABBREVIATIONS

<i>Part. Hom. Diff.</i>	<i>De partium homoiomerium differentia libellis</i>	On the Differences of Uniform Parts
<i>Parv. Pil.</i>	<i>De parvae pilae exercitio</i>	On Exercise with a Small Ball
<i>Plac. Hippocr. Plat.</i>	<i>De placitis Hippocratis et Platonis</i>	On the Opinions of Hippocrates and Plato
<i>Plenit.</i>	<i>De plenitudine</i>	On Plethora
<i>Praen.</i>	<i>De praenotione ad Epigenem</i>	On Prognosis, for Epigenes
<i>Praesag. Puls.</i>	<i>De praesagitione ex pulsibus</i>	Prognosis from the Pulses
<i>Protr.</i>	<i>Protrecticus</i>	An Exhortation to the Study of the Arts
<i>Puls. ad Tir.</i>	<i>De pulsibus ad tirones</i>	The Pulses for Beginners
<i>San. Tuend.</i>	<i>De sanitate tuenda</i>	On the Preservation of Health (Hygiene)
<i>Sect.</i>	<i>De sectis ad eos introducuntur</i>	On the Sects
<i>Simpl. Med.</i>	<i>De simplicium medicamentorum temperamentis et facultatibus</i>	On the Nature and Powers of Simple Medications

ABBREVIATIONS

<i>Subf. Emp.</i>	<i>Subfiguratio Empirica</i>	Outlines of Empiricism
<i>Sympt. Caus.</i>	<i>De symptomatum causis</i>	On the Causes of Symptoms
<i>Sympt. Diff.</i>	<i>De symptomatum differentiis</i>	On the <i>Differentiae</i> of Symptoms
<i>Syn. Puls.</i>	<i>Synopsis de pulsibus</i>	Synopsis of the Pulses
<i>Ther.</i>	<i>De theriaca ad Pisonem</i>	On Theriac, to Piso
<i>Ther. Pamph.</i>	<i>De theriaca ad Pamphilianum</i>	On Theriac to Pamphilianus
<i>Thras.</i>	<i>Thrasybulus sive utrum medicinae sit an gymnasticae hygieine</i>	Thrasybulus, On Whether Hygiene belongs to Medicine or Gymnastics
<i>Trem.</i>	<i>De tremore, palpitatione, convulsione et rigore</i>	On Tremor, Palpitation, Convulsion, and Rigor
<i>UPart.</i>	<i>De usu partium</i>	On the Use of the Parts
<i>UPuls.</i>	<i>De usu pulsuum</i>	The Use of the Pulses
<i>Venae Sect.</i>	<i>De venae sectione adversus Erasistratum</i>	On Phlebotomy, against Erasistratus

ABBREVIATIONS

<i>Vict. Att.</i>	<i>De victu attenuata</i>	On the Thinning Diet
<i>Voc.</i>	<i>De voce</i>	On the Voice

REFERENCE WORKS

- CMG Corpus Medicorum Graecorum
EANS *The Encyclopedia of Ancient Natural Scientists.* Edited by P. T. Keyser and G. L. Irby-Massie. London, Routledge, 2008.
- LCL The Loeb Classical Library.
LSJ *A Greek-English Lexicon.* H. G. Liddell, R. Scott, and H. S. Jones. Oxford, 1990 reprint.
- OED *The Oxford English Dictionary.* 12 vols. Oxford, 1933.
- S *Stedman's Medical Dictionary.* 27th ed. Baltimore, MD: Lippincott, Williams and Wilkins, 2000.

ΓΑΛΗΝΟΥ ΤΓΙΕΙΝΩΝ ΛΟΓΟΣ HYGIENE

A

- 1K 1. Τῆς περὶ τὸ σῶμα τὰνθρώπου τέχνης μιᾶς οὔσης, ὡς ἐν ἑτέρῳ δέδεικται γράμματι, δύο ἐστὶ τὰ πρῶτά τε καὶ μέγιστα μέρη· καλεῖται δὲ τὸ μὲν ἕτερον αὐτῶν ὑγιεινόν, τὸ δὲ ἕτερον θεραπευτικόν, ἔμπαλιν ἔχοντα πρὸς ἄλληλα ταῖς ἐνεργείαις, ἐπειδὴ γε τῷ μὲν φυλάξαι, τῷ δ' ἀλλοιωῖσαι πρόκειται τὴν περὶ τὸ σῶμα κατάστασιν. ἐπεὶ δὲ καὶ χρόνῳ καὶ ἀξιώματι πρότερόν ἐστιν ὑγεία νόσου, χρὴ δήπου καὶ ἡμᾶς, ὅπως ἂν τις ταύτην φυλάξειεν, ἐσκέφθαι πρότερον, 2K ἐφεξῆς δὲ καί, ὡς ἂν τις ἄριστα νόσους ἐξιῶτο. κοινὴ δ' ἀμφοτέροις ὁδὸς τῆς εὐρέσεως, εἰ γνοιήμεν, ὅποια τίς ἐστὶν ἡ διάθεσις τοῦ σώματος, ἣν ὑγείαν ὀνομάζομεν· οὐ γὰρ ἂν οὔτε φυλάττειν αὐτὴν παροῦσαν οὔτ' ἀνακτήσασθαι διαφθειρομένην οἰοί τε ἡμεῖς ἀγνοοῦντες τὸ παράπαν, ἣτις πότ' ἐστὶ. γέγραπται δὲ ἡμῖν ἐτέρωθι καὶ περὶ τοῦδε καὶ δέδεικται τῶν μὲν ὁμοιομερῶν ὀναμοζομένων ἢ ὑγεία, ψυχροῦ καὶ θερμοῦ καὶ ξηροῦ καὶ ὑγροῦ, συμμετρία τις ὑπάρχουσα, τῶν δ' ὀργανικῶν ἐκ τῆς τῶν ὁμοιομερῶν συνθέσεώς τε καὶ ποσότητος καὶ πηλικότητος καὶ διαπλάσεως ἀποτε-



BOOK I



1. Although there is one art pertaining to the body of man, as I have shown in another treatise, there are two primary and major parts of this.¹ One of these is called hygiene and the other therapeutics. They are the opposites of each other in terms of functions, since what is proposed on the one hand is to preserve the state of the body, while on the other it is to change it. But since, in both time and importance, health comes before disease, it clearly behooves us to consider first how someone might preserve health and then, in turn, how someone might best cure diseases. 2K There is a common path of discovery for both—it is to know what kind of condition of the body it is that we call health. Should we be altogether ignorant of what this condition is, we could neither preserve health when present nor restore it, if it were being destroyed. I have also written about this elsewhere and have shown that health of the so-called *homoiomeres* is a balance of cold and hot, and dry and wet, while health of the organic parts, whose composition is derived from the *homoiomeres*, is determined by number, magnitude and conformation.² As a result,

¹ Both *Ars medica* and *De constitutione artis medicae* deal with this issue—see Johnston, *On the Constitution*, where both are translated.

² See particularly *On the Differentiae of Diseases* in Johnston, *Galen: On Diseases and Symptoms*.

λουμένη. ὥστε καὶ ὅστις ἂν ἰκανὸς ἢ φυλάττειν ταῦτα, φύλαξ οὗτος ἀγαθὸς ὑγείας ἔσται. φυλάξει δὲ πρότερον ἐξευρὼν ἅπαντας τοὺς τρόπους, καθ' οὓς διαφθείρεται. ὥσπερ γάρ, εἰ καὶ παντάπασιν ἀπαθὲς ἦν ἡμῶν τὸ σῶμα, τῆς προνοησομένης αὐτοῦ τέχνης οὐκ ἂν ἐδεήθημεν, οὕτω νῦν, ἐπειδὴ πάσχει πολυειδῶς, ἀναγκαῖόν ἐστι προστήσασθαι τινα τέχνην, τὴν ἀπάσας αὐτοῦ τὰς βλάβας γινώσκουσαν καὶ φυλάττεσθαι δυναμένην.

3K 2. Εἰσὶ δὲ βλάβαι τε καὶ διαφθοραὶ τοῦ σώματος ἡμῶν διτταὶ κατὰ γένος· αἱ μὲν γάρ τινες αὐτῶν ἀναγκαῖαί τ' εἰσὶ καὶ σύμφυτοι, τὴν οἷον ρίζαν ἔχουσαι τὰς ἀρχὰς τῆς γενέσεως, ἔνιαι δ' οὐκ ἀναγκαῖαι μὲν οὐδὲ ἐξ ἡμῶν αὐτῶν ὀρμώμεναι, διαφθείρουσαι δ' οὐδὲν ἦττον ἐκείνων τὸ σῶμα. διαιρήσομεν δ' ἤδη χωρὶς ἑκατέρας. αἷμα καὶ σπέρμα τῆς γενέσεως ἡμῶν εἰσὶν αἱ ἀρχαί, τὸ μὲν αἷμα οἷον ὕλη τις εὐρυθμὸς τε καὶ εὐπειθῆς εἰς ἅπαν τῷ δημιουργῷ, τὸ δὲ σπέρμα τὸν τοῦ δημιουργοῦ λόγον ἔχει. κέκρται δὲ ἑκάτερον μὲν ἐκ τῶν αὐτῶν στοιχείων κατὰ γένος, ὑγροῦ καὶ ξηροῦ καὶ θερμοῦ καὶ ψυχροῦ, ἢ, εἴπερ ἐθέλει τις οὐκ ἀπὸ τῶν ποιότητων, ἀλλ' ἀπὸ τῆς οὐσίας ὀνομάζειν αὐτά, γῆς καὶ ὕδατος ἀέρος τε καὶ πυρός οὕτω γὰρ ἡμῖν ἐν τῷ Περὶ τῶν καθ' Ἱπποκράτη στοιχείων ἀποδέδεικται, διαφέρουσι δὲ ἐν τῷ ποσῷ τῆς μίξεως. τῷ μὲν γὰρ σπέρματι πλέον ἐννύπαρχει πυρώδους τε καὶ

³ "Impassible" and "passible" are used to render the Greek

whoever is up to the task of preserving these will be a good guardian of health. And he will preserve health, if he first discovers all the ways by which it is vitiated. We would, in fact, have no need of an art protecting health, if our body were altogether impassible,³ but, since it is passible in many ways, it is necessary for us to establish an art that recognizes all the harms that befall the body and is able to protect it.

2. The harms and destructions of our body are twofold 3K in terms of class: (1) those that are inevitable and innate, having their root, as it were, in the beginnings of formation; (2) those that are neither inevitable nor set in motion by ourselves, but which are no less destructive of the body than the former. I shall now distinguish each of these. Blood and semen are the origins of our genesis: blood is a kind of material that is fitting and well-adjusted in every way for the Demiurge, while the semen has the generative principle of the Demiurge.⁴ Each of these has been mixed from the same elements according to class—wet and dry, and hot and cold. Or if someone should not wish to name them from the qualities but from the substance—earth and water, and air and fire. I have demonstrated this in my book *On the Elements according to Hippocrates*.⁵ They differ, however, in the amount of the mixture. In the semen, more fiery and airy substances are present, whereas

terms ἀπαθῆς and παθητὸς. On the former, see Aristotle, *Metaphysics* 1019a31. The meanings are: "incapable of suffering and feeling pain" (i.e., being affected) and the converse.

⁴ On the use of λόγος in "generative principle," see Zeno, SVF, 1.28. ⁵ *Elem. Hippocr.*, I.413–508K (English trans., De Lacy, CMG [1994]).

4K αερώδους ουσίας, τῷ δ' αἵματι γεώδους τε καὶ ὑδατώ-
δους· ἐπικρατεῖ γε μὴν ἔτι καὶν τούτῳ τὸ μὲν θερμὸν
τοῦ ψυχροῦ, τὸ δὲ ὑγρὸν τοῦ ξηροῦ, καὶ διὰ τὴν ἐπι-
κράτειαν ταύτην οὐ ξηρόν, ὥσπερ ὀστοῦν καὶ ὄνυξ
καὶ θρίξ, ἀλλ' ὑγρὸν εἶναι λέγεται, τὸ δὲ σπέρμα ξη-
ρότερον μὲν ἐστὶν ἢ κατὰ τὸ αἷμα, ῥυτὸν μὴν καὶ
ὑγρὸν ὑπάρχει καὶ αὐτό.

καὶ οὕτως ἐκατέρωθεν ἡμῖν ἡ ἀρχὴ τῆς γενέσεως
ἐξ ὑγρᾶς ουσίας ἐστίν, ἣν οὐχ ὑγρὰν δήπου φυλάτ-
τεσθαι προσήκει, μέλλουσάν γε νεῦρα καὶ ἀρτηρίας
καὶ φλέβας καὶ ὀστᾶ καὶ χόνδρους καὶ ὑμένας ὅσα τ'
ἄλλα τοιαῦτα γενήσεσθαι. συγκαταβεβλησθαι τοί-
ων ἀναγκαῖόν ἐστιν εὐθὺς ἀπὸ τῆς πρώτης γενέσεως
ἰσχυρότερον ἐν τῇ κράσει τὸ ξηραντικὸν στοιχείον.
ἔστι δὲ τῇ φύσει τοιοῦτον μάλιστα μὲν τὸ πῦρ, ἥδη
δὲ καὶ ἡ γῆ· ξηρὸν γάρ τι χρήμα καὶ ἥδε. ἀλλὰ τῆς
μὲν γῆς οὐχ οἷόν τε ἦν μίγνυσθαι πλείον, ὑγρῶν εἶναι
δεομένων τῶν ἀρχῶν· τοῦ πυρὸς δ' οὔτε κωλύει τι
πλέον μιχθῆναι καὶ κέκραται τοσοῦτω πλέον ἐν ἀμ-
φοῖν, ὡς μήτε φρύγειν ἥδη καὶ καίειν αὐτάρκως τε
5K ξηραίνειν. καὶ γὰρ αὖ καὶ τὴν πρὸς τὰς κινήσεις ἐτοι-
μότητα τοσοῦτον ὑπάρχον τὸ θερμὸν ἱκανὸν ἦν παρα-
σχεῖν. ὑπὸ τούτου δὴ τὰ μὲν πρῶτα συνίσταται τε καὶ
βραχεῖάν τινα πῆξιν λαμβάνει τὸ κύημα· μετὰ δὲ
ταῦτα ἐπὶ μᾶλλον ἥδη ξηραίνόμενον οἷον ὑπογραφᾶς
τινας ἴσχει καὶ τύπους ἀμυδροὺς ἐκάστου τῶν μορίων·
εἴτ' ἐπὶ πλέον ξηρανθὲν οὐχ ὑπογραφᾶς μόνον οὐδ'
ἀμυδροὺς τοὺς τύπους, ἀλλ' ἀκριβῆς ἐκάστου τὸ εἶδος

in the blood there are more earthy and watery substances, 4K
although even in the latter, heat prevails over cold and
moisture over dryness. On account of this preponderance,
blood is not dry like bone, nails and hair, but is described
as being moist, while semen is drier than blood but is itself
fluid and moist.

And in this way, on each side, the origin of our genesis
is from moist substances, although of course it is not ap-
propriate to preserve the moistness for what will become
nerves, arteries, veins, bones, cartilage, membranes and
other such things. Accordingly, it is necessary for there to
have been laid down in the mixture (*krasis*), right from the
first genesis, the element that is stronger in *krasis* in terms
of drying capacity. Fire is, in nature, particularly this kind
of element, but so too is earth, for this is also dry matter.
However, it is not possible for more earth to be mixed,
since the origins need to be moist. On the other hand,
there is nothing to stop more fire being mixed and prevail-
ing to such an extent in both (i.e., blood and semen), so as
not to now parch or burn and to dry sufficiently. In truth, 5K
there should be as much heat as is sufficient to provide
readiness for movements. From this, then, the embryo is
first formed and takes on a small degree of solidity. After
this, when it is already dried out still more, it has as it were
the outlines and indistinct forms of each of the parts.
Then, when it is dried out even more, it not only has the
outlines and indistinct forms but has the exact form of

ἰσχει. καὶ δὴ καὶ ἀποκυνηθὲν αἰεὶ καὶ μᾶλλον ἑαυτοῦ
 γίνεται ξηρότερον τε καὶ ῥωμαλεώτερον, ἄχριπερ αὖ
 εἰς ἀκμὴν ἀφίκηται. τηνικαῦτα δὲ τὰ τε τῆς αὐξήσεως
 ἴσταται μηκέτι ἐπιδιδόντων τῶν ὀστέων διὰ τὴν σκλη-
 ρότητα, καὶ τῶν ἀγγείων δ' ἕκαστον εἰς εὖρος δια-
 φυσᾶται, καὶ σύμπανθ' οὕτω τὰ μόρια κρατύνεται
 καὶ εἰς τὴν ἀκροτάτην αὐτῶν ἰσχὺν ἀφικνεῖται. τὸ δὲ
 ἀπὸ τοῦδε περαιτέρω τοῦ προσήκοντος ἤδη ξηροτέ-
 ρων ἀπάντων τῶν ὀργάνων γινομένων αἱ τε ἐνέργειαι
 χεῖρον ἀποτελοῦνται καὶ ἀσαρκότερόν τε καὶ ἰσχνότε-
 ρον ἑαυτοῦ γίνεται τὸ ζῶον. ἐπὶ πλέον δὴ ἀναξηραι-
 νόμενον οὐκ ἀσαρκότερόν γε μόνον, ἀλλὰ καὶ ῥυσθὸν
 6K ἀποτελεῖται, καὶ τὸ κῶλον ἀκρατὲς καὶ σφαλερὸν ἐν
 ταῖς κινήσεσι. καὶ καλεῖται μὲν ἡ τοιαύτη διάθεσις
 γῆρας, ἀνὰ λόγον δ' ἐστὶ τῆ τῶν φυτῶν αὐάνσει. καὶ
 γὰρ αὖ κακείνη γῆράς ἐστι φυτῶν, δι' ὑπερβάλλου-
 σαν ξηρότητα γινομένη. μία μὲν οὖν ἦδε σύμφυτος
 ἀνάγκη φθορᾶς ἅπαντι τῷ γεννητῷ σώματι, δευτέρα
 δὲ τοῖς ζῴοις μάλισθ' ὑπάρχουσα τῆς ὅλης αὐτῶν
 οὐσίας ἢ ῥύσις ἐκ τῆς ἐμφύτου θερμότητος ἀποτε-
 λουμένη.

ταύτας μὲν οὖν τὰς βλάβας οὐδενὶ γεννητῷ σώματι
 φυγεῖν ἐγχωρεῖ, τὰς δ' ἄλλας βλάβας, ὅσαι ταύταις
 ἔπονται, δυνατὸν φυλάξασθαι προμηθεύμενον. ἡ γέ-
 νεσις δὲ κακείνων ἐκ τοῦ τὰς ἀναγκαίας βλάβας ἐπ-
 ανορθοῦσθαι πειρᾶσθαι. ῥεούσης γὰρ τῆς οὐσίας συ-
 στάσεως ἀπάντων τῶν ζῴων, εἰ μὴ τις ἕτερον ὅμοιον
 ἀντεισάγοι τῷ ἀπορρέοντι, διαφορηθήσεται τε καὶ

each part. And now, when it is brought forth, it always
 becomes drier than it was, and stronger, until it reaches its
 full development. Then there is a cessation of the increase
 when the bones no longer grow due to hardness, while
 each of the vessels is extended in width, and in this way all
 the parts become strong and reach the highest point of
 their strength. However, further on from this, when all the
 organs have already become drier than is appropriate, the
 functions are made worse and the organism becomes less
 well-fleshed, and leaner than it was. As it is dried up still
 more, it is not only leaner, but is also made shriveled and 6K
 the limbs are weak and unsteady in their movements. Such
 a condition is called old age and is analogous to the drying
 up of plants, for that too is the old age of plants, arising
 from excessive dryness. There is, then, this one innate and
 inevitable destruction for every body created, while there
 is a second, existing particularly in animals, which is a
 flowing away of their whole substance brought about by
 the innate heat.

It is impossible, then, for any begotten body to escape
 these harms, whereas those other harms which follow
 these can be guarded against with proper care. Moreover,
 the genesis of these latter harms is from attempting to
 rectify the inevitable harms. For since the existing sub-
 stance of all animals flows away, unless some other sub-
 stance like that flowing away is brought in, the whole body

σκεδασθήσεται σύμπαν οὕτω τὸ σῶμα. καὶ διὰ τοῦτο οἶμαι τὴν φύσιν οὐ τοῖς ζῴοις μόνον, ἀλλὰ καὶ φυτοῖς εὐθὺς ἐξ ἀρχῆς συμφύτους δοῦναι δυνάμεις ἐφιεμένας τῶν αἰεὶ ἐλλειπόντων. οὔτε γὰρ ἐσθίειν οὔτε πίνειν οὔτε ἀναπνεῖν διδασκόμεθα πρὸς τινος ἀλλ' ἐξ ἀρχῆς ἔχομεν ἀπάντων τούτων ἐν ἡμῖν αὐτοῖς τὰς δυνάμεις ἄνευ διδαχῆς ἐπιτελούσας ἅπαντα. διὰ μὲν οὖν τῆς ἐδωδῆς ἀναπληροῦμεν, ὅσον ἀπερρῦη τῆς ξηροτέρας οὐσίας, διὰ δὲ τοῦ πόματος τὸ κενωθὲν¹ τῆς ὑγροτέρας ἀντεισάγομεν, εἰς τὴν ἀρχαίαν ἐπανάγοντες ἄμφω συμμετρίαν. οὕτω δὲ καὶ τῆς ἀερώδους τε καὶ πυρώδους οὐσίας τὴν συμμετρίαν ἀναπνοαῖς τε καὶ σφυγμοῖς διασώζομεν. ἀποδέδεικται δὲ καὶ περὶ τούτων ἀπάντων ἰδίᾳ καθ' ἕκαστον ἐν ἑτέροις γράμμασι, καὶ προσήκειν ἡγοῦμαι τῷ λόγῳ τῷ νῦν, ὅσα δέδεικται δι' ἐκείνων ὑποθέσεις ποιησάμενον πρὸς τὴν ὑγιεινὴν πραγματείαν, οὕτως ἔχεσθαι τῶν ἐφεξῆς.

3. Ἐπειδὴ γὰρ ἀπορρεῖ μὲν ἀπάντων τῶν ζῴων ὅσημέραι πολὺ μέρος τῆς οὐσίας διὰ τὴν ἔμφυτον θερμότητα, δεόμεθα δὲ ὑπὲρ τοῦ τὴν συμμετρίαν αὐτῆς διαφυλάττεσθαι σιτίων τε καὶ πομάτων, ἀναπνοῆς τε καὶ σφυγμῶν, ἐξ ἀνάγκης ἀκολουθήσει τοῖσδε περιττωμάτων γένεσις. εἰ μὲν γάρ, οἷόνπερ ἦν τὸ κενωθὲν, ἕτερον ἀκριβῶς τοιοῦτον εἶχομεν αὐτῷ προσφῦσαι δι' ὅλου, κάλλιστον ἂν ἦν τοῦτο καὶ ὑγιεινότερον. ἐπεὶ δὲ τὸ μὲν ἀπορρέον ἐκάστου τῶν

¹ τὸ κενωθὲν *add.* Κο

will be carried away and dispersed in this manner. Because of this, I think, Nature gave animals, right from their beginnings, innate powers that aim at those things that are lacking at any time—and not only to animals but also to plants. For we do not learn from someone else to eat, drink and breathe; from the beginning we have in ourselves capacities that accomplish everything without instruction. Through food, then, we replenish as much of the dry substance as has flowed away and through drink we replenish that which has been emptied out of the moister [substance], restoring both to their original balance. And in the same way, we maintain the balance of airy and fiery substances through respiration and pulses. I have demonstrated all these things separately in other writings.⁶ I think it is now germane to the discussion, having shown through those works what creates the foundation of the matter of health, to proceed as follows.

3. Since a great part of the substance of all animals flows away every day due to the innate heat, we need food, drink, respiration and pulses for preserving the balance of this substance, but the creation of superfluities will inevitably follow from these things. If we were able to replace precisely what has been emptied out with something else and assimilate this completely, it would be the best and most healthy situation. However, since what flows away

⁶ This is taken as a general reference to a number of Galen's works—perhaps particularly the work on the elements referred to in the previous note, the four treatises on the classification and causation of diseases and symptoms (Johnston, *Galen: On Diseases and Symptoms*) and his *Mixt.*, I.509–694K (English trans., Singer, *Galen: Selected Works*).

μορίων τοιοῦτον τὴν φύσιν ἐστίν, οἷόνπερ αὐτὸ τὸ μόριον, οὐδὲν δὲ τῶν ἐσθιομένων ἢ πινομένων ἀκριβῶς ἐστὶ τοιοῦτον, ἀναγκαῖον ἐγένετο τῇ φύσει προμεταβάλλειν τε καὶ προπέττειν αὐτὰ καὶ ὡς ἔνι μάλιστα προπαρασκευάζειν ὅμοια τῷ θρεψομένῳ σώματι. κὰν τούτῳ τὸ μὴ κατεργασθὲν ἀκριβῶς μηδ' ἐξομωθὲν οὔτε προσφύεται τῷ σώματι καὶ περιττὸν ὄν ἀλάται κατὰ τὰς ἔνδον εὐρυχωρίας, ὅθενπερ αὐτῷ καὶ τοῦνομα πρὸς τῶν ἔμπροσθεν ὀρθῶς ἐτέθη περίττωμα. ἐπειδὴ οὖν τὸ μὲν ἐσθίειν τε καὶ πίνειν ἀναγκαῖα τοῖς ζῴοις ὑπάρχει, ἀκολουθεῖ δὲ τούτοις ἢ τῶν περιττωμάτων γένεσις, ὄργανά τε πρὸς τὴν ἀπόκρισιν αὐτῶν ἢ φύσις παρεσκευάσεν καὶ δυνάμεις αὐτοῖς ἐνέθηκε, δι' ὧν κινούμενα τὰ μὲν ἔλκει, τὰ δὲ ἐκπαρπέμπει,² τὰ δὲ ἐκκρίνει τὰ περιττώματα. καὶ χρὴ δήπου μήτ' ἐμφράττεσθαι κατὰ τι μήτε ἀρρωστεῖν κατὰ τὰς ἐνεργείας ὑπὲρ τοῦ καθαρὸν αἰεὶ καὶ ἀπέριττον διαφυλάττεσθαι τὸ σῶμα.

9K καί σοι δύο μὲν ἤδη σκοποὺς τούσδε πρὸς δίαιταν ὑγιεινὴν ὁ λόγος ὑφηγήσατο, τὸν μὲν ἕτερον ἀναπλήρωσιν τῶν κενουμένων, τὸν δ' ἕτερον ἀπόκρισιν τῶν περιττωμάτων. ὁ γὰρ δὴ τρίτος ὁ περὶ τοῦ μὴ ταχύγηρον γίνεσθαι τὸ ζῶον ἐξ ἀνάγκης ἔπεται τοῖς εἰρημένοις. εἰ γὰρ μηδὲν ἀμαρτάνοιτο μήτε ἐν τῷ τὸ κενούμενον ἀναπληροῦσθαι μήτε ἐν τῷ τὰ περιττώματα <μὴ> μένειν ἔνδον, ὑγιαίνοι τ' ἂν ἐν τῷδε τὸ ζῶον ἀκμάζοι τε μέχρι παμπόλλου. περὶ μὲν δὴ τούδε καὶ αὖθις εἰρήσεται τοῦ λόγου προϊόντος.

from each of the parts is the same in nature as the part itself, whereas nothing that is eaten or drunk is exactly this sort of thing, it naturally becomes necessary to change and digest these things beforehand, and as far as possible to prepare them beforehand to be like the body that will be nourished. And in this, what is not entirely prevailed upon or assimilated is not incorporated into the body, but passes into the internal spaces (cavities) as superfluity. As a consequence, the term "superfluity" was correctly applied to this by our predecessors. Therefore, since eating and drinking are essential for animals, while the generation of superfluities follows these activities, Nature provided organs for the excretion of these things and endowed them with powers through which they are moved to attract, send along and expel the superfluities. And for the purpose of always keeping the body clean and free of superfluities, it is also clearly necessary for these organs to be neither obstructed in any way nor weakened in their functions.

9K

Now the discussion has instructed you in these two objectives pertaining to a healthy regimen: one is the replacement of those things emptied out and the other is the separation of the superfluities. There is, in fact, a third point regarding this—that the animal does not age prematurely—which follows of necessity from the things that have been said. For if nothing goes wrong in the replenishment of what is emptied and none of the superfluities are retained within, the animal will in this way be healthy and will flourish for a long time. I shall speak of this again as the discussion proceeds.

² ἐκπαρπέμπει Ku, παραπέμπει Ko

4. Τὸ δ' ὑπόλοιπον ὧν ἐξ ἀρχῆς διελέσθαι προϋθέ-
 μεθα προσθῶμεν ὑπὲρ τοῦ διωρίσθαι σαφῶς ἤδη
 τοὺς ὑγιεινοὺς σκοποὺς, ὁποῖοί τε εἰσι καὶ ὁπόσοι.
 ἔφαμεν γάρ, ὡς, εἰ μὲν ἀπαθὲς ἦν ἡμῶν τὸ σῶμα,
 καθάπερ ἀδάμας ἢ τι τοιοῦτον, οὐδεμιᾶς ἂν ἐδεῖτο
 τέχνης ἐπιστατούσης αὐτῷ· ἐπειδὴ δὲ διττὰς ἔχει τῆς
 φθορᾶς αἰτίας, τὰς μὲν ἔνδοθεν καὶ ἐξ ἑαυτοῦ, τὰς δὲ
 ἐκ τῶν ἔξωθεν προσπιπτόντων, ἀναγκαῖον αὐτὸ δεῖ-
 σθαι προνοίας οὐ μικρᾶς. ἐξ ἑαυτοῦ μὲν οὖν ἐδείχθη
 10K κατὰ διττὸν τρόπον διαφθειρόμενον, ἢ διὰ γῆρας ἐπὶ
 θάνατον προῖον ἢ διὰ τὸ ρεῖν αἰετὴν οὐσίαν αὐτοῦ,
 καθ' ἕτερον δὲ τὸν ἐπόμενον οἷς ἐσθίει τε καὶ πίνει τὸν
 ἐκ τῆς τῶν περιττωμάτων γενέσεως. ἐξ ἑαυτοῦ μὲν οὖν
 ὧδέ πως φθείρεται, τῶν δὲ ἔξωθεν αὐτῷ προσπιπτόν-
 των ἐν μὲν ἀχώριστόν τε ἐστὶ καὶ διαπαντὸς ὑπάρχον
 αὐτῷ καὶ ὡς ἂν εἴποι τις σύμφυτον, ὁ περιέχων ἀήρ,
 τὰ δ' ἄλλα οὐτ' ἀναγκαῖα καὶ κατὰ χρόνους τινὰς
 ἀτάκτως ὀμιλοῦντα, τὰ μὲν ὥσπερ ὁ περιέχων ἀήρ³ ἢ
 τῷ θερμαίνειν ἀμέτρως ἢ τῷ ψύχειν ἢ τῷ ξηραίνειν ἢ
 τῷ ὑγραίνειν βλάπτοντα, τὰ δὲ τῷ θλᾶν ἢ διασπᾶν ἢ
 τιτρώσκειν ἢ ἔξαρθρόν τι ποιεῖν.

ἔστι μὲν οὖν τις ἐνταῦθα λογικὴ ζήτησις εἰς ἐκάτε-
 ρον ἐπιχειρεῖσθαι δυναμένη, τινῶν μὲν τῆς περὶ τὸ
 σῶμα τέχνης ἀπάντων τούτων τὴν φυλακὴν εἶναι λε-
 γόντων, τινῶν δὲ τῶν θερμαινόντων τε καὶ ψυχόντων,
 ὑγραίνοντων καὶ ξηραίνοντων μόνων· εἰ γὰρ τὸ θλᾶν
 ἢ τὸ τιτρώσκειν ἢ τι τοιοῦθ' ἕτερον ἐργαζόμενον ἐξ-
 11K ἴστησι τοῦ κατὰ φύσιν ἡμᾶς, οὐδεμιᾶς εἶναι τέχνης

4. Let me now add the rest of those things I proposed
 to go over from the outset so as to make a clear division in
 the objectives of hygiene—that is, what kinds and how
 many there are. I said that, if our body were impassible,
 like adamant or some such thing, there would be no need
 of any art for the care of it. But since it has two sorts of
 causes of deterioration—those which are internal and of
 themselves and those which are external and befall it—
 this requires, of necessity, no little forethought. It was
 10K shown that destruction “of itself” is twofold in kind: one is
 to come to death through aging and the constant flux of
 substance and the other is the creation of superfluities that
 follows those things eaten or drunk. This is how the body
 deteriorates “of itself.” Of those things that befall it from
 without, one which is ever-present and everywhere—one
 might say natural—is the surrounding air, whereas other
 things are not essential and are irregular associations oc-
 curring from time to time. The surrounding air causes
 harm by either heating, cooling, drying or moistening im-
 moderately, whereas the other things do so by bruising,
 tearing, wounding or dislocating.

It is, then, possible to attempt a logical inquiry here
 into whether we say of the art that preserves the body that
 it concerns all these things or only those that are heating,
 cooling, moistening and drying. For if bruising, wounding,
 or anything else of this sort that acts, changes us from an
 11K accord with nature, there is no art for either knowing

³ τὰ μὲν ὥσπερ ὁ περιέχων ἀήρ Κο; ὁ μὲν περιέχων ἀήρ
 Ku

οὔτε γινώσκειν οὔτε φυλάττειν τὰ τοιαῦτα. ἐμοὶ δὲ περὶ μὲν τῶν τοιούτων προβλημάτων οὐ πρόκειται νῦν διαιρεῖν· ὅπερ δ' ὁμολογούμενόν ἐστι παρ' ἀμφοῖν ἐξ ἐτοίμου λαβὼν ἐπὶ τὸ προκείμενον ἐπάνεμι. τὸ γὰρ ἅπασιν μὲν τοῖς ἀνθρώποις γινώσκεισθαι τὰ τῷ τιτρώσκειν ἢ θλᾶν ἢ τι τοιοῦτον ἕτερον ἐργάζεσθαι βλάπτοντά τε καὶ διαφθείροντα τὴν ὑγίαν, οὐχ ἅπασιν δὲ ὅσα τῷ θερμαίνειν ἢ ψύχειν ἢ ξηραίνειν ἢ ὑγραίνειν, ὡμολόγηται παρ' ἀμφοῖν. οὐκοῦν οὐδ' ἡμεῖς αὐτοῖς παρὰ μέλος τι πράττειν δόξομεν, εἰ τὰ γνωσκόμενα ἅπασιν ὑπερβάντες ἐπὶ τὰ μὴ γνωσκόμενα τὸν λόγον ἄγοιμεν. οὐ γάρ μοι πρόκειται τό γε νῦν εἶναι σοφιστικὰ ζητήματα διελθεῖν, ἀλλ' ὡς ἂν τις ἤκιστα νοσήσειεν ὑφηγεῖσθαι.

12K πάλιν οὖν ἐπὶ τὴν οἰκίαν ἀρχὴν ἀναγάγωμεν τὸν λόγον ἀναμνήσομέν τ' ἀκριβέστερον ἔτι τῶν ὑποθέσεων αὐτοῦ. τό τε γὰρ εἶναι τὴν ὑγίαν οὐχ ἀπλῶς εὐκрасίαν ἢ συμμετρίαν τῶν στοιχείων, ἐξ ὧν ἐγενόμεθα, καθάπερ οἱ πρὸ ἡμῶν ὀλίγου δεῖν ἅπαντες ἐνόμιζον, ἀλλὰ μόνον τὴν τῶν ὁμοιομερῶν σωμάτων, ἀποδεδειγμένον ἡμῖν ἐν ἑτέροις, ὑπόθεσις ἔστω πρὸς τὰ παρόντα· τό τε τῶν ὀργανικῶν σωμάτων τὴν ὑγίαν ἐν διαπλάσει τε καὶ ἀριθμῷ καὶ πηλικότητι καὶ συνθέσει τῶν ὁμοιομερῶν συνίστασθαι καὶ τοῦθ' ὡσαύτως ὑποκείσθω πρὸς τὰ παρόντα δεδειγμένον ἐτέρωθι.⁴ καὶ μὴν καὶ ὅτι ταῖς κατὰ φύσιν ἐνεργείαις

⁴ πρὸς τὰ παρόντα δεδειγμένον ἐτέρωθι. Κο; προδεδειγμένον ἐτέρωθι. Κυ

about or preventing such things. However, it is not my present task to make a distinction between such proposals, so taking what is accepted by both sides, I shall return forthwith to the task before me. It is agreed by both sides that the things injurious to and destructive of health by wounding, bruising or bringing about something else of this sort are recognized by all men, which is not the case with all those things that heat, cool, dry or moisten. We shall not, therefore, seem to be doing anything inappropriate if we pass over the things known to all and go on to a discussion of those things not known to all. For it is not, in fact, my present purpose to set out in detail a sophistical investigation, but to indicate how we might suffer as little as possible from disease.

So let us return once more to the proper argument, calling to mind more precisely its proposals. Let the hypothesis regarding the present matters be that health is not simply an *eukrasia* or balance of the elements from which we are created, as almost all our predecessors thought; this only applies to the health of the *homoiomeric* bodies, as I have demonstrated in other writings.⁷ And let us also assume in similar fashion for our present purposes that the health of the organic bodies lies in the conformation, number, magnitude and composition of the *homoiomeres*, as has been demonstrated elsewhere.⁸ And then let us assume that a healthy constitution is judged by func-

12K

⁷ See particularly Galen's *Ars M.*, 2-4, I.309-18K; Johnston, *On the Constitution*, 164-77.

⁸ See, for example, *Morb. Diff.*, 6-10, VI.855-871; Johnston, *Galen: On Diseases and Symptoms*, 144-52.

ἡ ὑγιεινὴ κατασκευὴ κρίνεται, καὶ ὅτι τῆς ὑγείας ἡ
 μὲν ἀρίστη τίς ἐστὶ καὶ ὡς ἂν οὕτω τις εἴποι τελεία
 τε καὶ ἀκριβής, ἡ δ' οἷον ἐλλιπής τε καὶ οὐκ ἀκριβής
 οὐδὲ τελεία, ἥνπερ δὴ καὶ πλάτος ἔχειν πάμπολύ φα-
 μεν, ὑποκείσθω καὶ ταῦθ' ἡμῖν ἐν τῷδε, δι' ἐτέρων τε
 ἤδη προαποδεδειγμένα καὶ νῦν οὐχ ἥκιστα δειχθη-
 σόμενα. μάλιστα δ' ἀνεγνωκέναι βούλομαι τὸν ὁμι-
 λήσοντα τοῖσδε τοῖς γράμμασι τὸ βιβλίον, ἐν ᾧ
 13K γράφεται δὲ Θρασύβουλος), ἔτι δὲ καὶ τὸ Περὶ τῆς
 ἀρίστης κατασκευῆς τοῦ σώματος ἡμῶν, ἔτι δὲ τὸ
 Περὶ τῆς εὐεξίας. ἔστι δ' ἄμφω μικρὰ βιβλίδια, ἃ
 προαναγνοὺς εἴ τις ἐπὶ τόνδε τὸν λόγον ἀφίκοιτο,
 ῥᾶστα ἂν ἀκολουθήσειε τοῖς νῦν λεγομένοις. ὅτι δὲ
 καὶ τὸ Περὶ τῶν καθ' Ἱπποκράτη στοιχείων ἀναγ-
 καῖόν ἐστιν εἰς τὰ παρόντα, πρότερον εἴρηται· καὶ
 γὰρ δὴ καὶ ἔπεται ἐκείνῳ τὸ Περὶ τῆς ἀρίστης κατα-
 σκευῆς καὶ τὸ Περὶ τῆς εὐεξίας.

5. Ἐπὶ τούτοις ὑποκειμένοις ἀρκτέον ἂν εἴη ἐνθένδε
 τῆς ὑγιεινῆς πραγματείας. ἐπειδὴ συμμετρία τίς
 ἐστὶν ἡ ὑγεία, συμμετρία δὲ πᾶσα κατὰ διττὸν ἀπο-
 τελείται καὶ λέγεται τρόπον, ποτὲ μὲν εἰς ἄκρον
 ἤκουσα καὶ ὄντως οὕσα συμμετρία, ποτὲ δὲ ἀπολει-
 πομένη βραχὺ τι τῆς ἀκριβείας, εἴη ἂν καὶ ἡ ὑγιεινὴ
 συμμετρία διττὴ τις· ἡ μὲν γὰρ ἀκριβής τε καὶ ἀρί-

⁹ The four works referred to are, in order, *Thras.*, V.806–898K (English trans., Singer, *Galen: Selected Works*); *Opt. Const.*,

tions that are in accord with nature, and that this is the
 best of health, or as someone might describe it, perfect
 and excellent health, while that which is, as it were, defec-
 tive and is neither perfect nor excellent has, we may say, a
 very wide range. Let these things also be taken for granted
 by us in this work, since they have already been shown
 through other works and will be no less demonstrated now.
 It is my particular wish that someone reading this book be
 familiar with those treatises in which I carefully examine
 what part of the art hygiene is (the one inscribed to Thra-
 sybulus) and *On the Best Constitution of our Bodies* and 13K
 then *On Good Condition*. Both the latter two are short
 books that, if someone has read them before coming to
 this present work, will allow him to easily follow the pres-
 ent arguments. It is also necessary for our present pur-
 poses to read beforehand the work *On the Elements ac-
 cording to Hippocrates*, as I said previously, and then to
 follow that work with *On the Best Constitution of our
 Bodies* and *On Good Condition*.⁹

5. Hence it is from these foundations we must make a
 beginning of the study of hygiene. Since health is a kind
 of balance, and every balance is brought about and ex-
 pressed in a twofold manner, at one time coming to the
 highest point and being truly a balance and at another
 wanting slightly in perfection, hygiene too is a twofold
 balance. On the one hand, it is exact, optimal, complete

IV.737–749K (English trans., Singer, *Galen: Selected Works*);
Bon. Habit., IV.750–756K (English trans., Singer, *Galen: Selected
 Works*); *Elem. Hippocr.*, I.413–508K (English trans., De Lacy,
 CMG [1994]).

14K στη καὶ τελέα καὶ ἄκρα, ἢ δὲ ἀπολειπομένη μὲν ταύτης, οὐ μὴν ἤδη γέ πω τοσοῦτω, ὡς λυπεῖσθαι τὸ ζῶον. ἔστι δὲ κἀνταῦθα λογικὴ τις μᾶλλον ἢ κατὰ τὴν χρείαν τῆς τέχνης ζήτησις, οὐ συγχωρούντων ἐνίων ἕτερον ἑτέρου μᾶλλον ὑγιαίνειν οὐδ' εἶναι πλάτος ἱκανὸν ἐν τῇ διαθέσει τοῦ σώματος, ἢν ὑγείαν ὀνομάζομεν, ἀλλ' ἐν τι καὶ ἀπηκριβωμένον οὕσαν αὐτὴν ἄτμητον εἰς τὸ μᾶλλον τε καὶ ἥττον ὑπάρχειν. ἐμοὶ δὲ ὥσπερ τὸ λευκὸν σῶμα τὸ μὲν ἥττον φαίνεται λευκὸν εἶναι, τὸ δὲ μᾶλλον, οὕτω καὶ τὸ ὑγιαῖνον ἥττόν τε καὶ μᾶλλον εἶναι δοκεῖ τοιοῦτον.

15K διττὴ δὲ ἀπόδειξις τοῦ λόγου· μία μὲν ἐκ τῆς κατὰ τὰς ἡλικίας μεταπτώσεως· ἀφ' οὗ γὰρ ἂν ἀποκηθῇ τὸ ζῶον, αἰεὶ μεταβάλλειν ἀναγκαῖον αὐτοῦ τὴν κράσιν, ὡς ἔμπροσθεν ἐδείκνυμεν· ὥστ', εἴπερ ἐν μὲν τῷ ποιῶ τῆς κράσεως ἢ ὑγεία, τὸ ποιὸν δ' οὐ μένει ταῦτόν, οὐδὲ τὴν ὑγείαν ἐγχωρεῖ τὴν αὐτὴν φυλάττεσθαι. δευτέρα δ' ἀπόδειξις ἐκ τῆς κατὰ τὰς ἐνεργείας διαφορᾶς· οὔτε γὰρ τοῖς ὀφθαλμοῖς ὡσαύτως ἅπαντες οἱ ὑγιαίνοντες ὁρῶσιν, ἀλλ' οἱ μὲν μᾶλλον, οἱ δ' ἥττον, οὔτε τοῖς ὠσὶν ὁμοίως ἀκούουσιν, ἀλλὰ κἀνταῦθα πάμπολυ τὸ μᾶλλον τε καὶ ἥττον, οὐ μὴν οὐδὲ τοῖς σκέλεσιν ὡσαύτως θέουσιν οὐδὲ ἀντιλαμβάνονται ταῖς χερσὶν οὐδὲ τοῖς ἄλλοις ἅπασιν ὀργάνοις ὡσαύτως ἐνεργοῦσιν, ἀλλ' ὁ μὲν τις βέλτιον, ὁ δὲ χεῖρον. εἴπερ οὖν αἱ διαφοραὶ τῶν ἐνεργειῶν ταῖς τῶν κράσεων διαφοραῖς ἀκολουθοῦσιν, ἀνάγκη τοσαύτας εἶναι τὰς τῶν κράσεων διαφορὰς, ὅσαιπὲρ εἰσι καὶ αἱ

14K and perfect; on the other hand, it is lacking this perfection, although not yet to such a degree that the organism is distressed. And even here the inquiry of the art is more theoretical than practical, since there are some who do not agree that one person is more healthy than another, or that there is a significant range in the condition of the body, which we call health, claiming instead that health is one exact thing and is not divisible into more or less. But to me, just as a white body seems to be less or more white, so too does health seem to be less or more in just such a way.

The demonstration of the argument is twofold. One component is from the change relating to the time of life. From the time the animal is born, it is of necessity always changing in its *krasis*, as I have shown before, so, if health lies in the quality of the *krasis*, and this quality does not remain the same, it is not possible for health to be kept the same. The second component of the demonstration arises from the difference in the functions, for those who are healthy do not all see in the same way with their eyes—some see more, others see less—nor do they hear equally with their ears, but here too there is more and less to a significant degree. Nor do they run in like manner with their legs, or grasp in the same manner with their hands, nor function similarly to all the other organs, but one is better while another is worse. Therefore, if the differences of the functions are consequent upon differences of the *krasias*, there are of necessity as many differences of the *krasias* as there are differences of the functions. If, how-

τῶν ἐνεργειῶν. εἰ δὲ μὴ κράσεων ἐθέλοι τις λέγειν, ἀλλὰ κατασκευῶν, ἵν' ἐπὶ πάσαις ταῖς αἰρέσεσιν ὁ λόγος ἐκτείνουτο, συμπεραίνουτ' ἂν ὡσαύτως. συμμετρία γὰρ δὴ τις ἢ ὑγεία κατὰ πάσας ἐστὶ τὰς αἰρέσεις, ἀλλὰ καθ' ἡμᾶς μὲν ὑγροῦ καὶ ξηροῦ καὶ θερμοῦ καὶ ψυχροῦ, κατ' ἄλλους δὲ ὄγκων καὶ πόρων, κατ' ἄλλους δὲ ἀτόμων ἢ ἀνάρμων ἢ ἀμερῶν ἢ ὁμοιομερῶν ἢ ἀνομοιομερῶν⁵ ἢ ὅτου δὴ τῶν πρώτων στοιχείων, ἀλλὰ κατὰ πάντας γε διὰ τὴν συμμετρίαν αὐτῶν ἐνεργοῦμεν τοῖς μορίοις. εἴπερ οὖν διαφόρως ἐνεργοῦμεν, διάφορός ἐστι καὶ ἡ καθ' ἕκαστον συμμετρία τῶν στοιχείων, ἥπερ ἦν ἡ ὑγεία. καὶ μὴν καὶ χωρὶς τοῦ τῶν στοιχείων μνημονεύειν ᾧδ' ἂν ὁ λόγος ἐρωτηθείη.

16K εἴπερ ταῖς κατασκευαῖς τῶν μορίων ἀκολουθοῦσιν αἱ ἐνέργειαι, ὅσαιπερ ἂν ᾧσιν ἐν ταῖς ἐνεργείαις αἱ διαφοραί, τοσαῦται καὶ ταῖς κατασκευαῖς ἔσονται ἀλλὰ μὴν ἀκολουθοῦσιν ταῖς κατασκευαῖς αἱ ἐνέργειαι ἀναγκαῖον ἄρα τοσαύτας εἶναι τῶν κατασκευῶν τὰς διαφοράς, ὅσαιπερ καὶ αἱ τῶν ἐνεργειῶν. εἰσὶ δὲ αἱ τῶν ἐνεργειῶν πάμπολλαι· τινες ἄρα καὶ τῶν κατασκευῶν εἰσιν. εἴπερ οὖν ἐν ἅπασιν τοῖς ὑγιαίνουσιν αἱ κατασκευαὶ τῶν μορίων ὑπάρχουσι σύμμετροι, διάφοροι δὲ εἰσιν αἱ κατασκευαί, διότι καὶ αἱ ἐνέργειαι διάφοροι, πάμπολλαι τινες ἄρα συμμετρίαι τῶν κατασκευῶν ἔσονται, ὥστε καὶ ὑγείαι πάμπολλαι. καὶ μὴν

⁵ ἢ ἀνομοιομερῶν add. Ko

ever, someone does not wish to say "of *krasias*" but "of constitutions," so that the argument extends to all the sects,¹⁰ it could be applied in like fashion. For certainly health is a balance, according to all the sects; according to us it is a balance of moist and dry, hot and cold, whereas according to others it is of corpuscles and pores (*onkoi* and *poroi*), and to others again, of atoms, *anarmoi*, *amereis*, *homoiomeres* or *anhomoiomeres* (like or unlike parts)¹¹ or whatever else of the primary elements. But in all cases, we function through a balance of these things in the parts. If, then, we function differently, there is also a difference in the balance in relation to each of the elements, which is what health is. Furthermore, the argument could be pursued quite apart from any mention of elements. 16K

If the functions were to follow the constitutions of the parts, there will be as many differences in the functions as there are in the constitutions. But the functions follow on from the constitutions. Therefore, of necessity, there are going to be as many differences of constitutions as there are of functions. There are many differences of functions, therefore there are many differences of constitutions. But if the constitutions are different because the functions are different, there will be many balanced constitutions, so there will also be many healthy states. And further, if the

¹⁰ The main medical sects or schools in Galen's time were the Dogmatics (Rationalists), Empirics, Methodics, and Pneumatists. Galen gives a full account of these sects in *Sect.*, I.64–105K (French trans., Daremberg, *Oeuvres anatomiques*; English trans., Walzer and Frede, *Three Treatises*).

¹¹ For a summary of these several terms see the General Introduction, xlv–xlvi.

εἰ διαφέρουσιν ἀλλήλων αἱ κατὰ μέρος ὑγείαι, ἧτοι
 κατὰ τὸ κοινὸν ἐν ἀπάσαις εἶδος, ἀφ' οὗπερ ὑγείαι
 λέγονται, διοίσουσιν ἢ κατὰ τὸ μᾶλλον τε καὶ ἧττον
 ἀλλήλων διαφέρουσιν· ἀλλὰ μὴν οὐ κατὰ τὸ κοινὸν
 εἶδος· ἀδιάφοροι γάρ εἰσιν αἱ ὑγείαι· κατὰ τὸ μᾶλλον
 ἄρα καὶ ἧττον ἀλλήλων διαφέρουσιν. ὥσπερ γὰρ ἡ
 17K ἐν τῇ χιόνι λευκότης τῆς ἐν τῷ γάλακτι λευκότητος,
 ἡ μὲν λευκὸν ἐστίν, οὐ διαφέρει, τῷ μᾶλλον δὲ καὶ
 ἧττον διαφέρει, τὸν αὐτὸν δὲ τρόπον ἢ ἐν τῷ Ἀχιλλεῖ,
 φέρε εἰπεῖν, ὑγεία τῆς ἐν τῷ Θερσίτῃ ὑγείας, καθ'
 ὅσον μὲν ὑγεία, ταυτόν ἐστιν, ἐτέρῳ δέ τινι διάφο-
 ρος.⁶ καὶ τοῦτο τὸ ἕτερον οὐδὲν ἄλλο ἐστὶν ἢ τὸ μᾶλ-
 λόν τε καὶ ἧττον. οὔτε γὰρ ὡς οὐ διαφερόντως ἐνερ-
 γοῦμεν ἅπαντες ἐνεστὶν εἰπεῖν οὔθ' ὡς δι' ἄλλο τι τὴν
 ἀνισότητά ταύτην ἔχομεν ἢ διὰ τὴν κατασκευήν, ἀφ'
 ἧς ἐνεργοῦμεν. εἰ δέ τις φήσῃ μόνους μὲν τοὺς ἅπασι
 τοῖς μορίοις ἄκρως ἐνεργοῦντας ὑγιαίνειν, ἡμᾶς δὲ
 τοὺς ἄλλους, ὅσοι χεῖρον ἐκείνων ἔχομεν, οὐχ ὑγιαί-
 νειν, ἴστω συμπάσης οὗτος τῆς ὑγιεινῆς πραγματείας
 ἀνατρέπων τὴν ὑπόθεσιν. εἰ γὰρ δὴ τὸ φυλάττειν ἢ
 παρελάβομεν ὑγείαν ὁ σκοπὸς ἐστὶν αὐτῆς, οὐδεὶς δὲ
 ἡμῶν ὑγιαίνει, πρόδηλον, ὡς ἐπ' οὐδενὸς ἐνεργοῦσαν
 ἔξομεν ἢ νῦν συστήσῃ βουλόμεθα τέχνην ὑγιεινὴν·
 οὐκοῦν οὐδὲ ζητητέον αὐτήν, ἀλλὰ σιωπητέον τε καὶ
 18K καταπαυστέον ἤδη τὸν λόγον.

⁶ διαφέρει Ku

healthy states differ from each other individually, they will
 differ in the form common to all, from which they are
 termed healthy states, or they will differ from each other
 in terms of more and less. But they do not differ in a com-
 mon form because the healthy states are not different.
 Therefore, they differ from each other in terms of more
 and less, for just as the whiteness of snow doesn't differ
 from the whiteness of milk, in that it is white [in both in- 17K
 stances], it does differ in terms of more or less. In the same
 way, let me say, the health in Achilles doesn't differ from
 the health in Thersites.¹² In being health, it is the same; it
 differs in something else. And this is no other than in
 terms of more and less. For it is not possible to say we do
 not all function differently, or that we have this inequality
 from anything other than the constitution from which we
 function. If, however, someone were to say that only those
 who function perfectly in all their parts are healthy, and
 that we others who function less well than those people
 are not healthy, he should realize he is overthrowing the
 hypothesis of the whole study of hygiene. For if, in truth,
 the objective of hygiene is for us to take it upon ourselves
 to preserve health, and yet none of us are healthy, it is
 quite obvious that the art of hygiene that we now wish to
 establish will have no sphere of action, and therefore we
 must not seek it, but must be silent and end the discussion 18K
 forthwith.

¹² Achilles, son of Peleus and Thetis, as portrayed in Homer's *Iliad*, is the archetype of the mighty warrior. Thersites, by Homer's account, was the ugliest man in Troy—lame, bowlegged, round-shouldered, and bald. He was killed by Achilles because of his supposed love for Penthelea.

ἀπάσας οὖν ἐκκόπτει τὰς τοιαύτας ἀπορίας ἢ τοῦ ἀληθοῦς γνώσις· οὐ γὰρ ἡ τελεία μόνον ἦτις ἐστὶν ἄτμητος ὑγεία λέγεται τε καὶ ἔστιν, ἀλλὰ καὶ ἡ τῆσδε μὲν ἀποδέουσα, μηδέπω δὲ τῆς χρείας ἐκπεπτωκυῖα. χρῆζομεν γὰρ ἅπαντες ἄνθρωποι τῆς ὑγείας εἰς τε τὰς κατὰ τὸν βίον ἐνεργείας, ἃς ἐμποδίζουσί τε ἢ διακόπτουσι καὶ καταπαύουσιν αἱ νόσοι, καὶ προσέτι τῆς ἀνοχλησίας ἕνεκεν· ὀχλούμεθα γὰρ ἐν ταῖς ὀδύ- ναις οὐ σμικρά. τὴν δὲ τοιαύτην κατάστασιν, ἐν ἣ μήτε ὀδυνώμεθα μήτε ἐν ταῖς κατὰ τὸν βίον ἐνεργείαις ἐμποδιζόμεθα, καλοῦμεν ὑγείαν, ἣν εἴ τις ἑτέρῳ προσαγορεύειν ὀνόματι βούλεται, πλεον οὐδὲν ἐκ τούτων σχήσει, καθάπερ οὖν οὐδ' οἱ τὴν 'ἀειπάθειαν' εἰσάγοντες. εἰ μὲν γὰρ διὰ τοῦτ' εἰσηῆγον αὐτήν, ὅτι πᾶν σῶμα γεννητόν, ὥσπερ τὰς τῆς γενέσεως αἰτίας, οὕτω καὶ τὰς τῆς φθορᾶς ἔχει συμφύτους ἐξ ἀρχῆς, ὡς ἡμεῖς ἐπεδείξαμεν ἔμπροσθεν, ἐπηνοῦμεν ἂν αὐτούς, ὡς ἀληθῆ τε ἅμα καὶ παλαιὰ πρεσβεύοντας δόγματα. ἐπειδὴ δὲ ὁμοειδῆ τὴν τῶν ὑγιαίνοντων σωμάτων κατάστασιν εἶναι βούλονται τοῖς τῶν νοσοῦντων, οὐκέτ' ἐπαινοῦμεν οὐδὲ ἀποδεχόμεθα τὸ δόγμα· βέλτιον γὰρ ἦν μακρῶ πλάτος ὑποθέσθαι συχνὸν ἔχειν τὴν ὑγείαν ἢπερ ἅπαντας ἡμᾶς ἀπαύστῳ νοσήματι συνέχεσθαι.

καὶ γὰρ εἰ τὰ σπέρματα⁷ τῶν νόσων ἐνυπάρχειν ἡμῖν φασιν, ἀλλὰ τοι συγχωροῦσί γε καὶ αὐτοὶ διὰ

⁷ post σπέρματα add. πασῶν Ku

The knowledge of what is true eradicates all such difficulties, for not only is what is complete or indivisible termed health and is so, but so too is what falls short of this but has not yet become incompatible with use. For all men need health for the functions pertaining to life; it is these that diseases impede, or cut through and stop, and over and above this, they need health for the sake of freedom from disturbance. For we are disturbed to no small extent by pains. We call health that state in which we neither feel pain nor are impeded in the functions pertaining to life. If someone should wish to call it by another name, he will accomplish nothing more by doing this, just as those who introduce the term "perpetual affection"¹³ do not. For if they introduce it for this reason—that every created body, just as it has the causes of genesis, in the same way also has the causes of destruction innately from the beginning, as I showed previously—we would commend them as giving first importance to true and ancient doctrines. However, when they wish the state of healthy bodies to be of the same kind as that of diseased bodies, we no longer praise them or accept their doctrine. It would be better by far to assume that a latitude exists in health than for all of us to be continuously beset by unending disease.

People say the seeds of diseases are present in us. But they themselves also in fact agree that these seeds escape

¹³ On the term ἀειπάθεια, see Galen's *Ars M.* (I.317K). LSJ, which refers to this usage, has "perpetual passivity," which is clearly not the precise meaning here—see Johnston, *On the Constitution*, 175, where Boudon's note on the term is given.

τὴν σμικρότητα τὴν αἰσθησιν ἡμῶν ἐκφεύγειν αὐτά.
 ἔστω τοίνυν, εἰ βούλονται, καὶ ὀδυνηρά τις ἐν ἡμῶν
 διάθεσις, ἀλλ' οὕτω σμικρὰ καὶ ἀναίσθητος, ὡς μὴ
 λυπεῖν τοὺς ἔχοντας. ἔστωσαν, εἰ βούλονται καὶ πυρε-
 τοί, ἀλλ' οὕτω σμικροί, ὡς μήτ' αἰσθησιν ἀπ' αὐτῶν
 ἡμῶν γίνεσθαι μηδεμίαν ἐξείναι τε καὶ πολιτεύεσθαι
 καὶ λούεσθαι καὶ πίνειν ἐσθίειν τε καὶ τᾶλλα πράτ-
 τειν, ὧν δεόμεθα. τὸ γὰρ τῆς χρείας ἀπαρεμπόδιον
 ὀρίζει μᾶλλον τὴν ὑγείαν. οὐδὲ γὰρ ἡ τῶν ἐνεργειῶν
 ἀσθένεια νόσου γνώρισμά ἐστιν, οὕτως ἀπλῶς εἰπού-
 σιν, ἀλλὰ ἡ παρὰ τὴν ἐκάστου φύσιν. ὡς ἅπαντές γε
 20K κακῶς ὀρώμεν, εἰ τοῖς ἀετοῖς τε καὶ Λυγκεῖ παραβαλ-
 λοίμεθα, καὶ δὴ καὶ ἀκούομεν οὐκ ὀρθῶς, εἰ Μελάμ-
 ποδι, καὶ τοῖς ποσὶν ἀρρωστοῦμεν, εἴ τις ἡμᾶς Ἰφίκλω
 παραβάλλοι, καὶ ταῖς χερσίν, εἰ Μίλωνι, καὶ καθ'
 ἕκαστον δὴ μόριον ἐγγὺς ἂν ἦκειν νομισθείημεν πη-
 ρώσεως, εἰ τοῖς πρωτεύσασιν κατὰ τι παραβαλλοί-
 μεθα.

τίς γοῦν ἡμῶν φαύλως ἔχειν οἴεται τῶν ὀφθαλμῶν,
 εἰ μὴ βλέπει τοὺς ἀπὸ δυοῖν σταδίων μύρμηκας; ἢ τίς
 τῶν ὠτων, εἰ μὴ κατακούοι τῶν ἀφ' ἐξήκοντα στα-
 δίων; ἀλλ' εἰ ταῦτα τὰ γράμματα, τὰ κατὰ τουτὶ τὸ
 βιβλίον ἐγγεγραμμένα, μὴ βλέπει τις ὀρθῶς, εὐλό-
 γως οὗτος ἂν ἦδη μέμφαιτο τὰς ὀψεις· οὐ μὴν οὐδ' εἰ

¹⁴ Lynceus: son of Aphareus and Arene, brother of Idas, was one of the Argonauts and famous for his keen sight; Melampus is presumably the mythical seer and ancestor of the Melampodids;

our perception of them due to their small size. Let it be so, then, if they wish, that there is some distressing condition in us, but one so small and imperceptible as not to disturb those who have it. Let there also be, if they wish, fevers, but ones so slight that there is not any perception of them in us, so we can go out and conduct our business, bathe, drink, eat and do the other things we need to do. It is the absence of interference with use that especially defines health. Nor is weakness of the functions a sign of disease, strictly speaking, but [only] what is contrary to the nature of each function. In fact, we all see badly if we compare ourselves to eagles and to Lynceus, and we do not hear properly if we compare ourselves to Melampus. 20K Furthermore, we are weak in the feet when compared to Iphicles, and in the hands when compared to Milo.¹⁴ Indeed, in each part we would be deemed to come close to being disabled, if we were to compare ourselves to those who are preeminent in respect of that part.

Anyway, which of us would consider himself defective in the eyes, if he couldn't see ants from two *stadia*, or in the ears, if he couldn't hear something from sixty *stadia*? But if someone could not properly see the letters I have written in this book, he would now reasonably blame his eyes, although he would not be right to blame them, if he

Iphicles was the mythical twin brother of Heracles and is said to have been involved in some of the latter's exploits; Milo of Croton was an athlete and wrestler famed for his strength, particularly in his hands. Galen gives a disparaging (and somewhat amusing) account of some of his most famous feats—see his *Protr.*, I.34–35K (French trans., Boudon, *Galien*; English trans., Singer, *Galen: Selected Works*).

ταῦτα τέσσαρας ἀποστήσας πήχεις μὴ βλέπει, δικαίως ἂν μέμφοιτο, πλὴν εἰ τῶν οὕτω τις ὀξύωπε-
στάτων εἶη τὴν φύσιν, ὡς καὶ ταῦτα ἐμβλέπειν. οὕτω
γάρ, οἶμαι, καὶ μέμφεται καὶ δικαίως φήσκει, ὥσπερ
ἅπαντες ἄνθρωποι λέγουσιν, ὡς τόδε τι κατὰ τὸν ἔμ-
προσθεν χρόνον ἐνεργῶν εἶτα νῦν οὐκ ἐνεργεῖ. τὸν
μὲν γὰρ τοιοῦτον ἐν νόσῳ τινὶ φήσομεν ὑπάρχειν,
εἴπερ μὴ διὰ γήρας ταῦτα πάσχοι· καίτοι καὶ τοῦτο
νόσον εἶναι λέγουσιν ἔνιοι. τοὺς δ' ἄλλους ἅπαντας,
οἷς φύσει μήτ' ὀξὺ βλέπειν μήτ' ἀκούειν ὑπάρχει
21K μήτε θέειν ὠκέως ἢ τι τοιοῦτον ἕτερον ἐνεργεῖν ἰσχυ-
ρῶς, οὔτε νοσεῖν οὔθ' ὅλως παρὰ φύσιν ἔχειν ὑπολη-
ψόμεθα. πᾶσαι μὲν γὰρ αἱ νόσοι παρὰ φύσιν, οὐκ
ἔχουσι δ' οἱ τοιοῦτοι παρὰ φύσιν, ὥσπερ οὐδ' οἱ γέ-
ροντες. οὐκ οὐν ἀπλῶς γε τῶν ἐνεργειῶν εὐρωστία τε
καὶ ἀρρωστία κριτέον ἐστὶ τοὺς ὑγιαίνοντάς τε καὶ
νοσοῦντας, ἀλλὰ τὸ κατὰ φύσιν μὲν τοῖς ὑγιαίνουσι,
τὸ παρὰ φύσιν δὲ τοῖς νοσοῦσι προσθετέον, ὡς εἶναι
τὴν μὲν ὑγίαν διάθεσιν κατὰ φύσιν ἐνεργείας ποιη-
τικὴν, τὴν δὲ νόσον διάθεσιν παρὰ φύσιν ἐνεργείας
βλαπτικὴν.

οὔτε γὰρ ἢ κατὰ φύσιν διάθεσις ἤδη καὶ ὑγία·
διάθεσις γὰρ τίς ἐστὶ κατὰ φύσιν ἢ τε τῶν Αἰγυπτίων
μελανότης ἢ τε τῶν Κελτῶν λευκότης ἢ τε τῶν Σκυ-
θῶν πυρρότης· ἀλλ' οὐδὲν τῶν τοιούτων ὑγείας δηλω-
τικόν,⁸ διότι μηδ' ἐν χρώμασιν ὅλως ἢ ὑγία· οὔτ' εἰ
παρὰ φύσιν, ἤδη καὶ νόσος· ὡς εἶη γ' ἂν οὕτω νόσος
ἢ τ' ἐξ ἡλίου μελανότης ἢ τ' ἐκ μακρᾶς σκιατροφίας

could not see the letters from four *cubits* away, unless he
was one of those with very sharp vision by nature, who
could also see them. For in this case, I think he will both
blame them and will rightly say what all men say—that at
a previous time he could do this, but cannot do it now. We
shall say in response that such a person is in the grip of
some disease, unless he is affected in this way through old
age. And indeed, some say old age is a disease too. How-
ever, we shall not assume all others in whom vision is not
sharp or hearing is not acute by nature, or who cannot run
21K swiftly, or function strongly in some other such thing, are
diseased or altogether contrary to nature. All diseases are
contrary to nature, but such people are not contrary to
nature, just as the aged are not. One must not, therefore,
determine those who are healthy and those who are dis-
eased simply on the basis of the strength or weakness of
the functions; one must apply the term “in accord with
nature” to those who are healthy and the term “contrary
to nature” to those who are diseased, as health is a condi-
tion in accord with nature productive of functions and
disease a condition contrary to nature injurious to func-
tions.

A condition in accord with nature is not thereby also
health, for the swarthy of Egyptians, the paleness of
Celts and the ruddiness of Scythians are conditions in ac-
cord with nature but none of these conditions is indicative
of health because health is not in colors at all. Also, a
condition contrary to nature is not already a disease, for
in this way darkness from the sun or pallor from a long
time in the shade would be diseases. Rather, it is necessary

⁸ ὑγείας δηλωτικόν Κο; ὑγίεια Ku

22K λευκότης· ἀλλὰ προσθεῖναι χρὴ τῇ μὲν τῆς υἰγείας
 ἐννοία τὸ λόγον αἰτίας ἔχειν αὐτὴν πρὸς τὴν ἐνέρ-
 γειαν, τῇ δὲ τῆς νόσου τὸ καὶ ταύτην τὴν ἐνέργειαν
 βλάπτειν. ἀλλὰ περὶ μὲν τούτων ἐν ἑτέροις εἴρηται
 διὰ πλειόνων, εἰς δὲ τὰ παρόντα τοσοῦτον ἀποχρήσει
 μόνον ἐξ αὐτῶν εἰληφθαι, τὸ πλάτος ἰκανὸν εἶναι τῆς
 υἰγείας, καὶ μὴ πᾶσιν ἡμῖν ὑπάρχειν ἴσον ἀκριβῶς.

εἰ δέ τῳ δοκεῖ βίαιον εἶναι καὶ τὴν μὴ παντάπασι
 ἠκριβωμένην εὐκрасίαν ὅμως ἔτι καὶ αὐτὴν ὀνομάζε-
 σθαι, οὗτος ἀναμνησθήτω τῶν κατὰ τὸν βίον ἀπάν-
 των ὀνομάτων. εὐκρατον οὖν τι καὶ πόμα φάμεν εἶναι
 καὶ βαλανεῖον, οὐ μόνον ὅτι τὸ μὲν ἄλλῳ, τὸ δὲ ἄλλῳ
 τοιοῦτόν ἐστιν, ἀλλὰ ὅτι καὶ πρὸς τὸν αὐτὸν ἀνθρω-
 πον ἐν πλάτει τοιοῦτον ὑπάρχει ἀποστραφέντος γούν
 τοῦ πίνοντος, ἐμβαλὼν εἰς τὸ ποτήριον ἤτοι θερμὸν ἢ
 ψυχρὸν βραχὺ λάθοις ἄν.⁹ καίτοι γ', εἶπερ ἦν οὕτως
 ἀπηκριβωμένον τὸ εὐκρατον, ὡς ἐν εἶναι καὶ ἄτμητον,
 οὐκ ἂν ἐπιβαλόντος θερμὸν ἢ ψυχρὸν ἔτι εὐκρατον
 23K ἐφαίνετο. κατὰ δὲ τὸν αὐτὸν τρόπον, οὐδ' εἰ βραχὺ τις
 εἰς τὴν εὐκρατον κολυμβήθραν ἐμβάλλοι ψυχροῦ,
 διαφθερεῖ παραχρῆμα τὴν εὐκрасίαν αὐτῆς. οὕτω δὲ
 καὶ τὸ περιέχον εὐκρατον εἶναί φάμεν, εἰ καὶ βρα-
 χείας ἐφ' ἑκάτερα τροπὰς λαμβάνει. καὶ τί θαυμα-
 στόν, εἰ τὴν εὐκрасίαν εἰς ἰκανὸν ἐκτείνουσι πλάτος

⁹ post ἄν: εὐκρατον ποιήσας Ku

to add to the concept of health that this has a causative 22K
 relation to function, and to the concept of disease, that this
 is damaging to function. But I have spoken about these
 matters at length in other works.¹⁵ It will be sufficient for
 our present purposes to take this much only from these—
 that the range of health is very wide and is not exactly the
 same for all of us.

If it seems to someone to be doing violence to the term
 to call health what is not perfectly *eukratic*¹⁶ in all re-
 spects, let him call to mind all the terms pertaining to life.
 Thus we say a drink is *eukratic* and a bath, and not only
 that it is such to one person and such to another, but that
 also it is so in range to the same person. At any rate, if the
 one drinking were to turn aside, you could add a little hot
 or cold to the drink unseen, and it would still be *eukratic*.¹⁷
 However, if it were exactly *eukratic* in such a way as to be
 one and indivisible, and you were to add hot or cold, it 23K
 would obviously not still be *eukratic*. In the same way, if
 someone were to add a little cold to a *eukratic* pool, it
 would not make an immediate difference to its *eukrasia*.
 So too, we say the ambient air is *eukratic*, even if it takes
 a small turn in either direction. And what would be sur-
 prising about everyone extending *eukrasia* to a significant

¹⁵ See particularly Galen's *MM*, Books 1 and 2, and the open-
 ing section of his *Morb. Diff.*

¹⁶ The two terms, *eukrasia*
 and *dyskrasia*, are retained in the Greek form as fundamental
 technical terms in Galen's theory on health and disease. In simple
 terms, the former means a good balance of the four elemental
 substances, qualities, or humors, and the latter some disturbance
 of this balance—see the General Introduction, xlvi–xlvi.

¹⁷ The translation here follows the Kühn text.

ἅπαντες, ὅπου γε καὶ τὴν ἐν ταῖς λύραις εὐαρμοστίαν
τὴν μὲν ἀκριβεστάτην δῆπου μίαν καὶ ἄτμητον ὑπάρ-
χειν εἰκός, τὴν μέντοι γ' εἰς χρεῖαν ἰοῦσαν πλάτος
ἔχειν; πολλάκις γὰρ ἡρμόσθαι δοκοῦσαν ἄριστα λύ-
ραν ἕτερος μουσικὸς ἀκριβέστερον ἐφηρμόσατο. παν-
ταχοῦ γὰρ ἡ αἴσθησις ἡμῖν ἐστὶ κριτήριον ὡς πρὸς
τὰς ἐν τῷ βίῳ χρεῖας· ὥστε καὶ τὴν εὐκρασίαν δῆπου
καὶ τὴν δυσκρασίαν αἰσθήσει κρινοῦμεν. ὡσαύτως δὲ
καὶ τὴν τῆς ἐνεργείας βλάβην ἐκάστου τῶν βεβλαμ-
μένων παρὰ τὸ κατὰ φύσιν, ὅταν εἰς αἰσθητὸν ἤκη
μέγεθος, ἤδη νόσον ἡμῖν εἶναι νομιστέον, οὐδὲν ὡς
πρὸς τὰ παρόντα διαφέροντος οὐδ' ἐνταῦθα, πότερον
αὐτὰς ταύτας τὰς βεβλαμμένας ἐνεργείας τὸ νόσημα
εἶναι λέγει τις ἢ τὰς διαθέσεις, ὑφ' ὧν βλάπτονται,
ὥσπερ οὐδ' εἰ διαθέσεις τις ἢ κατασκευὰς ὀνομάζειν
ἐθέλοι.

24K διήρηται γὰρ ἡμῖν ἐτέρωθι καὶ περὶ τῶνδε καὶ
δέδεικται κατὰ τὰς διαθέσεις τε καὶ κατασκευὰς τοῦ
σώματος ἢ θ' ὑγεία καὶ ἡ νόσος, οὐ κατὰ τὰς ἐνερ-
γείας τε καὶ βλάβας αὐτῶν συνιστάμεναι. ἀλλὰ πρὸς
γε τὸ φυλάττειν ὑγείαν ἢ ἰᾶσθαι τὰς νόσους οὐδὲν ἐκ
τῆς τούτων ἀκριβείας ὀνινάμεθα. μόνον γὰρ ἀρκεῖ
γινώσκειν, ὡς ἡ μὲν κατασκευὴ τοῦ σώματος, αἰτίας
λόγον ἔχουσα ὡς πρὸς τὴν ἐνέργειαν, ὁ σκοπὸς τῆς
ὑγιεινῆς τε καὶ θεραπευτικῆς ἐστὶ τέχνης· ταύτην γὰρ
ἡμῖν φυλάττειν μὲν ὑπάρχουσαν πρόκειται, δημιουρ-
γεῖν δὲ ἀπολλυμένην· αἱ δὲ ἐνέργειαι κατ' ἀνάγκην
ἔπονται, ταῖς μὲν χρησταῖς κατασκευαῖς ἄμεμπτοι,

range where even in harps there is, I suppose, the possibil-
ity of an harmoniousness that is absolutely exactly one and
indivisible, and yet, when it comes to using them, they
have a range? In fact, often when a harp seems to be well-
tuned, another musician tunes it more accurately. Always
our perception is a criterion when it comes to uses in life.
As a result, we shall judge both *eukrasia* and *dyskrasia* by
perception. Similarly, we must regard as already a disease
the damage of function of each of those things damaged
in terms of an accord with nature when it reaches a per-
ceptible size—it would make no difference here for our
present considerations whether we say the disease is the
damaged functions themselves or the conditions by which
they are damaged, just as it does not if someone should 24K
wish to term these conditions or constitutions.

I have defined these things for you elsewhere¹⁸ and
have shown that both health and disease relate to the con-
ditions and constitutions of the body and do not exist in
the functions and their injuries. But in respect of preserv-
ing health or treating diseases, we derive no benefit from
the exactness of these things. It is alone sufficient to rec-
ognize that the constitution of the body, which has the
ground of cause in relation to function, is the objective of
both the hygienic and therapeutic arts. For the task before
us is to preserve health when it is present and to create it
when it is being destroyed. The functions follow of neces-
sity; those that are faultless follow good constitutions while

¹⁸ The key works referred to here are the four treatises on
diseases and symptoms (Johnston, *Galen: On Diseases and Symp-
toms*), *MM* (Johnston and Horsley, *Galen: Method of Medicine*),
Opt. Const. (Singer, *Galen: Selected Works*), and *Mixt.* (Singer,
Galen: Selected Works).

ταῖς δ' οὐ τοιαύταις μοχθηραί. ὥστ' ἐπειδήπερ ὁ φυ-
λάττομεν καὶ δημιουργοῦμεν αὐτοὶ διάθεσις τίς ἐστι
καὶ κατασκευὴ τοῦ σώματος, ἔπεται δ' ἐξ ἀνάγκης
αὐτῇ ἢ τῶν ἐνεργειῶν,¹⁰ οὐδὲν ἔτι χρὴ πρὸς τὰ παρ-
25K ὄντα, πότερον ἐν τῷ τῶν ἐνεργειῶν ἢ τῶν κατασκευῶν
γένει θετέον ἐστὶν ὑγείαν τε καὶ νόσον, ἐπισκοπεῖ-
σθαι.

λαβόντες δ' ἐξ ὑποθέσεως δέον εἶναι φυλάττειν τῆς
κατὰ φύσιν ἡμῶν κατασκευῆς τοῦ σώματος ἐκεῖνα, δι-
ῶν ἐνεργοῦμεν, ἀναμνήσαντές τε πάλιν, ὡς ἢ τῶν
ὁμοιομερῶν εὐκрасία τε καὶ τῶν ὀργανικῶν διάπλα-
σις καὶ θέσις ἀριθμός τε καὶ πηλικότης τῶν ἐνε-
ργειῶν ἐστὶν αἷτια καὶ ὡς ἐν πλάτει πάντα ταῦτ' ἐστὶ
καὶ ὡς καθ' ἕκαστον ἄνθρωπον ἴδια, τῶν ἐφεξῆς ἐχώ-
μεθα. μεγάλην δ' εἰς αὐτὰ χρεία ἢ γνῶσις τοῦ πλά-
τους αὐτῶν παρέχεται. τῆς γὰρ εὐκрасίας διττῆς
οὔσης, τῆς μὲν ὡς πρὸς ἐπίνοιαν μᾶλλον ἢ μόνιμον
ὑπαρξιν, ὡς ἐν ζῶου σώματι, τῆς δὲ ὑπαρχούσης ἅμα
καὶ φαινομένης ἐν ἅπασιν τοῖς ὑγιαίνουσιν, αὐτὴν
πάλιν ἡμᾶς χρὴ τέμνειν τὴν φαινομένην· εὐρεθήσεται
γὰρ οὐ σμικρά τις ἐν αὐτῇ διαφορά. μάθοις δ' ἂν ὡς
ἐστὶν ἀληθὲς τὸ λεγόμενον ἐκ τῶν ἡλικιῶν μάλιστα.

τῆς γὰρ τῶν μειρακίων ἡλικίας ἀρίστης οὔσης
πρὸς τὰς καθ' ὄρμην ἐνεργείας, ἢ τῶν βρεφῶν δι'
26K ὑγρότητα χείρων ἐστίν, ἢ δὲ τῶν γερόντων διὰ ξη-
ρότητα τε καὶ ψύξιν. ἐν μέντοι ταῖς ἄλλαις ἐνεργείαις
ταῖς φυσικαῖς ὀνομαζομέναις, οἷον αὐξήσεσι τε καὶ
πέψεσι καὶ ἀναδόσεσι καὶ θρέψεσι, τὰ βρέφη τῶν

those that are disordered follow constitutions that are not
good. As a result, since what we ourselves preserve or
create is some condition or constitution of the body, while
the perfection of the functions follows this of necessity,
it is not still necessary for present purposes to consider
whether we must place health and disease in the class of
functions or constitutions. 25K

Accepting, *ex hypothesi*, that what is needed is to pre-
serve those aspects of the constitution of the body in ac-
cord with nature, through which we function, and calling
to mind again that the *eukrasia* of the *homoiomeres* and
the conformation, position, number and size of the organic
bodies are the causes of the functions, let us come next to
the fact that all these exist as a range and are specific to
each person. The knowledge of the range of these things
provides a great advantage in these matters. Because *eu-
krasia* is twofold—in one respect being more related to a
concept than existing as a stable state, as in the body of the
animal, and in another respect, as it exists and appears in
all those who are healthy—it behooves us to subdivide the
actual appearance, for we shall discover no little diversity
in this. You may learn that what I have said is true espe-
cially with respect to the stages of life.

Thus, the age of youths is the best with regard to the
voluntary functions, while that of infants is inferior due to 26K
moistness and that of the aged due to dryness and cold.
However, in the other functions termed physical, such as
growth, concoction (digestion), distribution and nutrition,

¹⁰ *post ἐνεργειῶν*: τελειότης Ku

κατὰ τὰς ἄλλας ἡλικίας ἀπάσας ἀμείνω. ἀλλ' ὁμως οὐδὲν κωλύονται πάντες οἱ κατὰ πάσας τὰς ἡλικίας ὑγιαίνειν. ὡς οὖν ἐπὶ τῶν ἡλικιῶν ἔχει, κατὰ τὸν αὐτὸν τρόπον εὐρήσεις καὶ ἐπὶ τῶν φύσεων αὐτῶν ἀμήχανον οὖσαν τὴν διαφορὰν ἐν ταῖς κράσεσιν. ὥστε, εἰ οὕτως ἔτυχε, δυοῖν παιδῶν τὴν αὐτὴν ἡλικίαν ἀγόντων τὸν μὲν ὑγρότερον εἶναι θατέρου πολλῶ, τὸν δὲ ξηρότερον, ὡσαύτως δὲ τὸν μὲν θερμότερον, τὸν δὲ ψυχρότερον. ἐν ὅσοις δὲ σώμασιν ὑπάρχει τὸ πολὺ τοῦ προσήκουτος ἤτοι θερμότεροις ἢ ψυχροτέροις ἢ ὑγροτέροις ἢ ξηροτέροις εἶναι, ἐν τούτοις οὐκ ἔστιν ἀμεμπτος ἢ κρᾶσις· ἐν ὅσοις δὲ ὑπάρχει μὲν τις διαφορὰ παρὰ τὸ κάλλιστα κεκραμένον, οὐ μὴν αἰσθητὴ γε διὰ σμικρότητα, τοῦθ' ὡς πρὸς τὴν χρείαν ἐν ἴσῃ χώρα τίθεμεθα τοῖς ἀρίστοις· ὥστ' εἶναι τῆς κατὰ πλάτος ὑγείας τὴν μὲν εὐκρατόν τε καὶ ἀμεμπτον ὡς πρὸς αἴσθησιν, τὴν δ' οἷον δύσκρατόν τε καὶ μεμπτήν.

27K

ἐναργέστατα δὲ τοῦ λεγομένου γνωρίσματα παρέχουσιν αἱ κατ' ἰσχνότητα καὶ πολυσαρκίαν διαφοραὶ τῶν σωμάτων· ἀναγκαῖον γάρ που τὰς ἐναντίας ἕξεις ἐναντίαις ἔπεσθαι κράσεσιν. ὥσπερ οὖν οὐκ ἐπαινοῦμεν οὔτε τὸ ἄγαν ἰσχνὸν οὔτε τὸ λίαν παχὺ σῶμα, κατὰ τὸν αὐτὸν τρόπον οὔτε τὰς κράσεις αὐτῶν ἐπαινέσομεν, εἰ καὶ ὅτι μάλιστα βλέπομεν ἀμφοτέρους ὑγιαίνοντας. αἱ δ' ἐν τῷ μέσῳ τούτων ἕξεις τῶν εὐσάρκων ὀνομαζομένων, ὥσπερ αὐταὶ σύμμετροί τε καὶ ἀμεμπτοι τὴν ιδέαν εἰσὶν, ἔπονται συμμέτροις τε

infants are better than all the other ages. Nonetheless, there is nothing preventing those of all the ages being healthy. What applies in the case of ages, you will also find to be the same in the case of their natures—the difference in the *krasias* (temperaments) is enormous. So it may come about that there are two children of the same age, one of whom is much moister than the other, or drier, and likewise one is hotter or colder. In those bodies that are much hotter, colder, moister or drier than they should be, the *krasis* is not faultless, while in those bodies in which there is a deviation from the best mixing, but one that is too small to be perceptible, when it comes to use, we put this in the same category as the best. As a result, in terms of the range of health, there is that which is *eukratic* and without fault as far as can be detected and that which is in fact *dyskratic* and faulty.

27K

The differences of bodies in terms of leanness and plumpness provide the clearest signs of what has been said, for it is inevitable to some degree that opposite states follow opposite *krasias*. Therefore, just as we do not praise either the very thin or the very fat body, in the same way we shall not praise their *krasias*, even if we see both are particularly healthy. The states in between these—states of those called well-fleshed—just as they are in due proportion and faultless in kind, follow moderate and faultless

καὶ ἀμέμπτοις κράσεσι. τὰς τοίνυν τοιαύτας φύσεις
ὡς μὲν πρὸς τὴν ἀκριβεστάτην ἀλήθειαν οὐδ' αὐτὰς
εὐκράτους ἂν τις εἴποι κατὰ γε τὴν ἀπλήν καὶ τελείαν
εὐκρασίαν, ὡς μέντοι πρὸς τὴν αἰσθησίν τε καὶ πρὸς
τὴν χρείαν ἀμέμπτους τε καὶ ἀρίστας χρῆ τίθεσθαι.
28K τεκμήριον δ' ἐναργέστατον, ὅτι μηδ' αὐταὶ τὴν ἀκρι-
βεστάτην ἔχουσιν εὐκρασίαν, ἐκ τοῦ μηδέποτε μένειν
αὐτὰς ὡσαύτως ἐχούσας, ἀλλὰ πρῶτον μὲν δέχεσθαι
τὴν καθ' ἡλικίαν μεταβολήν, οὐδέποτε ἐν ταύτῳ με-
νούσης οὐδεμιᾶς ἡλικίας, ἀλλ' αἰεὶ πρὸς τὸ ξηρότερον
ιούσης, δευτέραν δὲ τὴν καθ' ὕπνον τε καὶ ἐγρήγορ-
σιν, ἡσυχίαν τε καὶ κίνησιν, αὐτῶν τε τῶν κινήσεων
τὰς διαφοράς, ἔτι τε πρὸς ταύταις τὴν τοῦ πεινῆν ἢ
διψῆν ἢ ἐσθίειν ἢ πίνειν ἢ ἐμπεπληῆσθαι σίτου ἢ
πόματος προσδέεσθαι καὶ πρὸς τούτοις ἔτι καὶ λου-
τρά καὶ θυμοὶ καὶ φροντίδες καὶ λύπαι καὶ πάνθ' ὅσα
τοιαῦτα μονονουχὶ καθ' ἐκάστην ῥοπήν ὑπαλλάτ-
τοντα τὴν κράσιν.

οὐκ οὐκ χρῆ ζητεῖν ἐν τοσαύτῃ μεταβολῇ τὴν ἀκρι-
βῶς ἀρίστην κράσιν. εἰ γὰρ καὶ συνέπεσέ ποτε καθ'
ἡντιναοῦν ἀρίστην φύσιν, ἀλλ' οὐκ ἔμεινέ γε οὐδ' ἐν
ἀκαρεῖ, ὥστε γ' ἐμοὶ καὶ θαυμάζειν ἐπέρχεται τὴν
δόξαν τῶν ἀνδρῶν, ὅσοι τὴν ὑγείαν τε καὶ τὴν εὐκρα-
σίαν ἀπλατῇ τε καὶ μίαν εἶναι νομίζουσιν, εἰ δέ τι
παρὰ ταύτην ἐστίν, οὐχ ὑγείαν εἶναί φασιν· τὴν τε
29K γὰρ ἀειπάθειαν ἐσφέροντες οὐκ αἰσθάνονται περὶ
πράγματος ἢ μηδέποτε γεγονότος ἐν ζῶου σώματι

krasias. And so, someone might term such natures, ac-
cording to the strictest truth, not actually *eukratic*, in re-
spect of an absolute and perfect *eukrasia*, but when it
comes to perception and use, we must place them among
the faultless and best. However, the clearest proof that
these *krasias* do not have the most exact *eukrasia* is from 28K
their never remaining the same as they were. First, they
yield to the change relating to the age, since no age ever
remains the same in itself but always goes toward greater
dryness. Second, there are the changes relating to sleep
and wakefulness, rest and movement, and the differences
of the movements themselves. And further, in addition to
these, there are the changes of hunger or thirst, eating or
drinking, and satiety or desire for food or drink, and as
well as these also, baths, anger, anxiety and grief, and all
such things as change the *krasis* merely related to each
decisive influence.

It is not, therefore, necessary to seek, in such change,
the best *krasis* precisely, for even if it did occur in the best
nature in any way at all, it would not remain for a moment.
Consequently, it falls to me to wonder at the opinion of
men who think that health and *eukrasia* are without lati-
tude and single things. They say that whatever is contrary
to this is not health, introducing the idea of "perpetual
affection" without realizing they are making an argument 29K
about a matter that has either never existed in the body of

ποιούμενοι τὸν λόγον ἢ μηδ' ἐλάχιστον ὑπομένοντος,
εἰ καὶ ποτε γένοιτο.

6. Τούτοις μὲν οὖν, ἣν ὀνειρώττουσιν ὑγείαν, ἀπο-
λείπωμεν φυλάττειν, ἡμεῖς δ' ἐπὶ τὰς φαινομένας ἀφι-
κώμεθα καὶ διττὴν αὐτῶν θέμενοι τὴν οὐσίαν, ἣν νῦν
δὴ πέπαυμαι λέγων, ἴδιον ἑκατέρας σκοπὸν ἀποδῶ-
μεν, ἐπὶ μὲν τῆς ἀμέμπτου τὴν ἀκριβῆ φυλακὴν ὡς
πρὸς αἴσθησιν, ἐπὶ δὲ τῆς μεμπτῆς τὴν οὐκ ἀκριβῆ.
πειρᾶσθαι γὰρ χρὴ τὰς ὑγιεινὰς δυσκρασίας ἐπανορ-
θοῦσθαι, τὰς μὲν ξηροτέρας τοῦ δέοντος φύσεις ὑγρο-
τέρας ἐργαζομένους, ὅσαι δὲ ὑγρότεροι, ξηραίνοντας,
οὕτω δὲ καὶ τῶν μὲν θερμότερων καθαιροῦντας τὴν
ὑπερβολήν, τῶν δὲ ψυχροτέρων καὶ τούτων κολάζον-
τας τὴν ἀμετρίαν. ὁποίοις δ' ἂν τις ὑγιεινοῖς δια-
τήμασιν ἐργάζοιτο ταῦτα, προῖων ὁ λόγος ἐπιδείξει.

30K πρότερον γὰρ με χρὴ διελεῖν, ὅπως ἂν τις τῆς
ἀρίστης φύσεως διαφυλάττοι τὴν ὑγείαν, ἔτι δὲ τού-
του πρότερον, ἣτις ποτέ ἐστίν ἡ ἀρίστη κατασκευὴ
τοῦ σώματος, ἀναμνήσωμεν. ἔστι δὲ δήπου κατὰ μὲν
τὴν οὐσίαν αὐτὴν τοῦ πράγματος ἐξηγουμένοις ἢ
εὐκρατοτάτη τε ἅμα καὶ τὴν διάπλασιν τῶν μορίων
ἀκριβῶς ἀρμόττουσαν ταῖς ἐνεργείαις αὐτῶν ἔχουσα
καὶ πρὸς τούτοις ἔτι τὸν τε ἀριθμὸν ἅπαντα καὶ τὰ
μεγέθη καὶ τὴν πρὸς ἄλληλα σύνταξιν ἀπάντων αὐ-
τῶν χρηστὴν ταῖς ἐνεργείαις παρεχομένην.

κατὰ δὲ τὰ γνωρίσματα τὸ ἀκριβῶς εὐσαρκον
σῶμα τοιοῦτόν ἐστιν, ὃ μέσον ἔφην ὑπάρχειν ἰσχυροῦ
τε καὶ πολυσάρκου· πολύσαρκον δὲ ἢ παχὺ λέγειν οὐ

an animal or never remains for any length of time, even if
it were to exist at some time.

6. Let us, then, leave it to them to maintain what they
dream to be health while we come to those things that are
apparent. And assuming the substance of these to be two-
fold, which I have just now ceased speaking about, let us
assign a specific objective to each—in the case of the fault-
less, perfect preservation according to perception, and in
the case of the faulty, the imperfect preservation. For we
must attempt to correct the healthy *dyskrasias*, making
natures that are drier than they should be, more moist, and
those that are more moist than they should be, drier. In
the same way too, we should reduce the excess of those
who are too hot and we should correct the imbalance of
those who are too cold. As the discussion proceeds, I shall
show by what kind of healthy regimens someone might do
these things.

First, I must go over in detail how someone might
preserve the health of the best nature, but even before 30K
this, let us remind ourselves of what at any time the best
constitution of the body is. For those expounding the ac-
tual substance of the matter, it is perfect *eukrasia* and, at
the same time, the conformation of the parts being adapted
perfectly to their functions, and in addition, provision in
all cases of the number, size, and arrangement with each
other of all these that is beneficial for the functions.

According to the signs, the perfectly well-fleshed body
is such a thing—I said it is the midpoint between being
lean and having excessive flesh. It makes no difference

διοίσει. οὕτω δὲ καὶ τῶν γε ἄλλων ὑπερβολῶν ἀκριβῶς μέσον ἐστὶ τὸ τοιοῦτον, ὥστε μήτε λάσιον αὐτὸ δύνασθαι εἰπεῖν τινα ἢ ψιλὸν τριχῶν, ἀλλὰ μήτε μαλακὸν μήτε σκληρὸν ἢ λευκὸν ἢ μέλαν ἢ ἀφλεβον ἢ εὐρύφλεβον ἢ θυμικὸν ἢ ἄθυμον ἢ ὑπνώδες ἢ ἀγρυπνητικὸν ἢ ἀμβλὺ τὴν διάνοιαν ἢ πανούργον ἢ ἀφροδισιαστικὸν ἢ τούναντίον. εἰ δὲ καὶ πᾶσιν εἴη τοῖς μέρεσιν ἀκριβῶς μέσον ἀπασῶν τῶν ὑπερβολῶν, 31K ἔστι μὲν δήπου καὶ κάλλιστον ὀφθῆναι τὸ τοιοῦτον, ὡς ἂν σύμμετρον ὑπάρχον εἰς ἅπαντάς τε τοὺς πόρους ἐπιτήδειον. ἔξει δὲ καὶ τὰ ἄλλα πάντα γνωρίσματα τῆς καθ' ἕκαστον μόριον εὐκρασίας, ἅπερ ἐν τῷ δευτέρῳ Περὶ κράσεων εἴρηται γράμματι. πολλὰ γὰρ τῶν σωμάτων εὐκράτα μὲν, εἰ τύχοι, ταῖς κεφαλαῖς ἐστὶ, δύσκρατα δὲ τοῖς θώραξι ἢ τοῖς κατὰ γαστέρα τε καὶ τὰ γεννητικὰ μόρια. τινῶν δὲ ἐν τοῖς κώλοις ἐστὶν ἡ δυσκρασία καὶ πολλοῖς καθ' ἓν τι τῶν σπλάγχνων ἢ τι μόριον ἕτερον ἐν ἡ πλείω, καθάπερ οὖν καὶ περὶ πλείονα σπλάγχνα ἐνίοις ἐστὶν ἡ δυσκρασία. πολλοῖς δὲ ἐφώρασα καὶ κατὰ τι τῶν ὀργανικῶν μορίων δύο κράσεις ὑπαρχούσας, ὥστε, εἰ τύχοι, τὸ μὲν ἄλλο κύτος τῆς γαστρὸς ἅπαν ἐτέρας εἶναι κράσεως, ἢτοι χρηστῆς ἢ μοχθηρᾶς, ἐτέρας δὲ μόνον αὐτῆς τὸ στόμα. περὶ μὲν δὴ τούτων ἐν ταῖς μοχθηραῖς κατασκευαῖς τῶν σωμάτων εἰρήσεται.

7. Περὶ δὲ τῆς ἀρίστης ἤδη λέγωμεν, ἧς ἕκαστον μόριον ἀμεμπτον ἔχει τὴν σύμπασαν οὐσίαν. ὁ δὲ

whether we say "having excess flesh" or "fat." The same applies to the precise midpoint of the other excesses, so we are able to say someone is bald or hairy, but neither soft nor hard, neither pale nor dark, neither with collapsed nor distended veins, neither passionate nor passionless, neither sleepy nor wakeful, neither dull-witted nor clever, neither lecherous nor the opposite. If, for all the parts, there were to be a precise midpoint between the two extremes, this is clearly the best such state to be seen, as it would be in balance and serviceable for all its tasks. And it will have all the other signs of the *eukrasia* pertaining to each part—these are described in the second book of *On Mixtures*.¹⁹ For many bodies are *eukratic* in the head, as may happen, but *dyskratic* in the chest, or in the abdomen, or in the generative parts. In some the *dyskrasia* is in the limbs, and in many people in one of the internal organs, or some other single part, or several, just as in some the *dyskrasia* is in a larger number of the internal organs. Also, in many cases, I have observed two *krasias* existing in one of the organic parts, so that, as may happen, in another hollow organ of the abdomen, there is a completely different *krasis*, either good or bad, and another one in the cardiac orifice²⁰ of the stomach. I shall speak about these in relation to pathological (abnormal) constitutions of bodies.

7. Let us speak now about the best [constitution] in which each part is without fault in its whole substance.

¹⁹ *Mixt.*, I.509–694K (English trans., Singer, *Galen: Selected Works*).

²⁰ Galen's use of terms in relation to the stomach, its parts, and the abdomen generally seems to be somewhat variable.

32K τοιοῦτος ἄνθρωπος ὑπὸ τὴν ὑγιεινὴν ἀγόμενος τέχνην εὐτυχῆς μὲν ἂν εἴη, εἰ μετὰ τὴν πρώτην ἀποκύησιν ἐπιστατοῖτο πρὸς αὐτῆς· οὕτω γὰρ ἂν τι καὶ εἰς τὴν ψυχὴν ὀνίναίτο, τῆς χρηστῆς διαίτης ἤθη χρηστὰ παρασκευαζούσης· οὐ μὲν ἀλλὰ καὶ εἰ κατὰ τινα τῶν ἐξῆς ἡλικιῶν εἰς χρείαν τῆς τέχνης ἀφίκοιτο, καὶ οὕτως ὀνήσεται τὰ μέγιστα.

εἰρήσεται δὲ πρῶτον μὲν, ὡς ἂν τις ἐξ ἀρχῆς παραλαβὼν ἄνθρωπον τοιοῦτον ὑγιαίνοντα διὰ παντὸς ἀποδείξειε τοῦ βίου, πλὴν εἴ τι τῶν ἔξωθεν αὐτῷ συμπίπτει βίαιον, οὐδὲν γὰρ τοῦτό γε πρὸς τὸν τῆς ὑγιεινῆς τέχνης ἐπιστήμονα· δεύτερον δέ, ὅπως ἂν τις, εἰ καὶ μὴ νεογενὲς εἴη τὸ παιδίον, ἀλλ' ἤδη παιδεύεσθαι δυνάμενον, ἐπιστατήσειεν αὐτοῦ· καὶ οὕτω καθ' ἑκάστην τῶν ἄλλων ἡλικιῶν. τὸ τοίνυν νεογενὲς παιδίον, τοῦτο δὴ τὸ ἄμεμπτον ἀπάσῃ τῇ κατασκευῇ, πρῶτον μὲν σπαργανούσθω, συμμέτροις ἀλσιν περιπαττόμενον, ὅπως αὐτῷ στερρότερον καὶ πυκνότερον εἴη τὸ δέρμα τῶν ἔνδον μορίων. ἐν γὰρ τῷ κυΐσκεσθαι πάνθ' ὁμοίως ἦν μαλακὰ μήτε ψαύοντος αὐτοῦ τινος ἔξωθεν σκληροτέρου σώματος μήτ' ἀέρος ψυχροῦ προσπεσόντος, ὑφ' ὧν συναγόμενόν τε καὶ πιλούμενον γένοιτ' ἂν ἑαυτοῦ τε καὶ τῶν ἄλλων μορίων σκληρότερόν τε καὶ πυκνότερον. ἐπειδὴν δ' ἀποκηθῆ, ἐξ ἀνάγκης ὀμιλεῖν μέλλει καὶ κρύει καὶ θάλπει καὶ πολλοῖς σκληροτέροις ἑαυτοῦ σώμασι. προσήκει διὰ ταῦτα τὸ σύμφυτον αὐτῷ σκέπασμα παρασκευασθῆναί πως ὑφ'

33K

Certainly, such a person would be fortunate if, after the time of his birth, he came to the art of hygiene and were to have the support of this. In this way, he would also derive some benefit for the *psyche*, since a good regimen is a preparation for good habits. But even if, during one of the subsequent stages of life, he were to come to the use of the art, he would also derive the greatest benefit in this way. 32K

What I shall say first is that, if someone were to take charge of such a person from the beginning, he would make that person healthy throughout his whole life, unless some violence were to befall him from without, for this has nothing to do with being versed in the art of hygiene. Second, I shall relate how someone would support a child, even if he were not newborn but already able to be trained; and the same with each of the other stages of life. Moreover, in the case of the newborn child who is faultless in his whole constitution, let us first wrap him in swaddling clothes, after sprinkling moderate amounts of salt over him, as a result of which the skin would be firmer and thicker than the internal parts. For when the baby is *in utero* everything is similarly soft since it is neither touched by any harder body from without nor does cold air strike it. It is due to these things that the skin becomes contracted and compressed—both harder and more dense than it was before, and more than the other parts. When it is born, the infant is inevitably going to come into contact with both cold and heat, and with many bodies harder than itself. Because of these things, it is appropriate for us to prepare its natural covering in some way, so it is best 33K

ἡμῶν ἄριστον εἰς δυσπάθειαν. ἰκανὴ δὲ ἢ διὰ μόνων
 τῶν ἀλῶν παρασκευὴ τοῖς γε κατὰ φύσιν ἔχουσι βρέ-
 φεσιν. ὅσα γὰρ ἦτοι μυρίνης φύλλων ξηρῶν περιπα-
 τομένων ἢ τινος ἑτέρου τοιούτου δεῖται, μοχθηρῶς δὴ
 που διάκειται. πρόκειται δ' ἡμῖν τό γε νῦν εἶναι περὶ
 τῶν ἄριστα κατεσκευασμένων τὸν λόγον ποιείσθαι.
 ταῦτ' οὖν, ὡς εἴρηται, σπαργανωθέντα γάλακτι τε
 χρήσθω τροφῇ καὶ λουτροῖς ὑδάτων χρηστῶν· ὑγρὰς
 γὰρ χρήζει τῆς συμπάσης διαίτης, ἅτε καὶ τὴν κρᾶ-
 σιν ὑγροτέραν ἔχοντα τῶν ἐν ταῖς ἄλλαις ἡλικίαις.

34K ἔοικε δὲ τοῦτο πρῶτον εὐθὺς ἦκειν σκέμμα τῶν
 ἀναγκαίων εἰς δίαιταν ὑγιεινὴν. εἰσὶ γὰρ οἱ νομίζου-
 σιν ἀεὶ δεῖσθαι ξηραίνεσθαι τὰς ὑγροτέρας φύσεις,
 ὥσπερ γε καὶ θερμαίνεσθαι μὲν τὰς ψυχροτέρας
 ὑγραίνεσθαι δὲ τὰς ξηροτέρας, ψύχεσθαι δὲ τὰς θερ-
 μοτέρας· ὑπὸ μὲν γὰρ τῶν ὁμοίων ἐκάστην τῶν ἀμε-
 τριῶν αὐξάνεσθαι, κολάζεσθαι δὲ καὶ καθαιρεῖσθαι
 πρὸς τῶν ἐναντίων, ἐνὶ δὲ λόγῳ “τὰ ἐναντία τῶν ἐναν-
 τίων” ὑπάρχειν “ἰάματα.” ἐχρήν δὲ αὐτοὺς μὴ τοῦτο
 μόνον Ἰπποκράτους ἀνεγνωκέναι τε καὶ μνημονεύειν,
 ὡς τὰ ἐναντία τῶν ἐναντίων ἐστὶν ἰάματα, ἀλλὰ κά-
 κείνα, δι' ὧν φησιν· “αἱ ὑγραὶ δίαιται πᾶσι τοῖσι
 πυρετταίνουσι ξυμφέρουσι, μάλιστα δὲ παιδίοισι καὶ

²¹ The Greek term is *dyspatheta*, for which LSJ gives four somewhat disparate meanings: deep affliction, firmness in resisting, and the capabilities of endurance and insensitivity; there is no specific medical meaning given. In the OED it is taken as the

able to resist being affected [dyspathic].²¹ In those infants who are in accord with nature, an adequate preparation is through salts alone. Those who are abnormal to some degree need to be covered over with the dried leaves of myrtle or some other such thing. However, what lies before us now is to make the discussion about those with the best constitutions. These, as I said, having been wrapped in swaddling clothes, are to be provided with milk as nourishment and baths of beneficial waters; the whole regimen needs to be moist, inasmuch as the *krasis* is more moist than in the other stages of life.

This seems to bring us immediately to the first question of what is the essential for a healthy regimen. For there are those who think natures that are too moist always need to be dried, just as natures that are too cold always need to be heated, natures that are too dry to be moistened, and those that are too hot to be cooled, for each of the imbalances is increased by like things but corrected and reduced through the opposites—in short, “opposites are the cures of opposites.”²² But they must not only know and remember Hippocrates’ statement, that “opposites are the cures of opposites,” but also that in which he says, “moist regimens are beneficial to all who are febrile, particularly children, and others who are accustomed to being so

opposite of sympathy, with the meaning of antipathy, aversion, and dislike. It is described as a rare term; reference is made to Galen’s *MM*. In that work it is described as a confusing term associated with Thessalus (X.267K). In *Opt. Const.* it is used in a similar sense to that above (IV.743K).

²² Hippocrates, *Aphorisms* 2.22, *Hippocrates* IV, LCL 150, 112–13, and *Breaths* 1, *Hippocrates* III, LCL 147, 228–29.

τοῖσιν ἄλλοισι τοῖσιν οὕτως εἰθισμένοισι διαιτᾶ-
σθαι." φαίνεται γὰρ ἐνταῦθα παράλληλα θεῖς ἐφεξῆς
τὰ τρία, νόσημά τε καὶ ἡλικίαν καὶ ἔθος. ἀπὸ μὲν τοῦ
νοσήματος ἔνδειξιν λαμβάνων τῶν ἐναντίων, ἀπὸ δὲ
τῆς ἡλικίας τε καὶ τοῦ ἔθους τῶν ὁμοίων. τῷ μὲν γὰρ
πυρετῷ (νόσημα δέ ἐστι τοῦτο θερμὸν καὶ αὐχμῶδες)
αἱ ὑγραὶ δίαται χρησταί· τοῖς δὲ παιδίοις (οὐ γὰρ
35K νόσημα τούτοις γε, ἀλλὰ κατὰ φύσιν ἢ ἡλικίαν) τὸ
ὁμοιότατον ὠφελιμώτατον. οὕτω δὲ καὶ τοῖς ἔθεσιν,
ὡς ἂν καὶ αὐτοῖς ἐπικτήτους τινὰς ἐν τοῖς σώμασι
φύσεις ἐργαζομένοις, ἢ τῶν ἐναντίων προσφορά βλα-
βερωτάτη. καὶ δεόντως τοῖς μὲν κατὰ φύσιν ἔχουσι
σώμασι φυλάττεσθαι χρῆ τὴν οἰκείαν ἔξιν, τοῖς δὲ
νοσοῦσιν ἀλλοιοῦσθαι τε καὶ πρὸς τὸναντίον ἐπάγε-
σθαι. φυλάττεται μὲν οὖν ἕκαστον ὑπὸ τῶν ὁμοίων,
ἀλλοιοῦται δὲ ὑπὸ τῶν ἐναντίων.

οὐκ οὖν ξηραίνειν χρῆ τοὺς παῖδας, ὅτι μὴ παρὰ
φύσιν αὐτοῖς ἢ ὑγρότης, ὡσπερ ἐν βράγχαις τε καὶ
κορύζαις καὶ κατάρροις [καὶ ὑδέροις],¹¹ ἀλλ' ἐν τοῖς
φύσει διαιτᾶν ὑγραίνουσι τὸ κατὰ φύσιν φυλάττοντα
ταῖς διαίταις ὑγραίνουσιν λουτροῖς τε ποτίμων ὑδά-
των (ὅσα γὰρ ἐμφαίνει τινὰ φαρμακώδη ποιότητα,
ξηραίνει πάντα, καθάπερ τὰ θειώδη καὶ ἀσφαλτώδη
καὶ νιτρώδη¹² καὶ στυπτηριώδη) καὶ τροφήν καὶ ποτὸν
παρέχειν ὅτι μάλιστα κράσεως ὑγροτάτης. οὕτω δὲ
καὶ ἡ φύσις αὐτὴ προὔνοησατο τῶν παιδῶν τροφήν

¹¹ καὶ ὑδέροις add. Ko

¹² καὶ νιτρώδη add. Ko

treated."²³ Here he has obviously placed three things in
juxtaposition—disease, stage of life and custom. From the
disease, he takes the indication of opposites while from
the stage of life and custom, he takes the indication of
similars. For in a fever (which is a hot and dry disease),
the moist regimens are beneficial, whereas in children (for
in them it is not in fact a disease but a stage of life and
accords with nature), what is most similar is most helpful. 35K
It is also the same with customs, as these produce certain
acquired natures in bodies for which the exhibition of op-
posites is very harmful. And what is right for bodies in
accord with nature, is that one must preserve the proper
(i.e., preexisting) state, whereas in those who are diseased,
one must set in motion a change to the opposite. There-
fore, each of the two is preserved by similars but changed
by opposites.

One must not, then, dry children because the moist-
ness in them is not contrary to nature, as it is in coughs,
coryzas, catarrhs and dropsies.²⁴ Rather, one must feed
them with things that are moist in nature, maintaining
an accord with nature by means of moist diets and baths
of potable waters (for those that display any medicinal
quality, such as those that are sulfurous, full of asphalt
or contain sodium carbonate or alum, are all drying),
and most of all provide food and drink that is particularly
moist in *krasis*. And in this way too, Nature herself gave
forethought to children, preparing moist nutriment for

²³ Hippocrates, *Aphorisms* 1.16, *Hippocrates* IV, LCL 150,
106–7.

²⁴ One might question Koch's addition of "dropsies" here as
being somewhat incongruous.

36K αὐτοῖς ὑγρὰν παρασκευάζουσα τὸ γάλα τῆς μητρὸς.
ἄριστον μὲν οὖν ἴσως καὶ τοῖς ἄλλοις ἅπασι βρέφεσι
τὸ γάλα τῆς μητρὸς, πλὴν εἰ μὴ τύχοι νευροσηκός,
οὐχ ἤκιστα δὲ καὶ τῷ τῆς ἀρίστης κράσεως, ὑπὲρ οὗ
νῦν ὁ λόγος ἐστί. εἰκὸς γάρ που τῆς τούτου μητρὸς
ἄμεμπτον εἶναι τὸ τε σύμπαν σῶμα καὶ τὸ γάλα.

ἔξ αἵματος μὲν οὖν ἔτι κνουμένοις ἡμῖν ἡ τροφή.
ἔξ αἵματος δὲ καὶ ἡ τοῦ γάλακτος γένεσις ὀλιγίστην
μεταβολὴν ἐν τοῖς μαστοῖς προσλαβόντος. ὥσθ' ὅσα
παιδιά τῷ τῆς μητρὸς γάλακτι τρέφεται, συνηθε-
στάτη τε ἅμα καὶ οἰκειοτάτη χρήται τροφῇ. φαίνεται
δὲ οὐ μόνον παρασκευάσασα τὴν τοιαύτην τροφήν ἡ
φύσις τοῖς βρέφεσιν, ἀλλὰ καὶ δυνάμεις αὐτοῖς εὐθὺς
ἔξ ἀρχῆς ἐμφύτους παρασχοῦσα, ἔνεκα τῆς χρήσεως
αὐτοῦ. καὶ γὰρ καὶ γεννηθεῖσιν εἴ τις ἐνθείη παρα-
χρήμα τῷ στόματι τὴν θηλὴν τοῦ μαστοῦ, βδάλλει
τε τὸ γάλα καὶ καταπίνει προθυμότατα· καὶ ἦν ἀνιῶ-
μενά τε καὶ κλαυθμυριζόμενα τύχη, τῆς λύπης οὐκ
ἐλάχιστον ἴαμα αὐτοῖς ὁ τιτθὸς τῆς τρεφούσης ἐστὶν
ἐντιθέμενος τῷ στόματι.

37K τρία γὰρ οὖν δὴ ταῦτα ταῖς τροφοῖς ἐξεύρηται τῆς
λύπης τῶν παιδίων ἰάματα τῇ πείρᾳ διδαχθείσαις, ἐν
μὲν τὸ νῦν δὴ λελεγμένον, ἕτερα δὲ δύο, κίνησις τις
μετρία καὶ φωνῆς εὐμέλειά τις, οἷς χρώμεναι διαπαν-
τὸς οὐ καταπραῦνουσι μόνον, ἀλλὰ καὶ εἰς ὕπνον
ἀπάγουσιν αὐτὰ δηλούσης αὐτὸν τούτῳ τῆς φύσεως,
ὅτι πρὸς μουσικὴν καὶ γυμναστικὴν οἰκείως διάκει-
ται. καὶ ὅστις οὖν ἰκανός ἐστι καλῶς χρήσασθαι ταῖς

them—that is, mother's milk. Thus mother's milk is very
likely best for all infants other than those who happen to
be diseased, and not least for the infant with the best
36K *krasis*, about whom the present discussion is. Anyway, it is
likely that the mother of such a child is faultless both in
respect of her body as a whole and her milk.

Our nourishment, while still *in utero*, is from blood,
while the genesis of milk is also from blood that has un-
dergone the least change in the breasts. As a consequence,
those children who are nourished by mother's milk make
use of the most customary and fitting nutriment. So it is
clear that Nature has not only prepared such a nutriment
for infants, but has also provided innate powers for them,
right from the beginning, for the purpose of using this
nutriment. For also, when the infant has been born, if
someone immediately places the nipple of the breast in its
mouth, it sucks the milk and drinks it down very eagerly.
And if infants should happen to be distressed and crying,
the remedy for their grief is not least the breast of the
nurse placed in their mouths.

There are, then, these three remedies for the distress
of children discovered by nurses who have learned from
experience. One is that which we have now discussed; the
37K other two are moderate movement and a certain modula-
tion of the voice. Those who use these things continually
not only settle the infant but also put it to sleep, revealing
even in this an innate predisposition toward music and
exercise. Therefore, someone who is effective in using

τέχναις ταύταις, οὗτος καὶ σῶμα καὶ ψυχὴν παιδεύσει κάλλιστα.

8. Ταῖς γοῦν τροφοῖς αἱ τῶν παιδίων κινήσεις ἐν τε λίκνοις καὶ σκίμποσι καὶ ταῖς σφῶν αὐτῶν ἀγκάλαις ἐξεύρηται. καὶ πως ἂν καὶ τοῦθ' ἕτερον ἡμῶν ἦκοι σκέμμα πρὸς ὑγείας τήρησιν ἀναγκαιότατον, Ἀσκληπιάδου μὲν ἀντικρὺς τε καὶ τοῦ φανερωτάτου κατεγνωκότος γυμνασίων, Ἐρασιστράτου δὲ ἀτολμότερον μὲν ἀποφνηαμένου, τὴν δ' αὐτὴν Ἀσκληπιάδῃ γνώμην ἀποδεικνυμένου, τῶν δ' ἄλλων σχεδὸν ἀπάντων ἰατρῶν ἐπαινούντων οὐ πρὸς εὐεξίαν μόνον, ἀλλὰ καὶ πρὸς ὑγείαν αὐτά. τριττὰ δ' ἐστὶ γένη τά γε πρῶτα τῶν γυμνασίων, ὅσαιπερ καὶ αἱ τῶν κινήσεων διαφοραί· ἢ γὰρ ἐξ ἑαυτῶν ἢ ὑφ' ἑτέρων ἢ διὰ φαρμάκων κινούμεθα. τὸ μὲν δὴ τρίτον εἶδος τῆς κινήσεως οὐδαμῶς ὑγιαίνουσι πρέπον· ἢ δ' ὑφ' ἑτέρου κίνησις ἐν τε τῷ πλεῖν καὶ ἵππεύειν καὶ ὀχεῖσθαι καί, ὡς ἀρτίως λέλεκται, διὰ τε λίκνων καὶ σκιμπόδων καὶ ἀγκαλῶν γίνεται. τοῖς μὲν οὖν νεογενέσι παιδίοις οὐπω δεῖ κινήσεως τηλικαύτης, ἡλικὴ δὲ τῶν ὀχημάτων καὶ τῶν πλοίων καὶ τοῖς ἵππαζομένοις γίνεται τοῖς δ' ἤδη τὸ τρίτον ἢ τὸ τέταρτον ἔτος ἀπὸ τῆς πρώτης γενέσεως ἄγουσιν ἐγχωρεῖ καὶ δι' ὀχημάτων καὶ πλοίων κινεῖσθαι τὰ μέτρια· ἐπταετῇ δὲ γενόμενα τὰ παιδιά καὶ τῶν ἰσχυροτέρων ἀνέχεται κινήσεων, ὥστε καὶ ἵππεύειν ἐθίζεσθαι. ἐξ ἑαυτῶν δὲ κινεῖσθαι τὰ παιδιά τηνικαῦτα δύναται πρῶτον, ὅταν ἔρπειν ἀπάρξηται, καὶ μᾶλλον, ἐπειδὴν ἀπάρξηται¹³ βαδί-

these arts well is also someone who will be best at nurturing both body and mind.

8. Anyway, the movements in cradles, cots and their own bent arms were discovered by the nursemaids of children. And we might also come in some way to the other issue of what is most essential for the maintenance of health, although Asclepiades opposed and gave the clearest condemnation of exercises, while Erasistratus spoke less vehemently but displayed the same opinion as Asclepiades. But almost all other doctors praise them, not only in regard to a good bodily condition but also in regard to health. There are three primary classes of exercises, and as many differences of movements—those by ourselves, those by other things and those when we are moved through medications. Certainly, the third kind of movement in no way is fitting for those who are healthy. Movement by something else occurs in sailing, horse riding and driving a carriage and, as I said just now, through cradles, cots and the bent arms [of nurses]. For newborn babies there is not yet need, at such a young age, of the movement that arises through carriages, boats and horses. For those who are already three to four years old, it is permissible to bring them to a moderate amount of movement through carriages and boats. When children are seven, they tolerate stronger movements, so they can also accustom themselves to horse riding. Children are first able to move by themselves at a young age when they begin to crawl, and more so when they begin to walk. But they

¹³ ἀπάρξηται add. Ko

39K ζειν· μὴ βιάζεσθαι δὲ αὐτὰ πρὸ τοῦ δέοντος, ὅπως μὴ διαστραφῆ τὰ κῶλα. δηλοῖ μὴν καὶ τῷδε τῆς ἡλικίας, εἰς ὅσον ἡμῶν ἢ φύσις ὠκείωται γυμνασίοις. οὐ γὰρ ἄν, οὐδ' εἰ κατακλείσαις παιδία, οἷός τε εἴης κωλύσαι διαθέειν τε καὶ σκιρτᾶν ὡσαύτως γε τοῖς πώλοις τε καὶ μόσχοις. ἰκανὴ γὰρ ἡ φύσις ἐν ἅπασιν τοῖς ζώοις ὁρμᾶς οἰκείας ἐνθεῖναι πρὸς ὑγείαν τε καὶ σωτηρίαν.

ἀλλ' οἱ περὶ τὸν Ἀσκληπιάδην οὐδὲν τῶν τοιούτων ἐννοήσαντες ἐπὶ πολλῆς σχολῆς σοφίσματα πλέκουσιν, ἐπιδείκνυσθαι πειρώμενοι τὰ γυμνάσια μηδὲν εἰς ὑγείαν συντελοῦντα. πρὸς ἐκείνους μὲν οὖν δὴ καὶ αὐθις εἰρήσεται τὰ εἰκότα, ὡς τῆς ἀδολεσχίας ἐπὶ τέλους εἰρησομένης· πρόκειται γὰρ μοι νῦν οὐ σοφιστῶν ἀδολεσχίας ἐλέγχειν, ἀλλ' αὐτὸ τὸ χρήσιμον εἰς ὑγείαν ἐκδιδάσκειν.

ἐπὶ δὲ τοὺς παῖδας ἐπάνειμι τοὺς ἄριστα κατεσκευασμένους τὸ σῶμα. τούτους δ' εἰκὸς εἶναι καὶ τὸ τῆς ψυχῆς ἦθος ἀμέμπτους· ὡς ὅσοι γε θυμικώτεροι τοῦ δέοντός εἰσιν ἢ ἀθυμότεροί¹⁴ τινες ἢ ἀναισθητότεροι ἢ λιχνότεροι τοῦ προσήκοντος, ἀνάγκη τούτους οὐκ ὀρθῶς κεκρᾶσθαι τοῖς μέρεσιν ἐκείνοις τοῦ σώματος, οἷς ἐνεργοῦμεν ἕκαστα, τῶν εἰρημένων. γέγραπται δ' ὑπὲρ αὐτῶν ἐπὶ πλέον ἐν τοῖς Περὶ τῶν Ἱπποκράτους καὶ Πλάτωνος δογμάτων ὑπομνήμασιν. ἀλλ' ὁ γε νῦν ἡμῖν προκείμενος ἐν τῷ λόγῳ παῖς ἄριστός ἐστι τὰ

¹⁴ post ἀθυμότεροί: ἢ εὐαισθητότεροι, ἢ ἀναισθητότεροι τινες, Ku; τινες ἢ ἀναισθητότεροι Ko

39K should not be forced into walking beyond what is needed lest their legs become distorted. And it is clear, even at this age, to what degree our nature has been made fit for exercises. For even if you were to shut children in, you would not be able to prevent them running about and frolicking like foals and calves. Nature is sufficient to instill in all animals the proper impulses toward health and preservation.

But the followers of Asclepiades, give no consideration to such things and in their great idleness weave sophisms attempting to show that exercises contribute nothing to health. Now to those men I shall say again what is appropriate—let them pursue their idle talk to completion. My task now is not to refute the idle talk of Sophists but to teach what is actually useful for health.

I shall return to the children who are best constituted with respect to the body. It is also right for children that the ethos of the soul is faultless. As there are some who are more high-spirited than they should be, or too faint-hearted, some who are excessively sensitive, or too insensitive or greedy than is appropriate,²⁵ of necessity these have not been properly mixed (i.e., do not have a proper *krasis*) in those parts of the body through which we carry out each of the things mentioned. I have written at greater length about these matters in the treatises *On the Opinions of Hippocrates and Plato*.²⁶ But, in fact, the child now before us in the discussion is the best in all these things.

²⁵ The Kühn text has been followed here.

²⁶ See Galen's *Plac. Hippocr. Plat.*, V.181–805K (English trans., De Lacy, *Galen on the Doctrines of Hippocrates and Plato*, CMG V.4.1.2). See particularly V.181K ff.

40K πάντα. τούτου τοίνυν ἐπανορθοῦσθαι μὲν οὐδὲν χρή
 τῶν τῆς ψυχῆς ἠθῶν, φυλάττειν δ', ὅπως μὴ δια-
 φθαρῇ. φυλάττεται δ' ἅπαν ὑπὸ τῶν αὐτῶν κατὰ γέ-
 νος, ὑφ' ὧν περ καὶ διαφθείρεται. διαφθείρεται δὲ τὸ
 τῆς ψυχῆς ἠθος ὑπὸ μοχθηρῶν ἐθισμῶν ἐν ἐδέσμασι
 τε καὶ πόμασι καὶ γυμνασίοις καὶ θεάμασι καὶ ἀκού-
 σμασι καὶ τῇ συμπάσῃ μουσικῇ. τούτων τοίνυν
 ἀπάντων ἔμπειρον εἶναι χρή τὸν τὴν ὑγιεινὴν τέχνην
 μετιόντα καὶ μὴ νομίζειν, ὡς φιλοσόφῳ μόνῳ προσ-
 ἴκει πλάττειν ἠθος ψυχῆς. ἐκείνῳ μὲν γὰρ δι' ἕτερόν
 τι μείζον τὴν τῆς ψυχῆς αὐτῆς ὑγείαν, ἰατρῶ δὲ ὑπὲρ
 τοῦ μὴ ῥαδίως εἰς νόσους ὑπομεταφέρεσθαι τὸ σῶμα.
 καὶ γὰρ θυμὸς καὶ κλαυθμὸς καὶ ὀργὴ καὶ λύπη καὶ
 πλείον τοῦ δέοντος φροντὶς ἀγρυπνία τε πολλὴ ἐπ'
 αὐτοῖς γενομένη πυρετοὺς ἀνάπτουσι καὶ νοσημάτων
 μεγάλων ἀρχαὶ καθίστανται, ὥσπερ καὶ τοῦναντίον
 ἀργὴ διάνοια καὶ ἄνοια καὶ ψυχὴ παντάπασιν ἄθυμος
 ἀχροΐας καὶ ἀτροφίας ἐργάζεται πολλάκις ἀρρωστία
 τῆς ἐμφύτου θερμότητος. χρή μὲν γὰρ φυλάττειν
 41K ἅπαντος μᾶλλον ἐν ὄροις ὑγιεινοῖς τὴν σύμφυτον
 ἡμῖν θερμότητα. φυλάττεται δὲ ὑπὸ τῶν συμμέτρων
 γυμνασίων οὐ κατὰ τὸ σῶμα μόνον, ἀλλὰ κατὰ τὴν
 ψυχὴν γινομένων. αἱ δ' ἄμετροι κινήσεις ἐν ἐπιθυ-
 μίαις τε καὶ διαλογισμοῖς καὶ θυμοῖς, αἱ μὲν ὑπερ-
 βάλλουσαι χολωδέστερον ἀποφαίνουσι τὸ ζῶον, αἱ δ'
 ἐλλείπουσαι φλεγματικώτερον καὶ ψυχρότερον. καὶ
 δὴ καὶ ταῖς μὲν προτέραις ἔξεσιν οἷ τε πυρετοὶ καὶ
 ὅσα θερμότερα πάθη, ταῖς δ' ἐτέραις ἐμφράξεις καθ'

Accordingly, in him it is not necessary to restore the dis- 40K
 positions of the soul, but to preserve them so they are not
 corrupted. However, everything is preserved by those
 same things in respect of class by which it is also destroyed.
 The ethos of the soul is destroyed by bad habits in foods,
 drinks and exercises, by sights and sounds, and by music
 in general. Therefore, it is necessary for someone who
 practices the art of hygiene to be experienced in all these
 things and not to think it appropriate to mold the ethos of
 the soul by philosophy alone, for he more than anyone else
 is responsible for the health of the soul itself. The doctor,
 on the other hand, is responsible for not allowing the body
 to slip easily into diseases. For passion, weeping, anger,
 grief, unnecessary anxiety, and severe insomnia arising
 from these things kindle fevers and the origins of major
 diseases are established, just as conversely, an idle mind,
 folly and all in all a spiritless soul often produce pallor and
 atrophies through a weakness of the innate heat. For it is 41K
 necessary above all to preserve our innate heat within
 healthy limits. It is preserved by the occurrence of moder-
 ate exercise, not only of the body but also of the mind
 (soul). Immoderate movements occur in passions, argu-
 ments and anger. Movements that are excessive render the
 animal more bilious; those that are deficient render the
 animal more phlegmatic and cold. And furthermore, in
 the former states, the fevers and those affections that are
 hotter all occur, while in the latter there are obstructions

ἤπάρ τε καὶ σπλάγχνα, ἐπιληψίαί τε καὶ ἀποπληξίαί
ἢ τι τοιοῦτον ἄλλο,¹⁵ καὶ συνελόντα φάναι, τὰ καταρ-
ροϊκά τε καὶ ρευματικὰ νοσήματα, συμπίπτει πάντα.
καὶ οὐκ ὀλίγους ἡμεῖς ἀνθρώπους νοσοῦντας ὅσα ἔτη
διὰ τὸ τῆς ψυχῆς ἠθος ὑγιεινοὺς ἀπεδείξαμεν, ἐπανορ-
θωσάμενοι τὴν ἀμετρίαν τῶν κινήσεων.

οὐ σμικρὸς δὲ τοῦ λόγου μάρτυς καὶ ὁ πάτριος
ἡμῶν θεὸς Ἀσκληπιός, οὐκ ὀλίγας μὲν ᾠδὰς τε γρά-
φειν καὶ μίμους γελοίων καὶ μέλη τινα ποιεῖν ἐπι-
τάξας, οἷς αἱ τοῦ θυμοειδοῦς κινήσεις σφοδρότεραι
γενόμεναι θερμότεραν τοῦ δέοντος ἀπειργάζοντο τὴν
42K κρᾶσιν τοῦ σώματος, ἑτέροις δέ τισιν, οὐκ ὀλίγοις
οὐδὲ τούτοις, κυνηγετεῖν καὶ ἱππάζεσθαι καὶ ὀπλομα-
χεῖν. εὐθὺς δὲ τούτοις διώρισε τό τε τῶν κυνηγεσίων
εἶδος, οἷς τοῦτο προσέταξε, τό τε τῆς ὀπλίσεως, οἷς
δι' ὀπλων ἐκέλευσε τὰ γυμνάσια ποιεῖσθαι. οὐ γὰρ
μόνον ἐπεγείρειν αὐτῶν τὸ θυμοειδὲς ἐβουλήθη, ἄρ-
ρωστον ὑπάρχον, ἀλλὰ καὶ μέτρον ὠρίσατο τῇ τῶν
γυμνασίων ιδέα. οὐ γὰρ ὡσαύτως θήγεται τὸ θυμοει-
δὲς εἰς ἀγρίους ὕς ἢ ἄρκτους ἢ ταύρους ἢ τι τῶν
οὕτως ἀλκίμων θηρίων ἢ ἐπὶ λαγωὺς ἢ δορκάδας ἢ
τι τῶν οὕτω δειλῶν, οὐδ' ὡσαύτως ἐπὶ τε τῆς κούφης
ὀπλίσεως καὶ τῆς βαρείας, ὥσπερ οὐδὲ ἐν τῷ θείῳ
ὠκέως ἢ μετρίως κινεῖσθαι καὶ μετὰ τοῦ φιλονεικεῖν
ἑτέροις ἢ καθ' ἑαυτόν. οὕτω δὲ καὶ τῶν μέγα κεκρα-

¹⁵ ἢ τι τοιοῦτον ἄλλο, add. Ko

involving the liver and internal organs, epilepsies and
apoplexies or something else of this sort, and generally
speaking, catarrhal and rheumatic diseases all happen.
And every year we make many people, who are diseased
in terms of the ethos of the soul, healthy when we correct
the imbalance of movements.

A significant witness of this argument is our ancestral
god, Asclepius,²⁷ who ordered a number of odes to be
written and humorous mimes and certain lyrics to be
created, in which more violent movements of someone
who was passionate made the *krasis* of the body hotter
than it should be, while for certain others, and there were
quite a few of them, [there was] hunting, horse riding and
practicing the use of arms [that did the same]. He imme-
diately determined the kind of hunting for those whom he
ordered to hunt, and the arms for those whom he ordered
to carry out the military exercises. For not only did he wish
to stir up their passion when it was weak, but also to es-
tablish a limit of moderation in the kind of exercises. For
passion is not aroused in the same way against wild boars,
bears, bulls, and other similarly strong wild animals as it is
in the case of hares and deer, and some other timid ani-
mals. Nor is it similar in the case of light and heavy arms,
just as it is not in running swiftly or moving moderately,
nor with liking to contend against others or against one-

42K

²⁷ Asclepius (Aesculapius in Latin) was the legendary god of healing, featuring first in the works of Homer and Hesiod. The two accounts in the OCD (under the Greek and the Latin names) give a good account of his significance and alleged activities. See also E. J. and L. Edelstein, *Asclepius: A Collection and Interpretation of the Testimonies* (1943).

γότων ἢ ἐγκελευομένων τε καὶ παροξυνόντων ἐπὶ τοὺς
πόνους ἢ σιωπώντων οὐκ ὀλίγον διαφέρει. ἀλλὰ περὶ
μὲν τούτων ἐν τοῖς ἔπειτα λόγοις ἐπὶ πλέον εἰρήσεται.

τὰ δὲ σμικρὰ παιδία τὰ τὴν ἀρίστην ἔχοντα κρᾶσιν
(ὑπὲρ τούτων γὰρ ἦν ὁ λόγος) οὐκ ὀλίγης ἐπιμελείας
43K δείται πρὸς τὸ μηδεμίαν ἐν αὐτοῖς τῆς ψυχῆς ἄμετρον
γίνεσθαι κίνησιν· ἄτε γὰρ οὐδέπω λόγῳ χρώμενα τῷ
κλαίειν τε καὶ κεκραγένοι καὶ θυμοῦσθαι καὶ κινεῖν
ἀτάκτως ἑαυτὰ διασημαίνει τὴν ἀνίαν. ἡμᾶς οὖν χρῆ
στοχαζομένους, ὅτου δείται, παρέχειν ἐκάστοτε τοῦτο,
πρὶν αὐξηθεῖσαν αὐτῶν τὴν λύπην εἰς σφοδροτέραν
καὶ ἄτακτον κίνησιν ὅλην ἐμβαλεῖν τὴν ψυχὴν ἅμα
τῷ σώματι· ἦτοι γὰρ ἐξ ἑαυτῶν ὀδαξούμενα ἢ πρὸς
τινος ἔξωθεν ἀνιώμενα ἢ ἀποπατεῖν ἢ οὐρεῖν ἢ ἐσθίειν
ἢ πίνειν ἐθέλοντα κλαίει τε καὶ κινεῖται πλημμελῶς,
ὥσπερ σφαδάζοντα. γένοιτο δ' ἂν ποτε καὶ θάλπους
ἐπιθυμῖν αὐτὰ κρύει ταλαιπωρούμενα καὶ ἀναψύξεώς
τινος ὑπὸ θάλπους ἀμέτρον διοχλούμενα καὶ ποτε μὴ
φέροντα τὸ πλῆθος τῶν ἐπιβεβλημένων ἱματίων· ἀνιᾶ
γὰρ δὴ καὶ τοῦτο πολλάκις οὐ σμικρὰ, καὶ μάλιστα
κατὰ τὰς ὑποστροφὰς ὅλου τοῦ σώματος καὶ τὰς τῶν
κώλων κινήσεις. ἀλλὰ καὶ αὐτὸ τὸ ἡσυχάζειν ἐπὶ
πλέον οὐ σμικρῶς λυπηρόν· οὐδενὸς γὰρ ἀμετρία
χαίρει ζῶον οὐδέν, ἀλλ' αἰεὶ τοῦ συμμέτρον χρήζει.
44K σύμμετρον δὲ οὐχ ἐν ἅπασιν, ἀλλ' ἐν τῷ πρὸς τι
πᾶσα συμμετρία. διὸ χρῆ τὸν ἐπιμελούμενον ἀνατρο-
φῆς παιδίων, στοχαστικὸν ἀκριβῶς ὑπάρχοντα τοῦ
συμμέτρον τε καὶ οἰκείου, παρέχειν ἐκάστοτε τοῦτο,

self. And it makes no little difference to those exercising
whether the onlookers shout loudly, urging and spurring
them on or are silent. But I shall say more about these
things in the discussions that follow.

Small children, who have the best *krasis* (for the argu-
ment was about them), need no little care so that no im-
moderate activity of the mind (soul) occurs in them. Inas-
43K much as they do not yet have the use of speech, they show
their distress by crying, calling out, becoming restive, and
moving themselves in a disorderly fashion. It behooves us,
then, to work out what they need and provide it on each
occasion before their distress is increased to the point of
throwing the entire soul along with the body into more
violent and disorderly movement. For when they either
feel irritation from something within themselves, or are
distressed by something external, or wish to defecate, uri-
nate, eat or drink, they cry and move in a disorderly way,
as if they are struggling. It also happens sometimes that,
being distressed by cold, they desire heat, or troubled
greatly by excessive heat, they desire some cooling, and on
occasion cannot bear the number of coverings put on
them. For this often distresses them to no small degree,
and particularly in relation to turning the body as a whole
or moving the limbs. But also actual silence, if it is exces-
sive, is distressing to no small degree, for no animal takes
pleasure in anything immoderate—there is always the
need for moderation. However, moderation is not one and
44K the same for all things; every moderation is in relation to
something. Accordingly it is necessary for someone who
has charge of rearing children to calculate precisely what
is moderate and fitting, and provide this on each occasion

πρὶν αὐξηθεῖσαν αὐτῷ τὴν λύπην εἰς ἀμετρίαν κινή-
σεως ἐμβαλεῖν τό τε σῶμα καὶ τὴν ψυχὴν· εἰ δ' ἄρα
ποτὲ καὶ λάθοι τὸ λυποῦν αὐξηθέν, ἐπανορθοῦσθαι
πειρᾶσθαι τὴν λύπην αὐτῷ τε τῷ παρέχειν αὐτίκα τὸ
ἐπιθυμηθὲν ἢ ἐκκόπτειν τὸ ἀνιῶν ἔτι τε τῇ κινήσει τῇ
διὰ τῶν ἀγκαλῶν καὶ τοῖς μέλεσι τῆς φωνῆς, οἷς εἰώ-
θασιν αἱ σοφώτεροι τῶν τροφῶν χρῆσθαι.

ἐγὼ γοῦν ποτε δι' ὅλης ἡμέρας παιδίου κλαίουτός
τε καὶ θυμουμένου καὶ σφοδρῶς καὶ ἀτάκτως ἐαυτὸ
μεταβάλλοντος ἐξεύρον τὸ λυποῦν ἀπορουμένης τῆς
τροφοῦ· ὡς γὰρ οὔτε πρὸς τὸν τιτθὸν ἐντεθειμένου
οὔτε προῖσχομένης αὐτὸ τῆς τρεφούσης, εἰ ἀποπατεῖν
ἢ οὐρεῖν ἐθέλοι, καθίστατο, παρηγορεῖτο δ' οὐδέν,
οὐδ' ὁπόταν ἐν ταῖς ἀγκάλαις ἐνθεμένη κατακλίνειν
ἐπιχειρήσειεν, ἐθεασάμην δ' ἐγὼ¹⁶ τὴν στρωμνὴν αὐ-
τοῦ καὶ τὰ περιβλήματά τε καὶ ἀμφιέσματα ῥυπαρώ-
τερα καὶ αὐτὸ τὸ παιδίον ἤδη ῥυπῶν τε καὶ ἄλουτον,
ἐκέλευσα λουσαί τε καὶ ἀπορρῦσαι καὶ τὴν στρωμνὴν
ὑπαλλάξαι, καὶ πᾶσαν τὴν ἐσθῆτα καθαρωτέραν ἐρ-
γάσασθαι καὶ τούτων γενομένων, αὐτίκα μὲν ἐπαύ-
σατο τῶν ἀμέτρων κινήσεων, αὐτίκα δὲ καθύπνωσεν
ἡδιστόν τε καὶ μακρότατον ὕπνον. εἰς δὲ τὸ καλῶς
ἐστοχάσθαι πάντων τῶν ἀνιῶντων τὸ παιδίον οὐκ ἀγ-
χινοίας μόνον, ἀλλὰ καὶ τῆς περὶ τὸ τρεφόμενον αὐτὸ
συνεχοῦς ἐμπειρίας ἐστὶ χρεία.

9. Ταῦτ' οὖν ἅπαντα περὶ τὸ παιδίον εἰς τρίτον ἔτος
ἀπὸ τῆς πρώτης γενέσεως ἀξιῶ πραγματεύεσθαι καὶ
πρὸς τούτοις ἔτι τῆς τρεφούσης αὐτὸ οὐ σμικρὰν ποι-

before the distress in the child is increased to the point of
throwing the body and soul into an imbalance of move-
ment. And if the increase in distress has for a time escaped
notice, attempt to correct the distress in the child by im-
mediately providing what is desired or removing what is
distressing, and as well as this, with movement by rocking
in the bent arms and modulations of the voice, which the
more skilled nurses are accustomed to use.

At all events, on one occasion, when a baby was crying,
restive and turning itself about in a violent and disorderly
fashion for a whole day, and the nurse was at a loss, I my-
self discovered what was distressing it. For when he didn't
settle when the nipple was put in his mouth or when the
nurse held him out in front of her to see if he wanted to
defecate or urinate, and nothing consoled him, not even
when she attempted to lay him down after rocking him in
her arms, I saw that his bed and its coverings, as well as
his clothes, were rather soiled, and the baby himself was
dirty and unwashed. I directed her to wash and clean him
thoroughly, change the bed, and make all the clothing
cleaner. Once these things had happened, he immediately
stopped the excessive movements and straightway fell into
a very sweet and very prolonged sleep. In properly evalu-
ating all the things that distress a young child, not only is
there need of wisdom but also of a long-continuing experi-
ence in nursing itself.

9. I think it is important to take the trouble to do all
these things concerning the child up to the third year from
birth, and in addition to these, the nurse should give no

¹⁶ ἐγὼ add. Ko

εἶσθαι πρόνοιαν ἐδεσμάτων τε πέρι καὶ πομάτων, ὕπνων τε καὶ ἀφροδισίων καὶ γυμνασίων, ὡς ἂν ἀριστον εἴη τὴν κρᾶσιν τὸ γάλα. γίνοιτο δ' ἂν τοιοῦτον, εἰ τὸ αἷμα χρηστότατον εἴη. ἔστι δὲ χρηστότατον τὸ μήτε πικρόχολον μήτε μελαγχολικὸν μήτε φλεγματώδες μήτ' ὀρρώδει τινὶ μήθ' ὑδατώδει συμμιγῆς ὑγρότητι. γεννᾶται δὲ τοιοῦτον ἐπὶ τε τοῖς συμμέτροις γυμνάσμασι καὶ τροφαῖς εὐχύμοις τε ἅμα καὶ κατὰ καιρὸν τὸν προσήκοντα καὶ κατὰ μέτρα τὰ δέοντα λαμβανομέναις, ὡσπερ οὖν καὶ ἐπὶ πόμασιν εὐκαίροις τε καὶ μετρίοις· ὑπὲρ ὧν ἀπάντων ἐν τοῖς ἔπειτα λόγοις ἀκριβῶς διορισθήσεται.

ἀφροδισίων δὲ παντάπασιν ἀπέχεσθαι κελεύω τὰς θηλαζούσας παιδιά γυναῖκας. αἱ τε γὰρ ἐπιμήνιοι καθάρσεις αὐταῖς ἐρεθίζονται μιγνυμέναις ἀνδρί, καὶ οὐκ εὐώδες ἔτι μένει τὸ γάλα. καὶ τινες αὐτῶν ἐν γαστρὶ λαμβάνουσιν, οὗ βλαβερώτερον οὐδὲν ἂν εἴη παιδίῳ γάλακτι τρεφομένῳ. δαπανᾶται γὰρ ἐν τῷδε τὸ χρηστότατον τοῦ αἵματος εἰς τὸ κνούμενον. ἅτε γὰρ ἀρχὴν ζωῆς ἐν ἑαυτῷ ἰδίαν περιέχον, ὑπὸ ταύτης τε διοικεῖται καὶ διὰ παντὸς ἐπισπᾶται τὴν οἰκίαν τροφήν ὡσανεὶ ἐνεργιζωμένον τε τῇ μήτρᾳ καὶ ἀχώριστον ὑπάρχον ἀεὶ νύκτωρ τε ἅμα καὶ μεθ' ἡμέραν ἔλαττόν τε εἰκότως ἐν τῷδε καὶ φαυλότερον ἀποτελείται τὸ τῆς κνύσης αἷμα, καὶ διὰ τοῦτο καὶ τὸ γάλα μοχθηρόν τε καὶ ὀλίγον ἐν τοῖς τιτθοῖς ἀθροίζεται. ὥστε ἔγωγε βουλεύσαιμ' ἂν, εἰ κνήσειεν ἢ θηλάζουσα τὸ παιδίον, ἑτέραν ἐξευρίσκειν τροφόν, ἐπι-

little forethought to her own food and drink, her sleep, sexual activity and exercises, so that her milk is the best in terms of *krasis*. Such a thing would occur if her blood were at its very best—that is, neither picrocholic, melancholic, phlegmatic, whey-like, nor mixed with some other watery fluid. Such blood is produced by moderate exercises, nutriments that are *euchymous* and taken at the appropriate time and in the necessary amount, just as also by drinks that are timely and moderate. All these things will be precisely defined in the discussion that follows.

I direct women who are nursing (i.e., providing milk for) little children to abstain from sexual activity altogether. The menstrual flow is stirred up by sexual intercourse and the milk no longer remains sweet. And some women become pregnant; nothing is more harmful than this for the infant being nourished by their milk. In this case, the best of the blood is used up in the fetus, inasmuch as the origin of life is specifically contained in the blood itself and is provided for by this. Throughout, [the fetus] draws the proper nutrition as if it is rooted in the uterus and always inseparable, both night and day. Because of this, the blood of the pregnant woman becomes less suitable and of poorer quality, and also on this account, the milk is in a bad state and little is collected in the breasts. As a consequence, I myself would recommend that, if a woman nursing an infant should become pregnant, another nurse

σκεπτομένους τε καὶ δοκιμάζοντας αὐτῆς ἀκριβῶς τὸ γάλα γεύσει καὶ ὄψει καὶ ὀσφρήσει. καὶ γὰρ γενομένοις καὶ ὀσμωμένοις ἡδὺ καὶ θεωμένοις¹⁷ λευκόν τε καὶ ὀμαλὸν καὶ μέσως ἔχον ὑγρότητός τε καὶ παχύτητος ὀφθήσεται τὸ ἄριστον γάλα· τὸ δὲ μοχθηρὸν ἢ τοῦ παχὺ καὶ τυρωδέστατον ἢ ὑγρὸν καὶ ὀρρώδες καὶ πελιδνὸν καὶ ἀνώμαλον ἐν συστάσει καὶ χροίᾳ καὶ γενομένοις πικρότατον καὶ ἄλμης ἢ τινος ἑτέρας ἀλλοκότου ποιότητος ἔμφασιν παρέξει· τὸ δὲ τοιοῦτον οὐδὲ πρὸς τὴν ὀσμὴν ἡδύ. ταῦτα μὲν ἔστω σοι γνωρίσματα μοχθηροῦ τε καὶ χρηστοῦ γάλακτος, οἷς τεκμαιρόμενος, ὅταν ἢ διὰ κύησιν ἢ καὶ νόσημά τι περὶ τὴν μαίαν¹⁸ γενόμενον ἐφ' ἑτέραν ἀνάγκη τροφὸν ἰέναι, τὴν κρίσιν τε καὶ τὴν αἴρεσιν αὐτῆς ποιείσθαι.

48K 10. Τρέφειν δὲ τὸ παιδίον τὰ μὲν πρῶτα γάλακτι μόνῳ· ἐπειδὰν δ' ἐκφύσῃ τοὺς πρόσθεν ὀδόντας, ἐθίζειν ἤδη πῶς αὐτὸ καὶ τῆς παχυτέρας ἀνέχεσθαι τροφῆς, ὥσπερ οὖν καὶ τοῦτο αὐτὸ τῇ πείρᾳ διδαχθεῖσαι ποιούσιν αἱ γυναῖκες, ἄρτου μέντοι πρῶτον, ἔπειτα δ' ὀσπρίων τε καὶ κρεῶν ὅσα τ' ἄλλα τοιαῦτα προμασώμεναι καὶ ἐντιθεῖσαι τοῖς στόμασι τῶν παιδίων. ἀνατρίβειν δὲ χρὴ τὸ σῶμα τῶν βρεφῶν ἐλαίῳ γλυκεῖ, καθάπερ τοῦτ' αὐτὸ ποιούσιν ἐπιτηδείως αἱ πλείσται τῶν τροφῶν εὐθὺς ῥυθμίζουσαί τε καὶ διαπλάττουσαι τὰ μόρια. ἀλλ' ἐπὶ γε τοῦ νῦν ὑποκειμένου κατὰ τὸν λόγον παιδίου, τὴν κατασκευὴν τοῦ σώματος ἀμέμπτως ἔχοντος, οὐδὲν χρὴ περιεργάζεσθαι τὴν τροφὸν εἰς γε τὴν τῶν μελῶν εὐρυθμίαν, ἀλλ' ἀνατρίβειν τε

should be found, considering and assuming her milk would be altogether better in taste, appearance and odor. And for those tasting and smelling the sweetness and looking at it, the best milk will be seen as white and uniform, and is midway between watery and thick. Poor milk is either thick and very cheesy, or watery and whey-like, livid and variable in consistency and color, and is very bitter to those tasting it. And it will give the impression of saltiness or some other unusual quality. Such milk is not sweet to the smell. Take these as your signs of bad and good milk and base your judgment on them. Whenever either pregnancy or some disease is present involving the nurse and it is necessary to go on to another nurse, make the decision and choice on this.

10. Nourish the infant with milk alone at first. When he cuts his first teeth, accustom him to some degree to go on to tolerate thicker food, just as women, taught by experience, do—bread first, then pulses and meat and other such things, chewing them beforehand, then putting them into the mouths of the infants. One ought to rub the body of infants with sweet oil, just as the majority of nurses deliberately do, immediately shaping and molding the parts. But in the case of the child now under discussion—that is, one who has a faultless constitution of the body—the nurse must not be overly officious regarding orderly movements of the limbs, but should rub them moderately

48K

¹⁷ καὶ θεωμένοις *add.* Ko

¹⁸ *post* νόσημά: τι περὶ τὴν μαίαν Ko; τί ἐστι περὶ τὴν μητέρα Ku

τὰ μέτρια καὶ λούειν ὀσημέραι, καθόσον οἶόν τε μὴ περιεχομένου γάλακτος ἀπέπτου κατὰ τὴν γαστέρα· κίνδυνος γὰρ ἀναληφθῆναι τοῦτο πρὶν πεφθῆναι καλῶς εἰς ὅλον τὸ σῶμα τοῦ παιδίου. πολὺ δὲ δὴ μάλλον, εἰ καὶ τὴν γαστέρα τις αὐτὴν ἀνατρίβῃ γάλακτος μεστήν, ἐμπλήσει τε τὸ σῶμα τροφῆς ἀπέπτου πληρώσει τε τὴν κεφαλὴν. διὸ χρὴ πολλὴν πρόνοιαν πεποιῆσθαι τοῦ μὴ λαμβάνειν τὴν τροφήν τὸ παιδίον μήτε πρὸ λουτρῶν μήτε πρὸ τῶν ἀνατρίψεων.

49K γένοιτο δ' ἂν τοῦτο, παραφυλαττούσης ἀκριβῶς τῆς τροφῆς τὸν ἐπὶ τοῖς μακροτέροις ὕπνοις καιρόν· ἐν τούτῳ γὰρ μάλιστα τὴν κοιλίαν ἤτοι παντάπασιν κενὴν ἢ πεπεμμένην ἤδη τὴν τροφήν περιέχουσαν εὐρεῖν ἔστιν, οὐδ',¹⁹ ὥσπερ νῦν ποιοῦσι²⁰ ἔναι μὲν τῶν τροφῶν, ἓνα τινὰ χρόνον ἀφορίσασαι τῆς ἡμέρας, ἔναι δ',²¹ ὅταν αὐταὶ σχολάσωσι, [τοῦ] τηνικαῦτα προνοούμεναι· διότι πολλάκις ἀναγκαῖόν ἐστι βλάπτεσθαι τὰ παιδιά ἢ περὶ ὠφελείσθαι. ὁ γὰρ ὑφ' ἡμῶν ἀφοριζόμενος καιρὸς ἄλλοτε εἰς ἄλλον ἐμπίπτει χρόνον ἢτοι τῆς ἡμέρας ἢ τῆς νυκτός. ἐπὶ μέντοι τῶν μειζόνων ἤδη παιδίων, ὅσα καὶ πληγαῖς καὶ ἀπειλαῖς ἐπιπλήξασί τε καὶ νουθετήσεσι πείθεται, καιρὸς ἂν εἴη διττὸς εἰς ἀνάτριψιν τε καὶ λουτρόν· ὁ μὲν πρότερός τε καὶ ἄριστος, ἐπειδὴν ἐξαναστάντα τῶν ἐπιπλήξεων ὕπνων, εἶτα παίξαντα τροφήν αἰτῆ. τότε γὰρ ἐπιτίθεσθαι μάλιστα αὐτοῖς χρὴ, τὸ μὲν σῶμα πρὸς ὑγίαν τε ἅμα καὶ εὐεξίαν ἀσκοῦντας, τὴν δὲ ψυχὴν εἰς εὐπείθειάν τε καὶ σωφροσύνην, οὐκ ἄλλως παρ-

and bathe [the infant] every day, as far as possible when no unconcocted milk is contained in the stomach, for there is a danger of this being taken up into the whole body of the infant before it is properly concocted. And much more, if someone were to rub the stomach itself while it is full of milk, this will fill the body with unconcocted food and fill up the head. Accordingly, it is necessary to have given considerable care to the infant not taking nourishment either before bathing or before massage.

This will occur if the nurse pays very close attention to the time after longer sleeps. At this time particularly, the belly is found to be either entirely empty or to contain food that has already been concocted. Do not, as some nurses now do, designate one particular time of day [for feeding], or as others do, who only provide nutriment when they have time. Accordingly, often and inevitably, the infants are harmed rather than helped. The appropriate time I am defining may fall at one time or another, either during the day or during the night. However, in children who are already bigger—those who are prevailed upon by blows, threats, rebukes and admonitions—there may be two different times for rubbing and bathing. The first and best is when children, after getting up from their early morning sleep and then playing, want food. For at that time we should apply ourselves to them especially, and we can train the body toward health and, at the same time, a good state, and the mind to obedience and

¹⁹ οὐδ' Κο; εἰ δ' Κυ

²⁰ ποιοῦσι Κο; ποιοῦσι, βλάπτουσιν Κυ

²¹ post ἔναι δ';: ὅταν αὐταὶ σχολάσωσι, [τοῦ] τηνικαῦτα Κο; ὅταν σχολάσωσι, τὸ τηνικαῦτα Κυ

50K ἔξειν αὐτοῖς τὴν τροφήν φάσκοντας, εἰ μὴ προθύμως ἐπακούσαιεν, εἰς ὅσον ἂν ἐθέλωμεν ἡμεῖς, ἀνατρίψασί τε καὶ λουτροῖς. οὗτος μὲν οὖν ὁ ἄριστος καιρός.

εἰ δέ τις ἀσχολία τὸν τρέφοντα τὸ παιδίον ἀπάγει, μέτριον ἄρτου δόντα παίζειν ἐπιτρέπειν, εἰς ὅσον ἂν βούληται, κάπειτ' αὐθις αἰτῆσαν αὐτὸ τηνικαῦτα τρίβειν τε καὶ λούειν. οὐ μὴν πίνειν γε ἐπιτρεπτέον ποτὲ αὐτοὺς πρὸ τῶν λουτρῶν ἐπὶ τοῖς σιτίοις· ἀθροωτέρα γὰρ ἂν οὕτως ἢ ἀνάδοσις εἰς τὸ σῶμα τῶν ἐν τῇ γαστρὶ περιεχομένων γένοιτο. χρὴ δὲ ἐπὶ τῶν ἀμέμπτως ὑγιαίνοντων σωμάτων φυλάττεσθαι τοῦτο. μεμπτέαι γὰρ αἱ τοιαῦται διαθέσεις τε καὶ κατασκευαὶ τῶν σωμάτων εἰσὶν, ἐφ' ὧν ἄμεινόν ἐστι πρὸ τῶν λουτρῶν διδόναι σιτία. καὶ διορισθήσεται περὶ αὐτῶν ἐν τοῖς ἔπειτα λόγοις· ἀλλὰ νῦν γε τῆς ὑποθέσεως μνημονευτέον ἐστίν, ὡς τὸν ἄριστα σώματος ἔχοντα παῖδα διαιτῶμεν, ὅπως ἡμῖν φυλάττοιτο τοιοῦτος. ἐφ' οὗ βέλτιόν ἐστιν ἡγεῖσθαι τὰ λουτρά τῶν σιτίων· εἰ δ' ἐν τοιούτῳ χωρίῳ τρέφοιτο ὁ παῖς, ἐν ᾧ βαλανεῖον οὐκ ἔνεστιν (ἴσως μὲν οὖν οὐδ' ὀμιλήσουσι τοῖσδε τοῖς γράμμασιν οἱ τοιοῖδε), λούουσι μὲν ἐν σκάφαις αἱ τροφοὶ κἀνταῦθα τοὺς παῖδας, ἕως ἂν εἰς τὸ δεύτερον ἢ καὶ τρίτον ἔτος ἀπὸ γενετῆς ἐξίκωνται μείζονας δὲ γενομένους, εἰ καὶ μὴ καθ' ἑκάστην ἡμέραν, ἀλλὰ καὶ διὰ τρίτης γέ που καὶ τετάρτης ἀλείφουσίν τε καὶ ἀνατρίβουσιν· εἰ δὲ μὴ κωλύοι τὰ τῆς ὥρας, αἱ λίμναι τε καὶ οἱ ποταμοὶ λουτρὸν αὐτοῖς εἰσιν, οἷόν περ ἡμῖν τὸ βαλανεῖον.

moderation, saying we will not otherwise provide food for them unless they readily consent to rubbing and bathing to the extent we might wish. This, then, is the best time. 50K

If, however, some business calls the nurse who is attending the child away, after giving him a moderate amount of bread, he should be allowed to play as much as he wants, and then rub and bathe him at such a time as he wants food again. One must not permit children to drink after eating before their bath, for in this way the distribution to the body of the things contained in the stomach would occur in too concentrated a fashion. It is necessary to keep to this in bodies that are perfectly healthy. There are those conditions and constitutions of bodies that are faulty; in these, it is better to give food before a bath. I shall distinguish these in the discussions that follow. But now we must recall what the proposal is—that we should provide a regimen for the child having the best body so that we might preserve it as such. In this case it is better for the bath to precede food. If, however, the child is being brought up in the sort of place in which there is not a bathing room, (although perhaps such people would not come into contact with these writings), nurses in this situation bathe the children in basins until they reach the second or third year from birth. When the children become bigger, they anoint and massage them, if not every day, at least every three or four days. And unless the time of year prevents it, pools and rivers are a bath for them, just as the bathing room is to us. 51K

παρὰ μὲν γε τοῖς Γερμανοῖς οὐ καλῶς τρέφεται τὰ
 παιδία. ἀλλ' ἡμεῖς γε νῦν οὔτε Γερμανοῖς οὔτε ἄλλοις
 τισὶν ἀγρίοις ἢ βαρβάροις ἀνθρώποις ταῦτα γράφο-
 μεν, οὐ μᾶλλον ἢ ἄρκτοις ἢ λέουσι ἢ κάπροις ἢ τισὶ
 τῶν ἄλλων θηρίων, ἀλλ' Ἑλλησι καὶ ὅσοι τῷ γένει
 μὲν ἔφυσαν βάρβαροι, ζηλοῦσι δὲ τὰ τῶν Ἑλλήνων
 ἐπιτηδεύματα. τίς γὰρ ἂν ὑπομείναιε τῶν παρ' ἡμῶν
 ἀνθρώπων εὐθὺς ἅμα τῷ γεννηθῆναι τὸ βρέφος ἐπι-
 θερμὸν ἐπὶ τὰ τῶν ποταμῶν φέρειν ῥεύματα, καὶ
 ταῦθα, καθάπερ φασὶ τοὺς Γερμανούς, ἅμα τε πείραν
 αὐτοῦ ποιείσθαι τῆς φύσεως ἅμα τε κρατύνειν τὰ
 σώματα, βάπτοντας εἰς τὸ ψυχρὸν ὕδωρ ὥσπερ τὸν
 διάπυρον σίδηρον; ὅτι μὲν γάρ, ἐὰν ὑπομείνη τε καὶ
 52K μὴ βλαβῆ, καὶ τὴν ἐκ τῆς οἰκείας φύσεως ἐπεδείξατο
 ῥώμην καὶ τὴν ἐκ τῆς πρὸς τὸ ψυχρὸν ὁμιλίας ἐπεκτή-
 σατο, πρόδηλον πάντως· ὅτι δ', εἰ νικηθείη πρὸς τῆς
 ἔξωθεν ψύξεως ἢ ἔμφυτος αὐτοῦ θερμότης, ἀναγκαῖον
 αὐτίκα τεθνάναι, καὶ τοῦτ' οὐδεὶς ἀγνοεῖ. τίς οὖν ἂν
 ἔλοιτο νοῦν ἔχων καὶ μὴ παντάπασιν ἄγριος ὢν καὶ
 Σκύθης εἰς τὴν τοιαύτην πείραν ἀγαγεῖν αὐτοῦ τὸ
 παιδίον, ἐν ᾗ θάνατός ἐστιν ἢ ἀποτυχία, καὶ ταῦτα
 μηδὲν μέγα τι μέλλων ἐκ τῆς πείρας κερδανεῖν; ὄνω
 μὲν γὰρ ἴσως ἢ τινι τῶν ἀλόγων ζώων ἀγαθὸν ἂν εἴη
 μέγιστον, οὕτω πυκνὸν καὶ σκληρὸν ἔχειν δέρμα, ὡς
 ἀλύπως φέρειν τὸ κρύος· ἀνθρώπῳ δέ, λογικῷ ζῳῷ, τί
 ἂν εἴη μέγα τὸ τοιοῦτον; οὐδὲ γὰρ εἰς ὑγείαν ἀπλῶς
 οὕτως λέγων ἂν τις ἐπιτήδειον ὑπάρχειν τὸ πυκνότα-
 τον καὶ σκληρότατον δέρμα δεόντως ἂν εἴποι. διττῆς

Among the Germans, the little children are not nur-
 tured well. But I am not now writing these things for
 Germans or other wild and barbaric people, any more than
 I am for bears, lions or wild boars, or any other wild ani-
 mals, but for Greeks and for those born barbarians in race
 who emulate the practices of the Greeks. For who, of
 those dwelling among us, would tolerate an infant, still
 warm from the birth, being immediately carried to the
 flowing waters of a river, and there, as they say the Ger-
 mans do, in an attempt to test its nature and at the same
 time strengthen its body by dipping it into cold water, like
 red-hot iron? Because, on the one hand, if it survives and
 52K suffers no harm, it is clear at any rate that it has both
 demonstrated the strength of its own nature and has
 gained in addition further strength from the contact with
 the cold. On the other hand, no one is unaware of the fact
 that, if the innate heat of the infant were to be overcome
 by the external cold, it will inevitably die immediately.
 Who then, in his right mind, who was not a total savage
 and a Scythian, would choose to subject his own infant to
 such a test in which failure means death and nothing of
 significance will be gained from surviving the test? Per-
 haps it might be a great good for an ass or some of the
 other irrational animals to have a thick and hard skin so as
 to be able to bear the cold without distress, but for man,
 a rational animal, what would be great about such a thing?
 Speaking purely and simply of health, no one would be
 obliged to say that the thickest and hardest skin is needed.

53K γὰρ οὕσης βλάβης τοῖς τῶν ζώων σώμασιν, ἑτέρας
 μὲν ἀπὸ τῶν ἔξωθεν αἰτίων, ἑτέρας δὲ ἀπὸ τῶν ἔνδο-
 θεν, εὐάλωτόν ἐστι τοῖς μὲν ἔξωθεν πάσιν, ὧν μαλα-
 κόν ἐστι καὶ ἀραιὸν τὸ δέρμα, τοῖς δὲ ἔνδοθεν, ὧν
 πυκνόν τε καὶ σκληρόν.

καὶ διὰ τοῦθ' Ἱπποκράτης περὶ τῶν ἀπὸ τροφῆς ἐν
 ἡμῖν ἐπ' ὠφελείᾳ τε καὶ βλάβῃ γινομένων διδάσκων
 ἐπ' ἄλλοις πολλοῖς καὶ τοῦτ' ἔγραψεν. "ἀραιότης σώ-
 ματος ἐς διαπνοήν, οἷσι πλέον ἀφαιρέεται, ὑγιεινό-
 τερον, οἷσι δ' ἔλασσον, νοσερώτερον." βέλτιον οὖν
 ἑκατέρας πεφυλάχθαι τὰς ὑπερβολὰς καὶ μήτ' εἰς
 τοσοῦτον πυκνὸν τὸ δέρμα παρασκευάζειν, ὡς κω-
 λύνει διαπνεῖσθαι καλῶς, μήθ' οὕτως ἀραιόν, ὡς ὑπὸ
 παντὸς αἰτίου τῶν ἔξωθεν αὐτῷ προσπιπτόντων ἐτοί-
 μως βλάπτεσθαι. τοιοῦτον δὲ καὶ φύσει ἐστὶ τὸ σῶμα
 τοῦ νῦν ἡμῖν προκειμένου τῷ λόγῳ παιδίου, μέσον
 ἀπασῶν τῶν ὑπερβολῶν. οὕτως οὖν αὐτὸ διαιτητέον,
 ὡς φυλάττειν αἰεὶ τῆς κατασκευῆς τὴν ἀρετήν. φυλα-
 χθήσεται δέ, κατὰ μὲν τὴν πρώτην ἡλικίαν ἐν γά-
 λακτι τρεφομένῳ καὶ λουτροῖς γλυκέων ὑδάτων θερ-
 μῶν λουομένῳ, ὅπως ὅτι μάλιστα μέχρι πλείστου
 54K μαλακὸν αὐτῷ διαμένον τὸ σῶμα πολλὴν ἐπίδοσιν εἰς
 τὴν αὔξησιν ποιοῖτο. μετὰ δὲ ταῦτα, καθ' ὃν ἂν ἤδη
 χρόνον εἰς διδασκάλους δύναίτο φοιτᾶν, οὐκ ἀναγ-
 καῖον ἔτι λουτροῖς χρῆσθαι συνεχέσι, ἀλλ' ἀρκεῖ δια-
 παλαίειν μανθάνοντα σύμμετρά τε πονεῖν ἐνταῦθα
 πρὸ τῶν σιτίων, ἀλουτεῖν δὲ ἤδη τὰ πλείω. τὸ δ' ὑπερ-
 πονεῖν, ὥσπερ ἔνιοι τῶν παιδοτριβῶν ἀναγκάζουσι

53K For since there is a twofold harm to the bodies of ani-
 mals—one from external causes and the other from inter-
 nal causes—those in whom the skin is soft and fine-
 textured are readily susceptible to all external causes,
 while those in whom the skin is thick and hard are readily
 susceptible to internal causes.

And because of this, Hippocrates, teaching about what
 occurs in us due to the benefit and harm from foods, also
 wrote this, in addition to many other things: "In regard to
 transpiration, thinness of the body is more healthy for
 those from whom more is eliminated and more morbid in
 those from whom less is eliminated."²⁸ Therefore, it is
 better that each excess is guarded against and not to pro-
 vide skin so thick that it hinders good transpiration, nor so
 thin that it is readily injured by every cause that befalls it
 from without. And such, in nature, is the body of the infant
 now before us in the discussion, midway between all the
 excesses. One must, then, treat this body in such a way as
 to always preserve the excellence of its constitution. And
 this will be preserved in the first stage of life by nourish-
 ment with milk and by bathing with baths of warm, sweet
 waters so that in particular the body will remain soft for
 the longest time and so make great progress in growth.
 After these things, at the time the child is able to visit
 54K teachers, it is no longer essential to use baths continually;
 it is sufficient, when he is learning wrestling, to train mod-
 erately there before food and remain unwashed for the
 most part. But to overtrain, as some wrestling teachers

²⁸ Hippocrates, *On Nutriment* 28, *Hippocrates* I, LCL 147, 352–53.

τοὺς παῖδας, οὐδαμῶς ἀγαθόν· ἀναυξή γὰρ ὑπὸ τῆς
 παρὰ καιρὸν σκληρότητος ἀποτελεῖται τὰ σώματα,
 καὶ πλείστην ὀρμὴν ἐκ φύσεως εἰς τὴν αὐξήσιν ἔχου-
 σιν. 11. Οἴνου δὲ τὸν οὕτω πεφυκότα παῖδα μέχρι πλεί-
 στου μηδ' ὄλως γεύειν. ὑγραίνει τε γὰρ ἰκανῶς καὶ
 θερμαίνει τὸ σῶμα πινόμενος οἶνος ἐμπίπλησί τε τὴν
 κεφαλὴν ἀτμῶν ἐν ταῖς ὑγραῖς καὶ θερμαῖς κράσεσι,
 οἷα πέρ ἐστι καὶ ἡ τῶν τοιούτων παιδίων. ἀλλ' οὔτε
 ἐμπίπλασθαι καλὸν αὐτοῖς τὴν κεφαλὴν οὔτε ὑγραί-
 νεσθαι καὶ θερμαίνεσθαι περαιτέρω τοῦ προσήκου-
 στος. εἰς τοσοῦτον γὰρ ἤκουσιν ὑγρότητός τε καὶ θερ-
 μότητος, ὡς, εἰ καὶ βραχὺ παραυξήσειέ τις ὀπότερον
 αὐτῶν, ἐν ἀμετρίας καθίσταται. οὐσῶν δὲ πασῶν τῶν
 ἀμετριῶν φευκτῶν, ἡ τοιαύτη μάλιστ' ἂν εἴη φευκτὴ,
 καθ' ἣν οὐκ εἰς τὸ σῶμα μόνον, ἀλλὰ καὶ εἰς τὴν
 ψυχὴν ἡ βλάβη δικνεῖται. διόπερ οὐδὲ τοῖς ἤδη τε-
 λείοις ἄνευ τοῦ προσήκοντος μέτρου πινόμενος οἶνος
 ἀγαθός· εἰς θυμούς τε γὰρ ἐκκαλεῖται προπετεῖς καὶ
 ὑβριν ἀσελγῆ καὶ τὸ λογιζόμενον τῆς ψυχῆς ἀμβλύ-
 τε καὶ τεθολωμένον ἐργάζεται. ἀλλὰ τούτοις μὲν ἐτοί-
 μως εἰς τὴν τῶν χολωδῶν περιττωμάτων ἐπίκρασιν τε
 ἅμα καὶ κένωσιν ἐπιτήδειος. οὐχ ἤκιστα δὲ καὶ εἰς
 τὴν ἐν αὐτοῖς τοῖς στερεοῖς ὀργάνοις τοῦ ζώου γινο-
 μένην ξηρότητα διὰ τε πόνους ὑπερβάλλοντας, ἔστιν
 ὅτε δὲ καὶ διὰ τὴν οἰκείαν τῆς ἡλικίας κρᾶσιν, ἐπιτή-
 δειος ὁ οἶνος, ὑγραίνων μὲν καὶ ἀνατρέφων, ὅσον
 ἀμέτρως ἐξήρανται, πραῦνων δὲ τὸ δριμὺ τοῦ πικροῦ
 χυμοῦ καὶ δι' ἰδρώτων καὶ οὔρων ἐκκενῶν. οἱ δὲ παῖ-

55K

compel boys to do, is in no way good. For bodies are ren-
 dered unable to grow by hardness contrary to the stage of
 life, even if they have a considerable natural impulse to-
 ward growth.

11. A child that has been brought up in this way should
 not taste wine at all for as long as possible. Since drinking
 wine moistens significantly and heats the body, it fills the
 head with vapors in the moist and hot *krasias*, which is the
krasis of such children. But it isn't good for them for the
 head to be filled, or to be moistened and heated beyond
 what is appropriate. They have come to such a degree of
 moisture and heat that, if either one of these two should
 increase even a little, they are in a state of imbalance.
 Although all these imbalances are to be avoided, one such
 as this should be particularly avoided, since in it harm
 penetrates not only into the body but also into the mind 55K
 (soul). For this reason, drinking wine in an inappropriate
 amount is not good, even for those who are already fully
 grown. It elicits a proneness to anger, insolence and lewd-
 ness, dulls the working of the mind, and creates befuddle-
 ment. But wine is useful in adults for tempering the bilious
 superfluities and, at the same time, is also useful for their
 evacuation. Not least, wine is also useful for dryness oc-
 ccurring in the actual solid organs of the organism due to
 excessive labors, and sometimes also due to the specific
krasis of the stage of life, since it moistens and nourishes
 to the extent that they have become immoderately dry,
 mollifies the sharpness of the bitter humor, and effects
 elimination by sweat and urine. Children, inasmuch as

δες, ἄτε μήτε τὸν τοιοῦτον ἀθροίζοντες χυμὸν οἰκείαν
 τε παμπόλλην ἔχοντες ὑγρότητα, τῶν μὲν ἐξ οἴνου
 γενομένων ἀγαθῶν οὐδενὸς προσδέονται, μόνης δὲ
 ἀπολαύουσι τῆς αὐτοῦ βλάβης. οὐκοῦν νοῦν ἔχων οὐ-
 δεῖς ἐπιτρέψει τοιοῦτῳ πόματι χρῆσθαι τοὺς παῖδας,
 ὃ πρὸς τῷ μηδὲν ἀγαθὸν ἐργάζεσθαι βλάβην ἐξαι-
 σιον ἐφεδρεύουσιν ἔχει.

56K οὐ μὴν οὐδὲ ψυχροῦ πόματος εἰς τὸ παντελὲς εἴρ-
 γειν κελεύω τοὺς τοιοῦτους παῖδας, ὥσπερ ἔνιοι ποι-
 οῦσιν, ἀλλ' ἐπὶ τε σιτίοις τὰ πολλὰ καὶ κατὰ τὰς
 θερμοτάτας ὥρας, ὅταν ἤξωσιν αὐτοὶ πρὸς τὸ ψυ-
 χρόν, ἐπιτρέπω χρῆσθαι, μάλιστα μὲν, εἰ οἶόν τε, πη-
 γαίῳ προσφάτῳ, μηδεμίαν ἐπίκτητον ἔχοντι ποιότητα
 μοχθηράν, μὴ παρόντος δὲ τοῦ τοιοῦτου τοῖς ἄλλοις.
 φυλάττεσθαι δὲ τὰ λιμναῖα καὶ θολερὰ καὶ δυσώδη
 καὶ ἀλυκὰ καὶ ἀπλῶς εἰπεῖν ὅσα τινὰ ποιότητα κατὰ
 τὴν γεῦσιν ἐνδείκνυται· χρῆ γὰρ ἀποιότατον αὐτοῖς
 τὸ κάλλιστον ὕδωρ φαίνεσθαι, οὐ πρὸς τὴν γεῦσιν
 μόνον, ἀλλὰ καὶ πρὸς τὴν ὀσμὴν. εἴη δ' ἂν τὸ τοιοῦτον
 ἠδιστόν τε ἅμα πίνοντι καὶ ἀκριβῶς καθαρόν. εἰ δὲ
 καὶ ταχέως ὑποχωρεῖ τῶν ὑποχονδρίων, μηδὲν ζητεῖν
 ἕτερον βέλτιον, ὡς, ὅσα γε καθαρὰ μὲν ἐστὶ καὶ λαμ-
 πρά καὶ οὐκ ἀηδῆ πινόμενα, παραμένει δὲ ἐπὶ πλεον
 ἐν τοῖς ὑποχονδρίοις, ἡμιμόχθηρα νομιστέον. ἀπέχε-
 σθαι δὲ τούτων κελεύω τῶν πάμπαν ψυχρῶν, οὐ μὴν
 57K τῇ πείρᾳ κεκρίσθαι τὸ τοιοῦτον ὕδωρ· εἰ δὲ καὶ διὰ
 γνωρισμάτων τις ἐθέλοι προγινώσκειν αὐτοῦ τὴν δύ-

they do not collect such a humor and have a very consider-
 able natural moistness, require none of the benefits occur-
 ring from wine and only enjoy the harm of it. So then, no
 one with sense will allow children to use such a drink—a
 drink which, in addition to doing nothing good, has an
 egregious harm lying in wait.

In respect of such children, I do not direct keeping 56K
 them away from cold drinks completely, as some do, but
 permit their use after food in many instances, and in the
 hottest seasons, whenever they themselves are inclined
 toward what is cold, and particularly, if possible, from a
 fresh spring to which no bad quality has been added. But
 if such a spring is not available, use other drinks. One must
 be on guard against pools of stagnant water, and muddy,
 foul smelling or salty water, or in short, those waters that
 display to the taste some particular quality. For the best
 water must seem to them to be without qualities (i.e.,
 pure)—and not only to taste but also to smell. Such water
 should seem sweet and, at the same time, also perfectly
 pure to the one drinking it. And if it passes through the
 hypochondria quickly, nothing else better could be sought,
 since in fact all waters that are pure and clear, and not
 unpleasant to drink, but that stay rather a long time in the
 hypochondria, must be considered partially bad. I direct
 abstention from these [waters] when they are completely 57K
 cold, but I do not prevent the use of those that are hot. It
 is safest for such water to have been judged by experience.
 If, however, someone should wish to know beforehand its

ναμιν, ὅσων αἱ πηγαὶ πρὸς ἄρκτον ἐρρυήκασιν ἐκ πετρῶν θλιβόμεναι τὸν ἥλιον ἀπεστραμμένον ἔχουσαι, ἀτέραμνά τε καὶ βραδύπορα τὰ τοιαῦτα χρῆ νονεσθαί τε καὶ ψύχεσθαι βραδέως· ὡς ὅσων γε πρὸς τε τὰς ἀνατολὰς ἐρρώγασιν αἱ πηγαὶ καὶ διὰ πόρου τινὸς ἢ γῆς διηθείται καθαρᾶς θερμαίνεται τε καὶ ψύχεται τάχιστα, ταῦτ' ἐλπίζειν εἶναι κάλλιστα πάσαις ταῖς ἡλικίαις.

οὐ γὰρ δὴ, καθάπερ οἴνων τε καὶ σιτίων καὶ γυμνασίων ἐγρηγόρσεώς τε καὶ ὕπνων καὶ ἀφροδισίων ἄλλον ἄλλως ἀπολαύειν προσήκει κατὰ τὰς διαφερούσας ἡλικίας, οὕτω καὶ ὕδατος, ἀλλ', ὅπερ ἄριστον εἴρηται νῦν, τούτῳ χρῆσθαι καὶ παῖδα καὶ νεανίσκον καὶ πρεσβύτην, ὥσπερ γε καὶ ἀέρα τὸν ἄριστον εἰσπνεῖν ἐν²² ἅπασιν ὁμοίως χρηστόν. ἄριστον δὲ ἀέρα λέγω τὸν ἀκριβῶς καθαρὸν· εἴη δ' ἂν τοιοῦτος ὁ μῆτ' ἐκ λιμνῶν ἢ ἐλῶν ἀναθυμιάσεως ἐπιθολούμενος μῆτ' ἐκ βαράθρων δηλητήριον αὔραν ἀποπνεόντων, ὅποια 58K
περί τε Σάρδεις ἐστὶ καὶ Ἱερὰν πόλιν ἐτέρωθί τε πολλαχόθι τῆς γῆς. οὕτω δὲ καὶ ὅστις ἐκ τινος ὀχετοῦ τῶν καθαιρόντων ἢ μεγάλην τινὰ πόλιν ἢ πολυάνθρωπον στρατόπεδον ἐπιθολοῦται, μοχθηρὸς ἰκανῶς ἐστὶ. μοχθηρὸς δὲ καὶ ὅς ἂν ἐκ τινος σηπεδόνοσ ἢ ζώων ἢ λαχάνων ἢ ὀσπρίων ἢ κόπρου μαιίνηται. καὶ μὴν καὶ ὅστις ὀμιχλώδης ἐστὶ διὰ ποταμὸν ἢ λίμνην

²² ἐν add. Ku

potency from signs, those waters whose sources flow toward the north, or are squeezed out from rocks and are turned away from the sun must all be considered unsoftened and slow of passage. In them, both the heating and cooling are immediately slow. On the other hand, in those whose sources face the rising sun and are filtered through some channel or pure earth, the heating and cooling are very quick—one should expect these to be the best for all the stages of life.

Water is not like wine, food, exercise, wakefulness and sleep, and sexual activity where it is appropriate for the different stages of life to enjoy the benefits of these things differently. Rather, what I just now said is best is what children, adolescents and old people should use, just as the best air to breathe in is similarly good in all ages. I call the "best air" that which is absolutely pure. Such air should not be from marshy lakes or from the exhalation of marshy 58K
ground, or the noxious air that comes forth from pits of the kind there are around Sardis and Hierapolis and many other places in the world.²⁹ Likewise also, the air made turbid by some aqueduct that drains a great city or a populous military camp is very bad. Bad too is air tainted by putrefaction, either of animals, vegetables, pulses or dung. And also air that is cloudy due to a neighboring river or

²⁹ Sardis, the chief city of Lydia, was situated under a steep fortified hill in the Hermus valley—see G. M. A Hanfman, *Sardis from Prehistoric to Roman Times* (1983). Hierapolis was an ancient city located on hot springs in Phrygia in southwestern Anatolia. It was noted for its hot baths.

γεινιῶσαν, οὐκ ἀγαθός, ὥσπερ γε καὶ ὅστις ἂν ἐν
κοίλῳ χωρίῳ πανταχόθεν ὄρεσιν ὑψηλοῖς περιεχο-
μένῳ μηδεμίαν πνοὴν δέχεται· πνιγώδης γὰρ ὅδε καὶ
σηπεδονώδης ἐστὶν ἀνὰ λόγον τοῖς ἀποκεκλεισμένοις
ἐν οἴκοις τισίν, ἐν οἷς εὐρὼς ὑπὸ σηπεδόνοσ τε καὶ
ἀπνοίας ἀθροίζεται. οἱ μὲν δὴ τοιοῦτοι πάσαισ ταῖς
ἡλικίαισ λυμαίνονται, ὥσπερ γε καὶ ὁ καθαρὸς ἀκρι-
βῶσ ἀπάσαισ ταῖς ἡλικίαισ ἀγαθός. ἡ δὲ κατὰ θερ-
μότητα καὶ ψυχρότητα καὶ προσέτι ξηρότητα καὶ
ὑγρότητα διαφορὰ τῶν ἀέρων οὐχ ὁμοίωσ ἔχει πρὸσ
ἅπαντασ, ἀλλὰ τοῖσ μὲν εὐκράτοισ σώμασιν ὁ εὐκρα-
τοσ ἀἷρ²³ ἄριστοσ, ὅσα δ' ἂν ὑπὸ τινοσ ἐξεχούσσης
59K ποιότητοσ δυναστεύηται, τούτοισ ἄριστοσ ὁ ἐναντιώ-
τατοσ τῆ κρατούσῃ, ψυχρὸσ μὲν τῆ θερμῆ, θερμὸσ δὲ
τῆ ψυχρῆ, καὶ δὴ καὶ τῆ μὲν ὑγροτέρῃ ξηρόσ, τῆ δὲ
αὐχμηροτέρῃ τοῦ προσήκοντοσ εἰσ τοσοῦτοσ ὑγρότε-
ροσ, εἰσ ὅσοσ κακείνη τοῦ συμμέτροσ ξηροτέρῃ.

ταυτὶ μὲν ἐν τῷδε τῷ λόγῳ γινώσκειν ἱκανά· ὥσπερ
δ' ἂν τισ ἐπανορθοῖτο τὰσ ἐκ τῶν μοχθηρῶν ὑδάτων
τε καὶ ἀέρων βλάβασ, ἐν ἑτέρῳ βιβλίῳ ῥηθήσεται.
νυνὶ γὰρ οἷον σκοπὸν τινα καὶ κανόνα τὴν ἀρίστην
κατασκευὴν τοῦ σώματοσ ἐπὶ τοῖσ ἀρίστοισ διαιτή-
μασι διελθεῖν ἔγνωκα· τὰσ δὲ τῶν ἡμαρτημένων κατὰ
τι σωμάτων ἅμα καὶ διαιτημάτων ἐπαλλάξεισ ἐν τοῖσ
μετὰ ταῦτα γράμμασιν ἀπάσαισ διαιρήσομεν.

12. Πάλιν οὖν ὁ λόγοσ ἐπὶ τὸν ἄριστα κατεσκευ-
ασμένον παῖδα ἐπανελθὼν τὴν ἀπὸ τῆσ πρώτοσ ἐβδο-
μάδοσ ἡλικίαν αὐτοῦ μέχρι τῆσ δευτέρασ ἐκδιηγεί-

marshy lake is not good, just as that in a hollow place en-
closed on all sides by lofty mountains, receiving no breeze
is not. This air is stifling and foul, analogous to the air in
houses that are shut up in which mold collects due to
putrefaction and lack of ventilation. Such airs are harmful
for all the stages of life, just as absolutely pure air is good
for all the stages of life. In relation to heating and cooling,
and besides these, drying and moistening, the difference
of the airs is not the same for all *krasias*. For *eukratic* bod-
ies, *eukratic* air is best, whereas for those in which some
outstanding quality prevails, the most opposite to the pre-
vailing quality is best—cold for hot, hot for cold, and fur-
ther, dry for the too moist and moist for the too dry, and
for that which is drier than is appropriate, what is more
moist to the extent to which it is drier than a proper bal-
ance. 59K

This is enough to understand in the present discussion.
I shall speak in another work about how someone might
correct the harms from bad waters and airs.³⁰ For the time
being, I have decided to go over only the objective and
rule in the case of the best regimes in regard to the best
constitution of the body. I shall break down all the varie-
ties of the faults pertaining to bodies along with the regi-
mens in the books following these.

12. Since the discussion is returning again to the child
of the best constitution, let me speak in detail about its
stage of life from the first seven years to the second, in

³⁰ See, for example, Book 2 of *Mixt.*, I.572–645K.

²³ ἀἷρ *add.* Ko

σθω, κατά τε τὴν κράσιν ὅποια τίς ἐστὶ καὶ ὠντινων
 χρήζει διαιτημάτων. ἢ μὲν δὴ κράσις, ὡς καὶ τοῖς
 60K Περὶ κράσεων ὑπομνήμασι δέδεικται, θερμὴ μὲν
 ἐστὶν ὁμοίως, ὑγρὰ δὲ οὐχ ὁμοίως. αἰεὶ γὰρ ἀπὸ τῆς
 πρώτης γενέσεως ἅπαν ζῶον ὀσημέραι γίνεται ξηρό-
 τερον, οὐ μὴν θερμότερον γε ἢ ψυχρότερον ὡσαύτως
 ἐπὶ πάσης²⁴ ἡλικίας· ἀλλ' ὅσα μὲν ἄριστα κατεσκευά-
 σται σώματα, παραπλησία πως ἐπὶ τούτων ἄχρι τῆς
 ἀκμῆς ἢ θερμότης παραμένει· ὅσα δὲ ὑγρότερα καὶ,
 ψυχρότερα τῶν ἀρίστων ἐστίν, αὐξάνεται τούτων ἢ
 θερμότης. ἀλλ' οὐχ ὅ γε νῦν λόγος ὑπὲρ ἐκείνων
 ἐστίν.

ὁ δὲ ἄριστα κατεσκευασμένος ἄνθρωπος ἄχρι τῆς
 τεσσαρεσκαίδεκαέτιδος ἡλικίας ἐν τῇ προειρημένῃ
 διαίτῃ φυλαττέσθω, γυμναζόμενος μήτε πάνυ πολλὰ
 μήτε βίαια, μή πως αὐτοῦ τὴν αὐξήσιν ἐπίσχωμεν,
 καὶ λουόμενος ἐν θερμοῖς μᾶλλον ἢ ψυχροῖς λουτροῖς·
 οὐπω γὰρ οὐδὲ τούτων ἀλύπως ἀνέχεσθαι δυνήσεται.
 πλαττέσθω δὲ καὶ τὴν ψυχὴν ἐν τῷδε τῆς ἡλικίας καὶ
 μάλιστα δι' ἐθισμῶν τε σεμνῶν καὶ μαθημάτων, ὅσα
 μάλιστα ψυχὴν ἐργάζεσθαι κοσμίαν ἰκανά· πρὸς γὰρ
 τὰ μέλλοντα κατὰ τὴν ἐξῆς ἡλικίαν αὐτῷ περὶ τὸ
 σῶμα πραχθήσεσθαι μέγιστον ἐφόδιόν ἐστὶν ἢ εὐ-
 κοσμία τε καὶ εὐπείθεια.

61K μετὰ δὲ τὴν δευτέραν ἑβδομάδα μέχρι τῆς τρίτης
 εἰ μὲν εἰς τὴν ἄκραν εὐεξίαν ἄγειν αὐτὸν ἐθέλοις, ἢτοι
 στρατιώτην τινὰ γενναῖον ἢ παλαιστρικὸν ἢ ὀπωσοῦν
 ἰσχυρὸν ἀπεργάσασθαι βουλόμενος, ἦττον τῶν τῆς

respect to what the *krasis* is and what kind of regimens it
 needs. Now the *krasis*, as I have shown in the treatises *On*
Mixtures,³¹ is similarly hot but not similarly moist. For 60K
 always, right from the time of birth, every animal becomes
 drier every day but not hotter or colder in the same man-
 ner in every stage of life. But in the case of those bodies
 that are best constituted, the heat remains about the same
 up to full development, whereas in the case of those that
 are moister and colder than the best, their heat increases.
 However, the discussion is not now about those.

Let a person with the best constitution be kept to the
 previously mentioned regimen up to the fourteenth year,
 exercising neither very much nor violently, lest in some
 way we hold back his growth, and bathing in warm rather
 than cold baths, for he will not yet be able to tolerate the
 latter without harm. And in this stage of life, let him be
 molded with respect to his soul, and particularly through
 serious habits and studies that are especially able to make
 the soul well-ordered. For regarding those things that are
 going to be brought about concerning the body in the
 stage of life to follow this one, the greatest support comes
 from good conduct and compliance.

61K However, after the second seven years and up to the
 third, if you wish to bring the child to a peak of good
 health, wanting to make him either a noble soldier, or a
 wrestler, or strong in any other way whatsoever, you may

³¹ *Mixt.*, I.572-645K (English trans., Singer, *Galen: Selected Works*). See particularly I.578K ff.

²⁴ πάσης Ko; πάσαις Ku

ψυχῆς ἀγαθῶν, ὅσα γε εἰς ἐπιστήμην τινὰ καὶ σο-
 φίαν ἄγει, προνοήσῃ· τὰ μὲν γὰρ εἰς ἦθος ἐν τῷδε
 μάλιστα τῆς ἡλικίας ἀκριβωθῆναι προσήκει. εἰ δὲ τὰ
 μὲν κατὰ τὸ σῶμα μέχρι τοῦ κρατυνθῆναι τὰ μόρια
 καὶ περιποιῆσαί τιν' ἕξιν ὑγιεινὴν καὶ αὐξήσαι προ-
 αιοῖο, τὸ δὲ λογικὸν τῆς ψυχῆς τοῦ μεираκίου κοσμη-
 σαι σπουδάξοις, οὐ τῆς αὐτῆς ἐπ' ἀμφοῖν διαίτης
 δεηθήσῃ. καίτοι καὶ τρίτον ἂν καὶ τέταρτον εἶδος
 βίου εὐρεθείη ποτέ, τῶν μὲν ἐπὶ τινα βάνανσον ἀφ-
 υγμένων τέχνην, καὶ ταύτην ἦτοι γυμνάζουσιν ἢ ἀγύ-
 μναστον φυλάττουσαν τὸ σῶμα, τῶν δὲ ἐπὶ γεωργίαν
 ἢ ἐμπορίαν ἢ τι τοιοῦτον ἕτερον. ὥστε καὶ χαλεπὸν
 εἶναι δοκεῖ ἀριθμῶ τινι περιλαβεῖν πάσας τῶν βίων
 τὰς ιδέας. τῆς μὲν γὰρ ὑγιεινῆς τέχνης ἐπάγγελμά
 ἐστὶν ἅπασιν ἀνθρώποις ὑποθήκας διδόναι πρὸς
 62K ὑγείαν, ἦτοι καθ' ἕκαστον ἰδίας ἢ κοινῇ σύμπασι
 ἀρμοτούσας ἢ τὰς μὲν τινὰς ἰδίας αὐτῶν, τὰς δὲ κοι-
 νὰς. οὐ μὲν ἐγχωρεῖ γε περὶ πάντων ἅμα διελθεῖν,
 ἀλλὰ πρῶτον μὲν ὡς ἂν τις ἐπὶ μήκιστον ἐκτείνων τὴν
 ζωὴν ὑγιαίνῃ τὰ πάντα· χρὴ δ', οἶμαι, τὸν τοιοῦτον
 βίον ἀπάσης ἀναγκαίας πράξεως ἀποκεχωρηκένας,
 μόνῳ σχολάζοντα τῷ σώματι· δεύτερον δὲ μεθ' ὑποθέ-
 σεως ἢ τέχνης ἢ πράξεως ἢ ἐπιτηδεύματος ἢ ὑπηρε-
 σίας τινὸς ἦτοι πολιτικῆς ἢ ἰδιωτικῆς ἢ ὅλως ἀναγ-
 καίας ἀσχολίας. οὐδὲ γὰρ ἄλλως ἂν σαφῆς ὁ λόγος
 οὔτ' εὐμνημόνευτος οὔτε μεθόδῳ περαινόμενος ἡμῖν
 γένοιτο χωρὶς τῆς εἰρημένης ἄρτι τάξεως.
 ἐπὶ δὲ τὴν πρώτην ἐπανέλθωμεν ὑπόθεσιν ἐπιδεί-

give less forethought to the good qualities of the soul such
 as lead to knowledge and wisdom. For it is appropriate for
 those things pertaining to ethos to be perfected during this
 time of life particularly. If, however, you prefer the parts
 pertaining to the body to be strengthened up to a certain
 point and to attain a certain healthy state and to grow, or
 if you hope to adorn the rational part of the soul of the boy,
 you will not need the same regimen in both cases. And
 indeed, even a third or fourth kind of life may be found at
 some time or other for those devoted to one of the practi-
 cal arts that maintains the body either with or without
 exercise—such arts are farming, commerce or something
 else of this sort. As a result, it seems difficult to put a
 number on all the kinds of lives. For the profession of the
 art of hygiene is to give instructions regarding health to all
 men, which are suitable either to each person individually
 or to all people in common, or some of them individually
 and some in common. It is not possible to go over all these
 at the same time, but the first point is how someone, ex-
 tending his life for the longest time possible, may be
 healthy in all respects. It is, I think, necessary for such a
 life to be free from all necessary activity, leaving time for
 the body alone. Second, in the subject under discussion,
 there is the issue of an art, activity, pursuit, some service
 (either civic or private), or some wholly necessary occupa-
 tion. Otherwise our discussion would not be clear or easy
 to remember or accompanied by method, apart from the
 order spoken of just now.

Let me return to the first proposal and show how some-

ξωμέν τε, ὅπως ἂν τις²⁵ ἀρίστην κατασκευὴν σώματος ἔχων ἀποχωρήσας ἀπάντων τῶν κατὰ τὸν βίον εἰς τὸ κοινὸν συντελούντων, ἑαυτῷ μόνῳ ζήσκει, μήτε νοσήσας μηδέποτε, καθόσον οἶόν τε, μήτε ἀποθανὼν ἔμ-
 63K προσθεν τοῦ μηκίστου χρόνου τῆς ζωῆς. ἄφθαρτον μὲν γὰρ ποιῆσαι τὸ γεννητὸν οὐχ οἶόν τε, κἂν ὅτι μάλιστα τῶν καθ' ἡμᾶς τις νῦν ἀνὴρ φιλόσοφος ἐπειράτο δεικνύναι τοῦτο διὰ τοῦ θαυμασίου τούτου συγγράμματος, ἐν ᾧ διδάσκει τὴν ὁδὸν τῆς ἀθανασίας. ἐπὶ πλείστον δὲ χρόνον προήκειν ἐγχωρεῖ ποιῆσαι ζώου σῶμα, καὶ μάλιστα τοῦ κάλλιστα πεφυκότος. ἔνια γὰρ οὕτως εὐθὺς ἐξ ἀρχῆς κατεσκευάσται κακῶς, ὡς μηδ' εἰς ἑξηκοστὸν ἔτος ἀφικέσθαι δύνασθαι, κἂν αὐτὸν ἐπιστήσης αὐτοῖς τὸν Ἄσκληπιόν. ἀλλ' οὐ νῦν περὶ ἐκείνων ὁ λόγος.

ἐπὶ δὲ τὸν κατεσκευασμένον ἄριστα πάλιν ἐπανελθόντες ἀναμνήσωμεν ὧν ἐν ἀρχαῖς ἀπεδείξαμεν, ὡς ἐσθίειν μὲν καὶ πίνειν ἀναγκαῖον ἡμῖν ἐστίν, ἐπειδὴ διαπαντὸς ἀπορρεῖ τι τοῦ σώματος ἡμῶν, ἐπεὶ δὲ ἐσθίομέν τε καὶ πίνομεν, ἀναγκαῖον αὐθίς ἐστὶ τῆς τῶν περιττωμάτων προνοεῖσθαι κενώσεως. ἐπεὶ δὲ τούτων ἐστὶν εἶδη πολλά, τὰ μὲν τῆς ἐν τῇ γαστρὶ πεττομένης τροφῆς, τὰ δὲ τῆς ἐν ἥπατι καὶ ἀρτηρίαις
 64K καὶ φλεψί, τὰ δὲ τῆς καθ' ἕκαστον μόριόν ἐστι περιττώματα, χρὴ δήπου καὶ τὴν κένωσιν αὐτῶν ἰδίαν εἶ-

²⁵ post τις: ἀρίστην κατασκευὴν σώματος ἔχων Κο; ἀρίστης τυχὼν κατασκευῆς σώματος Κυ

one who has the best constitution of the body, withdrawing from all those things that contribute in life to the general good, might live for himself alone and never at any time be sick, as far as possible, nor die before the longest time of life. For it is not possible to make immortal that which
 63K is generated, even though, particularly, one of our contemporaries who is a philosopher attempted to show this through his remarkable treatise in which he teaches the road to immortality.³² However, it is possible to make the body of an animal last for a very long time, and especially one that is best in terms of nature. For some are constituted so badly right from the beginning that they are not able to reach even the sixtieth year, if you were to set Asclepius himself over them. However, the discussion about those people is not for today.

So let me return once more to the best constitution, and call to mind those things I showed at the start—that it is necessary for us to eat and drink since something of our body is continually flowing away. When we eat and drink, it is again necessary to give forethought to the evacuation of the superfluities. And since there are many kinds of these—those from food concocted in the stomach, those from what is concocted in the liver, arteries and
 64K veins, and those from what is concocted in each part—it must be clear also that the evacuation of these is specific

³² It is not clear to whom Galen is referring here. The same person is mentioned again in Book 6 (399K) and there identified as a Sophist.

ναι καθ' ἕκαστον, ὥσπερ γε καὶ ἡ φύσις αὐτὴ φαίνε-
ται τοῦτο ἐξ ἀρχῆς ἐργασαμένη. παρεσκεύασε γὰρ
τοῖς ζώοις ὄργανα πολλά, τὰ μὲν ἐκκαθαίροντά τε καὶ
διακρίνοντα ταυτὶ τὰ περιττώματα, τὰ δὲ παράγοντα,
τὰ δὲ ἀθροίζοντα, τὰ δὲ ἐκκρίνοντα. καὶ λέλεκται μὲν
ὑπὲρ ἀπάντων ἐπὶ πλείον ἔν τε τοῖς τῶν φυσικῶν δυ-
νάμεων ὑπομνήμασι καὶ τοῖς Περὶ χρείας μορίων· εἰς
δὲ τὸ παρὸν ἔσται καὶ ταῦθ' ἡμῖν ὑπόθεσις τῷ λόγῳ.

τὸ μὲν γὰρ πρῶτον περίττωμα διακρίνεται ἅμα καὶ
προπέμπεται κατὰ βραχὺ διὰ πάντων τῶν ἐντέρων
ἄχρι τῆς κατὰ τὸ καλούμενον ἀπευθυσμένον ἀξιολό-
γου κοιλότητος, ἧς κατὰ τὸ πέρασ ἐπίκεινται μύες,
εἴργοντές τε καὶ κατέχοντες ἔνδον αὐτὸ καὶ κωλύοντες
ἀκαίρως ἐκρεῖν· ἐπειδὰν δ' ἰκανῶς ἀθροισθὲν ἀνιαρὸν
ἢ τῷ ζῳῷ, τηνικαῦτα παριᾶσιν ἔξω φέρεσθαι, συντε-
λούντων τι πρὸς τὸ τάχος τῆς ἀφόδου τῶν κατ' ἐπι-
γάστριον μυῶν ἅμα τῷ διαφράγματι. τὸ δ' ἐν ἥπατι
65K περίττωμα, τὸ μὲν οἷόνπερ τὸ καλούμενον ἄνθος ἐν
τοῖς οἴνοις ἐστί, τὸ δ' οἷόνπερ ἡ τρύξις. ἔλκεται δὲ τὸ
μὲν ἕτερον ὑπὸ τῆς ἐπικειμένης τῷ σπλάγχνω κύ-
στεως, τὸ δ' ἕτερον ὑπὸ τοῦ σπληνός· ἀθροισθέντα δ'
ἐν τούτοις ἐκκρίνεται, τὸ μὲν εἰς τὴν ἀρχὴν τῶν λε-
πτῶν ἐντέρων, τὸ δ' εἰς αὐτὴν τὴν γαστέρα, καὶ ἀπὸ
τούτων ἤδη διὰ πάντων τῶν ἐντέρων ἅμα τῷ ξηρο-
τέρῳ περιττώματι τῆς τροφῆς διεξέρχεται. τὸ δὲ ἐν
φλεβῶν καὶ ἀρτηρίαις περίττωμα τοιοῦτόν ἐστιν, οἷον

³³ Nat. Fac., II.1-205K (English trans., Brock, *On the Natural*

in each case, just as Nature herself has obviously brought about from the beginning. Nature has provided for animals many organs: those that purify and separate the superfluities, those that pass them along, those that gather them together, and those that evacuate them. More has been said about all these in the treatises *On the Natural Faculties* and in those, *On the Use of the Parts*.³³ In the present circumstances, these will be the foundation of our discussion.

The first superfluity is separated and sent onward gradually through all the intestines as far as the substantial cavity termed the rectum; around the outlet of this muscles are placed that close it off and retain it within, preventing the superfluity flowing out in an untimely fashion. But when what is collected is sufficiently distressing to the animal, then the muscles relax and allow it to be carried outward. The muscles in the epigastrium along with the diaphragm contribute jointly to the speed of expulsion. In the case of the superfluity in the liver, in part it is like the so-called flower in wines, while in part it is like the lees. The former is drawn by the bladder underlying the viscus (i.e., the gallbladder) while the other is attracted by the spleen. When it is collected in these places, it is expelled—the former to the beginning of the thin intestines and the latter to the stomach itself. From these it now proceeds through all the intestines, along with the drier superfluity of food. The superfluity in the veins and arteries is such

Faculties; French trans., Daremberg, *Oeuvres anatomiques*—see particularly II.22K ff). *UPart.*, III.1-913 and IV.1-366K (English trans., May, *On the Usefulness*; French trans., Daremberg, *Oeuvres anatomiques*). See particularly III.333K ff.

ὀρρὸς ἐν τῷ πηγνυμένῳ γάλακτι, καθαίροντες δὲ καὶ
 τοῦτο οἱ νεφροὶ τῇ κύστει παραπέμπουσιν· ἢ δ'
 ἀθροίζει τρόπον ὁμοιότατον τῷ πρόσθεν εἰρημένῳ
 περὶ τοῦ ξηροῦ περιττώματος· ἐπίκειται γὰρ τις καὶ
 τῆδε κατὰ τὸν ἔκρουον ἐπικάρσιος μῦς, κλείων οὕτως
 ἀκριβῶς τὸ στόμιον, ὡς μηδὲν ἔξω παραρρεῖν. ἐπει-
 δὴν δὲ καὶ τοῦθ' ἱκανὸν ἤδη γινόμενον ἀνιᾶ τὸ ζῶον,
 ἀφίσταται μὲν ὁ μῦς τῆς φρουρᾶς ἀνιείς τε καὶ χαλῶν
 ἑαυτὸν, ἐκκρίνει δὲ τὸ περιττὸν ἅπαν ἢ κύστις, ἐπιβο-
 ηθούτων αὐτῆ καὶ τῆδε πρὸς τὸ τάχος ὥσπερ τῆ τῶν
 ξηρῶν περιττωμάτων ἐξόδῳ τῶν μυῶν τῶν κατ' ἐπι-
 γάστριον.

66K τὸ δ' ὑπόλοιπον γένος τῶν περιττωμάτων γίνεται
 μὲν ἐν ἐκάστῳ μορίῳ τοῦ τρέφοντος αὐτὰ χυμοῦ, τὸ
 μὲν οἶον ἡμίπεπτόν τι λείψανον, ἀδυνατήσαν ἐξομοι-
 ωθῆναι τῷ τρεφομένῳ, τὸ δ', ὅπερ ἦν ἔμπροσθεν ἀνα-
 δόσεως ὄχημα, πληρῶσαν τὴν χρείαν, ὑγρὸν καὶ λε-
 πτὸν ὄν, οἷόνπερ τὸ προειρημένον ὀρρῶδες, ἐκ τῶν
 ἀγγείων εἰς τὴν κύστιν συρρεῖ.²⁶ τούτῳ τῷ περιττώ-
 ματι πόρος μὲν οὐδεὶς ἐστὶν ἀποτεταγμένος ὑπὸ τῆς
 φύσεως, ἐκκρίνεται δὲ διὰ τε τῶν μαλακῶν σωμάτων
 φερόμενον, εἰκόντων αὐτοῦ τῆ ρύμη, καὶ μάλιστα ὅταν
 ὑπὸ πνεύματος ἀθροώτερον ὀρμήσαντος ὠθῆται, καὶ
 μέντοι καὶ διὰ τῶν σμικρῶν ἀπάντων πόρων, ὧν ἐστὶ
 πλήρες ὅλον τε τὸ σῶμα καὶ σύμπαν τὸ δέρμα. λέ-
 λεκται δ' ὑπὲρ τῆς γενέσεως αὐτῶν ἐν τοῖς Περὶ κρά-
 σεων.

τὸ μὲν δὴ λεπτότερον περιττώμα ῥαδίως ἐκκρίνεται

that it is like the whey in curdled milk, and when the kid-
 neys purify this, they send it on to the bladder. And this
 collects it in a manner very similar to that previously de-
 scribed concerning the dry superfluity. For there is also a
 transverse muscle lying at the outlet in this, which closes
 the opening so precisely that nothing flows past to the
 outside. Whenever this [collection] has already occurred
 and distresses the animal, the muscle guarding the orifice
 relaxes, releasing and relaxing itself, and the bladder ex-
 pels all the superfluity. The muscles of the epigastrium
 again come to its aid in effecting the swift outward pas-
 sage, as in the case of the dry superfluities.

The remaining class of superfluities arises in each part 66K
 from the humor nourishing these. One is a kind of half
 concocted remnant that cannot be assimilated by what is
 being nourished and the other is what was formerly a ve-
 hicle of distribution that, having fulfilled its use, is moist
 and thin like the previously mentioned whey and flows
 from the vessels to the bladder. No channel has been
 assigned specifically to this superfluity by Nature; after
 being carried through the soft tissues that yield to its force,
 it is expelled, and particularly when it is impelled by
pneuma, rushing in a more concentrated manner, it is
 forced onward, and indeed, continues through all the
 small channels of which the whole of the body and the
 entire skin are full. I have spoken about the genesis of
 these in the work *On Mixtures*.³⁴

Now the thinner superfluity is easily expelled, being

³⁴ See note 30 above—the relevant section is 2.5 (I.614K).

²⁶ συρρεῖ Κο; περιρρεῖ Κυ

67K πρὸς τε τῆς ἐμφύτου θερμότητος εἰς ἰδέαν ἀτμοῦ λυόμενον ὑπὸ τε βιαίας κινήσεως ἀθρόως ἐκρηγνύμενον ὀνομάζεται δὲ τὸ μὲν οὕτως ἐκκριθὲν ἰδρῶς· τὸ δὲ ἕτερον, οὐδὲν ἔχον ὄνομα, διότι οὐδὲ γινώσκεται τοῖς πολλοῖς, ἅτε τὴν ὄψιν ἐκφεύγον ὑπὸ λεπτότητος, ἄδηλος αἰσθήσει διαπνοὴ κέκληται πρὸς αὐτῶν τῶν φωρασάντων αὐτὸ τῷ λογισμῷ. κατὰ δὲ τήνδε τὴν ἄδηλον αἰσθήσει διαπνοὴν ἐκκρίνεται τι καὶ τοῦ παχύτερου περιττώματος· ἰσχυροτέρας δὲ δεῖ τῷδε καὶ τῆς ἀπαγούσης θερμότητος καὶ τῆς ὠθούσης ῥύμης, ἢ κίνδυνος αὐτῷ στήναι κατὰ γε τὸ δέρμα, πρὶν ἀφικέσθαι πρὸς τὸ πέρας. ἐκ τούτου τοῦ περιττώματος ἢ τε τῶν τριχῶν ἐδείκνυτο γένεσις, οὐχ ἤκιστα δὲ καὶ ὁ περὶ τοῖς δέρμασιν ἀθροιζόμενος ἅπασι τοῖς ζώοις²⁷ ῥύπος.

68K εἴρηταί μοι σχεδὸν ἅπαντα τὰ ἀναγκαῖα τοῦ λόγου κεφάλαια τῆς τῶν περιττωμάτων γενέσεώς τε ἅμα καὶ κενώσεως, ἀποδεδειγμένα μὲν ἐν ἑτέραις πραγματείαις, ὧν ὀλίγον ἔμπροσθεν ἐμνημόνευσα, μελλήσοντα δ' ὑποθέσεις ἀναγκαῖαι γενήσεσθαι τοῖς νῦν ἐνεστηκόσι λόγοις. ἐπειδὴ γὰρ ἐκκενοῦσθαι χρὴ ταῦτα, μοχθηρὰ ταῖς ποιότησιν ὑπάρχοντα, καὶ Ἀσκληπιάδης μὴ βούληται, χρὴ πρῶτον μὲν ἐπίστασθαι τὰς αἰτίας αὐτῶν τῆς ἐπισχέσεως, ἐφεξῆς δὲ πειρᾶσθαι μήτε περιπίπτειν αὐταῖς, εἰ δὲ καὶ περιπέσοιμὲν ποτε, διὰ ταχέων ἐπανορθοῦσθαι τὸ σφάλμα πειρᾶσθαι. τὸ μὲν

²⁷ τοῖς ζώοις add. Ko

67K released by the innate heat in the form of breath. This breaks out and is collected together due to vigorous movement. What is expelled in this way is called sweat. However, the other, which has no name because it is not known to the majority in that it escapes visual perception due to thinness has been called "transpiration imperceptible to sensation" by those who discovered it by reason. And in this transpiration imperceptible to sensation, some of the thicker superfluity is also expelled. For this there is need for greater strength, both of the driving heat and of the impelling force, the danger from it being that it may stay in the skin before coming to the end. The genesis of hair has been shown to be from this superfluity, no less also the dirt collected on the skin in all animals.

I have mentioned almost all the essential points of the discussion of the genesis of the superfluities along with their evacuation; these have been shown in other treatises that I mentioned a little earlier and that are going to become the foundation essential for the discussions now being set in place. Since these things must be evacuated, being harmful due to their qualities, even if Asclepiades does not wish it to be so,³⁵ it is first necessary to know the causes of their being held back, and then next to attempt not to encounter these, or if we are going to encounter them at some time, to attempt to correct the fault as

³⁵ On Asclepiades' theories, foundational for Methodism and based on a system of *poroi* and *onkoi*, see J. Vallance, *The Lost Theory of Asclepiades of Bithynia* (1990).

δὴ μὴ περιπίπτειν ἐκ τοῦ γινώσκειν, πότερον αὐτάρ-
κως ἀποκρίνεται ἢ μή, περιγίνεται· τὸ δ' ἐπανορθοῦ-
σθαι μεθόδου τινὸς ἐτέρας προσδεῖται.

13. Λεγέσθω δὴ πρῶτον μὲν, ὑφ' ὧν ἴσχεται τῶν
εἰρημένων ἐκκρίσεων ἐκάστη· δεύτερον δέ, ὅπως ἂν
τις ἐπεσχημένην αὐτὴν προτρέψειεν. ἢ μὲν δὴ τῶν
περὶ τὴν γαστέρα περιττωμάτων ἐπίσχεσις ἦτοι διὰ
τὰ λαμβανόμενα σιτία τε καὶ ποτὰ γίνουσι· ἂν ἢ διὰ
τὴν γαστέρα μετὰ τῶν ἐντέρων, διὰ μὲν τὰ σιτία καὶ
ποτὰ παρά τε τὴν ποιότητα καὶ ποσότητα τῶν λη-
φθέντων ἔτι τε πρὸς τούτοις τάξιν τε καὶ τὸν τρόπον
τῆς χρήσεως, παρά μὲν τὴν ποιότητα, στρυφνῶν ἢ
αὐστηρῶν ἢ ξηρῶν ταῖς συστάσεσιν ὑπαρχόντων,
παρὰ δὲ τὴν ποσότητα, τοῦ προσήκοντος ἢ πλειόνων
ἢ ἐλαττόνων, παρὰ δὲ τὴν τάξιν, εἰ τὰ μὲν ξηρὰ καὶ
στύφοντα πρότερον, τὰ δὲ ὑγρά καὶ λιπαρὰ καὶ γλυ-
κέα δεύτερα προσενέγκαιτο, παρὰ δὲ τὸν τρόπον τῆς
69K χρήσεως, εἰ δέον δις σιτεῖσθαι, πᾶσαν εἰς ἅπαξ
προσενέγκαιτο τὴν τροφήν.

ἢ δὲ περὶ τὴν γαστέρα τε καὶ τὰ ἔντερα τῆς ἐπι-
σχέσεως τῶν περιττωμάτων αἰτία διὰ τε τὴν φύσιν
αὐτῶν καὶ διὰ τὴν ἐπίκτητον γίνεται διάθεσιν. αἱ μὲν
δὴ περὶ τὴν φύσιν αὐτῶν αἰτίαι τῶν μοχθηρῶν εἰσι
τοῦ σώματος κατασκευῶν, ὡς ἐν τῷ περὶ ἐκείνων εἰρή-
σεται λόγῳ· περὶ δὲ τῶν ἐπικτήτων ἐν τῷδε ῥητέον.
ὀκτὼ διαφοραὶ τῶν προσφάτων εἰσὶ τῆς γαστρὸς δια-
θέσεων, ἅπασαι δυσκρασίαι κατὰ γένος ὑπάρχουσαι,
τέσσαρες μὲν ἀπλαῖ, θερμότης καὶ ψυχρότης, ξηρό-

quickly as possible. Ensuring that they are not encoun-
tered comes from the knowledge of whether they are suf-
ficiently separated or not; correction, however, requires
some other method.

13. So then, let me state first those things by which each
of the previously mentioned excretions is held back, and
second, how someone might urge it on when it is held
back. Now delay of the superfluities involving the stomach
may arise either through the foods and drinks taken in or
through the stomach together with the intestines, being
due to the foods and drinks on account of the quality and
quantity of what was taken in, and in addition to these, the
order and manner of use. It is on account of the quality,
when they are astringent, bitter or dry in composition; it
is on account of the quantity, when this is more or less than
appropriate; it is on account of the order, if those that are
dry and astringent are presented first and those that are
moist, fatty and sweet are presented second; it is on ac-
count of the manner of use, if the nutriment that ought to
be eaten as two meals is presented all at once. 69K

The cause of the delay of superfluities involving the
stomach and intestines is due to the nature of these and
to an acquired condition. Now the causes involving the
nature of these [structures] are those of bad constitutions
of the body, as will be described in the discussion about
those. I must, however, speak here about the acquired
[conditions]. There are eight *differentiae* of the newly ac-
quired conditions of the stomach; all are *dyskrasias* ac-
cording to class. Four are simple: hot, cold, dry and moist,

της καὶ ὑγρότης, τέσσαρες δὲ ἄλλαι σύνθετοι, θερμότης τε ἅμα καὶ ξηρότης, καὶ θερμότης ἅμα ὑγρότητι, καὶ ψυχρότης ἅμα καὶ ξηρότης, καὶ ψυχρότης ἅμα ὑγρότητι. χρὴ δ' εἰς τοσοῦτον ἤκειν μεγέθους ἐκαστην τῶν δυσκρασιῶν, ὡς ἀσθενῆ φανερώς ἐργάσασθαι τὴν προωστικὴν δύναμιν, ἥτοι τῆς γαστρὸς μόνης ἢ τῶν λεπτῶν ἐντέρων ἢ τῶν παχέων, ἢ καὶ συμπάντων ἅμα τῶν εἰρημένων ἢ τινῶν ἐν αὐτοῖς. συνίστανται δ' αἱ τοιαῦται δυσκρασίαι ποτὲ μὲν ἀπὸ τῶν εἴσω τοῦ σώματος λαμβανομένων, ἔστι δ' ὅτε καὶ ἀπὸ τῶν ἔξωθεν προσπιπτόντων, ἀπὸ μὲν τῶν εἴσω τοῦ σώματος, ὅποταν ἐν ταῖς τροφαῖς ἢ τοῖς πόμασι φαρμακωδέστερα τις ἢ δύναμις, ἢ θερμαινόντων ἢ ψυχόντων ἢ ξηραινόντων ἢ ὑγραινόντων ἢ θερμαινόντων τε ἅμα καὶ ξηραινόντων ἢ καὶ κατ' ἄλλην τινὰ συζυγίαν ἐνεργούντων, ἀπὸ δὲ τῶν ἔξωθεν προσπιπτόντων, ἥτοι τοῦ περιέχοντος ἡμᾶς ἀέρος ἀμέτρως θερμαίνοντος ἢ ψύχοντος ἢ ξηραίνοντος ἢ ὑγραινόντος ἢ κατὰ συζυγίαν τινὰ τούτων ἐνεργούντος ἢ ἀπὸ τινος ὕδατος, ἐν ᾧ τις ἔτυχε λουσάμενος, ἢ ἀλείμματός τινος ἢ ἀπλῶς ὅτου δὴ τινος ἑτέρου προσπεσόντος ἔξωθεν τῇ γαστρὶ θερμαίνειν ἢ ψύχειν ἢ ξηραίνειν ἢ ὑγραινείν ἀμέτρως δυναμένου. διὰ ταύτας μὲν δὴ τὰς αἰτίας ἐπέχεται ἡ γαστήρ.

τὸ δὲ πικρόχολον περίττωμα διὰ τε τὴν ἀρρωστίαν τῆς ἐλκούσης ἢ ἐκκρινούσης αὐτὸ δυνάμεως καὶ διὰ στενοχωρίαν τῶν παραγόντων τε καὶ ἐκκρινόντων ὀργάνων. ἀλλ' ἢ μὲν ἀρρωστία τῆς τε κύστεως ὅλης τῆς

while the four others are compound: hot and dry, hot and moist, cold and dry and cold and moist. It is necessary for each of the *dyskrasias* to come to such a magnitude that it renders the expulsive capacity obviously weak, either of the stomach alone, or of the thin intestines, or of the thick intestines, or of all those mentioned at the same time, or of some among them. Such *dyskrasias* sometimes arise from those things taken into the body, and sometimes from those things befalling it from without. It is from those things taken into the body whenever, in the nutriments and drinks, there is some more medicinal potency operating, either heating, cooling, drying or moistening, or heating and drying at the same time, or also acting according to one of the other conjunctions. It is from those things befalling externally when either the ambient air is immoderately heating, cooling, drying or moistening, or according to some conjunction of these operating, or from some water in which someone happened to bathe, or some unguent, or simply from anything else whatsoever that befalls the stomach from without that is capable of heating, cooling, drying or moistening immoderately. Due to these causes, then, the stomach is hindered.

The picrocholic superfluity [is retarded]³⁶ by the weakness of the capacity attracting or expelling it and by the narrowness of the conducting and expelling organs. But a weakness of the whole bladder on the liver (gallbladder)

³⁶ Added from Linacre's Latin translation (*moratur*).

71K ἐπὶ τῷ ἥπατι καὶ τῶν ἀπ' αὐτῆς εἰς τὸ σπλάγγχνον
 ἠκόντων στομάτων καὶ τῶν εἰς τὸ ἔντερον ἐξερευγο-
 μένων πόρων ἐπὶ προσφάτου δυσκρασίας γένοιτ' ἂν,
 ἐφ' ἧσπερ καὶ ἡ προωστικὴ δύναμις ἐλέγετο βλάπτε-
 σθαι τῶν ἐντέρων τε καὶ τῆς γαστρούς· ἡ δὲ στενοχω-
 ρία ἢ διὰ φλεγμονὴν ἢ σκίρρον ἢ ἔμφραξιν ἢ τὴν ἐκ
 τῶν περιεχόντων αὐτὰ θλίψιν ἢ μύσιν τῶν στομάτων.
 αὗται δ' αἱ θλίψεις πάλιν ἐκ τῶν περιεχόντων ἢ διὰ
 πλῆθος ἄμετρον τῶν ἐν αὐτοῖς περιεχομένων ἢ διὰ
 φλεγμονὴν ἢ σκίρρον, ὡσπερ γε καὶ ἡ μύσις ἢ διὰ
 τι τούτων ἢ διὰ ξηρότητα. τῆς ξηρότητος δ' αὐτῆς
 αἷτια τὰ τε στύφοντα σφοδρῶς ἐστὶ καὶ τὰ θερμαί-
 νοντα μετὰ τοῦ ξηραίνειν. τὰ μὲν γὰρ ἐκθλίβοντά τε
 τὴν ὑγρότητα καὶ αὐτὰ τὰ <συνεστῶτα>²⁸ συνάγοντα
 τε καὶ σφίγγοντα καὶ πιλοῦντα, τὰ δὲ διαφοροῦντα²⁹
 τὴν ξηρότητα ἐργάζεται. φλεγμονὴ δὲ καὶ σκίρρος
 ἤδη γε νοσήματα φανερώς ἐστίν· ὥστ' ἐκπέπτωκεν
 τῆς ὑγιεινῆς πραγματείας, αὐθὶς τε καὶ περὶ αὐτῶν
 εὐκαιρότερον εἰρήσεται.

72K κατὰ δὲ τὸν αὐτὸν τρόπον οὐδὲ τὸ μελαγχολικὸν
 ἐκκαθαρθήσεται ποτε περίττωμα, τοῦ μὲν σπληνὸς
 ἀνα λόγον ἔχοντος τῆ χοληδόχῳ κύστει, τῆς δ' εἰς
 αὐτὸν τεταμένης φλεβὸς ἀπὸ τῶν πυλῶν τοῦ ἥπατος
 τοῖς ἔλκουσιν ἀγγείοις τὸ χολῶδες περίττωμα, τῆς δ'
 ἐκ τοῦ σπληνὸς εἰς τὴν γαστέρα φερομένης φλεβὸς
 τῷ τὴν χολὴν ἐξερευγομένῳ πόρῳ. τὸ δὲ καθ' ἕκαστον
 τῶν τρεφομένων τοῦ ζώου μορίων περίττωμα διὰ τε

71K and of the openings leading away from this to the viscus
 and from the channels emptying themselves into the in-
 testines may occur from a recently acquired *dyskrasia*, in
 which case also the expulsive capacity of the intestines and
 stomach is said to be harmed. Narrowness may be due
 to inflammation, induration, obstruction, compression by
 the structures surrounding it, or occlusion of the open-
 ings. These compressions may, in turn, arise from those
 surrounding structures due either to an excessive amount
 of things contained in them, or due to inflammation or
 induration, just as occlusion may occur due to one of these
 things or to dryness. Causes of the dryness itself are things
 that are strongly astringent and things that are heating
 along with drying. The former bring about dryness by
 squeezing out the moisture and by bringing together the
 things that have been opened, and by compressing and
 thickening, whereas the latter create dryness by dispers-
 ing the fluids. Inflammation and induration are clearly
 already diseases and so fall outside the matter of hygiene.
 It will be more opportune to speak about these subse-
 quently.

72K In the same way the melancholic superfluity will not be
 cleared out when the spleen is in a state analogous to the
 gallbladder, and when the vein that extends to this from
 the portal fissure of the liver is in a state analogous to the
 vessels drawing the biliary superfluity, and when the vein
 leading from the spleen to the stomach is analogous to the
 bile duct. However, the superfluity in each of the parts of
 the animal being nourished will be hindered by its amount

²⁸ <συνεστῶτα> Ko; κεχρηνότα Ku

²⁹ post διαφοροῦντα: τὰς ὑγρότητας Ku

πλήθος καὶ πάχος αὐτοῦ καὶ προσέτι καὶ γλισχρότητα ἢ δι' ἀρρωστίαν τῆς ἀλλοιούσης αὐτὸ θερμότητος καὶ διὰ στενοχωρίαν τῆς διεξόδου κωλυθήσεται. πλήθος μὲν δὴ καὶ πάχος καὶ γλισχρότης ἦτοι γε ἐκ τῆς τῶν πομάτων καὶ ἐδεσμάτων γίνεται φύσεως ἢ ἐκ προσφάτου τινὸς ἀρρωστίας τῆς ἀλλοιωτικῆς ἐν τῷ τρεφόμενῳ μορίῳ δυνάμεως· ἢ δ' ἀσθένεια τῆς ἀλλοιούσης³⁰ αὐτὸ θερμότητος ἀγυμνασίας ἔκγονος ὑπάρχει· καὶ ἡ στενοχωρία δὲ τῆς διεξόδου διὰ σκίρρον καὶ φλεγμονὴν ἔμφραξίν τε καὶ θλίψιν καὶ μύσιν γίνεται· τούτων δὲ ἐκάστων τὴν γένεσιν ὀλίγον πρόσθεν εἰρήκαμεν.

73K ἔνια μέντοι μόρια πρὸς τοῖς ἀδήλοις τούτοις πόροις ἑτέρουσ τινὰς ἐκροὰς ἔχει σαφεῖς καὶ αἰσθητοῦς, ὥσπερ ἐγκέφαλός τε καὶ ὀφθαλμός. καὶ τοῦτο γίνεται πρὸς τῆς φύσεως ἢ διὰ τὸ κύριον τοῦ μέρους ἢ διὰ τὴν ἀκρίβειαν τῆς ἐνεργείας ἢ διὰ πυκνότητα τῶν περιεχόντων σωμάτων. ὁ μὲν γὰρ ἐγκέφαλος οἶκός τις ἐστὶ τῆς λογικῆς ψυχῆς καὶ στεγανῶ περιλαμβανόμενος ὅστῳ διὰ μεγίστων τε καὶ πλείστων ὀχρῶν ἐκκαθαίρεται, πρῶτον μὲν τῶν κατὰ τὰς ῥῖνὰς τε καὶ τὴν ὑπερώαν, δεύτερον δὲ τῶν καθ' ἐκάτερον οὐς καὶ τρίτον τῶν κατὰ τὰς τοῦ κρανίου ῥαφάς· οὐκ ἀπεικός δὲ καὶ εἰς τοὺς ὀφθαλμούς τι συρρεῖν ἐξ αὐτοῦ περιττόν. ὁ δὲ ὀφθαλμὸς οὐχ ὡς κύριος ἔτι οὗτός γε, ἀλλ' ὡς ἀκριβῶς καθαρὸς εἶναι δεόμενος εἰς τὴν τῆς ἐνεργείας ἀκρίβειαν, αἰσθητοῖς τε ἐκκενοῦται πόροις

and thickness, and in addition, viscosity, or due to the weakness of the heat changing it, and due to the narrowness of the outflow passage. Amount certainly, thickness and viscosity arise either from the nature of the drinks and foods or from some recent weakness of the alterative capacity in the part being nourished, whereas the weakness of the heat changing it is born of lack of exercise. The narrowness of the outflow passage arises due to induration, inflammation, obstruction, compression and occlusion. I have spoken about the genesis of each of these a little earlier.

Some parts have, however, in addition to these imperceptible channels, certain other obvious and perceptible channels, like the brain and eye. And this occurs from Nature, due either to the importance of the part, the precision of its function, or the density of the surrounding structures. Thus the brain is a sort of dwelling of the rational soul, and being surrounded by a bony covering, is purified by very large and numerous channels. The first of these are in the nostrils and palate, the second are those in each ear, and the third is in the sutures of the cranium. And it is not unlikely that some of the superfluity from the brain flows to the eyes. Although the eyes are not as important as the brain, they are, in fact, still important, and need to be completely pure for the precision of their

73K

³⁰ ἀλλοιούσης Κο; οὐ λυούσης Κυ

ἅπαν ὅσον ἐν αὐτῷ περιττώμα γεννᾶται κατὰ τε τὴν
 ῥίνα καὶ τὰ βλέφαρα.,

74K 14. Τὰ μὲν οὖν τῶν περιττωμάτων αἰτία τε καὶ
 ὄργανα λέλεκται. ὅπως δ' ἂν τις ταῦτα κατεσχημένα
 κενώσειεν, ἐφεξῆς λεκτέον, ἀρξαμένους αὖθις ἀπὸ τῶν
 κατὰ τὴν γαστέρα. κοινὸν μὲν οὖν ἐπὶ πάντων παράγ-
 γελμα τὴν ἐναντίαν αἰτίαν τῇ τὴν βλάβην ἐργασα-
 μένη προσάγειν, ἴδιον δὲ καθ' ἑκάστην, εἰ μὲν ὀλι-
 γώτερα καὶ ξηρότερα προσαράμενος ἐπισχεθείη τὴν
 γαστέρα, πλείω τε ἅμα προσφέρειν καὶ ὑγρότερα, εἰ
 δὲ ξηρότερα, πλείω μὲν μὴ προσφέρειν, ὑγρότερα δέ,
 εἰ δ' αὖστηρὰ καὶ στρυφνὰ, γλυκέσι τε καὶ λιπαροῖς
 εὐωχεῖν, εἰ δὲ τῇ τάξει πλημμελῶς, εἰς τὸ δέον ἐπανά-
 γειν, εἰ δὲ ἅπαξ ἀντὶ τοῦ δῖς, οὐ μόνον δῖς, ἀλλὰ καὶ
 πολλάκις προσφέρειν. κατὰ δὲ τὸν αὐτὸν τρόπον τὰς
 προσφάτους δυσκρασίας ἐξιᾶσθαι τοῖς ἐναντίοις,
 ὑγραίνοντα μὲν, εἰ ξηρανθείη, θερμαίνοντα δέ, εἰ ψυ-
 χθείη, κατὰ τῶν ἄλλων ποιοτήτων ἀναλόγως. αἱ δ'
 ὕλαι τούτων ἐν ταῖς περὶ τῶν φαρμάκων γεγραμμέ-
 ναις ἡμῖν πραγματείαις εἴρηνται.

ἐπισχεθείσης δὲ τῆς ξανθῆς χολῆς, ἐπὶ μὲν ἐμφρά-
 ξει τῇ λεπτυνύσει διαίτη χρηστέον εἴρηται δ' ἢ ὕλη
 τῆς τοιαύτης διαίτης ἐτέρωθι δι' ἐνὸς γράμματος· ἐπὶ
 δὲ θλίψεσι, ταῖς μὲν διὰ τὴν τῶν ὀμιλούντων τοῖς τῆς
 χολοδόχου πόροις σωμάτων ἄμετρον πλήρωσιν, εἰ

³⁷ This is taken to be a general reference to the three major
 works on materia medica: *Simpl. Med.*, XI.379-982K and XII.1-

function. They clear out all the superfluity generated
 in them through perceptible channels in the nose and
 eyelids.

14. I have, then, spoken of the causes and organs of the
 superfluities. Next I must say how someone might evacu-
 ate those that are retained, starting again from those in the
 stomach. There is a common precept applicable to all
 cases—apply the opposite cause to the one that created
 the harm, specific in each case. If the stomach is hindered
 because what is consumed is too little or too dry, provide
 more and moister things. If what is consumed is too dry,
 do not provide more; instead, provide what is more moist.
 If, however, what is consumed is bitter and astringent,
 feed well with things that are sweet and fatty. If the defect
 is in the order, correct what you need to correct—provide
 food once instead of twice, or not only twice but fre-
 quently. In the same way, treat the recently acquired *dys-*
krasias with opposites—moistening agents, if the stomach
 has been dried, heating agents, if it has been cooled, and
 similarly in the case of the other qualities. The materials
 of these are described in the works I have written on med-
 ications.³⁷

If the yellow bile is retained due to obstruction you
 must use a thinning diet—the material of such a diet is
 described elsewhere in one book.³⁸ If retention is due to
 compression caused by excessive fullness of the bodies

377K; *Comp. Med. Loc.*, XII.378-1003K and XIII.1-361K;
Comp. Med. Gen., XIII.362-1058. None of these has yet been
 translated into a modern language.

³⁸ *Vict. Att.*, CMG V.4.2 (English trans., Singer, *Galen: Se-*
lected Works).

75K μὲν διὰ πάχος χυμῶν, τῇ λεπτινοῦσθι διαίτη χρη-
 στέον, εἰ δὲ διὰ πλήθος, τῇ κενούσθι· εἰ δὲ διὰ φλεγ-
 μονὴν ἢ σκίρρον, ἐκπέπτωκεν ἤδη τὰ τοιαῦτα τῆς
 ὑγιεινῆς πραγματείας· εἰ δὲ διὰ δυσκρασίαν ὑπό-
 γυιον, ἀντεισάγοντα τὴν ἡττημένην ποιότητα, κατὰ
 δὲ τὸν αὐτὸν τρόπον ἰᾶσθαι χρὴ τὴν μύσιν τῶν στο-
 μίων, ἐπὶ μὲν τοῖς αὐστηροῖς γενομένην, τὰ λιπαρὰ
 καὶ γλυκέα κελεύοντα λαμβάνειν, ἐπὶ δὲ τοῖς θερμαί-
 νουσι καὶ ξηραίνουσιν, ὅσα ψύχει καὶ ὑγραίνει. λε-
 χθήσεται δ' ἢ τῶν τοιούτων σιτίων ὕλη ἐν τοῖς ἐξῆς
 ὑπομνήμασιν.

ὁ αὐτὸς δὲ τρόπος ἐστὶ τῆς καθάρσεως ἐπισχεθέντι
 τῷ τρίτῳ γένει τῶν περιττωμάτων, ὃ καθ' ἕκαστον τοῦ
 ζώου μόριον ἔφαμεν συνίστασθαι. εἰ μὲν γὰρ μύσει
 ἔτι τὰ στόματα τῶν πόρων, ἐπανορθοῦσθαι χρὴ διὰ
 τῶν ἐναντίων τοῖς βλάβασιν, τὰς μὲν ἐπὶ τοῖς ψύχου-
 σιν αἰτίοις στεγνώσεις ἐκθερμαίνοντα, καθάπερ ὅσαι
 πυκνωθέντων ἡμῶν ὑπὸ κρύους γίνονται, τὰς δὲ ἐπὶ
 θερμότητι καὶ ξηρότητι ἐμψύχοντά τε καὶ ἀνυγραί-
 νοντα, καθάπερ ὅσαι δι' ἐκκαύσεις· οὕτω δὲ καὶ ὅσαι
 76K διὰ τι τῶν στυφόντων προσέπεσον, ὥσπερ καὶ ὅσαι
 τῶν ὑδάτων ἐστὶ στυπτηριώδη, λιπαραῖς τε καὶ μα-
 λακαῖς τρίψεσιν ἅμα τοῖς τῶν γλυκέων ὑδάτων λου-
 τροῖς. εἰ δὲ ἐμφραχθεῖεν οἱ πόροι διὰ πάχος ἢ πλήθος
 ἢ γλισχρότητα περιττωμάτων, ἢ τε λεπτύνουσα δίαιτα
 τούτοις ἀρμόσει καὶ ὅσα τέμνει καὶ θερμαίνει φάρ-
 μακα, τὰ μὲν εἴσω τοῦ σώματος λαμβανόμενα, τὰ δὲ
 ἔξωθεν ἐπιτιθέμενα, καὶ πρὸ τούτων ἀπάντων γυμνά-

adjacent to the bile-containing channels, or due to thick-
 ness of the humors, you must use the thinning diet, but if 75K
 it is due to an excess in amount, you must use a diet that
 is emptying. If due to inflammation or induration, such
 things already fall outside the matter of hygiene. If due to
 an acute *dyskrasia*, restore the quality that has been over-
 come. In the same way, you must cure occlusion of the
 orifices, occurring due to bitter things, by directing [the
 patient] to take fatty and sweet things, and in those oc-
 cluded due to heating and drying agents, those things that
 cool and moisten. The material of such foods will be de-
 scribed in the books that follow.³⁹

There is the same method of purification in the third
 class of retention of superfluities that I said arises in each
 part of the animal. For if the orifices of the channels are
 closed, you must correct this through the opposites to the
 injuring agents, heating those occluded by cooling causes,
 such as those occurring in us when we are contracted
 (thickened) by icy cold, while cooling and moistening
 those occluded due to heating and drying causes, such as 76K
 those due to heatstrokes. And in the same way too, you
 must treat those occurring due to one of the astringents,
 such as the sulfurous waters, having had an impact, with
 oils and soft massage along with baths of sweet waters. If,
 however, the channels are obstructed due to the thickness,
 abundance or viscosity of the superfluities, the thinning
 diet will be suitable for these, as are those medications
 that cut and heat, whether taken into the body or applied

³⁹ Books 5 and 6.

77K σια. καὶ γὰρ καὶ ταῦτα λύειν τε δύναται τὰ περιττώματα καὶ διὰ τῶν πόρων ἐκκενοῦν, καὶ τοσοῦτω πλεονεκτεῖ τῶν λεπτυνόντων ἐδεσμάτων τε καὶ φαρμάκων, ὅσῳ βέλτιόν ἐστι μηδὲν βλαπτόμενον εἰς τὴν τῶν σωμάτων ἕξιν ἐκκενοῦσθαι τὰ περιττώματα τοῦ σὺν τῷ τὰς τε σάρκας συντήκεσθαι καὶ ἰσχυροῦσθαι τὰ στερεά. αὗται μὲν γὰρ αἱ βλάβαι τοῖς θερμοῖς τε καὶ λεπτύνουσιν ἐφεδρεύουσι φαρμάκοις· ἐπὶ δὲ τοῖς γυμνασίοις οὐ μόνον οὐδὲν τοιοῦτον, ἀλλὰ καὶ ῥώμη τοῖς ὀργάνοις ἐγγίνεται, τῆς θερμότητος ἀναζωπυρουμένης αὐτοῖς καὶ τῆς πρὸς ἄλληλα τῶν σωμάτων παρατρίψεως σκληρότητός τε τινος καὶ δυσπαθείας ἐγγιγνομένης.

ὡς δ' ἂν τις ἐν καιρῷ γυμνάζοιτο καὶ μέτρῳ τῷ προσήκοντι χρῶτο καὶ τάξει καὶ ποιότητι τῶν κατὰ μέρος ἐνεργειῶν τῇ δεούσῃ, νυνὶ μὲν οὐ πρόκειται λέγειν, ὥσπερ οὐδὲ περὶ τροφῆς καὶ καιροῦ καὶ μέτρου καὶ τάξεως καὶ ποιότητος, οὐδὲ περὶ τῶν λεπτυνόντων ἐδεσμάτων τε καὶ πομάτων, οὐδὲ περὶ τῶν ἀλλοιούντων κατὰ ποιότητα φαρμάκων· οὐδενὸς γὰρ αὐτῶν οὐδέπω τὴν κατὰ μέρος εἴπομεν χρῆσιν, ἀλλ' ἠρκέσθημεν ἐπὶ κεφαλαίων μόνον διελθεῖν· ἐν δὲ τοῖς ἕξῃς ὑπομνήμασιν ὑπὲρ ἀπάντων ἐπὶ πλέον εἰρήσεται.

15. Νυνὶ μὲν γὰρ εἰς σύνοψιν ἀγαγεῖν ἡβουλήθη ἅπασαν τὴν πραγματείαν, ὡς μηδεμίαν ὕλην ὑγιεινῆν³¹ λαθεῖν, ἧς ἔμπειρον εἶναι χρὴ τὸν ὑγιεινόν. οὐδὲν γὰρ χεῖρον ὑγιεινὸν ὀνομάζειν τὸν ἐπιστήμονα

externally, and in preference to all these, exercises. For truly, these are also able to dissolve the superfluities and evacuate them through the channels. This has the advantage over thinning foods and medications to the extent that it is better to evacuate the superfluities of the body with nothing harmful to the state of the body in which the flesh is melted away and the solid structures reduced. For these harms lie in wait with heating and thinning medications. Not only does no such thing happen due to exercises, but also strength arises in the organs, since the heat is restored in them, and even from the rubbing of the bodies against each other, a certain hardness and resistance to affection (*dyspatheia*) arises. 77K

How someone should exercise in a timely fashion and use an appropriate measure, with the required order and quality of the actions individually, it is not my task to discuss now, just as it is not to discuss, regarding food, the timing, amount, order and quality of nutriment, or thinning foods and drinks, or medications that alter qualities. For I have not yet said anything about the use of any of these individually, but have been satisfied with going through the chief points only. I shall say rather more about all these things in the books that follow.

15. Now I wished to provide a synopsis of the whole matter, so that no material that it is necessary for the hygienist to be practiced in escapes notice. For it is no bad thing to call someone skilled in the whole art of health, a

³¹ ὑγιεινὴν add. Ko

καὶ ὑγιεινῆς ἀπάσης τέχνης, ὥσπερ τὸν μόνης τῆς
 περὶ τὰ γυμνάσια γυμναστήν· ἀτὰρ οὖν καὶ ὠνόμα-
 σεν Ἐρασίστρατος οὕτως αὐτόν. ἐν δὲ τοῖς ἐξῆς ὑπο-
 78K μνήμασιν ἐκάστης τῶν εἰρημένων ὑλῶν ἐπισκεψά-
 μεθα τὸν τε καιρὸν καὶ τὴν ποιότητα καὶ τὴν ποσότητα
 καὶ τὸν τρόπον τῆς χρήσεως, ὡς μηκέθ' ὕλην μόνον,
 ἀλλ' ὑγιεινὸν αἴτιον γίνεσθαι.

ἐν τρισὶ γὰρ τούτοις γένεσι πρώτοις ἐστὶν ἡ ὑγι-
 εινὴ πραγματεία, καθάπερ καὶ ἡ θεραπευτικὴ, σώμασι
 τε καὶ αἰτίοις καὶ σημείοις· σώμασι μὲν αὐτοῖς τοῖς
 ὑγιαίνουσιν, ἀ χρὴ φυλάττεσθαι τοιαῦτα, σημείοις δὲ
 τοῖς συμβεβηκόσιν αὐτοῖς, ἐξ ὧν διαγιγνώσκειται,
 αἰτίοις δέ, ὑφ' ὧν ἡ φυλακὴ τῆς ὑγείας γίνεται. τέτ-
 79K ταρας δὲ τῆς τούτων ὕλης τὰς διαφορὰς οἱ δοκιμώτα-
 τοι τῶν νεωτέρων ἰατρῶν ἔθεντο, προσφερόμενα καὶ
 ποιούμενα καὶ κενούμενα καὶ ἔξωθεν προσπίπτοντα,
 προσφερόμενα μὲν ἐδέσματα τε καὶ πόματα καὶ εἶδη
 τινὰ τῶν φαρμάκων εἴσω τοῦ σώματος λαμβανόμενα
 καὶ τὸν εἰσπνεόμενον ἀέρα, ποιούμενα δὲ τρίψεις τε
 καὶ περιπάτους καὶ ὀχήσεις καὶ ἵππασίαν καὶ σύμπα-
 σαν κίνησιν. εἰ δ' οὐ πᾶσα κίνησις ἐστὶ γυμνάσιον,
 ἀλλ' ἡ σφοδρότερα μόνον, προσκείσθω ὧδε τῇ κινή-
 σει τὸ γυμνάσιον, ὡς εἶναι τὰ ποιούμενα κινήσεις τε
 καὶ γυμνάσια. συγκαταριθμοῦνται δὲ τῷ γένει τῶν
 αἰτίων τούτων καὶ ἐγρηγόρσεις καὶ ὕπνοι καὶ ἀφροδί-
 79K σια. τὰ δὲ ἔξωθεν προσπίπτοντα, πρῶτος μὲν ὁ περι-

⁴⁰ Erasistratus (3rd c. BC) contributed much to and wrote

"hygienist," just as it is not to call someone skilled only in
 the art of exercise, a "gymnastic trainer." Indeed, even
 Erasistratus⁴⁰ also named such a person in this way. In the
 books that follow, I shall consider each of the previously
 mentioned materials in respect of the timing, quality, 78K
 quantity and manner of use, so that it is no longer just a
 material but becomes a cause of health.

Hygiene as a subject lies in these three primary classes,
 just as therapeutics also does; that is, in bodies, causes and
 signs—in actual bodies that are healthy and must be main-
 tained so, in the signs that have occurred in them from
 which we will make a diagnosis, and in the causes through
 which the preservation of health arises. The most notable
 of the younger doctors established four *differentiae* of the
 material of these [causes]: things to be administered,
 things to be done, things to be evacuated and things that
 befall from without. Things to be administered are foods,
 drinks, certain kinds of medications taken into the body
 and the inspired air. Things to be done are massage, walk-
 ing, driving, horse riding and all movement. Since not
 every movement is gymnastics, but only what is more vig-
 orous, let me thus add exercise to movement, so the things
 to be done are movements and exercises. Also included in
 the class of these causes are wakefulness, sleep and sexual 79K
 activity. Things that befall from without are first, the ambi-

extensively on medical theory and practice. On a number of
 critical points he and Galen held opposing views. No extant works
 by Erasistratus survive. I. Garofalo has prepared a collection of
 fragments (*Erasistrata Fragmenta*); fragments 153–67 are headed
 "hygiene"; fragments 115–67 may all be from the lost work *On
 Hygiene*.

έχων ἡμᾶς ἀήρ ἐστίν, ἔπειθ' ὅσα λουομένοις ἢ ἀλειφομένοις³² ἢ διαπαλαίουσιν ἐν κόνει προσπίπτει τῷ δέρματι, καὶ εἰ δὴ τι φάρμακόν ἐστίν οὐκ ἐκβαίνου ὄρους ὑγιεινούς, ὥσπερ ἄλες³³ ἢ νίτρον ἢ ἀφρόνιτρον ἢ τι τῶν αὐτοφυῶν ὑδάτων θερμῶν. ἢ δὲ τῶν κενουμένων ὕλη προεῖρηται μὲν ὀλίγον ἔμπροσθεν.

εἰ δ' ὀρθῶς ἀντιδιήρηται τοῖς προειρημένοις τρισὶ γένεσι τῶν αἰτίων, οὐ ῥάδιον ἀποφύνασθαι. τάχα γὰρ ἂν ἦν βέλτιον ὑπὸ μὲν τῶν προσφερομένων καὶ ποιουμένων καὶ προσπιπτόντων ἔξωθεν ἀλλοιοῦσθαι τε καὶ μετακοσμεῖσθαι φάναι τὰ κατὰ τὸ σῶμα, τὴν μεταβολὴν δὲ αὐτῶν γίνεσθαι κατὰ τε τὸ ποιὸν καὶ κατὰ τὸ ποσόν, καὶ κατὰ μὲν τὸ ποιὸν ἐν τῷ θερμαίνεσθαι καὶ ψύχεσθαι καὶ ξηραίνεσθαι καὶ ὑγραίνεσθαι, κατὰ δὲ τὸ ποσὸν ἐν τῷ τρέφεσθαι καὶ κενουῖσθαι, καὶ αὐτὴν γε τὴν κένωσιν εἶναι διττὴν, ἑτέραν μὲν τῶν περιττωμάτων, ὑπὲρ ὧν ὀλίγον ἔμπροσθεν ἐλέγομεν, ἑτέραν δὲ τὴν αὐτῆς τῆς οἰκείας ἡμῶν οὐσίας ἀπορροήν, ἣτις ἀντίκειται τῇ θρέψει. ἐπισημῆνασθαι δὲ χρὴ κἀνταῦθα τὴν ὁμωνυμίαν, ἣν Ἰπποκράτης ἐν τῷ περὶ τροφῆς ἡμῶν συγγράμματι διείλετο, φάμενος ὧδε· "τροφὴ δὲ τὸ τρέφον, τροφή καὶ τὸ οἶον, τροφή καὶ τὸ μέλλον."

τῇ μὲν γὰρ κατὰ τὸ πρῶτον σημαινόμενον τροφῇ τε καὶ πέσει τὴν ἀπορροήν τῆς οὐσίας ἀντιδιαίρεσθαι χρὴ, τῇ δὲ κατὰ τὸ δεύτερον σημαινόμενον³⁴

³² post ἢ ἀλειφομένοις: add. ἢ διαπαλαίουσιν ἐν κόνει Ko

ent air, then those things that contact the skin in bathing, anointing with oil, and wrestling in dust, and finally, some medication not falling outside the limits of hygiene, such as salt, myrtle, niter, native sodium carbonate or one of the natural waters that are hot. The material of the things being evacuated was spoken of a little earlier.

Whether the differentiation into the three previously mentioned classes of causes has been made correctly is not easily demonstrated. Perhaps it would be better to say that those things pertaining to the body are changed and rearranged by things that are administered, done or befall from without, while the change of these occurs in both quality and quantity. In quality, in being heated, cooled, dried and moistened, and in quantity, in being nourished and evacuated, and that the actual emptying is twofold—the one of superfluities that I spoke about a little earlier and the other when the intrinsic substance of our nature flows away, which is the antithesis of being nourished. Here it is necessary to indicate the homonymy, which Hippocrates, in his work *On Nutriment*, distinguished 80K when he said: "Nutriment is that which nourishes; nutriment is also that which is fit to nourish; and nutriment is that which is about to nourish."⁴¹

In relation to the first signification, it is necessary to oppose the outflow of substance to nutriment and concoction. In relation to the second signification, it is necessary

⁴¹ See Hippocrates, *On Nutriment* 8, Hippocrates 1, LCL 147, 344–45.

³³ post ἄλες: add. ἢ μύρτα Ku
³⁴ post τὸ δεύτερον: add. σημαινόμενον Ko

αίμορραγίαν τε καὶ ἀπλῶς εἰπεῖν αἵματος ἄπασαν
 κένωσιν, τῇ δὲ κατὰ τὸ τρίτον ἔμετόν τε καὶ λειεν-
 τερίαν. ἀλλὰ περὶ μὲν τῶν τοιούτων διαιρέσεων, ὅπως
 ἂν τις ἐθέλη, τιθέσθω. τῶν δ' ὑλῶν ἀπασῶν τῶν ὑγι-
 εινῶν ἐπίστασθαι ἀναγκαῖον τὰς δυνάμεις τῶ τῆν
 ὑγιεινὴν τέχνην μετιόντι. καὶ γὰρ καὶ ἡ ἐπιδέξιος
 αὐτῶν χρήσις ἐντεῦθεν ὥρμηται. γίνεται δ' ἡ ἐπιδέ-
 ξιος αὐτῶν χρήσις, ἐὰν τὸν γε καιρὸν ἐκάστου καὶ τὸ
 μέτρον εὔρωμεν. ὥστε ἐπὶ ταῦτα χρῆ προΐεναι μάλ-
 λον, οὐ τὰς μοχθηρὰς αἱρέσεις διεξελέγχειν. ἀλλὰ
 ἐπειδὴ μέγεθος ἰκανὸν ὁ πρῶτός μοι λόγος ἔχει,
 τοῦτον μὲν ἐνταῦθα καταπαύσω, τὰ δ' ὑπόλοιπα τῆς
 πραγματείας ἐν τοῖς ἐξῆς διηγῆσομαι.

to oppose hemorrhage and, to speak simply, every evacu-
 ation of blood to nutriment and concoction. In relation to
 the third signification, it is necessary to oppose vomiting
 and diarrhea [to nutriment and concoction]. But on the
 matter of such divisions, let each person establish those he
 wishes to. It is necessary for the one going about the art
 of hygiene to know the powers of all the materials that are
 health-producing, for the skillful use of them arises here,
 if we are to discover what is timely and measured in each
 case. Consequently, it is necessary to proceed to these
 rather than delay by refuting mistaken sects.⁴² But since
 my first discussion has already gone on long enough, I shall
 stop this here, and set out what remains of the matter in
 the books to follow.

⁴² See note 10 above. Galen was particularly critical of the
 Methodics; less so of the Empirics.

B

81K 1. Τὰ μὲν δὴ κεφάλαια καὶ τοὺς σκοποὺς τῆς ὑγιεινῆς τέχνης ὁ πρόσθεν λόγος προείρηκεν· τὰ δὲ κατὰ μέρος ἅπαντα πειρᾶσθαι χρὴ διελθεῖν, ἀρξαμένους αὐθις ἀπ' ἐκείνων, εἰς ἅπερ ἔτελεύτα τὸ πρῶτον γράμμα. ὑποκείσθω δὴ τις ἡμῖν τῷ λόγῳ παῖς ὑγιεινότατος φύσει, τῆς τρίτης ἑβδομάδος ἐτῶν ἀρχόμενος, ἐφ' οὗ πλάττειν τε καὶ κοσμεῖν τὸ σῶμα προκείσθω καθ' ὅσον οἶόν τε κάλλιστα.

καὶ πρῶτον τοῦτ' αὐτὸ διοριστέον, τί ποτε βούλεται τῷ λόγῳ τὸ κάλλιστα προσκείμενον. βούλεται δὲ 82K τόδε. ὥσπερ αὐτῶν τῶν σωμάτων ἐδείχθη παμπόλλη τις οὖσα διαφορά, κατὰ τὸν αὐτὸν τρόπον καὶ τῶν βίων, οὓς βιοῦμεν, εἶδη πάμπολλά ἐστίν. οὐκ οὐκ ἐγχωρεῖ τὴν ἀρίστην τοῦ σώματος ἐπιμέλειαν ἐν ἅπαντι τῷ προχειρισθέντι βίῳ συστήσασθαι ἀλλὰ τὴν μὲν ὡς ἐν ἐκάστῳ βελτίστην οἶόν τε, τὴν δ' ἀπλῶς ἀρίστην οὐκ ἐγχωρεῖ κατὰ πάντας τοὺς βίους ποιήσασθαι. πολλοῖς γὰρ τῶν ἀνθρώπων μετὰ περιστάσεως πραγμάτων ὁ βίος ἐστί. καὶ βλάπτεσθαι μὲν ἀναγκαῖόν ἐστιν αὐτοῖς ἐξ ὧν πράττουσιν, ἀποστήναι δ' ἀδύνατον. ἔνιοι μὲν γὰρ ὑπὸ πτωχείας εἰς τοὺς τοιού-

BOOK II

1. The preceding discussion has stated the chief points and objectives of the art of hygiene. We must attempt to go over all these individually, beginning again from those at which the first book ended. Let us, then, assume in our discussion some child who is very healthy in nature, starting the third seven-year period of life. In the case of such a child let us propose to form and prepare the body in the best way possible. 81K

And we must first distinguish this itself—what we mean by attaching the term “the best” at this time. What we mean is this: just as it was shown that there are very many differences of the bodies themselves, in the same way there are also very many kinds of lives we lead. Therefore it is not possible for the best care of the body to be established in every life that is undertaken, but the best that is possible in each case, for what is absolutely the best is impossible to achieve in all lives. For many people, life is bound up with the circumstances of their activities, and for them harm is inevitable from what they do—this cannot be avoided. Some happen upon such lives through 82K

τους ἐμπίπτουσι βίους, ἔνιοι δ' ὑπὸ δουλείας, ἤτοι πατρόθεν εἰς αὐτοὺς καθηκούσης ἢ αἰχμαλώτοις ληφθεῖσιν ἢ ἀρπαχθεῖσιν, ἄσπερ καὶ μόνας δουλείας ὀνομάζουσιν οἱ πολλοὶ τῶν ἀνθρώπων. ἐμοὶ δὲ δοκοῦσι καὶ ὅσοι διὰ φιλοτιμίαν ἢ δι' ἐπιθυμίαν ἠτιναοῦν εἴλοντο βίον ἐν περιστάσεσι πραγμάτων, ὡς ὀλίγιστα δύνασθαι σχολάζειν τῇ τοῦ σώματος ἐπιμελείᾳ, καὶ οὗτοι δουλεύειν ἐκόντες οὐκ ἀγαθαῖς δεσποίνοις. ὥστε τούτοις μὲν οὐκ ἐγχωρεῖ γράψαι τὴν ἀπλῶς ἀρίστην ἐπιμέλειαν τοῦ σώματος· ὅστις δὲ ἀκριβῶς ἐλεύθερος ὑπάρχει καὶ τύχη καὶ προαιρέσει, δυνατὸν ὑποθέσθαι τῷδε, ὡς ἂν ὑγιαίνοι τε μάλιστα καὶ ἤκιστα νοσήσειε καὶ γηράσειεν ἄριστα.

καὶ μὲν γε καὶ ἡ ὑγιεινὴ μέθοδος, καθάπερ οὖν καὶ ἄλλη πᾶσα μέθοδος, ἀρχὴν διδασκαλίας τοιαύτην ἐπιζητεῖ. τὸ γὰρ ἀπλοῦν καὶ ἄμεμπτον ἐν ἐκάστῳ γένοι, καθάπερ τις κανὼν, ἀπάντων ἐθέλει προτετάχθαι τῶν οὐχ ἀπλῶν οὐδ' ἀμέμπτων. ἀπλοῦν δὲ καὶ ἄμεμπτον ἐν μὲν τοῖς σώμασι τὸ κατεσκευασμένον ἄριστα ἔστιν, ἐν δὲ τοῖς βίοις τὸ ἀκριβῶς ἐλεύθερον. ταῦτ' οὖν ἄμφω πρῶτα συζευγνύσθω κατὰ τόνδε τὸν λόγον· εἴθ' ἐξῆς ἐκάστη κατασκευὴ σώματος μοχθηρᾷ βίος ἐλεύθερος μιγνύσθω· κἄπειθ' ἐξῆς ἀρίστη κατασκευὴ σώματος ἕκαστος τῶν ἐν δουλείᾳ τινὶ βίῳ· ἐπὶ δὲ τοῖσδε τὰς μοχθηρὰς τῶν σωμάτων κατασκευὰς ἐπαλλάξωμεν τοῖς μοχθηροῖς βίοις, εἰ μέλλει τέλειος ἡμῖν ὁ λόγος ἔσεσθαι.

poverty and some through slavery, either coming down to them from their fathers, or by being taken away as prisoners, or being snatched away, which the majority of people call the only slavery. However, there are also those who seem to me to have chosen a life caught up in the circumstances of their activities, either through ambition or whatever kind of desire, so they are least able to spend time on the care of their bodies; these men are willing slaves to bad mistresses. As a result, it is impossible to set down what, for these men, is the absolute best care of the body. But in the case of someone who is completely free, whether by chance or by choice, it is possible to lay down the following: how he might be most healthy and least diseased and how he might grow old in the best way.

In fact, the method of hygiene seeks just such a principle of instruction, as does every other method, for in each class that which is simple and without fault, is what someone might wish to be established as a standard for all that is neither simple nor without fault. In bodies, that which is simple and without fault is the best constitution; in lives, it is complete freedom. First, let us link together both these things in this discussion. Next, let a life that is free be combined with each defective constitution of the body. And then, in turn, let each of the lives spent in some kind of enslavement be combined with the best constitution of the body. After these, let us join the defective constitutions of bodies with defective lives, so our discussion will come to completion.

84K 2. Τίνα ποτ' οὖν προσήκει τίθεσθαι ἀρχὴν τῆς ὑγιεινῆς πραγματείας τῷ κάλλιστά τε κατεσκευασμένῳ καὶ τὸ σῶμα καὶ τρίτης ἐβδομάδος ἐτῶν ἀρχομένῳ καὶ μόνῃ σχολάζοντι τῇ τοῦ σώματος ἐπιμελείᾳ, τὰ δ' ἄλλα πάντα πάρεργα τεθειμένῳ; ἐμοὶ μὲν οὖν δοκεῖ τὴν ὑφ' Ἱπποκράτους εἰρημένην ἔν τε τοῖς Ἀφορισμοῖς, ἔνθα γράφει "πόνοι σιτίων ἡγείσθωσαν," ἔν τε τῷ τῶν Ἐπιδημιῶν ἔκτῳ κατὰ τήνδε τὴν ῥῆσιν "πόνοι, σίτα, ποτά, ὕπνοι, ἀφροδίσια, πάντα μέτρια." καὶ γὰρ καὶ τὸ ποσὸν ἀφώρισεν ἅπασιν, προσθεὶς τὸ κατὰ τὸ τέλος τῆς ῥήσεως ὄνομα τὸ "μέτρια," καὶ τὸν καιρὸν ἐδίδαξε τῇ τάξει τοῦ λόγου. εἰς γὰρ τὴν τῆς ὑγείας φυλακὴν ἀρχὴν μὲν χρῆ τοὺς πόρους, ἔπεσθαι δὲ σιτία τε καὶ ποτά, εἶθ' ἐξῆς ὕπνους, εἶτα ἀφροδίσια τοῖς γε δὴ μέλλουσιν ἀφροδισίοις χρῆσθαι. τὰ μὲν γὰρ ἄλλα πάντα κοινὰ πάσης ἡλικίας ἐστί, τὰ δ' ἀφροδίσια μόνῃ τῆς τῶν ἀκμαζόντων, ἡνίκα περ αὐτῶν καὶ ἡ χρεία, ὡς ταῖς γε πρόσθεν τε καὶ ὀπίσθεν ἡλικίαις ἢ οὐδ' ὅλως σπερμαίνειν ἢ οὐ γόνιμον σπερμαίνειν ἢ μοχθηρῶς γόνιμον ὑπάρχειν. ἀλλὰ γὰρ ὁ περὶ μὲν τῶν ἀφροδισίων λόγος εἰς τὴν οἰκίαν ἀναβεβλήσθω τάξιν.

85K ἀπὸ δὲ τῶν πόνων ἀρκτέον, αὐτὸ τοῦτο πρῶτον ἐν αὐτοῖς διελομένους, εἴτε ταῦτόν ἐστι πόνος τε καὶ κίνησις καὶ γυμνάσιον, εἴτε πόνος μὲν καὶ κίνησις ταῦτόν, ἕτερον δέ τι τὸ γυμνάσιον, εἴτε κίνησις μὲν

¹ Hippocrates, *Epidemics* 6.4(23), LCL 477, 254–55.

2. What in the world, then, is it appropriate to establish as the principle of the matter of hygiene for someone with the best constitution of the body entering the third seven-year period of life—someone who has the time to devote himself solely to the care of the body and to set aside all other things as secondary? It seems to me it is the statement by Hippocrates in the *Aphorisms*, where he writes: "Let exertions precede food."¹ In relation to this statement, in the sixth book of *Epidemics* [there is]: "Exertions, food, drink, sleep and sexual activity all in moderation."² Indeed, he also set the amount for all these things, placing the term "moderation" at the end of the statement, and he taught the appropriate time in the order of the statement. For the preservation of health, exertions³ must come first, followed by food and drink, and next in order, sleep, and then sexual intercourse for those who intend to engage in this. All the other things are common to all the stages of life, whereas sexual activity is only for those in their prime, at which time there is need of this, since, in the stages before and after, insemination is altogether out of the question or is unfruitful or bad in terms of fertility. But let me put off the discussion about sexual activity to its proper place.

We must start from exertions, first making this distinction among these things: whether exertion (work), movement and exercise are the same, or exertion and movement the same but exercise something different, or

² Hippocrates, *Epidemics* 6.6(2), LCL 477, 262–63.

³ The Greek term *πόνος* has various meanings. LSJ includes "work" (especially hard work), "toil," "labor," "bodily exertion," and "exercise" as well as "distress" and "trouble," among other terms. "Exertion" is predominantly used here. Galen himself expands somewhat on the term.

ἕτερον, οὐδὲν δ' ὁ πόνος τοῦ γυμνασίου διαφέρει. ἐμοὶ
 μὲν δὴ δοκεῖ μὴ πᾶσα κίνησις εἶναι γυμνάσιον, ἀλλ'
 ἢ σφοδρότερα μόνη. ἐπεὶ δ' ἐν τῷ πρὸς τι τὸ σφο-
 δρόν, εἴη ἂν ἢ αὐτὴ κίνησις ἐτέρω μὲν γυμνάσιον,
 ἐτέρω δ' οὐ γυμνάσιον. ὅρος δὲ τῆς σφοδρότητος ἢ
 τῆς ἀναπνοῆς ἀλλοίωσις· ὡς, ὅσαι γε κινήσεις οὐκ
 ἀλλοιοῦσι τὴν ἀναπνοήν, οὕτω ταύτας ὀνομάζουσι
 γυμνάσια· εἰ δ' ἤτοι μείζον ἢ ἔλαττον ἢ θᾶπτον ἢ
 πυκνότερον ἀναγκασθῆι τις ἀναπνεῖν ἐπὶ κινήσει
 τινί, γυμνάσιον ἢ τηλικαύτη κίνησις ἐκείνῳ γενήσε-
 ται. τοῦτο μὲν δὴ κοινῇ γυμνάσιον ὀνομάζεται, ἰδίᾳ
 δέ, ἀφ' οὐπὲρ καὶ τὰ γυμνάσια προσαγορεύουσιν
 ἅπαντες, ἐν τινι κοινῷ τῆς πόλεως οἰκοδομησάμενοι
 χωρίῳ, εἰς ὅπερ καὶ ἀλειψόμενοι τε καὶ διατριψόμενοι
 καὶ διαπαλαίοντες ἢ δισκεύοντες ἢ τι τοιοῦτον
 ἄλλο πράζοντες ἤκουσιν.

ἢ δὲ τοῦ πόνου προσηγορία ταυτόν μοι δοκεῖ ση-
 μαίνειν θατέρω τῷ ὑπὸ τοῦ γυμνασίου ὀνόματος εἰρη-
 μένῳ δηλοῦσθαι τῷ κοινῷ. καὶ γὰρ καὶ οἱ σκάπτοντες
 καὶ οἱ θερίζοντες καὶ ἵππαζόμενοι πονοῦσί τε καὶ
 γυμνάζονται κατὰ τὸ κοινὸν τοῦ γυμνασίου σημαινό-
 μενον. ἐμοὶ μὲν οὖν οὕτω διηρήσθω περὶ τῶν ὀνο-
 μάτων, καὶ κατὰ ταῦτα τὰ σημαινόμενα πᾶς ὁ ἐφεξῆς
 λόγος ἀκουέσθω. εἰ δέ τις ἐτέρως βούλεται χρῆσθαι,
 συγχωρῶ· οὐδὲ γὰρ ὑπὲρ ὀνομάτων ὀρθότητος ἤκω
 σκεψόμενος, ἀλλ' ὡς ἂν τις ὑγιαῖνοι μάλιστα· καὶ
 πρὸς τοῦτ' αὐτὸ χρήσιμον ὑπάρχον μοι περὶ τε τῶν
 γυμνασίων καὶ πόνων καὶ ξυλλήβδην εἰπεῖν ἀπάσης

movement is different whereas exertion is no different
 from exercise. It certainly seems to me that not every
 movement is exercise but only that which is quite vigor-
 ous. However, since vigor is a relative term, it may be that
 the same movement is exercise for one person but not for
 another. The defining feature of vigor is the change of
 breathing, inasmuch as those movements that do not
 change the breathing, people do not yet term exercises,
 whereas if someone is forced to breathe more or less, or
 faster or slower after some movement, such a movement
 will become an exercise for that person. This is called
 "exercise" by common consent, whereas separately, among
 those which all term exercises, are those done in some
 public place they have built in the city to which they come
 to be anointed or massaged, and wrestle or throw the dis-
 cus, or do something else of this sort.

The term *ponos* (exertion, work, exercise) seems to me
 to signify the same thing as the other thing which has been
 said to be signified to people in general by the term "ex-
 ercise." For those who dig, reap and ride horses both work
 and exercise according to the general signification of ex-
 ercise. Let me make the distinction about the terms in this
 way, and let the whole discussion that follows be under-
 stood according to these significations. If, however, some-
 one should wish to use [the term] otherwise, I agree, for
 I have not come to examine the correctness of terms but
 how someone might be most healthy. And since, for this
 very purpose, it is useful for me to make a division con-

87K κινήσεως διελέσθαι, τὰ σημαινόμενα τῶν ὀνομάτων ἠναγκάσθην ἀφορίσασθαι. αἱ μὲν δὴ τῶν γυμνασίων χρεῖαι καὶ διὰ τοῦ πρώτου μὲν εἴρηνται λόγου, βέλτιον δ' ἂν εἴη καὶ νῦν ἐπανελθεῖν αὐτὰς διὰ βραχείων, ἐπειδὴ σκοπὸς τε ἅμα καὶ κριτήριον αὐταὶ τυγχάνουσιν οὖσαι πάντων τῶν κατὰ μέρος ἐν τῇ περὶ τὰ γυμνάσια τέχνη πραττομένων.

ἦσαν δέ, ὡς οἶμαι, διτταὶ κατὰ γένος, αἱ μὲν τινες εἰς τὴν τῶν περιττωμάτων κένωσιν, αἱ δὲ εἰς αὐτῆν τῶν στερεῶν σωμάτων τὴν εὐεξίαν διαφέρουσιν. ἐπειδὴ γὰρ ἐστὶ κίνησις σφοδρὰ τὸ γυμνάσιον, ἀνάγκη τρία μὲν πρώτα¹ ταῦτα γίνεσθαι πρὸς αὐτοῦ κατὰ τὸ γυμναζόμενον σῶμα, τὴν τε σκληρότητα τῶν ὀργάνων ἀλλήλοις παρατριβομένων, τὴν τε τῆς ἐμφύτου θερμότητος αὔξησιν, τὴν τε τοῦ πνεύματος κίνησιν βιαιοτέραν, ἔπεσθαι δὲ τούτοις τᾶλλα σύμπαντα τὰ κατὰ μέρος ἀγαθὰ τοῖς σώμασιν ἐκ γυμνασίων γινόμενα, διὰ μὲν τὴν σκληρότητα τῶν ὀργάνων τὴν τε δυσπάθειαν αὐτῶν καὶ τὴν πρὸς τὰς ἐνεργείας εὐτονίαν, διὰ δὲ τὴν θερμότητα τὴν τε τῶν ἀναδιδομένων ὀλκὴν ἰσχυρὰν καὶ τὴν ἀλλοίωσιν ἐτοιμοτέραν καὶ τὴν θρέψιν βελτίονα καὶ χύσιν ἀπάντων τῶν σωμάτων, ἐφ' ἧ χύσει τὰ μὲν στερεὰ μαλάττεσθαι, τὰ δὲ ὑγρὰ λεπτύνεσθαι, τοὺς πόρους δ' εὐρους γίνεσθαι συμβαίνει, διὰ δὲ τὴν τοῦ πνεύματος ἰσχυρὰν κίνησιν ἐκκαθαίρεσθαι τε τοὺς πόρους ἀναγκαῖόν ἐστι καὶ κενοῦσθαι τὰ περιττώματα.

88K ἄλλ' εἶπερ ταῦτα ποιεῖ τὸ γυμνάσιον, οὐ χαλεπὸν

cerning exercises and exertions, and in a word every movement, I have been compelled to distinguish the significations of the terms. Although the uses of exercise have also been discussed in the first book, it would be better to recapitulate these briefly now, since these happen to be both the objective and the criterion of all the things done individually in the art of exercise. 87K

These were, I think, twofold in terms of class, drawing a distinction between those that pertain to the evacuation of superfluities and those that pertain to the actual good state of the solid bodies. Since exercise is vigorous movement, of necessity these three primary things arise from it in respect of the exercising body—hardness of the organs when they rub together with each other, an increase of the innate heat, and the more forceful movement of the *pneuma*—while all the other things good for bodies that arise in turn from exercises follow these things: (1) due to the hardness of the organs, their resistance to affection and vigor in regard to their functions; (2) due to the heat and the strong attraction of those things being distributed, there is a greater readiness to change, better nutrition and diffusion to all the bodies; what happens due to this diffusion is that the solid bodies are softened, liquids are thinned and channels become wider; (3) due to the strong movement of the *pneuma* the channels are inevitably cleaned out and the superfluities evacuated.

But if exercise does these things, it is no longer difficult 88K

¹ μὲν πρώτα Ko; μόνον Ku

ἔτι τὸν καιρὸν τῆς χρήσεως ἐξευρεῖν. διότι μὲν γὰρ ἀναδόσεσι συνεργεῖ, οὐ χρὴ πλῆθος ὠμῶν καὶ ἀπέπτων οὔτε σιτίων οὔτε χυμῶν ἢ κατὰ τὴν κοιλίαν ἢ ἐν τοῖς ἀγγείοις περιέχεσθαι· κίνδυνος γὰρ αὐτοῖς ἐλχθῆναι πρὸς ἅπαντα τοῦ ζώου τὰ μέρη, πρὶν χρηστοῖς γενέσθαι πεφθῆϊσι σχολή. διότι δὲ ἐκκαθαίρει τοὺς πόρους καὶ κενοῖ τὰ περιττώματα, κάλλιον αὐτὸ πρὸ τῶν σιτίων ἀναλαμβάνεσθαι. "τὰ" μὲν γὰρ "μὴ καθαρὰ τῶν σωμάτων, ὀκόσον ἂν θρέψης, μᾶλλον βλάβεις." ὥστε ἐκ τῶν εἰρημένων εὐδηλον, ὡς οὗτος ἄριστός ἐστι γυμνασίων καιρός, ἡνίκα ἢ μὲν χθιζινὴ τροφή τελέως ἢ κατειργασμένη τε καὶ πεπεμμένη τὰς δύο πέψεις, τὴν τε ἐν τῇ γαστρὶ καὶ τὴν ἐν τοῖς ἀγγείοις, ἑτέρας δ' ἐφεδρεύη τροφῆς καιρός. εἰ δὲ τοῦδε πρόσθεν ἢ ὀπισθεν γυμνάζοις, ἢ χυμῶν ἀπέπτων ἐμπλήσεις τὸ ζῶον ἢ τὴν ὠχρὰν χολὴν ἐπιτρέψεις γεννηθῆναι πλείονα.

89K γνώρισμα δὲ τοῦ τοιούτου καιροῦ τῶν οὔρων ἢ χροιά· τὸ μὲν οὖν ὑδατῶδες ἄπεπτον ἔτι σημαίνει τὸν ἐκ τῆς γαστρὸς ἀναδοθέντα χυμὸν ἐν τοῖς ἀγγείοις περιέχεσθαι, τὸ δὲ πυρρὸν καὶ χολῶδες ἐκ πολλοῦ κατειργάσθαι, τὸ δὲ μετρίως ὠχρὸν ἄρτι τῆς δευτέρας πέψεως γεγεννημένης ἐστὶ σημεῖον. ὅταν γὰρ μηδέπω χρώζεται τῇ χολῇ τὸ οὔρον, ὑδατῶδες τε καὶ λευκὸν φαίνεται, ὅταν δὲ πλέον ἀναδέξεται τοῦ προσήκοντος, πυρρὸν. ἐπειδὴν δὲ συμμέτρως ἢ πυρρὸν ἢ μετρίως ὠχρὸν, τηνικαῦτα τοίνυν ἄγειν ἐπὶ τὰ γυμνάσια, προαποθέμενον ὅσον ἂν ἐν τῇ κύστει καὶ τοῖς ἐντέροις

to discover the appropriate time for its use. Since it assists distribution, there must not be an abundance of raw and unconcocted foods or humors contained in either the stomach or the vessels, otherwise there is a danger of these being drawn to all parts of the animal before there is time for them to become useful as a result of concoction. And because it clears out the channels and evacuates the superfluities, it is better to partake of it before food, for with "unpurged bodies, the more you nourish them, the more you harm them."⁴ Consequently, it is clear from what has been said that the best time for exercises is when the nourishment from the previous day has been completely worked upon and digested by the two digestions—that in the stomach and that in the vessels—and the time for further nourishment is near. If you exercise either before or after this, you will fill the organism with unconcocted humors and allow yellow bile to become abundant.

The color of the urine is a sign of such a time. If it is watery, this signifies that there is still unconcocted humor distributed from the stomach and contained in the vessels. However, urine that is tawny and bile-containing indicates that digestion is, for the most part, accomplished. Urine that is moderately pale is a sign of the second digestion having just now taken place. For whenever the urine is not yet tinged by bile, it appears watery and pale. However, when it receives more bile than is appropriate, it is tawny. Whenever it is moderately tawny or moderately pale, proceed to exercises under these circumstances after excretion of as much of the superfluity as is contained in the

⁴ Hippocrates, *Aphorisms* 2.10, *Hippocrates* IV, LCL 150, 110–11. See also Galen, *In Hp. Aph.*, XVIIIB.414K.

τοῖς κάτω περιεχόμενον ἢ περίττωμα· κίνδυνος γὰρ
 κακ τῶν τοιούτων εἰς τὴν ἕξιν τοῦ σώματος ἐνεχθῆναι
 τι τῆ ρύμη τῆς ἐν τοῖς γυμνασίοις θερμότητος ἀναρ-
 πασθέν. εἰ μὲν οὖν εὐθέως ἀποδυσάμενός τις ἐπὶ τὰς
 ἰσχυροτέρας ἔρχοιτο κινήσεις, πρὶν μαλάξαι σύμπαν
 τὸ σῶμα καὶ λεπτῦναι τὰ περιττώματα καὶ τοὺς πό-
 ρους εὐρύναι, κίνδυνος μὲν καὶ ῥῆξαι τι καὶ σπάσαι
 τῶν στερεῶν σωμάτων, κίνδυνος δὲ καὶ τὰ περιττώ-
 ματα τῆ τοῦ πνεύματος ρύμη κινήσαντος τοὺς πόρους
 ἐμφράξαι.

εἰ δὲ κατὰ μικρὸν προθερμήνας προμαλάξῃ μὲν
 τὰ στερεά, προλεπτύνει δὲ τὰ ὑγρά καὶ τοὺς πόρους
 εὐρύνει, κίνδυνος οὐδεὶς ἔτι οὔτε τοῦ ῥῆξαι τι μόνιον
 οὔτε τοῦ τοὺς πόρους ἐμφράξαι ἂν καταλάβοι τὸν
 γυμναζόμενον. ὅπως οὖν ταῦτα γίνοιτο, χρὴ προθερ-
 μάναντα μετρίως ἀνατρίψαντά τε σινδόνι τὸ σύμπαν
 σῶμα κάπειτα δι' ἐλαίου τρίβειν. οὐ γὰρ δὴ εὐθέως
 γε χρῆσθαι τῷ λίπιδι συμβουλεύω πρὶν θερμανθῆναι
 τε τὸ δέρμα καὶ τοὺς πόρους εὐρυνθῆναι καὶ συλ-
 λήβδην εἰπεῖν εὐτρεπισθῆναι τὸ σῶμα πρὸς τὸ κατα-
 δέξασθαι τὸ ἔλαιον. ἱκαναὶ δ' εἰς τοῦτο παντάπασιν
 ὀλίγαι περιαγωγαὶ τῶν χειρῶν ἄθλιπτοί² τε καὶ με-
 τρίως ταχείαι σκοπὸν ἔχουσαι θερμῆναι τὸ σῶμα
 χωρὶς τοῦ θλίψαι· καὶ γὰρ δὴ καὶ φανείται σοι τούτων
 γινομένων ἔρευθος εὐανθὲς ἐπιτρέχον ἅπαντι τῷ δέρ-
 ματι. τότε οὖν ἤδη τὸ λίπος ἐπάγειν αὐτῷ καὶ τρίβειν
 γυμναῖς ταῖς χερσὶ συμμέτρως ἐχούσαις σκληρό-
 τητός τε καὶ μαλακότητος, ὅπως μήτε συνάγεται

bladder and the lower intestines, for there is a danger of
 such things being carried to the substance of the body by
 the strength of the heat carried off in the exercises. If,
 then, immediately after stripping off, someone were to go
 to overly strong movements before softening the whole
 body, thinning the superfluities and dilating the channels,
 there is a danger of breaking and tearing apart the solid
 bodies, and also a danger that the superfluities, moved by
 the force of the *pneuma*, will block up the channels. 90K

But if, by warming a little beforehand, one were to
 soften the solid parts, thin the fluids and dilate the chan-
 nels, there would no longer be a danger of breakage of any
 part or obstruction of the channels, if it were to catch the
 person exercising. Therefore, in order for these things to
 occur, it is necessary to warm the whole body beforehand
 and to massage it moderately with a fine linen cloth, and
 then to rub it with oil. I certainly do not recommend the
 immediate use of the oil before the skin has been warmed,
 the pores dilated, and, in a word, the body made ready to
 receive the oil. All in all, a few strokes of the hands that
 are painless and moderately quick are sufficient for the
 purpose and have the objective of warming the body apart
 from the rubbing. Furthermore, when these things occur,
 a florid redness will seem to you to be spreading over the
 whole skin. At that time, introduce the oil to it and mas-
 sage with bare hands which are midway between hard and
 soft, so the body is neither constricted and compressed,

² ἄθλιπτοί Κο; ἄλυπτοί Κυ

91K καὶ σφίγγηται τὸ σῶμα μήτε ἐκλύηται καὶ χαλάται περαιτέρω τοῦ προσήκοντος, ἀλλ' ἐν τῇ φύσει φυλάττηται.

τρίβειν δὲ κατὰ μὲν τὰς πρώτας ἐπιβολὰς ἀτρέμα, τὸν τεύθεν δ' ἤδη κατὰ βραχὺ παραύξοντα καὶ μέχρι γε τοσοῦτου τὴν τρίψιν ἐπὶ τὸ ῥωμαλεώτερον μεταγαγεῖν, ὡς θλίβεσθαι μὲν ἤδη σαφῶς τὴν σάρκα, μὴ θλάσθαι δέ· μὴ πολλῶ δὲ χρόνῳ τὴν οὕτως ἰσχυρὰν τρίψιν ἐπάγειν, ἀλλ' ἅπαξ ἢ δις ἐφ' ἐκάστου μέρους. οὐ γὰρ ὥστε σκληρῦναι τὸ σῶμα τοῦ παιδὸς οὕτω τρίβομεν, ὅταν ἤδη τοῖς πόνοις προσάγωμεν, ἀλλ' ὑπὲρ τοῦ προτρέψαι τε εἰς τὰς ἐνεργείας καὶ συστρέψαι τὸν τόνον καὶ τὴν ἐκ τῆς μαλακῆς τρίψεως ἀραιότητα σφίγξαι. σύμμετρον γὰρ αὐτοῦ τὸ σῶμα φυλάττεσθαι χρὴ καὶ οὐδαμῶς οὔτε σκληρὸν οὔτε ξηρὸν ἀποτελεῖσθαι, μὴ πως ἐπίσχωμέν τι τῆς κατὰ φύσιν αὐξήσεως. τοῦ δὲ χρόνου προϊόντος, ὅταν ἤδη μειράκιον ἡμῖν γίνηται, τότε καὶ τῇ σκληροτέρᾳ τρίψει χρῆσόμεθα καὶ ταῖς μετὰ τὰ γυμνάσια ψυχρολουσίαις. ἀλλὰ περὶ μὲν τούτων αὐθις εἰρήσεται.

92K 3. Ἐν τῇ δὲ τρίψει ὡς πρὸς τὰ γυμνάσια παρασκευασμένη, σκοπὸν ἐχούση μαλάξαι τὰ σώματα, τὴν μέσην σκληρᾶς καὶ μαλακῆς ἐπικρατεῖν χρὴ ποιότητα καὶ κατ' ἐκείνην τυποῦσθαι τὸ σύμπαν. πολυειδεῖς δὲ ταῖς ἐπιβολαῖς τε καὶ περιαγωγαῖς τῶν χειρῶν αἱ ἀνατρίψεις γιγνέσθωσαν, οὐκ ἄνωθεν κάτω μόνον ἢ κάτωθεν ἄνω φερομένων αὐτῶν, ἀλλὰ καὶ πλαγίων καὶ λοξῶν ἐγκαρσίων τε καὶ σιμῶν. καλῶ δὲ

nor loosened and relaxed beyond what is fitting, but is maintained within natural limits. 91K

In the first applications the massage should be gentle. Thereafter, increase it gradually until in fact it comes to the point of being quite strong so as to clearly compress the flesh without bruising it. However, do not apply strong massage for a long period of time, but once or twice to each part. We should not massage in such a way that we harden the body of the boy whom we are now preparing for his exertions. Rather, we should use it to prepare for the actions, bring together the tone, and compress the loose texture resulting from the soft massage. We must maintain his body in a moderate state and in no way make it hard or dry lest somehow we inhibit its natural growth. As time proceeds and he becomes a young lad, we shall also at that time use harder massage and cold baths after the exercises. But I shall speak about these things again.

3. In the preparatory massage before exercises, which has the objective of softening the bodies, it is necessary for a quality midway between hard and soft to prevail, and to model everything in relation to that. The rubbings should be of various kinds with laying on and moving around of the hands, not only moving them from above downward and from below upward, but also sideways, crosswise, obliquely and circularly. I call "oblique" the op- 92K

ἐγκάρσιον μὲν τὸ ἐναντίον τῷ εὐθεί, σιμὸν δὲ τὸ
 βραχὺ τούτου παρεγκλίνον ἐφ' ἑκάτερα, καθάπερ γε
 καὶ τὸ τῆς εὐθύτητος ἐκατέρωσε πρὸς ὀλίγον ἐκτρα-
 πόμενον ὀνομάζω πλάγιον· ὅσον δ' ἀκριβῶς μέσον
 ἐστὶν ἐγκαρσίας τε καὶ εὐθείας φορᾶς, λοξὸν τοῦτο
 προσαγορεύω. καὶ μὲν δὴ καὶ τρίψιν τε καὶ ἀνατρίψεως
 οὐ διοίσει λέγειν, εἰδότας ὅτι τὸ μὲν τῆς ἀνατρίψεως
 ὄνομα συνηθέστερον τοῖς παλαιοῖς ἐστὶ, τὸ δὲ τῆς
 τρίψεως τοῖς νεωτέροις. πολυειδεῖς δὲ κελεύω γίνεσθαι
 τὰς ἐπιβολὰς τε καὶ περιαγωγὰς τῶν χειρῶν ἕνεκα
 93K τοῦ συμπάσας ὡς οἶόν τε τῶν μυῶν τὰς ἴνας ἐκ παν-
 τὸς μέρους ἀνατρίβεσθαι.

τὸ γὰρ οἶεσθαι τὴν μὲν ἐγκάρσιον ἀνατρίψιν, ἣν
 δὴ καὶ στρογγύλην ὀνομάζουσιν ἔνιοι, σκληρύνειν
 καὶ πυκνοῦν καὶ σφίγγειν καὶ συνδεῖν τὰ σώματα,
 τὴν δὲ εὐθείαν ἀραιοῦν τε καὶ χαλᾶν καὶ μαλάττειν
 καὶ λύειν ἐκ τῆς αὐτῆς ἐστὶν ἀγνοίας, ἐξ ἧσπερ καὶ
 τὰ ἄλλα, ἃ περὶ τῆς τρίψεως εἴρηται τοῖς πλείστοις
 τῶν γυμναστῶν. πλείον γὰρ οὐδὲν οὐδεὶς ἔχει περὶ
 δυνάμεων τρίψεως εἰπεῖν ὧν Ἰπποκράτης ἔγραψεν ἐν
 τῷ Κατ' ἰητρείου, ὑπὸ μὲν τῆς σκληρᾶς δεῖσθαι τὰ
 σώματα φάσκων, ὑπὸ δὲ τῆς μαλακῆς λύεσθαι, καὶ
 ὑπὸ μὲν τῆς πολλῆς ἰσχυραίνεσθαι, σαρκοῦσθαι δὲ
 ὑπὸ τῆς μετρίας. ἔχει δὲ ἡ ῥῆσις ὧδε· ἀνατρίψις δύ-
 ναται λῦσαι, δῆσαι, σαρκῶσαι, μινυθῆσαι· ἡ σκληρὰ
 δῆσαι, ἡ μαλακὴ λῦσαι, ἡ πολλὴ μινυθῆσαι, ἡ με-

posite to straight, and "circular" a little deviation from this
 to each side, just as I also, in fact, term "sideways" the
 deviation of the straight, turning a little to the side. What
 is to a precise extent midway between oblique and straight,
 I call "crosswise." And indeed, it will make no difference
 whether we say massage or rubbing,⁵ realizing that the
 term rubbing was more customary among the ancients
 while massage is more customary among those of recent
 times. I direct the applications and moving around of the
 hands to be of various kinds for the purpose of all the fi- 93K
 bers from every part of the muscles being rubbed, as far
 as possible.

The idea that oblique rubbing, which some also call
 circular, hardens, thickens, compresses and binds together
 the bodies, but that straight rubbing thins, relaxes, softens
 and loosens, arises from that ignorance which is also the
 source of the other things said about massage by the ma-
 jority of gymnastic trainers. For no one has anything more
 to say about the powers of massage than those things Hip-
 pocrates wrote in his treatise, *In the Surgery*, when he said
 that bodies are bound up by hard rubbing, loosened by
 soft rubbing, reduced by much rubbing and enflashed by
 moderate rubbing. His statement is as follows: "Rubbing
 is able to loosen, bind, enflash and reduce. Hard rubbing
 binds; soft rubbing loosens; much rubbing reduces; and

⁵ The two terms are *τριψις* and *ἀνατρίψις*, both of which have
 the meaning of "massage," "rubbing," or "friction." The former is
 given a wider range in LSJ. Galen essentially uses them inter-
 changeably, the only distinction being that made here.

94K τρὶν σαρκῶσαι.” τέσσαρες γὰρ αὐταὶ διαφοραὶ κατὰ
 γένος ἐπὶ τέσσαρσι δυνάμεσιν τε καὶ χρείαις τῶν τρί-
 ψεων ἀπασῶν εἰσιν. εἰ δὲ καὶ τὰς μέσας αὐτῶν προσ-
 λογιζοίμεθα συνεμφαινομένας ταῖς εἰρημέναις, ἕξ αἰ-
 πᾶσαι διαφοραὶ γενήσονται. πόθεν οὖν ἐπήλθε τοῖς
 πλείστοις τῶν νεωτέρων γυμναστῶν οὕτω πολλὰς
 διαφορὰς γράψαι τρίψεων, ὡς μηδὲ ἀριθμῆσαι ῥα-
 δίως αὐτὰς δύνασθαι; πόθεν ἄλλοθεν ἢ ὅτι λογικῆς
 θεωρίας ἀγύμναστοι παντάπασιν ὄντες οὐ συνείδου-
 ᾶμα ταῖς οἰκείαις τῆς τρίψεως διαφοραῖς ἐνίοτε μὲν
 καὶ τῶν ἕξωθεν τινος μνημονεύοντες, ἐνίοτε δὲ καὶ τὰς
 ἀπεργαζομένας ἐκάστην τρίψιν αἰτίας ἀναγράφοντες,
 ἔστιν ὅτε δὲ καὶ πρὸς ἀλλήλας ἐπιπλέκοντες αὐτὰς τε
 τὰς γνησίας διαφορὰς καὶ ὅσας οὐκ ὀρθῶς αὐταῖς
 προσέθεσαν.

95K ὅταν μὲν γὰρ λέγωσι, τὰς τρίψεις ἀλλήλων δια-
 φέρειν τῷ τὰς μὲν ἐν ὑπαίθρῳ γίνεσθαι, τὰς δὲ ἐν
 καταστέγῳ, τὰς δὲ ἐν ὑποσυμμικτῇ σκιᾷ, καὶ τὰς μὲν
 ἐν ἀνεμώδει χωρίῳ, τὰς δὲ ἐν γαληνῷ, καὶ τὰς μὲν ἐν
 θερμῷ, τὰς δὲ ἐν ψυχρῷ, καὶ τὰς μὲν ἐν ἡλίῳ, τὰς δὲ
 ἐν προστάδι βαλανείου, τὰς δὲ ἐν βαλανείῳ,³ τὰς δὲ
 ἐν παλαίστρᾳ, καὶ τοιοῦτόν τινα ποιῶντες κατάλο-
 γον, οὐκ οἰκείας διαφορὰς τρίψεων λέγουσιν, ἀλλ’ ὧν
 οὐκ ἄνευ τινὸς ὃ τριβόμενός ἐστιν. ἀνάγκη γὰρ πάν-
 τως αὐτὸν ἐν τινὶ χωρίῳ τῶν κατὰ τὴν οἰκουμένην

³ τὰς δὲ ἐν προστάδι βαλανείου, τὰς δὲ ἐν βαλανείῳ, Κο;
 τὰς δὲ ἐν βαλανείῳ, τὰς δὲ πρὸ βαλανείου, Κυ

94K moderate rubbing enfleshes.”⁶ These are the four differ-
 ences in terms of class for the four powers and uses of all
 massages. And if we count in addition the intermediates
 of these, indicating them at the same time as those men-
 tioned, there will be six differences in all. From where,
 then, did it come to the majority of younger gymnastic
 trainers to write that there are so many differences of
 massages that they cannot easily enumerate them? From
 where else than being wholly unpracticed in logical theo-
 rizing, do they not realize they sometimes mention, at the
 same time with the intrinsic differences of massage, one
 of the external factors, and sometimes describe the causes
 which effect each massage? Sometimes they also inter-
 mingle with each other the actual legitimate differences
 and those not correctly assigned to these.

Whenever they say that massages differ from one an-
 other by virtue of the fact that some occur in the open air,
 some indoors, some in partial shade, some in a windy
 place, some in a calm place, some in a hot place, some in
 a cold place, some in the sun, some in the vestibule of a
 bathing room, some in a bathing room and some in the
 wrestling school, in making some such catalog, they are
 not describing specific differences of massage but those
 things which the person being massaged is not without.
 For it is altogether necessary for him to be in some place
 in the inhabited world. And in fact, in addition to the

⁶ Hippocrates, *In the Surgery* 17, *Hippocrates* III, LCL 149,
 76-77.

ὑπάρχειν, καὶ πρὸς γε τῷ χωρίῳ χειμῶνος ἢ θέρους ἢ κατὰ τινα τῶν ἄλλων ὥρων. ἐπειδὴν δὲ τὰς μὲν τῷ μετὰ πλείονος ἐλαίου, τὰς δὲ τῷ μετὰ ἐλάττονος ἢ παντάπασιν ἐλαίου χωρίς, ἤτοι διὰ τῶν χειρῶν μόνου ἢ μετὰ κόνεως ἢ διὰ σινδόνων, καὶ τούτων ἤτοι σκληρῶν ἢ μαλακῶν γίνεσθαι διαφέρειν ἀλλήλων λέγῃται τὰς τρίψεις, αἰτίων καταρίθμησιν ποιῶνται τῶν ἤτοι σκληρὰν ἢ μαλακὴν ἀπεργαζομένων τὴν τρίψιν. ἐξ οὗ γένους τῶν αἰτίων ἐστὶ καὶ τὸ τὰς χεῖρας τῶν τριβόντων ἤτοι σκληρὰς ἢ μαλακὰς εἶναι καὶ ἤτοι πιέζειν σφοδρῶς ἢ πράως ἐφάπτεσθαι.

τὸ δὲ τρίτον εἶδός ἐστι τῶν πολλὰς τῶν τρίψεων οἰομένων εἶναι διαφορὰς ἐκ τοῦ κατὰ συζυγίας τινὰς ἐπιπλέκειν ἀλλήλοις ἅπαντα τὰ νῦν εἰρημένα. ὅσοι μὲν οὖν αὐτῶν ἢ τὰς ἕξωθεν περιστάσεις τῶν πραγμάτων ἢ τὰς αἰτίας τῶν οἰκείων διαφορῶν ἀλλήλαις ἐπιπλέκουσιν, εὐφωρατότεροι γίνονται μὴ γινώσκοντες ὀρθῶς. ὅσοι δὲ κατὰ τὰς οἰκείας διαφορὰς ποιῶνται τὰς συζυγίας, ἤττον οὗτοι γνωρίζονται σφαλλόμενοι. 96K εἰσὶ δὲ οἱ καὶ σοφίας δόξαν ἀπηνέγκαντο καὶ δοκοῦσιν τι πλέον εὐρηκέναι τῶν ὑφ' Ἰπποκράτους εἰρημένων. ὧνπερ οὖν καὶ Θεῶν ὁ γυμναστής ἐστίν, ὅστις ἔδοξε βέλτιον Ἰπποκράτους ἐγνωκέναι περὶ τρίψεως. ἀφορισμένου γὰρ ἐκείνου κατὰ τὴν προγεγραμμένην ῥῆσιν ἐν μὲν τῇ κατὰ ποιότητα διαφορᾷ τὴν τε μαλακὴν καὶ τὴν σκληρὰν, ἐν δὲ τῇ κατὰ ποσότητα τὴν τε πολλὴν καὶ τὴν μετρίαν, ὁ Θεῶν οὐκ ἀξιοῖ μνημο-

place, it must be in winter or summer, or one of the other seasons. Whenever they say that massages differ from one another by being in some cases with more oil, in some with less oil, and in some without any oil at all, or with hands alone, or with powder, or with a fine linen cloth, and of these either hard or soft, they are making a computation of the causes which make the massage either hard or soft. From this class of causes, there are also the hands of those massaging—whether they are hard or soft, and whether they press strongly or are laid on gently.

The third kind is of those who think there are many differences of massages from the fact that they weave all the things just said with each other according to certain conjunctions. Those of them who interweave with each other either the external circumstances of the matters, or the actual matters themselves, or the causes of the specific differences are easily recognized as not understanding correctly. However, those who do make conjunctions of the specific differences are less easily recognized as falling into error. And there are those who have gained the reputation of wisdom, and seem to have discovered something more than was said by Hippocrates. One of these is Theon, the gymnastic trainer, who seemed to have known about massage better than Hippocrates. For the latter, in the previously quoted statement, makes a distinction in terms of quality in the differences between hard and soft, and in terms of quantity, between much and moderate. Theon, however, doesn't think it worthwhile to mention either

νεύειν οὔτε ποιότητος οὔτε ποσότητος ἰδία, γράφων
ἐν ἄλλοις τισὶ κὰν τῷ τρίτῳ τῶν Γυμναστικῶν ὧδε:

ἀρέσκει περὶ τρίψεως παραγγέλλοντας δεῖν αἰεὶ
συναρμόζειν ταῖς ποιότησι τὰς ποσότητας.
καθ' ἑαυτὰς μὲν γὰρ ἀτελεῖς εἶναι πρὸς τὴν ἐν
τοῖς ἔργοις κατόρθωσιν. τὴν γοῦν μαλακὴν τρί-
ψιν παρὰ τὴν ποσότητα τριῶν ἀποτελεσμάτων
ποιητικὴν γίνεσθαι. τὴν μὲν γὰρ ὀλίγην ἀνιέναι
ποσῶς τὴν σάρκα καὶ εὐαφῆ ποιεῖν, τὴν δὲ πολ-
λὴν διαφορεῖν καὶ τήκειν, τὴν δ' αὐτάρκη σαρκῶν
τὸ σῶμα πλαδαρᾶ καὶ συγκεχυμένη⁴ σαρκί.
ὁμοίως δὲ καὶ τὴν σκληρὰν τρίψιν παρὰ
τὴν ποσότητα τὸν ἴσον ἀριθμὸν τῶν ἀποτελε-
σμάτων ποιεῖν. πολλὴν μὲν γὰρ προσαχθεῖσαν
σφίγγειν τὰ σώματα καὶ συνδεῖν καὶ φλεγμονῇ
τι παραπλήσιον ἀπεργάζεσθαι, τὴν δὲ αὐτάρκη
σαρκῶν μεμνωμένη⁵ καὶ εὐπεριγράπτῳ σαρκί,
τὴν μέντοι γε ὀλίγην ἐνερευθῆ πρὸς ὀλίγον
χρόνον τὴν ἐπιφάνειαν ποιεῖν.

οὐκ ἀξιοῖ δὲ περὶ τῆς σκληρᾶς τρίψεως ἰδία καθ'
ἑαυτὴν οὐδὲν παραγγέλλειν τὸν γυμναστήν, ἀλλὰ
συναρμόζειν αὐτῇ τὸ ποσόν, εἴπερ τι μέλλοι ποτὲ
κατόρθωμα τέλειον⁶ ἐν τοῖς ἔργοις τῆς τέχνης ἔσεσθαι.
κατὰ δὲ τὸν αὐτὸν τρόπον οὐδὲ περὶ τῆς μαλακῆς ἰδία

⁴ συγκεχυμένη Κο; κεχυμένη Κυ

⁵ μεμνωμένη Κο; μεμειωμένη Κυ; imminuta L

quality or quantity specifically, writing in certain other
works, and in the third book of his *Gymnastics* as follows:

In instructions about massage it is accepted that it
is necessary to always combine the quantities with
the qualities, in that they are incomplete in them-
selves in terms of the successful accomplishment in
the actions. In fact, soft massage is three times more
effective in a comparable amount because a little of
it relaxes the flesh and makes it soft to the touch,
whereas a lot disperses and liquefies, while an ad-
equate quantity enfleshes the body with moist and
liquid flesh. Similarly also, hard massage produces
effects in proportion to amount. For a large amount
brings about compression of bodies, binds them
together and creates something resembling inflam-
mation, whereas an adequate amount enfleshes
with reduced flesh of good contour, but a small
amount makes the surface red for a short time.⁷

He does not, however, consider it worthwhile to give
the gymnastic trainer any specific instructions about hard
massage in itself, other than to fit together the quantity
with it, if at any time there is going to be a successful
outcome that will follow from the actions of the art. In the
same way, he thinks that nothing need now be suggested

⁷ For Theon, see EANS, 795, and the General Introduction
to the present work, xix-xx.

⁶ τέλειον Κο; πλέον Κυ

καθ' ἑαυτὴν οὐδὲν ἡγείται δεῖν⁷ νῦν ὑποτίθεσθαι μὴ γὰρ δύνασθαι ποτε γίνεσθαι μαλακὴν τρίψιν αὐτὴν καθ' ἑαυτὴν μόνην ἄνευ τοῦ πολλὴν ἢ ὀλίγην ἢ σύμμετρον ὑπάρχειν. εἴθ' ἐξῆς διηγείται κατὰ συζυγίαν, ὅσα περὶ τοῖς σώμασιν ἡμῶν ἐργάζεσθαι πεφύκασιν, τὴν μὲν ὀλίγην τε ἅμα καὶ μαλακὴν ἀνιέναι ποσῶς τὴν σάρκα καὶ εὐαφῆ ποιεῖν, ἀποφαινόμενος οὐδὲν ἄλλ' ἢ τὸ "λύσαι" πρὸς Ἰπποκράτους εἰρημένον ἑτέροις ὀνόμασιν ἐρμηνεύων· τὸ γὰρ ἀνιέναι τὴν σάρκα καὶ εὐαφῆ ποιεῖν τί ἄλλο ἢ λύειν ἐστὶ τὰ συνδεδεμένα τε καὶ συνηγμένα; προσέθηκε δὲ τῷ λόγῳ τὸ ποσῶς, οὐ τὸ γένος τῆς ἐνεργείας ὑπαλλάττων, ἀλλὰ τὸ ποσὸν ἐν αὐτῷ διορίζων. μαλάττει γὰρ ἐπ' ὀλίγον ἢ τοιαύτη τρίψις, ὡς, εἴ γ' ἐπὶ πλείον γίνοιτο, μαλάξει μὲν ἔτι καὶ νῦν, ἀλλὰ μειζόνως ἢ πρόσθεν. ὅτι τοίνυν οὐ μέγας, οὐδ' ἱκανῶς, ἀλλὰ καὶ βραχέως ἢ ὀλίγη καὶ μαλακὴ τρίψις ἀνιήσιν τε καὶ μαλάττει τὰ σώματα, διὰ τῆς τοῦ ποσῶς προσθήκης ἐδήλωσεν, οὐδὲν⁸ οὐδέπω κατὰ γε τοῦτο τῶν ὑφ' Ἰπποκράτους εἰρημένων διδάσκων περιττότερον, ὥσπερ οὐδ' ἐν τῷ φάναι, "τὴν αὐτάρκη" καὶ μαλακὴν "σαρκῶν τὸ σῶμα πλαδαρῆ καὶ συγκεχυμένη σαρκί." διότι μὲν γὰρ αὐτάρκης, σαρκώσει, διότι δὲ μαλακὴ, λύσει, τοῦτ' ἔστι μαλάξει, ὅπερ ἴσον ἐστὶ τῷ πλαδαρὰν καὶ κεχυμένην ἐργάσασθαι τὴν σάρκα.

ἐχρῆν δ' αὐτόν, ὥσπερ ὑπὲρ τούτων εἶπεν ὀρθῶς, οὕτω καὶ ὁπότε περὶ τῆς πολλῆς τε ἅμα καὶ μαλακῆς διαλέγεται, μὴ τοῦτο μόνον εἰπεῖν, ὅτι διαφορεῖν καὶ

about soft massage specifically in itself, in that it is not possible at any time for there to be soft massage by itself alone, without there being much, little or a moderate amount. Then, next in order, he sets out in detail, according to the conjunction, those things naturally effected in our bodies—massage that is small in amount, gently slackens the flesh and makes it soft to the touch—which is nothing other than explaining what Hippocrates meant by saying "loosens," expressing the matter in other terms, for what else is slackening the flesh and making it soft to the touch than releasing what is bound and held together? He added to the discussion the amount, not changing the class of the action but determining the amount in it. For such massage softens to a small extent, just as, if it is still more, it will now still soften, but more than before. Accordingly, he showed it is not massage that is prolonged and large in amount that softens bodies, but that which is brief and small in amount, through adding the amount. In doing this, he is not adding anything more to the teaching set out by Hippocrates, just as he is not when he says sufficient and soft massage enfleshes the body with moist and liquefied flesh. Because it is sufficient, it will enflesh; because it is soft, it will loosen (that is, it will soften), which is equivalent to making the flesh moist and liquefied.

It behooved him, just as he spoke correctly about these things, to do the same when he explains much and soft, and not only say that it naturally disperses and dissolves,

⁷ δεῖν om. Ku

⁸ οὐδὲν add. Ko

99K τήκειν πέφυκεν, ἀλλὰ καὶ ὁποῖαν τινὰ τὴν ὑπόλοιπον
 ἐργάζεται σάρκα. οὐ γὰρ δὴ πᾶσαν τὴν οὐσίαν δια-
 φορεῖ καὶ τήκει, καθάπερ τὸ πῦρ, ἀλλὰ τι καὶ κατα-
 λείπει πάντως. τοῦτο οὖν τὸ καταλειπόμενον ὁποῖόν τι
 τὴν ιδέαν ἐστὶν ἐχρῆν, οἶμαι, προσκείσθαι τῷ λόγῳ
 καὶ μὴ μόνον τὸ τῆς πολλῆς τρίψεως ἴδιον ἔργον
 εἰπόντα τὸ τῆς μαλακῆς παραλιπεῖν. ὅτι μὲν γὰρ
 ἢ πολλὴ διαφορεῖ, καὶ πρὸς Ἰπποκράτους εἴρηται
 πρόσθεν· ἀλλ' οὐχ ὑπὲρ τῆς πολλῆς ἀπλῶς ἐνεστή-
 σατο τὸν λόγον ὁ Θεὸν, ἀλλὰ κατὰ συζυγίαν ἠξίωσε
 διδάσκειν, ἀπὸ τῆς πρώτης μὲν ἀρξάμενος τῆς τε ὀλί-
 γης τε ἅμα καὶ μαλακῆς, ἐπὶ δευτέραν δὲ μεταβὰς
 τὴν μαλακὴν τε ἅμα καὶ πολλήν, εἶθ' ἐξῆς τρίτης
 μνημονεύσας τῆς μαλακῆς τε ἅμα καὶ συμμέτρου.
 ὥσπερ οὖν ἐπὶ τε τῆς πρώτης καὶ τρίτης συζυγίας
 οὐκ ἐσιώπησε τὸ τῆς ποιότητος ἔργον, οὕτως ἐχρῆν
 αὐτὸν οὐδὲ ἐπὶ τῆς δευτέρας παραλιπεῖν, ἀλλὰ κἂν-
 ταῦθα φάναι τὴν πολλήν τε ἅμα καὶ μαλακὴν τρίψιν
 διαφορεῖν τε ἅμα καὶ μαλακὴν ἀπεργάζεσθαι τὴν
 σάρκα· πλὴν εἰ τὸ τήκειν ἀντὶ τοῦ μαλάττειν χρῆ
 δέξασθαι, καὶ οὕτως ἀληθὲς μὲν εἶη τὸ εἰρημένον. οὐχ
 100K ὅπως δὲ διαβάλλει τὴν Ἰπποκράτους διδασκαλίαν,
 ἀλλὰ καὶ παντὸς μᾶλλον ὁμολογεῖ αὐτήν.

εἴπερ γὰρ ἢ μαλακὴ τρίψις αἰεὶ μὲν ἀπαλὸν ἐργά-
 ζεται τὸ σῶμα, κἂν ὀλίγη κἂν πολλὴ κἂν σύμμετρος
 ὑπάρχη, προσέρχεται δ' αὐτῇ οὐδέν τι παρὰ τῆς
 ποσότητος ἕτερον, ἀχώριστον ἔσται τῆς μαλακῆς τρί-
 ψεως τὸ μαλάττειν, ὥσπερ, οἶμαι, καὶ τῆς σκληρᾶς τὸ

but also what it makes the remaining flesh like. For this
 99K certainly does not disperse and dissolve the whole sub-
 stance, as fire does, but always leaves something remain-
 ing. Therefore, it is necessary, I think, to add to the discus-
 sion what sort of flesh is left behind in respect of kind, and
 not to only to state the specific action of much massage,
 omitting that of soft massage. Hippocrates said earlier that
 much massage disperses, but Theon did not make his dis-
 cussion simply about much; he also thought it worthwhile
 to teach about combination, beginning from the first—
 that is, slight and soft, then proceeding to the second,
 which is soft and much, and then next making mention of
 the third, which is soft and moderate. Then, just as in the
 case of the first and third conjunctions, he did not remain
 silent on the action of quality, so it was incumbent upon
 him not to leave it out in the case of the second, but to say
 here too that much and soft massage disperses and, at the
 same time, makes the flesh soft. Even if we must accept
 “to liquefy” instead of “to soften,” the statement would
 thus be true. In just such a manner, Theon not only does
 not slander the teaching of Hippocrates, but above all
 100K agrees with it.

If soft massage always makes the body soft, whether it
 is little, much, or moderate, and nothing else is added to
 this in terms of quantity, then softening will be inseparable
 from soft massage, just as, I think, hardening will be from

σκληρύνειν ἢ συνάγειν ἢ σφίγγειν ἢ δεῖν ἢ πυκνοῦν ἢ δυσαφῆ τὴν σάρκα ποιεῖν ἢ ὡς ἂν τις ἑτέρως ἐρ-
μηνεύειν ἐθέλη ταῦτόν πράγμα. πρῶτον μὲν γὰρ καὶ
κύριον ὄνομα τῆς οὕτω διατιθεμένης σαρκός ἐστι τὸ
σκληρόν, ὡσπερ καὶ τῆς ἐναντίας αὐτῇ τὸ μαλακόν.
οὐ μὴν ἀλλὰ καὶ τῶν ἄλλων ἕκαστον, ὡς εἶπον, ἐγ-
χωρεῖ λέγειν. καὶ διὰ τίνα μὲν τὴν αἰτίαν οὕτω πολ-
λοῖς ὀνόμασιν οἷόν τε χρῆσθαι καθ' ἑνὸς πράγματος,
ὀλίγον ὕστερον εἰρήσεται· νυνὶ δέ (ὡμολόγηται γὰρ
τοῦτο) τὴν μὲν αἰτίαν αὐτοῦ λέγειν ἔν γε τῷ παρόντι
παραλίπωμεν.

101K ὅτι δ' ἐξ ἀνάγκης ἔπεται τῇ μαλακῇ τρίψαι τὸ μα-
λακὰ ποιεῖν τὰ σώματα, πρόδηλον ἐκ τῶν εἰρημένων.
εἰ γὰρ μήτε πολλὴν μήτ' ὀλίγην μήτε σύμμετρον τὴν
τοιαύτην τρίψιν παραλαβὼν σκληρὸν ἐργάσασθαι
ποτε δυνήσῃ τὸ σῶμα, δῆλον, ὡς ἀχώριστον αὐτῆς
ἐστι τὸ μαλάττειν, ὡσπερ γε καὶ τῆς σκληρᾶς τὸ συν-
δεῖν τε καὶ σκληρύνειν. καὶ γὰρ καὶ ταύτην ἂν τ' ὀλί-
γην ἂν τε πολλὴν ἂν τε σύμμετρον παραλάβῃς, οὐ-
δέποτε μαλάξεις τὸ σῶμα κατ' οὐδεμίαν ποσότητα,
διὰ παντὸς δὲ σκληρὸν ἀπεργάσῃ μᾶλλον ἢ ἦττον,
ἐπὶ πλεον μὲν τρίβων μᾶλλον, ἐπ' ἔλαττον δὲ ἦττον.
εἰ δὲ καὶ παντελῶς ὀλίγας τὰς σκληρὰς ἐπιβολὰς
ποιησάμενος ἀρκεσθείης, ἀνὰ λόγον τῇ τούτων βρα-
χύτητι καὶ σκληρότητι ἀπαντήσεται. καθάπερ γὰρ καὶ
ὁ πυρὶ πλησιάζων αἰεὶ μὲν θερμαίνεται, κἂν ἐπὶ πολὺν
χρόνον αὐτῷ τύχῃ πλησιάζων κἂν ἐπ' ὀλίγον, ἀλλὰ
μᾶλλον μὲν τοῦθ' ὁ πολυχρονίως ὀμιλῶν, ἦττον δὲ ὁ

hard massage, or drawing together, compressing, binding,
condensing, or making the flesh hard to the touch, or how-
ever else someone might wish to interpret the same mat-
ter. For the first and principal term for flesh so disposed
is "hard," just as the opposite to this is "soft," although of
the rest, as I said, it is possible to use whatever name one
pleases.⁸ And the reason why it is possible in this way to
use many names for one matter, I shall speak about a little
later. For the present, (for this is what is agreed upon), let
us postpone speaking about the reason for this for the time
being.

That making bodies soft necessarily follows soft mas-
sage is clear from what has been said. For if by undertak-
ing either much, little or a moderate amount of such mas-
sage, you will never be able to make the body hard at any
time, it is obvious that softening is inseparable from it, just
as binding together and hardening are inseparable from
hard massage. For truly, whether you undertake this ei-
ther little, much or moderately, you will never soften the
body, regardless of the quantity. You will always make it
hard to a greater or lesser degree—more hard by more
massage and less hard by less. Also, if you were to be en-
tirely satisfied with making few hard strokes, the hardness
you encounter will be in proportion to their fewness, just
as when you come near to a fire, you are always heated,
whether you happen to approach it for a long or short
time, but more if the association is of long duration, less if

⁸ The translation of this sentence, difficult to understand in
the Greek, follows the Kühn Latin.

μέχρι βραχέος, ἐπ' ἐλάχιστον δὲ ὁ ψαύσας μόνον, οὕτω κὰν ταῖς τρίψεσιν ὁμοιοῦται διαπαντὸς τὸ σῶμα, πρὸς μὲν τῆς μαλακῆς μαλαττόμενον, ὑπὸ δὲ τῆς σκληρᾶς σκληρυνόμενον, οὐ μὴν ἴσῳ γε τῷ μέτρῳ διαπαντός, ἀλλ' ὑπὸ μὲν τῆς πλείονος μᾶλλον, ὑπὸ δὲ τῆς ἐλάττονος ἥττον, ὥσπερ γε καὶ ὑπὸ μὲν τῆς πλεί-
 102K στης μάλιστα, ὑπὸ δὲ τῆς ἐλαχίστης ἥκιστα.

ὁ τοίνυν Θεών, ὁπότε περὶ τῆς μαλακῆς τε καὶ πολλῆς τρίψεως διαλεγόμενος διαφορεῖν καὶ τήκειν εἶπεν αὐτήν, εἰ μὲν τὸ κενοῦν διὰ τοῦ τήκειν δηλοῖ, πλεόν οὐδὲν σημαίνει τοῦ διαφορεῖν· ὥστε δις μὲν ἂν εἴη ταῦτόν εἰρηκώς, παραλελοιπῶς δὲ προσθήκη ἀναγκαίαν τῆς γινομένης περὶ τὸ σῶμα διαθέσεως ἐκ τῆς μαλακῆς τρίψεως· εἰ δὲ τὸ μαλάττειν ἢ λύειν ἢ χαλᾶν ἢ ὅπως ἂν ἑτέρως ὀνομάζειν ἐθέλη, παραλελείψεται μὲν οὕτως οὐδὲν αὐτῷ, τὰ δ' Ἰπποκράτους πάντα λέγων φωραθήσεται διὰ μοχθηροτέρου τρόπου διδασκαλίας. ὅτι μὲν οὖν ὁ τοιοῦτος τρόπος τῆς διδασκαλίας μοχθηρότερός ἐστιν ἢς Ἰπποκράτης ἔγραψεν, ὀλίγον ὕστερον ἐπιδείξομεν· ὅτι δέ, εἶπερ τὸ τήκειν ἀντὶ τοῦ μαλάττειν εἶρηκεν, οὐδὲν τῶν Ἰπποκράτους λέγει περιττότερον, ἀντικρυσ δῆλον. εἰπόντος γὰρ ἐκείνου, τὴν μὲν μαλακὴν λύειν, τὴν δὲ πολλὴν ἰσχυαίνειν, εὐδηλον ἂν εἴη παντί γε τῷ νοῦν ἔχοντι συλλογίσασθαι, τὴν ἐκ τῆς μαλακῆς τε ἅμα καὶ πολ-
 103K λῆς σύνθετον ἰσχυαίνειν τε ἅμα καὶ μαλάττειν.

ἀλλ' οὐχ ὁ Θεών ἔοικεν οὕτω γινώσκειν, ἀλλ' ὅπερ ἐν τῷ πρώτῳ τῶν Γυμναστικῶν ἰσχυαίνειν εἶπε δι'

it is of short duration, and least if you only just reach it. It is always like this also with massaging the body—it is softened by soft massage and hardened by hard massage—although not always in equal measure, but more by more massage and less by less, just as [it is affected] most by the most massage and least by the least.

Accordingly, when Theon, discussing soft and much (prolonged) massage, said it disperses and liquefies, if by liquefying he is indicating emptying, he is signifying nothing more than dispersing, so he would have said the same thing twice while omitting what must be added, which is the condition occurring in the body from the soft massage. If, however, he says to soften, loosen or relax, or whatever else he might wish to term it, he will in this way leave out nothing from it, but he will be detected as saying all the things Hippocrates said through a more burdensome kind of teaching. That such a manner of teaching is inferior to what Hippocrates wrote, I shall demonstrate a little later. But if he says "to liquefy" instead of "to soften," it is perfectly clear he is saying nothing more than Hippocrates said. For when the latter says soft massage dissolves and much massage reduces, it would be quite clear, at least to anyone of sense, who would conclude [from the information given] that massage which combines softness and much, reduces and at the same time also softens.

But Theon doesn't seem to see things in this way. Rather, while in the first book of his *Gymnastics*, he speaks

ένος ῥήματος, τοῦτ' ἐν τῷ τρίτῳ διὰ δυοῖν, τοῦ τε διαφορεῖν καὶ τήκειν. ἔχει γὰρ οὖν δὴ καὶ ἢ ἐν τῷ πρώτῳ ῥήσις ὧδε· “ἐκ δὲ τῶν ἐναντίων τὴν μαλακὴν τρίψιν πολλὴν μὲν γενομένην ἰσχυαίνειν τὰ σώματα, αὐτάρκη δὲ σαρκῶν τρυφερὰ καὶ κεχυμένη σαρκί.” φανερώς γὰρ ἐνταῦθα τὴν μαλακὴν τε ἅμα καὶ πολλὴν τρίψιν ἰσχυαίνειν ἔφη τὰ σώματα. ὅτι δ' ἀναγκαῖον ἦν οὐ μόνον τὸ τῆς πολλῆς ἴδιον, ἀλλὰ καὶ τὸ τῆς μαλακῆς εἰπεῖν, αὐτὸς ὁ Θεὸν ἐνεδείξατο διὰ τῆς ἐξῆς ῥήσεως, ἐν ἣ ἡ περὶ τῆς σκληρᾶς τρίψεως διδάσκων τὴν πολλὴν σφίγγειν τὰ σώματα καὶ συνδεῖν καὶ φλεγμονῇ τι παραπλήσιον ἐργάζεσθαι φησιν. ὁ γὰρ εἶχε συμμέτρως ὑπάρχουσα τῇ ποσότητι, τοῦτο πλεονασθεῖσα μᾶλλον ἐπεκτήσατο. πάντες οὖν ὁμολογοῦσι τὴν σύμμετρον σκληρὰν σαρκῶν τὸ σῶμα σκληρὰ σαρκί, καθάπερ γε καὶ τὴν σύμμετρον μαλακὴν σαρκῶν μὲν καὶ αὐτήν, ἀλλὰ μαλακῇ τῇ σαρκί.

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κινδυνεύει δὲ καὶ ὁ Θεὸν, ἡνίκα ὑπὲρ τῆς μαλακῆς τε ἅμα καὶ πολλῆς τρίψεως ὁ λόγος ἦν αὐτῷ, μηδὲν τῆς μαλακῆς ἔργον εἰρηκέναι, ὅποτε δὲ περὶ τῆς σκληρᾶς τε ἅμα καὶ πολλῆς, μηδὲν τῆς πολλῆς. εἰ γὰρ τὸ τήκειν ταῦτὸν τῷ κενοῦν καὶ διαφορεῖν ὑπολάβοιμεν, ὑπὲρ μὲν τῆς πολλῆς ἔσται τι λελεγμένον αὐτῷ, περὶ δὲ τῆς μαλακῆς οὐδέν, ὥσπερ γε καὶ τῷ περὶ τῆς σκληρᾶς τε καὶ πολλῆς ὑπὲρ μὲν τῆς σκληρᾶς εἴρηται τὸ σφίγγειν καὶ συνδεῖν καὶ φλεγμονῇ τι παραπλήσιον ἀπεργάζεσθαι, περὶ δὲ τοῦ πλήθους

of “reducing” using a single word, in the third book he uses two words—“dispersing” and “liquefying.” Then he also has the following statement in the first book: “In contrary fashion, soft massage in large amount reduces bodies whereas moderate massage enfleshes them with delicate and liquefied flesh.”⁹ Clearly here he said that massage which is soft and at the same time large in amount reduces bodies. That it was necessary to state specifically not only the large amount but also the softness, Theon himself showed by the following statement in which, teaching about hard massage, he says that much compresses bodies and binds them together, and creates something similar to inflammation. For what it has when it is moderate in amount, it has in abundance when it is more protracted. All, then, agree that a moderate amount of hard massage enfleshes the body with hard flesh, just as a moderate amount of soft massage enfleshes the same, but with soft flesh.

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However, when his discussion was about soft and long-continued massage, Theon was in danger of not saying anything on the action of soft [massage], whereas when his statement was about hard and long-continued massage, he was in danger of not saying anything about the large amount. If we take liquefying to be the same as evacuating and dispersing, he will have said something about the large amount, but there will be nothing about the softness, just as in [his statement] about hardness and large amount, he speaks about the hardness compressing, binding and bringing about something like inflammation, but says

⁹ The present quotes are from Theon's lost work *Gymnastrion* referred to in note 7 above.

οὐδέν· καίτοι δίκαιον ἦν τι καὶ περὶ τῆς ποσότητος εἰπεῖν. ἀπεφήνατο γοῦν, ὡς, εἰ σύμμετρος εἶη τῇ ποσότητι, παχύνει.

τί ποτ' οὖν ἢ πολλὴ ποιήσῃ μετὰ τὴν σύμμετρον ὑπάρχουσα; πάντως γὰρ ἤτοι φυλάξει τὸ ταύτης ἔργον ἢ ἀλλοιώσει. ἀλλ' εἰ μὲν φυλάξει, τὸ πλήθος μετὰ τὴν συμμετρίαν τῶν τρίψεων οὐδὲν ἐργάσεται περιττότερον· εἰ δέ τι δράσει πλέον, ἤτοι καθαιρήσῃ τῆς σαρκώσεως ἢ προσθήσῃ. καθαιροῦσα μὲν οὖν λεπτυνεῖ, προστιθεῖσα δὲ σαρκώσει. ἀλλὰ μὴν οὐ σαρκῶν· λεπτύνειν γοῦν ἀναγκαῖον αὐτήν. οὐ μὴν εἶπέ γε ὁ Θεὸν οὐδὲν ὑπὲρ τῆς κατὰ τοῦτο διαφορᾶς, ἀλλ' ὅλως ἐσιώπησε, μήτ' εἰ λεπτύνει μήτ' εἰ παχύνει ἢ φυλάττει τὴν ἐκ τῆς συμμέτρου τρίψεως σάρκωσιν ἢ σκληρὰ πλεονασθεῖσα μηδὲν ὅλως ἀποφηνάμενος, ἀλλὰ μόνον ὅτι σφίγγει καὶ συνδεῖ παραπλησίως φλεγμονῇ. ἐχρήν δ' οὐ ταῦτα μόνον εἰπεῖν, ἀλλ' ὅτι καὶ λεπτύνει.

4. Φαίνεται τοίνυν⁹ ἢ μὴ δυνηθεῖς συνιέναι τῆς τοῦ Ἱπποκράτους ἐν τοῖσδε τέχνης ἢ μὴ βουλευθεῖς ἐπαινεῖν τὸν ἄνδρα διὰ βραχείας οὕτω ῥήσεως ἀπάσας τε τὰς διαφορὰς τῶν τρίψεων εἰπόντα καὶ πρὸς ταῖς διαφοραῖς ἐκάστης αὐτῶν ἐνέργειάν τε καὶ δύναμιν. ὡς μὲν γὰρ ἂν τις οἰηθείη κατὰ τὴν πρόχειρον οὕτως φαντασίαν, ὑπὲρ τεττάρων εἶρηκε μόνον· ἔχει δὲ οὐχ οὕτω τᾶληθές, ἀλλ' ἐτέρας ἐνεδείξατο δύο ταῖς εἰρημέναις ἐξ ἀνάγκης συνεπινοουμένας, ἐν μὲν τῇ κατὰ ποιότητα διαφορᾷ τὴν μέσσην τῆς σκληρᾶς τε καὶ μα-

nothing about the amount—and indeed, it would have been right to also speak about the quantity. Anyway, he did declare that, if there is moderation in quantity, it thickens.

What in the world, then, will “large amount” do if it is after “moderate”? At all events, it will either preserve the action of the massage or it will change it. But if it preserves it, the quantity of massage after moderation will bring about nothing more. If it does do something more, it will either reduce the growth of flesh or it will increase it. If it reduces, then it thins, whereas, if it increases, it enfleshes. But it doesn't enflesh, so, of necessity, it thins. In fact, Theon said nothing about the difference in this, but was altogether silent, making no declaration at all about whether it thins or thickens, or whether it preserves the flesh from the moderate massage or increases the hardness. He only said that it compresses and binds together, [and creates something] similar to inflammation. He should not only say this, but also that it thins.

4. It is obvious, then, that Theon was either unable to understand the art of Hippocrates in these matters or that he did not wish to praise the man because he spoke so briefly in this way on all the differences of massage, and as well as the differences, on the function and potency of each of them. For someone might be made to think, from the image presented in this way, that he spoke about four kinds only. But this is not true; he did show there were two other kinds which must be included with those spoken of. These are in the difference in terms of quality between

⁹ post τοίνυν add. ὁ Θεὸν Ku

106K λακῆς, ἥπερ δὴ καὶ σύμμετρός ἐστιν, ἐν δὲ τῇ κατὰ ποσότητα τὴν ὀλίγην ἀναγκαῖον γὰρ τὴν ὀλίγην ἐναντίαν εἶναι τινὰ τῇ πολλῇ. τὸ δὲ τῆς παλαιᾶς ἐρμηνείας εἶδος οὕτως ἐστὶ βραχυλόγον, ὡς πολλὰ πολλάκις ὑπερβαίνειν δοκεῖν τῇ λέξει τῶν ἐξ ἀνάγκης ἐπομένων τοῖς λεγομένοις. καὶ διὰ τοῦτ', οἶμαι, γράφομεν αὐτῶν ὑπομνήματα, ποδηγοῦντες τοὺς δι' ἀγυμνασίαν ἀδυνάτους ἐπεσθαι τάχει λέξεως παλαιᾶς, καθάπερ κὰν τῶδε τῷ λόγῳ ποιούμεν. εἰ γὰρ ἢ μὲν σκληρὰ δύναται δεῖν, ἢ δὲ μαλακὴ λύειν, ὅσα μὲν ἐκλέλυται σώματα πέρα τοῦ μετρίου, σκληρῶς ἀνατριπτέον, ὅσα δ' ἔσφιγκται, μαλακῶς. εἰ δέ τι συμμέτρως ἔχει, τοῦτ' εὐδῆλον ὡς οὔτε μαλακῶς οὔτε σκληρῶς, ἀλλ' ὅσον οἶόν τε τὰς ὑπερβολὰς ἐκατέρας φυλαττόμενον. ὁ δὲ θαυμάσιος Θεὸν εὐθὺς τοῦτο πρῶτον ἔσφαλται, μήτε τὴν δύναμιν εἰπὼν ποτε τῆς συμμέτρου κατὰ ποιότητα τρίψεως μήτε τὴν χρείαν, ἀλλ' αἰεὶ παρερχόμενος αὐτὴν ὥσπερ οὐκ οὔσαν. περὶ μὲν δὴ τοῦδε καὶ μικρὸν ὕστερον ἐροῦμεν. ὥσπερ δ' ἐν ταῖς κατὰ ποιότητα διαφοραῖς οὐ σκληρὰ καὶ μαλακὴ μόνον ἐστίν, ἀλλὰ καὶ σύμμετρος, οὕτω κὰν ταῖς κατὰ τὸ ποσὸν οὐ πολλὴ καὶ ὀλίγη μόνον, ἀλλὰ καὶ μετρία.

107K τί ποτ' οὖν ἐν μὲν ταῖς κατὰ ποιότητα τὴν μέσην παρέλιπεν ὁ Ἱπποκράτης, ἐν δὲ ταῖς κατὰ ποσότητα τὴν ὀλίγην; ἴσως γὰρ ἂν τινι δόξειεν ἀλόγως τοῦτο πράξαι· χρῆναι γὰρ ἐν ταῖς βραχυλόγοις διδασκαλίαις ἀφορίζεσθαι μὲν ταῖς ἄκραις ἐναντιότησι τὰ

106K hard and soft (firm and gentle), which is also moderate, and in the difference in terms of quantity regarding little, where little is of necessity opposite to much. But the form of the ancient explanation expresses things so briefly that it often seems to pass over, in the statement, many things that necessarily follow the things stated. And it is because of this, I think, that we write commentaries about them as guides for those who, being unpracticed, are unable to follow the brevity of the ancient statement, just as I am doing in this discussion. Thus, if hard (firm) massage can bind, while soft (gentle) massage can loosen, one must firmly massage those bodies that have been loosened beyond moderation and gently massage those that are bound tightly. If something is moderate, it is clear it should be massaged neither gently nor firmly, but as far as possible protected against each extreme. This is the first point on which the admirable Theon was immediately mistaken, neither speaking at any time of the power of massage that is moderate in quality, nor the use, but always disregarding this, as if it didn't exist. I shall also speak about this a little later. Just as in the differences pertaining to quality, there is not only hard and soft, but also moderate, so too in the differences pertaining to quantity, there is not only much and little, but also moderate.

107K Why then, in the differences pertaining to quality, did Hippocrates leave out moderate, and in the differences pertaining to quantity, little? Perhaps it might seem to someone that he did this unwittingly because, in the briefly expressed teachings, it is necessary to define mat-

πράγματα, παραλείπεσθαι δὲ τὸ μέσον τε καὶ σύμμετρον ἐν αὐταῖς, ὡς ἐξ ἀνάγκης τοῖς ἄκροις συνεπινοούμενον. ἐγὼ τοίνυν καὶ τοῦτο πειράσομαι διελθεῖν καὶ σαφηνίσαι τὴν τοῦ παλαιοῦ γνώμην, οὐκ ἀναγκαῖον μὲν ὄν ἐνταῦθα (τὰ γὰρ τοιαῦτα ζητήματα διὰ τῶν ἐξηγητικῶν ὑπομνημάτων εἰθίσμεθα λύειν), ἀλλ' ἐπειδὴ ἅπαξ ἐν τῷδε τοῦ λόγου κατέστην, ὡς ἀπολογεῖσθαι τοῖς ἀγυμνάστοις ὑπὲρ Ἰπποκράτους, ἐν οἷς αὐτοὶ σφαλλόμενοι κατηγοροῦσι τοῦ κατορθοῦντος, οὐκ ὀκνήσω προσθεῖναι καὶ τοῦτο.

108K δυοῖν οὖν ὄντων πραγμάτων ὅλω τῷ γένει κεχωρισμένων, εἴ γε δὴ τὸ ποιῶν τοῦ ποιουμένου τῷ γένει διενήνοχεν, αἱ μὲν τρίψεις ἐκ τῶν ποιούντων εἰσίν, αἱ δ' ὑπ' αὐτῶν ἀποτελούμεναι κατὰ τὰ σώμαθ' ἡμῶν διαθέσεις ἐκ τῶν ποιουμένων. ὥστε καὶ τὰς ἐναντιότητας ἀναγκαῖον ἑτέρας μὲν ἐν τῷ τῶν τρίψεων, ἑτέρας δ' ἐν τῷ τῶν διαθέσεων ὑπάρχειν γένει, ἐν μὲν τῷ τῶν τρίψεων τὴν τε μαλακὴν καὶ τὴν σκληρὰν καὶ τὴν πολλὴν καὶ τὴν ὀλίγην, ἐν δὲ τῷ τῶν διαθέσεων τὴν οἶον δέσιν τε καὶ λύσιν τῶν σωμάτων καὶ τὴν ἰσχύτητα καὶ τὴν σάρκωσιν. ἡ μὲν οὖν προτέρα τῶν διαθέσεων ἐναντίωσις ὑπὸ τῆς προτέρας κατὰ τὰς τρίψεις ἐναντιώσεως γίνεται, ἡ δὲ δευτέρα οὐκέτι. συμβαίνει γὰρ ἐπ' αὐτῆς τὴν μὲν ἰσχύτητα πρὸς τῆς πολλῆς γενέσθαι τρίψεως, τὴν δ' ἀνάθρεψιν ὑπὸ τῆς μετρίας. ἡ γὰρ ὀλίγη σαρκῶν οὐδέπω δυνατὴ, διότι δεῖται μὲν τὸ σαρκωθησόμενον αἰεὶ αἱματός τε παραθέσεως συμμέτρου καὶ δυνάμεως εὐρώστου. καὶ ταῦτα ἄμφω κα-

ters by their opposite extremes, leaving out the median and the moderate in those as being, of necessity, jointly known from the extremes. Therefore, I shall also attempt to go over this and make clear the opinion of the ancient (Hippocrates), although not necessarily here, for I am accustomed to leave such questions to the exegetical commentaries. But since I have been appointed once and for all in the present discussion to speak in his defense to those untrained in Hippocratic medicine, among whom are those who erroneously speak against the man who was successful, I shall not hesitate to also add this.

108K Since there are two matters wholly separated in class, if in fact what acts is differentiated in class from what is acted upon, the massages are separated into those who do them and the conditions brought about through them in our bodies by the things that are done. As a consequence, it is also necessary that the opposites are those in the class of the massages and those in the class of the conditions. In the class of the massages, there are soft and hard, and much and little; in the class of conditions there are, as it were, the binding together and the loosening of bodies, and the reducing and enfleshing. In the former, the opposition of the conditions arises through the prior opposition in the massages, whereas in the second case this is no longer so. What happens in this is that the reduction arises from the large amount of massage, whereas the restoration arises from the moderate amount. A small amount of massage is not yet able to en flesh because what is going to be en fleshed always needs in addition the joint presence of a moderate amount of blood and a strong capacity, and both these things properly arise in it from moderate massage,

λῶς αὐτῷ πρὸς τῆς συμμέτρου γίνεται τρίψεως, οὐδέτερον δ' ἰκανῶς οὐδ' αὐτάρκως ἐπὶ τῆς ὀλίγης. ἐπεὶ τοίνυν οὐ συνέβαινον ἐς ταῦτον αἱ τῶν τρίψεων ἐναντιώσεις ταῖς τῶν διαθέσεων, ἠνάγκαζε δ' αὐτὸν ἢ τῆς βραχυλόγου διδασκαλίας ἰδέα δι' ἐναντιώσεων ἀφορῶν ἄφικόμενος ὑπερεῖδε τῆς ἀχρηστοτέρας. χρησιμωτέρα δέ ἐστιν ἢ κατὰ τὰς διαθέσεις τῆς κατὰ τὰς τρίψεις ἐνὶ μὲν καὶ πρώτῳ λόγῳ τῷ κατὰ τὸ τέλος τῆς τέχνης· ἐστοχασμένοι γὰρ εἰσιν αἱ τρίψεις τῆς τοῦ σώματος διαθέσεως ὡς τέλους· αἰεὶ γὰρ τὸ τέλος τοῦ πρὸ αὐτοῦ κυριώτερον, ὅσῳ καὶ τοῦ διὰ τί γινομένου τὸ δι' ὃ γίνεται· δευτέρῳ δὲ λόγῳ <τῷ>¹⁰ τῆς σαφηνείας· ἐκ μὲν γὰρ τοῦ μαθεῖν ἡμᾶς τὰ τῆς πολλῆς καὶ τὰ τῆς μετρίας ἀνατρίψεως ἔργα ῥᾶστόν ἐστιν ἐπινοῆσαι καὶ τὰ τῆς ὀλίγης· οὐκέθ' ὁμοίως δ' εὐσύνοπτος ἢ τῆς συμμέτρου τρίψεως δύναμις.

οὐ μὲν ἀλλὰ καὶ τρίτον τῷδε τῷ λόγῳ κάλλιστα ἂν ὁ Ἱπποκράτης εὕρισκοιτο διδάσκων περὶ τρίψεων. ἠγεῖσθαι μὲν γὰρ χρὴ τὴν τῶν ἐναργῶς ἀποτελουμένων διδασκαλίαν, ἔπεσθαι δὲ τὴν τῶν ἀμυδρῶς, εἴτε γράφοι τις περὶ αὐτῶν ῥητῶς εἴτε τοῖς ἀναγνώσκουσιν ἀπολείποι. ἔστι δ' ἐναργὲς ἐπινοεῖν¹¹ μὲν τὸ τῆς μετρίας τρίψεως ἔργον, ἢ σάρκωσις τοῦ σώματος, οὐκ ἐναργὲς δὲ τὸ τῆς ὀλίγης· οὔτε γὰρ σαρκοῦν οὔτ' ἰσχυραίνειν οὔθ' ὅλως οὐδὲν ἐναργὲς φαίνεται ποιεῖν, ὅτι μὴ θερμαῖνοι μόνον ἐπὶ βραχύ. κοινὸν δ' ἦν ἀπά-

whereas neither does satisfactorily or sufficiently from a small amount of massage. Therefore, since the oppositions of the massages do not correspond to the same degree to the oppositions of the conditions, but the form of the briefly expressed teaching compelled him to define the argument through oppositions, focusing on the more useful opposition, he overlooked the more useless. More useful is what pertains to the conditions than what pertains to the massages. One, and the primary, reason relates to the goal of the craft, for massages are aimed at the condition of the body as a goal, and the goal is always more important than what precedes it by as much as what occurs is to the means by which it occurs. The second reason is for the sake of clarity in the discussion. Thus, from our learning the effects of much and moderate massage, it is very easy to think also of those of little massage, whereas the potency of moderate massage is not similarly seen at once.

But Hippocrates may also be found teaching a third point about massage very well in this discussion. For the teaching of those things that are clearly accomplished must take the lead, while that of those things that are obscure must follow, whether someone were to write about them clearly or leave it to his readers to find clarity. The action of moderate massage is clearly conceived—an enfleshing of the body. What is not clear is the action of slight massage, for it seems neither to en flesh nor reduce, nor to do anything else at all that is obvious, apart from heating a little. Heating is, however, common to all mas-

¹⁰ post λόγῳ: <τῷ> Ko; ἐνεκεν Ku

¹¹ ἐπινοεῖν om. Ku

σης τρίψεως τὸ θερμαίνειν. ὥστ', ἐπεὶ μήτ' ἐναργῆς ἀποτελεῖ μηδέν, καὶ ὃ τι φαίνεται ποιεῖν, οὐδὲ τοῦτο ἴδιον αὐτῆς ἐστίν, ἀλλὰ τὸ κοινὸν ἀπάσης τρίψεως, εὐλόγως παρελείφθη. τὸ μὲν οὖν, ὅτι κοινὸν ἀπάσης τρίψεως ἔργον ἐστὶ τὸ θερμαίνειν, οὐκ ἄξιον Ἱπποκράτους συγγράμματος· ὁποῖον δέ τι πέφυκεν ἐκάστη τρίψις ἴδιον ἀποτελεῖν, Ἱπποκράτει τε διδάσκειν ἀναγκαῖον ἦν ἡμῖν τε μαθάνειν χρήσιμον. ἀναγκαῖον γὰρ ὥσπερ εἰς στοιχεῖά τινα τὰς ἀπλᾶς διαφορὰς ἅπαντα τὸν περὶ τῆς τρίψεως λόγον ἐδίδαξεν, ὅπως ἀναθρέψεις ἢ καθαιρήσεις ἢ μαλάξεις ἢ σφίγγεις τὸ σῶμα. τούτοις δ' εὐθέως συνεμφαίνεται τὰ τε μέσα τῶν ἔργων καὶ τὰ κατὰ συζυγίαν ἀποτελούμενα· μέσα μὲν, ὅταν ἦτοι μήτε δῆσαι τὸ σῶμα μήτε λύσαι μήτε σαρκῶσαι μήτε μινυθῆσαι προελώμεθα, κατὰ συζυγίαν δέ, ὅταν, εἰ οὕτως ἔτυχεν, ἅμα δῆσαι καὶ σαρκῶσαι. τίς γὰρ οὐκ ἂν ἐπινοήσειεν, ὡς, ἐπειδὴν σκληρᾶ σαρκὶ σαρκῶσαι σῶμα προαιρώμεθα, τὴν σκληρὰν ἡμῖν τρίψιν ἅμα ποσότητι συμμέτρῳ παραληπτέον ἐστίν, ὥσπερ, καὶ περὶ μαλακῆς, τὴν μαλακὴν τε ἅμα καὶ σύμμετρον ἐν τῷ ποσῷ, καὶ κατὰ τὰς ἄλλας συζυγίας ἀνάλογον;

ἅς ἔνιοι τῶν γυμναστῶν ὡς ἴδια γράφοντες εὐρήματα μετὰ καὶ τοῦ προσεγκαλεῖν Ἱπποκράτει μεγάλως πλημμελοῦσιν, ὅτι τε τὸν πρῶτον ὑπὲρ αὐτῶν διδάξαντα δικαίων ἐπαίνων ἀποστεροῦσι καί, τὸ τούτου χεῖρον, ὅτι τὴν ἐκείνου γνώμην εἰς ἑαυτοὺς μετα-

sage. Consequently, since it does not clearly accomplish anything, and what it seems to do is not something specific to it, but is common to all massage, it was reasonably omitted. Therefore, the fact that heating is an action common to all massage was not worthy of a book by Hippocrates. What was necessary for Hippocrates to teach, and useful for us to learn, is what kind of specific effect each massage naturally brings about. For having reduced everything to simple differences, as if to elements, he taught the whole theory of massage—how you will restore, reduce, soften or compress the body. With these, he jointly revealed the means of their actions and their effects when used in conjunction—"means" are whenever we choose beforehand neither to bind nor loosen the body, neither to en flesh nor reduce, and by conjunction, whenever, as may happen, we choose beforehand to bind and en flesh at the same time. Who, then, would not realize that, when we choose to en flesh the body with hard flesh, hard massage which is at the same time of moderate amount is what we must apply, just as, when we choose soft flesh, we must apply soft massage in moderate amount, and analogously in respect of the other conjunctions?

Some gymnastic trainers, when they write about these things as their own discoveries, combine rebuking Hippocrates with being greatly in error themselves in that they deprive the first man to have taught about those things of

φέροντες ἔτι καὶ διαβάλλειν αὐτὸν ἐπιχειροῦσιν, οὐδ' οὖν οὐδὲ καλῶς ἐπαλλάττοντες ἀλλήλαις τὰς ἀπλᾶς διαφοράς. ἐχρῆν γάρ, οἶμαι, τὸν γε κατὰ τρόπον ἐπὶ τὰς ἐν μέρει συζυγίας ἔρχεσθαι βουλόμενον οὔτε τὰς συμπάσας ἕξ ποιεῖν, ὥσπερ ὁ Θεὸν, οὔτε παραλιπεῖν τι κατὰ ταύτας ἔργον ἢ ποσότητος ἢ ποιότητος ἴδιον, ὥσπερ ἐπὶ μὲν τῆς μαλακῆς τε ἅμα καὶ πολλῆς τῆς μαλακῆς, ἐπὶ δὲ τῆς σκληρᾶς τε ἅμα καὶ πολλῆς τὸ τῆς πολλῆς ἴδιον ἐδείκνυτο παραλειπῶς, ἀλλὰ καὶ ταῦτα προστιθέναι, καὶ τὰς κατὰ μέρος συζυγίας ἐννέα ποιεῖν. αἱ γὰρ τρεῖς διαφοραὶ τῶν κατὰ ποιότητα τρίψεων ταῖς τρισὶ διαφοραῖς τῶν κατὰ ποσότητα τρίψεων ἐπαλλαττόμεναι¹² συζυγίας ἀποτελοῦσιν ἐννέα, ἕξ μὲν τὰς ὑπὸ Θεῶνος εἰρημένας ἐν ἧ παρεθέμην ὀλίγον ἔμπροσθεν ῥήσει, τρεῖς δ' ἄλλας, ἃς ἐκείνος παρέλιπε, τὴν μέσην σκληρᾶς τε καὶ μαλακῆς ὑπερβάς· καίτοι γ' οὐδ' ἐπινοῆσαι δυνατόν ἐστιν οὔτε σκληρὰν οὔτε μαλακὴν τρίψιν ἄνευ τοῦ προσεπινοῆσαι τὴν σύμμετρον· ἢ τὰς γε τρεῖς διαφορὰς τῆς ποσότητος εἶπερ ἔξευξεν, ἐννέα τὰς πάσας ἂν οὕτως ἀπειργάσατο συζυγίας τρίψεων, οὐχ ἕξ. ἐκθήσομαι δὲ αὐτὰς ἐπὶ διαγράμματος, ἐν ᾧ τὸν μὲν πρότερον στοῦχον ἄνωθεν κάτω ποιότητων χρῆ νοεῖν, τὸν δὲ δεύτερον ποσοτήτων.

¹² ἐπαλλαττόμεναι add. Ko

his rightful praise and, what is worse, they do so by transferring his opinion to themselves. And still they try to slander him, not even properly comparing the simple differences with each other. I think that someone who wishes to go through the individual conjunctions correctly, must neither make them six in all, as Theon does, nor leave out some specific action in relation to these, either of quantity or quality, as he was shown to have left out the specific action of soft in the combination of soft and much, and of much in the combination of hard and much, but must add these too, making nine conjunctions individually. The three *differentiae* of massage according to quality, when combined with the three *differentiae* according to quantity, make nine conjunctions. There are six mentioned by Theon in the statement I set down a little earlier, and three others which he left out, overlooking the moderately hard and the moderately soft. And indeed, it is not possible to think of either hard or soft massage without thinking besides of the moderate. If he had joined the three *differentiae* of quantity with this he would have made, in this way, all the nine conjunctions of massage and not six. I shall set these out in a diagram in which it is necessary to think of qualities in the first column from above down, and quantities in the second.

ποιότητες	ποσότητες
σκληρά	1. ὀλίγη 2. πολλή 3. σύμμετρος
μαλακή	1. ὀλίγη 2. πολλή 3. σύμμετρος
σύμμετρος	1. ὀλίγη 2. πολλή 3. σύμμετρος

τῶν ἐν τούτῳ τῷ διαγράμματι γεγραμμένων ἐννέα συζυγιῶν ἕξ τὰς πρώτας εἰπὼν ὁ Θεὸν, οὐκέτ' ἐμνημόνευσεν τῶν ὑπολοίπων τριῶν, αὐτὸς ἑαυτῷ φανερώσ μαχόμενος. εἴπερ γὰρ ἐστὶ τῆς ὀλίγης καὶ πολλῆς μέση τρίψις, ἣν μετρίαν τε καὶ σύμμετρον ὀνομάζομεν, εἴη ἂν δηλονότι καὶ σκληρᾶς καὶ μαλακῆς ἕτεραίς μέση, σύμμετρός τε καὶ μετρία προσαγορευομένη. μεμνήσθαι δὲ ἡμᾶς χρὴ παρὰ πάντα τὸν λόγον, ὡς ἅπαντα ταῦτα κατὰ τὸ πρὸς τι λέγεται. καὶ γὰρ ἢ σκληρὰ τῷδέ τινι μαλακὴ γένοιτ' ἂν ἐτέρῳ τινὶ καὶ ἢ σύμμετρος ἀσύμμετρος ἢ τ' ὀλίγη πολλή καὶ ἢ πολλή τῷδέ τινι τοῖς ἄλλως πως διακειμένοις ὀλίγη. τοῦτο μὲν δὴ καὶ ὁ Θεὸν βούλεται, καὶ οὐκ ἔστιν ὡς τις ὑπερβὰς τὴν σύμμετρον ἐν ποιότητι τρίψιν οὐ μακρῶς ἀμαρτάνει. καὶ μοι δοκεῖ περιπεσεῖν ὁ Θεὸν αὐτῷ, διότι παραλέλειπται κατὰ τὴν Ἰπποκράτους ῥῆσιν. ὥστε κακὸν τούτου κατάφωρον γίνεσθαι τὸν ἄνδρα

Qualities	Quantities
Hard/Firm	1. Little 2. Much 3. Moderate
Soft/Gentle	1. Little 2. Much 3. Moderate
Moderate	1. Little 2. Much 3. Moderate

Of the nine conjunctions set out in this diagram, Theon spoke about the first six but never mentioned the remaining three, clearly being at odds with himself. For if there is an intermediate massage between little and much, which we call medium and moderate, clearly there would also be some other intermediate between hard and soft, called medium and moderate. However, we must remember throughout the whole discussion that all these are stated relatively. And [what is] hard to one person might be soft to another, what is moderate, immoderate, or what is little, much, and what is much to one person might be little to others constituted somehow differently. Theon also certainly means this, and it is not possible for someone who overlooks massage that is moderate in quality not to be very much mistaken. And it seems to me that Theon was caught in his own snare because it was omitted in the statement of Hippocrates, so that it became clear from this that the man discovered nothing on his own about massage

μηδὲν μὲν ἴδιον ὑπὲρ τρίψεως ἐξευρηκότα, τὰ δ' Ἰπποκράτους οὐκ ὀρθῶς μεταχειριζόμενον. οὐ γὰρ ἀνέγνω τὰ συγγράμματα τοῦ παλαιοῦ παρὰ διδασκάλους εὐθὺς ἐκ παίδων ὀρμώμενος.

ὁμολογεῖ γοῦν αὐτὸς ἀθλητῆς γενέσθαι τὰ πρῶτα, καταλύσας δὲ τὴν ἄσκησιν ἐπὶ τὴν γυμναστικὴν ἀφικέσθαι τέχνην. καὶ ταῦτα μὰ τοὺς θεοὺς οὐχ ὑπὲρ τοῦ ψέξαι τὸν ἄνδρα προεθέμην εἰπεῖν ἀποδέχομαι γὰρ αὐτὸν οὐδενὸς ἦττον ἐτέρων ἀρίστων γυμναστῶν, ἀλλ' ὑπὲρ τοῦ τοῖς ἀναγνωσομένοις τήνδε τὴν πραγματείαν ἐνδείξασθαι τὸ μὴ ῥάδιον εἶναι παρακολουθεῖν βιβλίους παλαιοῖς ἄνευ τῶν ἐπιμελῶς ἐξηγουμένων αὐτά. διότι μὲν γὰρ ἔπρεπε βραχυλογία 115K παλαιᾷ τὴν μέσσην σκληρᾶς τε καὶ μαλακῆς ὑπερβῆναι τρίψιν ἔν γε τῇ λέξει τῆς ἐρμηνείας, ἔμπροσθεν εἴρηταί μοι διότι δ' ἡμᾶς οὐ χρὴ παρορᾶν τά γε τοιαῦτα, καὶ πρόσθεν μὲν ἐπέδειξα καὶ νῦν δ' οὐδὲν ἦττον ἐπιδείξω. εἴπερ γὰρ ἡ μαλακὴ καὶ ἡ σκληρὰ τρίψις ἐν τῷ πρὸς τι τὴν ὑπαρξιν καὶ τὴν νόησιν ἔχουσιν, ἀνάγκη συνίστασθαι καὶ τὴν σύμμετρον ἐν τῷ πρὸς τι.

τίθεσο δὴ μοι σῶμα τοιοῦτον, οἷον καὶ τὸ τοῦ παιδὸς ὑπεθέμεθα τοῦ προκειμένου κατὰ τόνδε τὸν λόγον, ἀκριβῶς ὑγιαίνόν τε καὶ σύμμετρον ἤδη πάντη, ὡς μήτε μαλακώτερον ἐθέλειν ἡμᾶς αὐτὸ μήτε σκληρότερον ἐργάσασθαι μήτε προσθεῖναι τι τῆς σαρκώσεως μήτ' ἀφελεῖν. ἄρ' οὖν ἐπὶ τοῦ τοιοῦτου σώματος ἢ τὴν σκληρὰν τρίψιν ἢ τὴν μαλακὴν προσάξομεν ἢ τὴν

but took over Hippocrates' statement incorrectly, not being moved to read the writings of the ancient [doctor] with his teachers right from childhood.

Anyway, he himself acknowledges that he became an athlete at first, and then, setting aside the practice, came to the art of gymnastic training. And by the gods, I did not take it upon myself to say these things to censure the man, for I accept him as not inferior to any of the other excellent gymnastic trainers, but in order to demonstrate to those who are going to read about this particular matter, that it is not easy to follow the old books without [the guidance of] those who interpret them carefully. For it was in keeping with ancient brevity of expression to pass over the intermediate message between hard and soft in the interpretation of the statement, as I said previously. But that we must not disregard such things, I both demonstrated before and shall also demonstrate no less now. For if soft and hard massage have their existence and meaning in relation to something, the moderate must of necessity also exist in relation to something.

Assume for me now such a body, like that of the boy we supposed set before us in this discussion—a body perfectly healthy and already moderate in every respect, such that we do not wish to make it softer or harder, nor to add flesh or remove it. Shall we, then, in the case of such a

116K πολλήν ἢ τὴν μετρίαν; ἐγὼ μὲν οὐδαμῶς ἡγοῦμαι
 συμφέρειν. ὑπὸ μὲν γὰρ τῆς σκληρᾶς σκληρότερον,
 ὑπὸ δὲ τῆς μαλακῆς μαλακώτερον, ὥσπερ γε καὶ ὑπὸ
 μὲν τῆς πολλῆς ἰσχυρότερον, ὑπὸ δὲ τῆς μετρίας
 παχύτερον ἀπεργασθήσεται τὸ τοιοῦτον σῶμα. χρὴ
 δ' οὐδὲν τούτων, ἀλλὰ τὴν ἀρχαίαν ἀκριβῶς αὐτῷ
 φυλάττεσθαι συμμετρίαν. ὥστε οὔτε σκληρῶς οὔτε
 μαλακῶς αὐτὸ τρίβομεν οὔτε πολλαῖς οὔτε ὀλίγαις,
 ἀλλὰ μετρίαις ἀνατρίψουσιν αὐτὸ τρίβομεν, οὐδὲν
 πλέον ἐργαζόμενοι τοῦ παρασκευάζειν τε πρὸς τὰ
 γυμνάσια καὶ αὐθις ἀποθεραπεύειν, ἐπειδὰν ἰκανῶς
 γυμνάσῃται. καλείσθω γὰρ οὖν δὴ καὶ ἡμῖν, ὥσπερ
 γε καὶ τοῖς νεωτέροις γυμνασταῖς, 'ἀποθεραπεία' τὸ
 μετὰ τὰ γυμνάσια μέρος τῆς τρίψεως. ὁ δὲ γε Θεὸν
 οὐδεμίαν ὧν εἶπε κατὰ τὰς τρίψεις συζυγιῶν ἐφαρμό-
 σαι δύναται τῇ τοιαύτῃ φύσει τοῦ σώματος. ἐξ μὲν
 οὖν εἶπε τὰς πάσας, τρεῖς μὲν τὰς πρώτας τῆς μαλα-
 κῆς, ἑτέρας δὲ τρεῖς τὰς δευτέρας¹³ τῆς σκληρᾶς. οὔτε
 δὲ τῶν μαλακῶν οὐδεμιᾶς τὸ τοιοῦτον σῶμα φαίνεται
 δεόμενον οὔτε τῶν σκληρῶν, ἀλλὰ τῆς τούτων ἀμφο-
 τέρων μέσης, ἣν σύμμετρον ὀνομάζειν χρὴ κατὰ πο-
 σότητα¹⁴ καὶ ποιότητα. καὶ δῆλον ἤδη γέγονεν, ἡλικόν
 ὁ Θεὸν ἔσφαλται τὴν μέσσην σκληρᾶς τε καὶ μαλακῆς
 ὑπερβᾶς τρίψιν.

ἐπὶ γοῦν τῆς ἀρίστης κατασκευῆς τοῦ σώματος
 οὐδεμίαν ὧν εἶπον συζυγιῶν ἐφαρμόσαι δυνατόν, οὔθ'

¹³ τὰς δευτέρας add. Ko

¹⁴ ποσότητα add. Ko

116K body, apply hard massage or soft, or much or moderate? I
 do not think it is in any way expedient. For by hard mas-
 sage, we shall make such a body harder, and by soft mas-
 sage, softer, just as we shall also make it thinner by much
 massage and thicker by moderate massage. None of these
 are necessary; rather we should preserve the original bal-
 ance in it precisely. As a result, we shall not massage it
 either firmly or gently, or much or little. We shall massage
 it with moderate rubbing, doing nothing more than to
 prepare it for the exercises, and restore it again when
 it has exercised sufficiently. Let us, then, name it as the
 younger generation of gymnastic trainers do, "apother-
 apy,"¹⁰ which is the part of the massage after the exercises.
 But Theon is not able to adapt any of the conjunctions he
 spoke of to such a nature of the body. He mentioned six
 in all—the first three soft (gentle) and the other and sec-
 ond three hard (firm). However, such a body is obviously
 in need of neither soft massage nor hard, but what is in-
 termediate between both, which we must call moderate
 in respect of quantity and quality. And it has already be-
 come clear how greatly Theon erred when he overlooked
 the massage between hard and soft.

Anyway, in respect of the best constitution of the body,
 it is not possible to apply any one of the conjunctions he

¹⁰ The term ἀποθεράπεια has two distinct meanings listed in LSJ: "regular worship" and "restorative treatment after fatigue." Clearly, the latter is intended here, although Galen's definition above adds "after exercise" specifically. The term is not listed in a standard modern medical dictionary (S), but it is included in the 1933 OED. The definition, attributed to Galen, is: "being rubbed and anointed after exercise." Reference is also made to the use by Rabelais, who was of course a doctor and student of Galenic medicine.

117K ὑγιαίνοντος ἀκριβῶς οὐτ' ἐπανορθώσεως δεομένου τοῦ τοιούτου σώματος. εἰ μὲν γὰρ ἀκριβῶς ὑγιαίνει, μόνῃς τῆς παρασκευαστικῆς δέϊται τρίψεως, ἣν ὀλίγην τε ἅμα καὶ μέσην σκληρᾶς καὶ μαλακῆς ἐδείξαμεν ὑπάρχειν· εἰ δ' ἦτοι τοῦ δέοντος ἰσχυρότερον ἢ παχύτερόν ποτε γίνοιτο, μὴ μέντοι κατὰ ποιότητα τῆς σαρκὸς ὑπαλλαγείη μηδέν, ἀλλ' εἰς τὸ μέσον ἀκριβῶς φυλάττοιτο μαλακοῦ τε καὶ σκληροῦ, τηνικαῦτα τὴν πολλὴν τε ἅμα καὶ σύμμετρον κατὰ ποιότητα προσάξομεν ἰσχυραίνειν βουλόμενοι, σαρκούν δὲ τὴν ὀλίγην τε ἅμα καὶ σύμμετρον κατὰ ποιότητα, τὴν σύμμετρον δὲ κατ' ἀμφοτέρω, τό τε ποιὸν λέγω καὶ τὸ ποσόν, ἀνατρέφειν προαιρούμενοι.¹⁵ ταύτας τὰς τρεῖς συζυγίας ὑστάτας ἐπὶ ταῖς ἐξ ὀλίγον ἔμπροσθεν ἐξεθέμην ἐν τῷ διαγράμματι, δεικνύς ὡς ἀπάσας αὐτὰς ὁ Θεὸς παρέλιπεν.

ἐπειδὴ τοίνυν οὐ μόνον ὅτι παρέλιπεν, ἀλλὰ καὶ ὅτι χρησιμωτάτας ὑπαρχούσας, ὁ λόγος ἀπέδειξεν, ἐξῆς ἂν εἶη καιρὸς ἐπὶ τι τῶν ὀλίγον ἔμπροσθεν ἀναβληθέντων ἰέναι καὶ πρῶτόν γε εἰπεῖν, ὡς ἢ κατὰ τὰ στοιχεῖα τῶν πραγμάτων διδασκαλία χρησιμωτέρα τῶν ἄλλων ἐστίν· εὐσύννοπτόν τε γὰρ ἐργάζεται τὸ πᾶν πρᾶγμα καὶ τῇ μνήμῃ παρατιθέμενον εἰς ἀνάμνησίν τε ῥαδίως ἐρχόμενον ἀπάντων τε τῶν κατὰ μέρος ἐπιδέξιον χρῆσιν ἐτοίμως δεχόμενον, ὡς ἂν εἰς ὀλίγα καὶ ὠρισμένα στοιχεῖα τῆς ἀναφορᾶς γινομένης αὐτῶν. τίς γὰρ οὐκ ἂν ἐξεύροι ῥαδίως πάσας τὰς κατὰ μέρος ἐν ταῖς τρίψεσι διαφορὰς τε καὶ χρείας καὶ δυνάμεις,

spoke of, either when such a body is perfectly healthy, or when it needs to be restored. For if it is perfectly healthy, it only needs preparatory massage which I showed to be small in amount and midway between hard and soft. If, however, at any time it becomes thinner or thicker than it needs to be, and doesn't change in any way in relation to the quality of the flesh, but is to be maintained exactly at the midpoint between soft and hard, then we shall apply under these circumstances much massage along with what is moderate in quality, if we wish to reduce, and little massage along with what is moderate in quality if we wish to enliven, choosing to nurture with moderation in both respects—I speak of quality and quantity. I put these three conjunctions last after the six in the diagram a little earlier to show that Theon overlooked all of them.

Accordingly, since the discussion showed that not only did he omit them, but also that they are the most useful, it would be timely to go next to some of those things we put off a little earlier. The first thing to say is that the teaching pertaining to the elements of the matters is more useful than the others in that it makes the whole matter easily taken in at a glance, and establishes it in the memory. Thus, it comes easily to recollection, readily demonstrating the use of the things that individually come to hand, as these are referred to a few defined elementary principles. For who would not easily discover all the differences in the massages individually, and uses and potencies, if only he learns once and for all the opinion of the

¹⁵ τὴν σύμμετρον δὲ κατ' ἀμφοτέρω, τό τε ποιὸν λέγω καὶ τὸ ποσόν, ἀνατρέφειν προαιρούμενοι not included in Ku

εἰ μόνον ἅπαξ ἐκμαθὼν τὴν γνώμην τοῦ παλαιοῦ μετὰ ταῦτα πρόχειρον ἔχει τῇ μνήμῃ τὴν ῥῆσιν αὐτοῦ, δι' ἧς ἡμᾶς ἐδίδαξεν, ὡς δῆσαι μὲν ἢ σκληρά, λῦσαι δὲ ἢ μαλακή, μινυθῆσαι δὲ ἢ πολλή, σαρκῶσαι δ' ἢ μετρία δύναται τρίψις; ἐκ γὰρ τοῦ ταῦτά γε νοῆσαι τε καὶ μνημονεῦσαι πρώτας μὲν τὰς ἐν τῇ ῥῆσει παραλειφθείσας δύο διαφορὰς εὐρήσομεν, εἴθ' ἐξῆς ἐπιπλέκοντες ἀλλήλαις ἀπάσας ἑννέα συζυγίας ἀπεργασόμεθα, τὰς ὀλίγον ἔμπροσθεν ἐπὶ τοῦ διαγράμματος ἐγκειμένας, ἃς οὐθ' εὐρεῖν οὔτε μνημονεῦσαι δυνατὸν ἄνευ τοῦ προηγῆσασθαι τὴν στοιχειώδη διδασκαλίαν, ἣν Ἴπποκράτης ἐποιήσατο, σύμπαντα τὸν περὶ τῆς τρίψεως λόγον εἰς τὰς πρώτας ἀρχὰς ἀναγαγὼν, ἐξ ὧν ἀκριβῶς εὐρημένων οὐ μόνον τὰ νῦν εἰρημένα περιγίνοιτο ἂν ἡμῖν, ἀλλὰ καὶ τὸ κρίνειν ἀπάσας τὰς μοχθηρὰς διδασκαλίας.

119K

ἴδιον γὰρ μάλιστα μεθόδου τοῦτο, τὸ διὰ βραχείας ἀρχῆς στοιχειώδους ἐπὶ τὰ πάντα δύνασθαι τὰ κατὰ μέρος ἰέναι καὶ κρίνειν ἅπαντα τὰ μοχθηρῶς εἰρημένα καθάπερ κανόνι τινὶ τοῖς ἐπιστημονικοῖς θεωρήμασι τὰς οὐκ ὀρθὰς δόξας δοκιμάζοντας. περὶ μὲν δὲ τοῦ μήτε ἄλλον τινὰ περὶ τρίψεων ὀρθῶς ἐγνωκέναι μήτε τὸν γυμναστὴν Θεώνα, καίτοι τῶν ἄλλων κάλλιον ὑπὲρ αὐτῶν ἀποφηνάμενον, ἀλλ' Ἴπποκράτην τε καὶ ὅσοι τούτῳ παρηκολούθησαν ἱκανὰ καὶ ταῦτα.

5. Λείποιτο δ' ἂν τι τῶν τέως ἀναβληθέντων ὑπὲρ τῶν ὀνομάτων εἰπεῖν, ἵνα μή τις ὑπὸ τοῦ πλήθους αὐτῶν ἐξαπατῶμενος ἰσαριθμούς οἰηθῇ τὰς διαθέσεις

ancient [doctor Hippocrates], and after this, has ready to hand in the memory his statement through which he taught us that firm massage is able to bind, soft massage to loosen, much massage to diminish, and moderate massage to en flesh? For from observing and remembering these things, we shall discover first the two differences omitted in the statement, and then, next, combining them all with each other, we shall complete the nine conjunctions, contained in the diagram a little earlier. It is not possible to discover and remember these without being guided by the elementary teaching which Hippocrates created by referring the whole discussion about massage to first principles. It is from these principles having been accurately discovered that not only the things now said would remain for us, but also the judging of all the bad teachings.

119K

This is particularly characteristic of a method which is able to proceed, by way of brief elementary principles, to all the individual matters, and to judge all the things said badly, examining wrong opinions by scientific theories, as if by some canon. Certainly, no one else knew rightly about massage—not even the gymnastic trainer Theon, although he gave a better account of this than others—except Hippocrates and those who followed him closely. But this is enough on these matters.

5. Of those things we put off for a time, what still remains is to speak about terms so that no one, deceived by their great number, might think the conditions are equal

120K ὑπάρχειν ταῖς προσηγορίαις. τὸ μὲν γὰρ σκληρὸν ὄνομα κυρίως ἐπιφέρεται κατὰ τινος μιᾶς τοῦ σώματος διαθέσεως, ἣν οὐδ' ἐξηγεῖσθαι διὰ πολλῶν ὁποῖα τίς ἐστι δεόμεθα, πάντων ἀνθρώπων ὑπὸ τῆς φωνῆς ὀδηγουμένων¹⁶ ἐπὶ τὸ πρᾶγμα. κατὰ δὲ τὸν αὐτὸν τρόπον καὶ τὸ μαλακόν. τὸ δ' ἀραιὸν καὶ τὸ πυκνὸν οὐκέθ' ὁμοίως ἐναργῶς διασημαίνει τὰς διαθέσεις τοῦ σώματος, ὅτι διττὴ τις ἢ τῶν ὀνομάτων χρήσις ἐγένετο, κυρίως μὲν ὀνομαζόντων ἕτερα, καταχρωμένων δ' ἕτερα. τὸ μὲν οὖν κυρίως ἀραιὸν ἐστὶ τὸ μεγάλους διαλαμβανόμενον πόροις, ὥσπερ γε καὶ πυκνὸν τὸ μικροῖς· τὸ δ' ἐκ μεταφορᾶς ἢ καταχρήσεως ἢ ὅπως ἂν τις ὀνομάζειν ἐθέλη καὶ κατὰ τοῦ κεχυμένου τε καὶ πεπιλημένου λέγεται. κατὰ τοῦτο γοῦν ἔστιν ὅτε τὸν μὲν ἀέρα καὶ τὸ πῦρ ἀραιά, τὸ δ' ὕδωρ καὶ τὴν γῆν πυκνά λέγομεν, ἐπ' αὐτὰ τὰ στοιχεῖα τὰς εἰρημένας προσηγορίας ἐπιφέροντες, ἠνωμένα τε καὶ ὁμοιομερῆ τὴν φύσιν ὑπάρχοντα καὶ μηδενὶ διαλαμβανόμενα πόρω. πολὺ δὲ δὴ τούτων ἔτι μᾶλλον ἀποκεχώρηκε τοῦ κυρίως ὀνομάζεσθαι τό τε ἐσφιγμένον καὶ τὸ δεδεμένον, ἐκ μεταφορᾶς ἄμφω λεγόμενα, τὸ μὲν ἐσφιγμένον ἐπὶ τοῦ πυκνοῦ καὶ τοῦ σκληροῦ, ποτὲ μὲν ἑκατέρου καταμόνας ὑπάρχοντος, ἔστιν ὅτε δ' εἰς

¹⁶ ποδηγουμένων Ku

¹¹ The four terms considered in this short section are, for obvious reasons, given in the transliterated form. The range of meaning of the two adjectives is indicated by the following partial list given in LSJ: ἀραιὸς: thin, narrow, slender, loose-textured,

120K in number to the terms. Thus the term *skleros* ("hard") is properly applied to one single condition of the body, and we do not need to expound at length what kind of condition this is, since all people are led to the matter by the sound. And the same also applies to *malakos* ("soft"). However, *araios* and *puknos*¹¹ no longer clearly signify conditions of the body in a similar way because a twofold use of the terms has arisen; one by those who use the terms correctly and the other by those who use them catachrestically.¹² *Araios* is properly applied to distinguish something with large pores, just as *puknos* is used in the case of something with small pores. On the other hand, the metaphorical or catachrestical use, or whatever you might wish to call it, is said of "flowing" and "condensed." Anyway, it is in this respect we sometimes say air and fire are *araios* while water and earth are *puknos*, applying the terms mentioned to the elements themselves, being unified and *homoiomorous* in nature, and not distinguished by any pore. Even further removed from the proper application of terms are *esphigmenon* ("compressed") and *dedemenon* ("bound up"), both being used metaphorically. The former is used in reference to *puknos* and *skleros*, which are sometimes alone and sometimes come to-

empty, scanty, intermittent. *πυκνὸς*: close, compact, firm, narrow, constricted, close-packed, frequent, thick. *Esphigmenon* is the middle perfect participle of *σφίγγω*: to bind, tie, fetter, hinder, harden, brace up. *Dedemenon* is the middle perfect participle of *δέω*: to bind, hold together, tighten up, tie up, shut close.

¹² Catachresis is defined by a modern English dictionary (*The Chambers Dictionary* [11th ed., 2008]) as, "misapplication or incorrect use of a word." The corresponding definition for metaphor is, "a figure of speech by which a thing is spoken of as being that which it only resembles." These seem to be Galen's uses here.

ταῦτὸν ἀφιγμένων, τὸ δ' αὖ δεδεμένον ἐπὶ τῶν αὐτῶν
 μέν, ἀλλ' οὐκ ἐκ τῆς αὐτῆς μεταφορᾶς· ἐπειδὴ γὰρ
 121K ἅπαντα τὰ δεδεμένα δυσκίνητά ἐστιν, οὕτως ὀνομά-
 ζουσι καὶ τὰ διὰ ξηρότητα ἢ ψύξιν ἢ φλεγμονὴν
 ἢ σκίρρον ἢ τάσιν ἢ πλήρωσιν ἢ βάρος ἐν δυσκινή-
 σία καθεστῶτα. διὰ δὲ τὴν αὐτὴν αἰτίαν καὶ τοῖς
 ἐναντίοις χρῶνται τῶν ὀνομάτων ἐπὶ τῶν ἐναντίων
 διαθέσεων ἀνεῖσθαι λέγοντες ἢ ἐκκελύσθαι ἢ κεχαλά-
 σθαι.

χρῆ δὲ μὴ τῷ πλήθει τῶν ὀνομάτων προσέχειν,
 ἀλλ' ἡγεῖσθαι διττὰ γένη διαθέσεων ὑπάρχειν τὰ
 πάντα, τὸ μὲν ἐν αὐτοῖς τοῖς ὁμοιομερέσι σώμασιν,
 ὅπερ ἦτοι σκληρὸν ἢ μαλακόν ἐστι, τὸ δ' ἐν ταῖς τῶν
 ὀργάνων ποροποιῖαις συνιστάμενον, ὅπερ ἦτοι πυκνὸν
 ἢ ἀραιόν. αὗται γὰρ ἴδιαι τῶν σωμάτων αὐτῶν εἰσιν
 αἱ διαθέσεις, ἐπίκτητοι δὲ καὶ ὡς ἂν εἴποι τις πρόσ-
 καιροι ποτὲ μὲν ἐμπεπλησμένων τῶν πόρων ὑγρότη-
 τος περιττῆς, ἔστι δ' ὅτε καθαρῶν ὑπαρχόντων, καὶ
 ποτὲ μὲν ἀναπεπταμένων, ἔστι δ' ὅτε μεμυκόντων.

6. Ἀλλὰ περὶ μὲν τῶν διαθέσεων τούτων ἐν τοῖς
 ἐξῆς ὑπομνήμασιν ὁ λόγος ἔσται· νυνὶ δὲ ἐπὶ τὸ προ-
 κείμενον ἐπανιέναι χρῆ καὶ πρῶτον μὲν διορίσασθαι
 σαφέστερον ἔτι περὶ τρίψεως. ὡς ἐνίοτε μὲν αὐτὴ καθ'
 122K ἑαυτὴν ἐργάζεται τι περὶ τοῖς σώμασιν ἡμῶν χρη-
 στόν, ἐνίοτε δὲ τοῖς ἐργαζομένοις ὑπηρετεῖ, καθάπερ
 Ἰπποκράτης ἔλεγε περὶ ἐπίδεσεως· “ἐπίδεσις τὸ μὲν
 αὐτὴ ἰῆται, τὸ δὲ τοῖς ἰωμένοις ὑπηρετεῖ.” αὕτη μὲν
 οὖν ἢ τρίψις ἐργάζεται τὰ τ' ἀραιὰ πυκνοῦσα καὶ τὰ

gether, whereas the latter is used in reference to the same
 things but not by the same metaphor. Since all those things
 that are “bound up” are hard to move, people apply the
 term in the same way to those things placed in the cate- 121K
 gory of hard to move due to dryness, cold, inflammation,
 induration, tension, fullness or weight. For the same rea-
 son too, they use the opposite terms to refer to the op-
 posite conditions, speaking of loosened, released or re-
 laxated.

However, we must not direct our attention to the great
 number of terms but realize that there are two classes of
 conditions in all: the one in the actual *homoiomerous* bod-
 ies, which is either hard or soft, and the one existing in the
 state of the pores of the organs, which is condensed (*puk-
 nos*) or rarefied (*araios*). These are specific conditions of
 the bodies themselves—acquired and as we might say
 temporary—sometimes when the pores are filled with su-
 perfluous moisture, sometimes when they are clear, some-
 times when they are widely patent and sometimes when
 they are occluded.

6. But the discussion in the subsequent books will be
 about these conditions. Now, however, we must return to
 the matter before us, and first lay down definitions of mas-
 sage more clearly still—that sometimes it brings about
 something useful for our bodies by itself and sometimes 122K
 assists the things bringing this about, as Hippocrates said
 about binding: “In part, binding itself cures; in part, it as-
 sists curative agents.”¹³ Thus, massage itself acts by con-
 densing what is rarefied and hardening what is soft; such

¹³ Hippocrates, *In the Surgery* 8, Hippocrates III, LCL 149,
 64–65.

μαλακὰ σκληρύνουσα¹⁷ σκληρὰ δ' ἂν εἴη πάντως ἢ
 τοιάδε τρίψις καὶ μὲν δὴ καὶ τὰ σκληρὰ μαλάττουσα
 καὶ τὰ πυκνὰ διευρύνουσα μαλακὴ δέ ἐστίν ἢ τοιαύτη
 τρίψις. οὕτω δὲ καὶ ἡ τοῦ σαρκῶσαι χάριν καὶ ἡ τοῦ
 λεπτῦναι παραλαμβάνομένη καθ' ἑαυτὰς ἐργάζονται
 τι χρηστὸν ἐν τοῖς σώμασιν. ἡ μέντοι παρασκευά-
 ζουσα πρὸς τὰ γυμνάσια καὶ ἡ μετὰ ταῦτα παραλαμ-
 βανομένη τοῖς γυμνασίοις ὑπηρετοῦσιν, ἡ μὲν ἐκ τοῦ
 θερμῆναι μετρίως τοὺς τε πόρους ἀναστομοῦσα τοῦ
 σώματος καὶ τὰ κατὰ τὴν σάρκα περιττώματα χέουσα
 καὶ τὰ στερεὰ μαλάττουσα, καλεῖται δὲ παρασκευα-
 στικὴ τρίψις ἢ τοιαύτη. ἡ δὲ ἑτέρα προσαγορεύεται
 μὲν ἀποθεραπευτικὴ, γινομένη δὲ μετ' ἐλαίου πλέονος
 ἐπιτέγγει τε ἅμα τῷ λίπει καὶ μαλάττει τὰ στερεὰ καί
 τι καὶ διαφορεῖ τῶν ἐν τοῖς πόροις περιεχομένων
 ἀλλὰ περὶ μὲν τῆσδε καὶ αὐθις εἵπομεν ἂν ἐφεξῆς
 τοῖς γυμνασίοις.

123K

ἡ μέντοι παρασκευαστικὴ τρίψις ἐπὶ τῆς ἀρίστης
 φύσεως ἔνεκα τοῦ διαθερμῆναι τὰ σώματα παραλαμ-
 βανομένη καθ' ὃν εἴρηται τρόπον ὀλίγον ἔμπροσθεν
 γινέσθω, μαλακὴ μὲν τὰ πρῶτα, προσαγόντων δὲ ἤδη
 τοῖς πόνοις σκληρὰ. οὕτω γὰρ ἂν μάλιστα τό τε μα-
 λάττειν ἔχοι καὶ τὸ πρὸς τὰς ἐνεργείας ἐπεγείρειν, καὶ
 τὸ διαφυλάττειν ὅποιαν παρέλαβε τὴν φύσιν τοῦ
 σώματος. εἰ μέντοι διαμαρτάνοιτο κατὰ τι, πρὸς τὸ
 σκληρὸν ἐκτρέπέσθω μᾶλλον. αἱ γὰρ ἐπ' ὀλίγον
 ὑπερβολαὶ τῆς συμμετρίας ἐν τῷ δέρματι καταπαύον-
 ται τῶν ἐντὸς οὐδὲν ἀλλοιοῦσαι, βλάπτοιο δ' ἂν ἦτ-

massage would be altogether firm. Furthermore, it acts by
 softening what is hard and rarefying what is condensed;
 such massage is gentle. In this way too, massage under-
 taken for the sake of enfleshing or thinning brings about
 something useful in bodies by itself. However, massage
 which prepares for exercises and that undertaken after
 exercises assists the exercises. By heating moderately it
 opens up the pores of the body, liquefies the superfluties
 in the flesh and softens solid bodies. Such massage is
 termed preparatory in one case and apotherapeutic in the
 other." When this occurs with more oil, it moistens as well
 as anoints, and both softens the solid bodies and disperses
 those things contained in the pores. But let me speak
 about this massage again subsequently in relation to the
 exercises.

123K

Certainly the preparatory massage, undertaken in the
 case of the best nature for the purpose of heating the body,
 should be according to the manner described a little ear-
 lier—that is, gentle at first but firm when applied to those
 already exercising. For in this way it would be most soften-
 ing, would stimulate the functions and would preserve the
 kind of nature of the body it received. If, however, it were
 to fail completely in some respect, it should turn more
 toward the hard. Slight excesses over the moderate end in
 the skin and change nothing that is within, and the skin

¹⁷ πυκνοῦσα καὶ τὰ μαλακὰ σκληρύνουσα Ko; πυκνὰ
 ποιούσα, καὶ τὰ μαλακὰ πυκνοῦσα Ku

τον τὸ δέρμα πρὸς τὸ σκληρόν τε καὶ πυκνὸν ἐκτρε-
πόμενον. οὕτω γὰρ ἂν εἶη δυσπαθέστερον. ὥς, εἴ γε
καὶ διαπνεῖσθαι καλῶς ἠδύνατο τὸ τοιοῦτον, σκλη-
ρότατον <ἂν> αὐτὸ καὶ πυκνότατον ἀπειργαζόμεθα.

124K νυνὶ δέ, ἐπειδὴ πρὸς ἄμφω χρῆ παρασκευασθῆναι
καλῶς αὐτό, καὶ πρὸς τὴν τῶν ἔνδοθεν περιττωμάτων
διαπνοὴν καὶ τὴν τῶν ἔξωθεν ὀμιλούντων βίαν, ἄρι-
στον ἂν εἶη τὸ μέσον ἐκατέρων τῶν ὑπερβολῶν. εἰ δ'
ἄρα ποτὲ μὴ φυλάττοιτο τοῦτο, βέλτιον τὸ σκλη-
ρότερον τε καὶ πυκνότερον τοῦ μαλακωτέρου τε καὶ
ἀραιότερου. τὸ μὲν γὰρ τῆς διαπνοῆς ἐλλιπὲς ἐπανορ-
θώσασθαι γυμνασίοις οἷόν τε· τὸ δὲ τῆς ἐτέρας δια-
θέσεως εὐεπηρέαστον ὑπὸ τῶν ἔξωθεν αἰτίων οὐτ'
ἐπανόρθωσιν τινα ἐτέραν ἐτοίμην ἔχει, καὶ πρόσεστιν
αὐτῷ βλάβη τις οὐ σμικρὰ διαφορομένων πολλάκις
οὐ τῶν περιττωμάτων μόνον, ἀλλὰ καὶ αὐτῆς τῆς τρο-
φῆς. ἐν μὲν δὴ ταῖς κατὰ ποιότητα διαφοραῖς ἐπὶ τὸ
σκληρότερον ἀμαρτάνειν χρῆ μᾶλλον ἢ περ ἐπὶ τὸ
μαλακώτερον, ἐν μέντοι ταῖς κατὰ ποσότητα πρὸς τὸ
ἐλαττον ἐπὶ τῆς προκειμένης δηλονότι φύσεώς τε καὶ
ἡλικίας. αἰεὶ γὰρ χρῆ τούτου μεμνήσθαι κατὰ τὸν
ἐνεστῶτα λόγον. αὐξάνεσθαι τε γὰρ ἔτι βουλόμεθα τὸ
τοιοῦτον σῶμα καὶ ἥκιστα ξηραίνεσθαι. τίνας μέντοι
125K χρῆ φύσεις σωμάτων καὶ τίνας διαθέσεις ἐπὶ πλέον
τρίβειν, αὐθις εἰρήσεται.

7. Νυνὶ δὲ ἐπὶ τὴν ἐνεστῶσαν ὑπόθεσιν ἐπανελ-
θόντες ὑπὲρ τοῦ μέτρου τῆς τρίψεως ἐπισκειώμεθα
τὸν αὐτὸν τρόπον, ὅνπερ ἀρτίως ἐπεσκεύεμεθα περὶ

would be harmed less, if turned toward hard and con-
densed. In this way it would be less easily subject to affec-
tion (more *dyspathic*). So if, in fact, such skin were able
to transpire well, we would make it very hard and very
dense.

For the present, however, since it is necessary for it to
be well prepared regarding both—that is, for the transpi-
ration of the superfluities within and the force of those
things contacting it from without—the best would be what
is intermediate between both the extremes. If, then, at any
time this were not being preserved, harder and more con-
densed is better than softer and more rarefied, for then it
is possible for the deficiency of transpiration to be cor-
rected by exercises. But the exposure to harm of the other
condition by external causes has no other ready correc-
tion, and injury befalls it to no small extent, since repeat-
edly not only the superfluities are carried through, but also
food itself. Therefore, in the differences pertaining to
quality, you must err more toward the harder than toward
the softer. But in the differences pertaining to quantity, it
is quite clearly better to err toward the less in the case of
the nature and age before us. It is always necessary to bear
this in mind in regard to the present discussion, for we still
wish to build up such a body, and least of all to dry it. I
shall speak again later about what natures of bodies and
what conditions it is necessary to massage more.

7. Returning now to the present subject, let us consider
the amount of massage in the same way as we just consid-
ered the quality. Here too it seems reasonable to call to

τῆς ποιότητος. ἔοικα δὲ κἀνταῦθα, πρὶν ὀρίζειν τὸ μέτρον, ἑτέρου τινὸς ἐπιμνησθήσεσθαι σκέμματος, οὐ χωρὶς οὐδὲ τὸ μέτρον ὀρθῶς οὔτε ὀρισθῆναι δυνατόν οὔτε γνωρισθῆναι. τὸ δὲ δὴ σκέμμα τοῦ περιέχοντος ἀέρος τὸν τριψόμενον ἢ κρᾶσις ἐστίν, ἣν δεῖξαι μὲν ἐπὶ τῶν ἔργων ἐγχαρεῖ, διελθεῖν δὲ τῷ λόγῳ σαφῶς οὕτως, ὡς μηδὲν ἀπολείπεσθαι τὴν ἐρμηνείαν ἐναργούσ ἐνδείξεως, ἀμήχανόν ἐστι καὶ ἀδύνατον παντάπασιν. ἀλλ' εἰ μὴ πολὺ λείποιτο δείξεως ἐναργούσ ὁ λόγος, ἱκανὸν καὶ τοῦτο. προηγείται δὲ δὴ καὶ τοῦδε πάλιν ἑτέρα τις ὑπόθεσις, ἐν τίνι μὲν ὥρα τοῦ ἔτους, ἐν τίνι δὲ χώρα τῆς οἰκουμένης ὁ γυμνασόμενος ἔσται. μόνα γὰρ ἐπ' αὐτοῦ δύο διώρισται, τό τε τῆς κατασκευῆς τοῦ σώματος καὶ τὸ τῆς ἡλικίας· οὔτε δὲ ἐν ᾧτινι τέθραπται μέρει τῆς γῆς, οὔτε ἐν ᾧ μέλλει γυμνάσασθαι νῦν, οὐδὲ καθ' ἣντινα τοῦ ἔτους ὥραν ἢ καὶ τῆς ἡμέρας, προσδιώρισται, καίτοι παρὰ ταῦτα πάντα τὸ μέτρον τῆς τρίψεως ὑπαλλάττεται. προσδιοριστέον οὖν αὐτὰ πάλιν, εἰρημένα μὲν ἤδη δυνάμει κατὰ τὴν ἀρχὴν τοῦδε τοῦ γράμματος, οὐ μὴν τῇ γ' ἐρμηνείᾳ σαφῶς δεδηλωμένα.

λέγοντες γὰρ οἷον κανόνα τινὰ πρῶτον ἐκτίθεσθαι πάντων τῶν ἐφεξῆς εἰρησομένων τὸν ἀμεμπτον τῇ κατασκευῇ τοῦ σώματος ἄνθρωπον, εὐθέως ἐν τούτῳ καὶ τὴν χώραν αὐτοῦ διορισόμεθα δυνάμει. οὔτε γὰρ εὐκρατότατον οὔτε ἀμεμπτότατον τῇ κατασκευῇ σῶμα γενέσθαι δυνατόν ἐν τοῖς ἀμέτρως κεκραμένοις χωρίοις, ὡς ὁ τε λόγος ὑπαγορεύει καὶ ἡ πείρα δείκνυσι.

mind another issue before defining the due amount, without which this amount cannot be either correctly defined or become known. The issue is the *krasis* of the air surrounding the person being massaged, which it is possible to show in the case of the actions, but difficult and even impossible to go over clearly in the discussion, so as no explanation is left without clarification. But as long as the discussion doesn't leave out much in respect of those things visibly displayed, this is enough. However, another subject also precedes this in turn—in what season of the year and in what part of the inhabited world the person who will be exercising will be. Thus far only two things have been determined—the constitution of the body and the age. What have not yet been determined are in what part of the world he was brought up, in what part he is now going to exercise, and in what season of the year and part of the day, and yet the due measure of massage changes depending on all these things. Therefore, we must in turn make a prior determination of these things, having already spoken about them at the beginning of this book in regard to potency, without having clarified them completely in the explanation.

For stating first as a kind of standard to be set up for all the things that will be spoken about in succession, there is the person faultless in the constitution of the body, and immediately in this person we shall also determine his place in terms of potency, for it is not possible for a body to become entirely *eukratic* or entirely faultless in constitution in places that are immoderately mixed, as the argument suggests and experience shows. Thus, people be-

ξηροὶ μὲν γὰρ καὶ ἰσχυροὶ καὶ οἷον ἐσκελετευμένοι
 γίνονται κατὰ τὰς θερμὰς χώρας οἱ ἄνθρωποι, ἀνώμα-
 λοι δὲ ταῖς κράσεσιν, ὡς τὰ μὲν ἔξω ψυχρά, τὰ δὲ
 ἔνδον τε καὶ κατὰ τὰ σπλάγχνα θερμὰ περαιτέρω τοῦ
 προσήκοντος ἔχειν, οἱ τῶν ψυχρῶν χωρίων οἰκήτορες.
 τὸ δ' ἄριστον σῶμα, περὶ οὗ νῦν ὁ λόγος, ὡσπερ ὁ
 Πολυκλείτου κανὼν ἐστίν, ᾧ κατὰ μὲν τὴν ἡμετέραν
 χώραν, ὡς ἂν εὐκρατον ὑπάρχουσαν, ὥπται πολλῶν
 127K πολλὰ παραπλήσια σῶματα, παρὰ δὲ Κελτοῖς ἢ Σκύ-
 θαις ἢ Αἰγυπτίοις ἢ Ἄρασιν οὐδ' ὄναρ ἐστὶν ἰδεῖν
 τοιοῦτον σῶμα.

καὶ αὐτῆς δὲ τῆς ἡμετέρας χώρας ἰκανὸν ἐχούσης
 πλάτος, εὐκρατότατόν ἐστι τὸ μεσαίτατον, οἷόνπερ
 ὑπάρχει τὸ κατὰ τὴν Ἰπποκράτους πατρίδα· καὶ γὰρ
 χειμῶνος αὕτη καὶ θέρος ἐστὶν εὐκρατος, ἔτι δὲ δὴ
 μᾶλλον ἡρὸς τε καὶ φθινοπώρου. τοιαύτην οὖν τινα
 χώραν ὑποθέμενοι τῷ προκειμένῳ σῶματι, τὴν ὥραν
 τοῦ ἔτους αὐτῷ προσυποθώμεθα τὸ μεσαίτατον τοῦ
 ἡρὸς. ἔστω δὲ καὶ τῆς ἡμέρας ἐκείνης, ἐν ᾗ μέλλει
 πρὸς ἡμῶν γυμνάζεσθαι τὸ πρῶτον, ὡς οἷόν τε τὸ
 μεσαίτατον, ἵνα κατὰ μηδένα τρόπον ὑπὸ τοῦ περι-
 έχοντος ἐξαλλαχθῇ πῶς ἢ φυσικὴ δύναμις τῆς κρά-
 σεως αὐτοῦ. διὰ δὲ τὸν αὐτὸν λογισμὸν οὐδὲ τὸν
 οἶκον, ἐν ᾧ γυμνάζεσθαι μέλλει, θερμότερον ἢ ψυ-
 χρότερον εἶναι προσήκει κατὰ γε τὴν ἡμέραν ἐκείνην
 τοῦ κοινοῦ τῆς πόλεως ὅλης ἀέρος. ἐν μέντοι χειμῶνι
 καὶ θέρει τοσοῦτον αὐτῷ προσθετέον, ἐν μὲν χειμῶνι
 θερμότητα, ἐν δὲ θέρει ψυχρότητα, ὡς εὐκρατον ἀκρι-

come dry and lean, and, as it were, wasted away in hot
 places, whereas the inhabitants of cold places are irregular
 in terms of *krasias*, so as to have what is external cold, but
 what is internal, including the internal organs, hot beyond
 what is appropriate. The best body, which is what the dis-
 cussion is now about, is like the standard of Polyclitus.¹⁴
 In our own country, as it is *eukratic*, many similar bodies
 are seen among the populace, whereas among Celts,
 Scythians, Egyptians and Arabs, one would not dream of
 seeing such a body. 127K

And since this region of ours is relatively wide, the most
 central part is the most *eukratic*, as for example Hippoc-
 rates' fatherland is, for in winter and summer it is *eukratic*,
 and still more so in spring and autumn. Therefore, when
 we assume such a region for the proposed body, let us as-
 sume for it also the season of the year to be the very
 middle of spring. Let that day on which he is first going to
 be exercised by us be as far as possible at the very middle,
 so that in no way the physical capacity of his *krasis* may be
 changed to any degree by the ambient air. By the same
 argument, let the house in which he is going to be exer-
 cised be neither hotter nor colder on that day than the
 general air of the whole city. However, in winter and sum-
 mer, we must apply this much to him: in winter, heat, and

¹⁴ Polyclitus was an Argive sculptor active during the middle
 to late third century BC. His most famous work was the Dory-
 phorus (or Spearbearer). He is said to have written a book (his
 Canon) detailing the principles of his art as exemplified by that
 statue. Galen also refers to this work in several other places, such
 as *Ars M.*, I.343K; *Mixt.*, I.566K; and *Opt. Const.*, IV.744K. The
 key feature was the proportion of the parts of the sculpted body.

128K βῶς ἀποτελεσθῆναι τὸ σῶμα κατὰ τὸν τῆς τρίψεως
 καιρόν. εἰ γὰρ ἦτοι θερμότερος ἢ ψυχρότερος εἴη πε-
 ραιτέρω τοῦ προσήκοντος, ἐν μὲν τῷ θερμότερῳ φθά-
 σειεν ἂν ιδρῶσαι, πρὶν αὐτάρκως μαλαχθῆναι, κατὰ
 δὲ τὸν ψυχρότερον οὐδ' ἂν ἐκθερμανθείη τὴν ἀρχὴν
 οὐδὲ μαλαχθείη ποτὲ καλῶς οὐδ' ἐπανθήσειεν ἔρευθος
 εὐανθὲς οὐδ' εἰς ὄγκον ἀρθείη τὸ σῶμα. ταῦτα γὰρ
 δὴ τὰ γνωρίσματα συμμέτρου τρίψεως ἐστὶν ἐν ἀέρι
 συμμέτρῳ περὶ τὴν εὐκρατον ἔξιν τοῦ σώματος, ἔρευ-
 θός τε καὶ ὄγκος. ὥσπερ γὰρ ἐν τῷ καταχεῖν ὕδωρ
 θερμὸν εἰς ὄγκον μὲν τὸ πρῶτον ἐξαίρεται τὰ σώματα,
 πλεοναζόντων δὲ καθίσταται, καὶ διὰ τοῦθ' Ἴππο-
 κράτης ἐπ' αὐτῶν εἶπε "τὸ μὲν γὰρ πρῶτον αἰείρεται,
 ἔπειτα δ' ἰσχυαίνεται," οὕτω καὶ ἡ τρίψις ἐξαίρει μὲν
 τὸ πρῶτον, αὐθις δὲ συστέλλει τε καὶ καθαιρεῖ τὸ
 σῶμα.

129K τοὺς μὲν δὴ σαρκώσεως ἔνεκα τριβομένους τηνι-
 καῦτα παύεσθαι προσήκεν, ὅταν εἰς ὄγκον ἀρθέν τὸ
 σῶμα πλησίον ἦκη τοῦ καθίστασθαι. τοὺς δ' εἰς τὰ
 γυμνάσια παρασκευαζομένους οὐ χρῆ¹⁸ τοῦτον ἀναμέ-
 νειν τὸν καιρόν, ἀλλὰ πολὺ πρόσθεν παύεσθαι, καὶ
 μάλιστα ὅταν ἄριστοι τὴν κρᾶσιν ὦσι καὶ παῖδες ἔτι
 τὴν ἡλικίαν. ὑγρὰ γὰρ δὴ τούτων τὰ σώματα καὶ μα-
 λακὰ καὶ βραχείαις τρίψεσι μαλαττόμενα, σκοπὸς δὲ
 ἐστὶ καὶ τέλος τῆς παρασκευαστικῆς τρίψεως τὸ μα-
 λαχθῆναι μὲν τὰ στερεά, λυθῆναι δὲ τὰ ὑγρά, τοὺς
 πόρους δ' εὐρυνθῆναι. ὅποσον δ' ἐστὶ τὸ πλήθος τῶν

128K in summer, cold, so the body is made precisely *eukratic* at
 the time of the massage. If it were to be either warmer or
 colder beyond what is appropriate, he would sweat first
 in the warmer house before being sufficiently softened,
 whereas in the colder house, he would not be warmed at
 the beginning, nor would he be softened properly at any
 time, nor would a florid redness appear on the surface, nor
 would the body be raised to a swelling. For these are the
 signs of moderate massage in balanced air surrounding the
 body in a *eukratic* state—redness and swelling. Just as, by
 pouring warm water over bodies, they are first raised to a
 swelling, so too, if this goes to excess, it stops. Because of
 this, Hippocrates said, regarding these things: "First it is
 raised and then it is reduced."¹⁵ In the same way too, mas-
 sage first produces swelling of the body and then contracts
 and reduces it.

Now in the case of those being massaged for the pur-
 pose of enfleshing, it is appropriate to cease when the body
 being raised to a swelling comes close to that state. How-
 ever, in the case of those being prepared for exercises, one
 should not wait for this time but stop much earlier, and
 particularly when they are best in terms of *krasis* and are
 still children in terms of age. For their bodies are moist
 and soft, and are softened by brief massaging, while the
 objective and end of the preparatory massage is for solid
 parts to be softened, the moisture released and the pores
 dilated. It is impossible to make clear in a discussion how

¹⁵ Hippocrates, *In the Surgery* 13, Hippocrates IV, LCL 149,
 72–73, and Galen, *Hipp. Off. Med.*, XVIII B.872K.

¹⁸ οὐ χρῆ Κο; οὐχι Ku

ἀνατρέψων, οὐχ οἷόν τε λόγῳ δηλῶσαι, ἀλλὰ χρὴ
τὸν ἐπιστατοῦντα, τρίβωνα τῶν τοιούτων ὑπάρχοντα,
κατὰ μὲν τὴν πρώτην ἡμέραν οὐκ ἀκριβεῖ στοχασμῶ
χρήσασθαι, κατὰ δὲ τὰς ἐξῆς ἐμπειρίαν ἤδη τινὰ τῆς
τοῦ σώματος ἐκείνου φύσεως ἔχοντα τὸν στοχασμὸν
αἰεὶ καὶ μᾶλλον ἐξακριβοῦν. καὶ μὲν δὴ καὶ κατὰ τὰ
γυμνάσια τῇ μὲν πρώτῃ τῶν ἡμερῶν οὐ δυνατὸν ἀκρι-
βῶσαι τὸ μέτρον, ἐν δὲ ταῖς μετὰ τήνδε καὶ πάνυ
δυνατὸν. ἔστω δὴ κἀνταῦθα γνωρίσματα κατὰ μὲν
τὴν πρώτην ἡμέραν, ὅταν ἐγκελευομένῳ καὶ παρορ-
μῶντι γυμνάσασθαι μηκέθ' ὁμοίως ὑπακούῃ, ἀλλὰ
βραδυτέρας τε καὶ ἀραιότερας καὶ ἀσχημονεστέρας¹⁹
καὶ τὸ σύμπαν εἰπεῖν ἀτονωτέρας ποιῆται τὰς τε λα-
βὰς τῶν προσπαλαιόντων καὶ τὰς κινήσεις.

130K

εἶναι δὲ δηλονότι χρὴ τὸν γυμναζόμενον οὔτε θυ-
μικόν, ὡς ἔτι προθυμείσθαι γυμνάζεσθαι καμνούσης
ἤδη τῆς δυνάμεως, οὔτ' ἄθυμον, ὡς ἀπαγορεύειν ἔτι
πονεῖν δυνάμενον. ἔστι δὲ δήπου τοιοῦτος οὐ τὸ σῶμα
μόνον, ἀλλὰ καὶ τὴν ψυχὴν ὁ νῦν ἡμῖν ὑποκείμενος
ἄνθρωπος. ὡς ὅσοι γε ψυχροὺς ἔχουσι χυμοὺς ἐν τῇ
γαστρὶ περιεχομένους ἢ κατὰ τὴν ὅλην ἕξιν ἠθροισμέ-
νους, ἀργότεροι πρὸς τὰς κινήσεις εἰσίν. ὡσαύτως δὲ
καὶ οἱ πληθωρικῶς διακείμενοι καὶ οἱ προσφάτω
κρύει καταπονηθέντες ἄθυμοί τε εἰσι καὶ ὀκνηροὶ κι-
νεῖσθαι, καὶ τούτων ἔτι μᾶλλον, ὅσοι φύσει ψυχρότε-
ροι, καὶ πολὺ δὲ δὴ μᾶλλον, εἰ τῇ ψυχρότητι καὶ
ὑγρότητι προσείη. οὔτοι μὲν γὰρ νοθεύουσι τὰ τοῦ
μέτρου τῶν γυμνασίων γνωρίσματα, καθάπερ γε καὶ

much the amount of massaging is; rather, it is necessary
for the person in charge, being the masseur of such peo-
ple, not to use a precise estimation on the first day, but on
the following days, having now some experience of the
nature of that body, to always make the estimation more
precise. And furthermore, in relation to the exercises, it is
not possible to make the measure precise on the first day,
whereas on the days after this is entirely possible. Even
here take note of the signs on the first day, when the per-
son exercising is no longer attending in the same way to
the person exhorting and urging on the exercises, but
makes the holds and movements more slowly, loosely and
feebly, and to speak generally, more weakly than those
with whom he is wrestling.

Clearly it is necessary for the one exercising not to be
high-spirited, such that he is still eager to exercise when
his power has already waned. Nor should he be without
spirit, such that he gives up while still able to exert himself.
The person who is our subject is, I presume, of such a kind
not only in his body but also in his soul. Thus, those who
have cold humors contained in the stomach or collected
together in the whole system, are more sluggish in their
movements. In like manner too, those who are in a pletho-
ric state and those brought down by recent cold are spirit-
less and hesitant in their movements. Still more does this
apply to those who are colder by nature, and certainly
much more, if some moisture is added to the cold. These
people depart from the norm in the signs of moderation
of the exercises, just as, in fact, do those who are hotter in

130K

¹⁹ ἀσχημονεστέρας Κο; ἀσθενεστέρας Κυ

οἱ θερμότεροι τὴν κρᾶσιν ἢ διὰ τὴν οἰκείαν φύσιν ἢ δι' ἐπίκτητόν τινα διάθεσιν εὐθυμοὶ τέ εἰσι καὶ φιλόνοικοι καὶ πρὸς τὰς ἐνεργείας ἔτοιμοι περαιτέρω τοῦ δέοντος. ὅσοι δὲ μήτε τὸ σῶμα θερμότερον ἢ ψυχρότερον ἔχουσι μήτ' ἄθυμοι τὴν ψυχὴν εἰσι τὸ πάμπαν ἢ φιλόνοικοί τε καὶ φιλότιμοι καὶ θυμικοί, τούτοις ἀκριβῆ διαφυλάττεται τοῦ μέτρου τῶν γυμνασίων τὰ γνωρίσματα, καὶ κατὰ τὴν πρώτην μὲν ἡμέραν εὐθύς, ἀτὰρ οὖν ἔτι δὴ καὶ μᾶλλον ἐπὶ προήκοντι τῷ χρόνῳ. εἰ γάρ τι καὶ παρέλαθεν κατὰ τὴν ἀρχὴν, ἀκριβωθήσεται τοῦτο τῇ πείρᾳ διδαχθέν.

οὕτως οὖν εἰς ἀκριβῆ στοχασμὸν ἔρχεται καὶ τὸ τῶν σιτίων μέτρον οὐδενὶ τρόπῳ κατ' ἀρχὰς γνωρισθῆναι δυνάμενον· ἀλλ' ἢ καθ' ἐκάστην ἡμέραν πείρα καὶ μνήμη τοῦ ποσοῦ τῶν σιτίων καὶ τῶν γυμνασίων, οὐδὲν ἀργῶς ὀρώντος τοῦ προεστῶτος, ἀλλ' αἰεὶ μεμνημένου, ὅπως ἔπεψεν ἐπὶ τοσοῖσδε τοῖς γυμνασίοις τὰ τοσάδε σιτία, πλησίον ἀκριβοῦς ἐπιστήμης ἄγει τὴν διάγνωσιν ἐν τῷ χρόνῳ. ταυτὶ μὲν οὖν ἤδη πως ἅπαντα κοινὰ καὶ ταῖς μοχθηροτέραις ὑπάρχει κατασκευαῖς τῶν σωμάτων, ὑπὲρ ὧν οὐδὲν νῦν πρόκειται λέγειν. ἢ δ' ἀρίστη φύσις, ἢ νῦν ἡμῖν προκειμένη, τὰ μέτρα πάντων εὐδῆλα κέκτηται, μήτε τοῖς τῆς ψυχῆς ἤθεσι μήτε ταῖς τοῦ σώματος δυσκρασίαις ἐπιθολοῦσά τε καὶ νοθεύουσα τῶν εἰρημένων μηδέν, ἀλλὰ καὶ τρίψεων καὶ γυμνασίων καὶ σιτίων καὶ ὕπνων ἐναργῶς ἐνδεικνυμένη τὰ μέτρα, καὶ τηνικαῦτα πρῶτον ἀπαγορεύουσα πρὸς ἕκαστον, ὅταν μηκέτι δέηται,

krasis, either due to their specific nature or due to some added condition, and are spirited, contentious and ready for actions beyond what is required. However, in those who are neither hotter nor colder in the body, nor altogether spiritless in respect of the soul, nor contentious, ambitious or high-spirited, the signs of measure of the exercise are maintained precisely for them, and even immediately on the first day, but still more with the progression of time, for if something did escape notice at the beginning, this will be made exact when taught by experience.

In the same way, then, the measure of food also comes to an exact estimate, although there is no way it can be known at the beginning. But the experience of each day and the recollection of the amount of food and exercise when the one in charge is not remiss in his observations, but always remembers how much food was digested after how much exercise, leads to the recognition of a more exact knowledge over time. The same things are already in some way all common and exist in those with more abnormal constitutions of their bodies, although I do not propose to say anything about these now. However, the best nature, which is what now lies before us, has acquired the easily recognized measure of all things, not being disturbed by either the characteristics of the soul or the *dyskrasias* of the body, nor departing from normal in any of the things mentioned, but displaying clearly the measures of massage, exercise, food and sleep. And under these circumstances, first desisting from each of these things

ὥστε εἶναι καὶ τοῦτο τῷ προεστῶτι τοιούτου σώματος οὐ μικρὸν γνώρισμα μέτρου. λέγω δὲ τὴν πρὸς ἑαυτὸν ὦν ἂν πράττη προθυμίαν, αὐτῆς τῆς φύσεως ἑαυτῇ τὸ μέτρον εὐρισκούσης ἐν ταῖς ἀρίσταις κατασκευαῖς.

καὶ γὰρ ἀνατριβόμενοι τηνικαῦτα πρῶτον ἐξίασιν ἐπὶ τὸ γυμνάσιον οἱ ἀρίστα πεφυκότες, ὅταν ἱκανῶς ἔχωσι μαλακότητός τε ἅμα καὶ θερμότητος ἅπαντι τῷ σώματι καὶ γυμναζόμενοι τότε πρῶτον ὀκνήσουσιν, ὅταν αὐτάρκως γυμνασθῶσι καὶ δὴ καὶ σιτίων τε καὶ πομάτων ἀποστήσονται τότε πρῶτον, ὅταν ἱκανῶς ἐμπλησθῶσιν, ὥστ' οὐδεὶς φόβος οὔτε ὑπερπονῆσαι τὸν τοιούτον ἄνθρωπον οὔθ' ὑπερεμπλησθῆναι, ταῖς ὀρμαῖς τῆς φύσεως οἰακιζόμενον. οὐκ οὐδὲ τοῦ προεστῶτος εἰς ἄκρον ἤκοντος ἐπιστήμης ὁ τοιούτος ἄνθρωπος δέεται, καθάπερ οἱ μετὰ ταῦτα λεχθησόμενοι πάντες, οἱ μοχθηρῶς κατεσκευασμένοι. αὐτὸ γὰρ ἑαυτῷ πάντ' ἐξευρίσκει τὸ ὑγιεινὸν σῶμα, ταῖς τῆς φύσεως ὀρμαῖς ἐπιτροπευόμενον, καὶ μάλιστα εἰ καλῶς εἴη τὰ τῆς ψυχῆς αὐτῷ πεπαιδευμένα. πολλοὶ γὰρ ἔθεσι μοχθηροῖς ἐντραφέντες ἀκολαστότερον ἢ ἀργότερον διαιτώμενοι διαφθείρουσι φύσεις χρηστάς, ὥσπερ αὖ πάλιν ἐνιοὶ μοχθηρῶς φύντες τὸ σῶμα βίῳ σῶφρονι καὶ ἔργῳ²⁰ καὶ γυμνασίοις εὐκαίροις ἐπανωρθώσαντο τὰ πολλὰ τῶν ἐλαττωμάτων.

ἀλλὰ²¹ τούτοις μὲν ὁ μετὰ ταῦτα λόγος ἅπας σύγκειται περὶ δὲ τῶν ἀρίστα κατεσκευασμένων τὸ σῶμα

whenever it is no longer required, is also no small sign of measure to the one in charge of such a body. I mean the eagerness for each of the things it does, since the actual nature discovers for itself the measure in the best constitutions.

Also, at the time of being massaged, those who are naturally the best first go out to exercise when they have sufficient softness and warmth in the whole body. And when they are exercising, they will, at that time, be the first to stop when they are sufficiently exercised. Furthermore, they will first desist from food and drink when they are sufficiently filled, so there is no fear of such a person either working too hard or overfilling himself, being directed by the impulses of nature. Therefore, such a person doesn't need a trainer who has come to the peak of knowledge, as do all those of defective constitution who will be spoken of after this. The healthy body will discover all this for itself, being governed by the impulses of nature, and particularly if there is proper training of the soul in it. For many who are brought up with defective customs, living a life that is too undisciplined or idle, destroy their good natures, just as some in turn, defectively nurtured in respect of the body, by a well-considered life and work, and by timely exercises, corrected the majority of the deficiencies.

But the following discussion is, in its entirety, made up of these exercises and actions.¹⁶ What I propose to go

¹⁶ The Kühn text is followed here.

²⁰ καὶ ἔργῳ add. Ko
τούτων μὲν γυμνασίων τε καὶ ἔργων Ku

²¹ post ἀλλὰ: τούτοις μὲν Ko;

καὶ τὸν νοῦν προσεχόντων ἐπιστάταις ὑγιεινοῖς ἐν τῷδε τῷ γράμματι πρόκειται διελθεῖν. ὁ μὲν οὖν ἔμ- προσθεν λόγος ὑπὲρ αὐτῶν εἰς τὸ μέτρον ἐτελεύτα τῶν γυμνασίων· ἐφεξῆς δ' ἂν εἴη καιρὸς ὑπὲρ τῶν εἰδῶν διελθεῖν.

134K 8. Εἶδη δὲ γυμνασίων ὀνομάζω πάλην καὶ παγκράτιον καὶ πυγμὴν καὶ δρόμον ὅσα τ' ἄλλα τοιαῦτα, τινὰ μὲν οὖν αὐτὸ τοῦτο, γυμνάσια μόνον, ὑπάρχοντα, τινὰ δὲ οὐ γυμνάσια μόνον, ἀλλὰ καὶ ἔργα· γυμνάσια μὲν αὐτὰ γε δὴ ταῦτα τὰ εἰρημένα καὶ προσέτι τὸ πιτυλίζειν, τὸ ἐκπλεθρίζειν, τὸ σκιομαχεῖν, τὸ ἀκροχειρίζεσθαι, τὸ ἄλλεσθαι, τὸ δίσκον βάλλειν καὶ ἀποτομάδα²² καὶ διὰ κωρύκου καὶ διὰ σφαίρας, ἢ μικρᾶς ἢ μεγάλης, καὶ δι' ἀλτήρων ἐκπονήσαι τὸ σῶμα, γυμνάσια δ' ἅμα καὶ ἔργα σκάπτειν, ἐρέττειν, ἀροῦν, κλᾶν ἀμπέλους, ἀχθοφορεῖν, ἀμᾶν, ἰππεύειν, ὀπλομαχεῖν, ὁδοιπορεῖν, κυνηγετεῖν, ἀλιεύειν, ὅσα τ' ἄλλα κατὰ μέρος πράττουσιν ἄνθρωποι τεχνῖταιί τε καὶ ἄτεχνοι τῶν κατὰ τὸν βίον ἕνεκα χρεῶν, ἢ οἰκοδομοῦντες ἢ χαλκεύοντες ἢ ναυπηγοῦντες ἢ ἀροτρεύοντες ἢ τι τοιοῦτον ἕτερον πολέμιον ἢ εἰρηνικὸν ἐργαζόμενοι. τοῖς πλείστοις δὲ τῶν τοιούτων

²² καὶ ἀποτομάδα add. Ko

¹⁷ This term and the following three that are simply transliterated pose difficulties as regards finding a precise English equivalent. Some comments on the terms are as follows: (1) *παγκράτιον* seems to be a kind of all-in fighting—a mixture of boxing and

through in this book are matters concerning those best constituted in the body who devote themselves to expert hygienists. Thus, the previous discussion brought to a conclusion the measure of exercises themselves; in what follows, it would be timely to go over the kinds of exercises.

8. I term the kinds of exercise wrestling, *pankration*,¹⁷ boxing and running, and other such things. Some are actual exercises alone while some are not only exercises but also activities. The actual exercises are those mentioned, and in addition, *pitulism*, *ekplethrism*, shadow fighting, *acrocheirism*, leaping, quoit throwing, javelins and working out the body with a heavy bag and balls, either small or large, and with weights, while exercises and activities together are digging, rowing, plowing, pruning vines, bearing burdens, reaping, horse riding, practicing the use of weapons, walking, hunting, fishing and other such individual things that men, both skilled and unskilled, do for a living—house building, metalworking, ship building, plowing, or making some other such thing pertaining to war or peace. The majority of these things can at times be

wrestling, perhaps somewhat akin to the “cage-fighting” now popular; (2) *pitulism* is derived from the verb *πιτυλίζω*. The definition in LSJ is “to practice regular swinging of the arms, as with dumb-bells” with reference to this passage and 144K. It can, however, also mean “to dart about”; (3) *ekplethrism* is derived from the verb *ἐκπλεθρίζω*, used by Galen in chapter 8 (VI.133) and defined in LSJ as to “run round and round in a course that narrows every time.” As defined above it seems somewhat different; (4) *ἀκροχειρίζω* has the basic meaning of “to take hold of.” According to LSJ, in the middle voice, it means “to struggle at arm’s length”—see Philostratus, *De gymnastica* 31.

ἔνεστί ποτε καὶ ὡς γυμνασίοις μόνον χρήσασθαι.
 τριττὴ γὰρ αὐτῶν τις ἢ σύμπασα χρεία, ποτὲ μὲν ὡς
 ἔργων μόνον αὐτὸ δὴ τοῦτο παραλαμβανομένων, ἐνί-
 χρείας, ἔστιν ὅτε δὲ καὶ ὡς γυμνασίων. κατ' ἀγρὸν
 γοῦν ποθ' ἡμεῖς ληφθέντες ἐν χειμῶνι ξύλα τε σχί-
 ζειν ἠναγκάσθημεν ἔνεκα τοῦ γυμνάζεσθαι καὶ κρι-
 θὰς ἐμβάλλοντες ἐν ὄλμῳ κόπτειν τε καὶ ἐκλεπίζειν,
 ἅπερ ἐκάστης ἡμέρας οἱ κατ' ἀγρὸν ἔπραττον ὡς
 135K ἔργα. περὶ μὲν δὴ τῆς ὡς ἔργων αὐτῶν χρήσεως ἐν
 τῷ μετὰ ταῦτα λόγῳ διαιρήσομεν· ἐν δὲ τῷ παρόντι
 περὶ τῆς ὡς γυμνασίων ἐροῦμεν.

ἅπαντα γὰρ τὰ τοιαῦτα γυμνάσια γίνεται μήτε δι'
 ὄλης ἡμέρας αὐτὰ πραττόντων μήτ' ἐν ἄλλῳ καιρῷ
 τοῦ πρὸ τῶν σιτίων. φυλάττεσθαι δὲ δήπου προσήκει
 καὶ τὸ μέτρον ἐπ' αὐτοῖς τῶν γυμνασίων καὶ τὴν κα-
 λουμένην ἀποθεραπείαν. εἰ δὲ καὶ προανατριψάμενός
 τις αὐτάρκως ἐπ' αὐτὰ παραγίνοιτο, νῦν μὲν ἂν ἅπαν-
 τας ἀκριβῶς ἔχοι τοὺς ἀριθμοὺς τῶν γυμνασίων.
 ὑπὲρ τε οὖν τούτων ἀπάντων, ἃ δὴ καὶ γυμνασίων
 εἶδη καλοῦμεν, ἐπίστασθαι χρὴ τὸν τὴν ὑγιεινὴν
 τέχνην μετιόντα, καλεῖν δ' ἔξεστιν αὐτόν, ὡς ἔμ-
 προσθεν εἶπον, ἢ ὑγιεινὸν ἢ γυμναστὴν ἢ ἰατρόν,
 κυριωτάτης μὲν ἐσομένης τῆς πρώτης προσηγορίας,
 ἐκ καταχρήσεως δὲ τῶν ἄλλων. εἶπερ γὰρ ἅπαντες
 οἱ τεχνῖται παρωνύμως ὀνομάζονται τῶν τεχνῶν, ἃς
 μεταχειρίζονται, πρόδηλον, ὡς ὁ τὴν ὑγιεινὴν τέχνην
 μετερχόμενος ὑγιεινὸς ἂν εὐλόγως προσαγορευόιτο,

used as exercises alone. Their use overall is threefold;
 sometimes the actual thing is undertaken as an activity
 alone, sometimes as practicing for use in activities that are
 going to be done, and sometimes also as exercises. Any-
 way, on one occasion, when I was caught in the country-
 side in winter, I was forced to split wood for exercise, and
 throwing the barley into a mortar to cut and thresh, which
 those in the country were doing every day as work. I shall
 certainly define the use of these activities themselves in
 the discussion following this. In the present discussion, I
 shall speak about their use as exercises. 135K

All such exercises are not done throughout the whole
 day by those who do them, nor at any other time than
 before food. It is doubtless also appropriate to maintain in
 these cases a due measure of exercises and the so-called
 apotherapy. And if anyone, when previously massaged suf-
 ficiently, were to come to them, he would now have the
 whole number of exercises in their entirety. It is therefore
 necessary for someone who practices the art of hygiene to
 know about all those things that we also call kinds of ex-
 ercises, and, as I said before, it is possible to call him a
 hygienist, gymnastic trainer or doctor, although the first
 will be the most appropriate term, the others arising from
 catachresis. Thus, if all those who are skilled in something
 are named derivatively from the skills they practice, it is
 clear that the one who practices the art of hygiene should
 logically be called a hygienist, just as one who is concerned

136K καθάπερ καὶ ὁ τὴν περὶ τὰ γυμνάσια μόνον γυμνα-
 στήν καὶ ὁ περὶ τὰς ἰάσεις ἰατρός. εἰ δέ τις ἢ γυμνα-
 στήν ἢ ἰατρὸν ὀνομάζοι τὸν ὑγιεινὸν δὴ τοῦτον, ἀπὸ
 μέρους τε προσαγορεύσει τὸ σύμπαν καὶ οὐ κυρίως,
 ἀλλ' ἐκ καταχρήσεως ἢ ἐπὶ διαστάσεως, ἢ ὅπως ἂν
 τις ἐθέλη καλεῖν, οὕτω ποιήσεται τὴν προσηγορίαν.
 αἴτιον δὲ τούτου τό, μιᾶς οὔσης τῆς περὶ τὸ σῶμα
 τέχνης, ἐφ' ὅλης αὐτῆς ὄνομα μηδὲν τετάχθαι κύριον,
 ὑπὲρ ὧν ἐπὶ πλείον ἐν ἐνὶ βιβλίῳ τὸν λόγον ἐπονη-
 σάμην, ὁ Θρασύβουλος ἐπιγράφεται.

εἶδη μὲν δὴ γυμνασίων τὰ εἰρημένα. ποιότης δὲ ἢ
 διαφορὰ (καὶ γὰρ οὖν καὶ ταύτην ἕξεστιν ἑκατέρως
 ὀνομάζειν) ὀξύτης τε κινήσεως ἐστι καὶ βραδύτης εὐ-
 τονία τε καί, ὡς ἂν εἴποι τις, ἀτονία καὶ πρὸς τούτοις
 ἔτι σφοδρότης τε καὶ ἀμυδρότης. τρόποι δὲ τῆς χρή-
 σεως ἀπάντων τῶν εἰρημένων εἰδῶν ἅμα ταῖς οἰκείαις
 διαφοραῖς τοιοῖδε εἰσίν· ἢτοι συνεχῆς ἢ κίνησις ἐστὶν
 ἢ διαλείπουσα· καὶ εἰ μὲν συνεχῆς, ἢτοι ὁμαλὴ ἢ
 ἀνώμαλος, εἰ δὲ διαλείπουσα, ἢτοι τεταγμένη ἢ
 ἄτακτος. οὗτοι μὲν οὖν οἱ κατ' αὐτὸ τὸ πρᾶγμα τρόποι
 τῆς χρήσεως· οἱ δ' ἀπὸ τῶν ἕξωθεν αὐτῷ προσιόντες
 137K τοιοῖδε ἢ ἐν ὑπαίθρῳ χωρίῳ γίνεται τὸ γυμνάσιον ἢ
 ἐν καταστέγῳ ἢ ἐν ὑποσυμμιγῆ σκιᾷ. κατὰ δὲ τὸν
 αὐτὸν τρόπον ἢ θερμόν ἐστι τὸ χωρίον ἢ ψυχρὸν ἢ
 εὐκρατον καὶ ἢτοι ξηρὸν ἀκριβῶς ἢ ὑγρὸν ἢ μέτριον.
 οὕτω δὲ καὶ τὸ μετὰ κόνεως ἢτοι πλείονος ἢ ἐλάττονος
 ἐλαίου τε κατὰ τὸν αὐτὸν λόγον ἢ πλείονος ἢ ὀλίγου²³

²³ post ἢ πλείονος: ἢ ὀλίγου Ko; ἢ ἐλάττονος Ku

136K with exercises alone should be called a gymnastic trainer
 (exercise therapist), and one who is concerned with treat-
 ment, a doctor. If, however, someone were to name a par-
 ticular hygienist either a gymnastic trainer or a doctor, he
 would be naming the whole from the part, and not prop-
 erly, but would be making the name in this way catachres-
 tically or ambiguously, or however one might wish to term
 it. The reason for this is that, although there is one art
 concerning the body, no proper name has been estab-
 lished for the whole art itself. I gave a more detailed
 account of these matters in one book, inscribed *Thrasyl-
 bulus*.¹⁸

The kinds of exercises are those stated. The quality or
 difference—for it is possible to use either of these terms—
 is in the swiftness and slowness of movement, the vigor
 and, as one might say, the lack of vigor, and in addition to
 these, the violence or gentleness. The ways of use of all
 the kinds mentioned, along with the specific differences,
 are as follows: the movement is either continuous or inter-
 mittent; if it is continuous it is either even or uneven; if it
 is intermittent it is either regular or irregular. These, then,
 are the modes of use in relation to the matter itself. Those
 arising from what is external to the person are as follows:
 whether the exercise occurs in an open place, in a covered
 place, or in one partly mixed with shadow, and in the same
 way, whether the place is hot, cold or *eukratic*, or perfectly
 dry or moist, or moderate. In this way too, if it is with
 powder, either more or less, and oil on the same basis
 137K

¹⁸ This (*Thras.*, V.806–98K) is Galen's other major work on
 hygiene, and is included in LCL 536.

ἢ καὶ χωρὶς ἑκατέρου τρόπος ἐστὶ χρήσεως γυμνασίου.

9. Ἐπεὶ τοίνυν διώρισται πάνθ' ἡμῖν, ὧν ἔμπειρον εἶναι χρὴ τὸν ὑγιεινόν, ἐπὶ τὰ τῶν γυμνασίων εἶδη καιρὸς μετιέναι, καὶ πρῶτον μὲν διελέσθαι, τί τε κοινὸν ἅπασιν ὑπάρχει καὶ τί καθ' ἕκαστον ἴδιον, ἐφεξῆς δὲ τοὺς καιροὺς τῆς χρήσεως²⁴ ἀφορίσασθαι. τὸ μὲν δὴ κοινὸν ἁπάντων γυμνασίων ἐστὶ θερμότητος αὐξήσιν ἐξ αὐτῶν τοῖς ζώοις ἐργάζεσθαι. θερμαίνεται γὰρ ἡμῶν τὰ σώματα κατὰ τε τὰ βαλανεῖα καὶ τὰ τῶν θερμῶν ὑδάτων λουτρὰ καὶ τὰς θερμὰς ὥρας τοῦ ἔτους, ἡλιοθερούντων τε καὶ παρὰ πυρὶ θαλπομένων καὶ 138K
καὶ 138K
θερμοῖς φαρμάκοις ἀνατριβομένων. ἀλλ' ἐξωθεν αἱ τοιαῦται πᾶσαι θερμότητες, οὐκ ἔνδοθεν, οὐδ' ἐκ τῆς οἰκείας ἀρχῆς ἀνάπτονται καὶ αὐξάνονται.

κατὰ δὲ τὰ γυμνάσια τῆς ἐμφύτου τοῖς ζώοις θερμασίας²⁵ αὐξήσις ἐστίν, ἐξ αὐτῶν τῶν ἰδίων σωμάτων γινομένη. καὶ τοῦτο κοινὸν μὲν ἁπάντων τῶν γυμνασίων, οὐ μὴν γε ἴδιόν ἐστιν, εἴ γε δὴ καὶ τοῖς θυμωθεῖσι καὶ τοῖς ἀγωνιάσασι καὶ τοῖς αἰδεσθεῖσιν αὐξήσις τῆς ἐμφύτου γίνεται θερμότητος. ὁ μὲν γε θυμὸς οὐδ' ἀπλῶς αὐξήσις, ἀλλ' οἷον ζέσις τίς ἐστὶ τοῦ²⁶ κατὰ τὴν καρδίαν θερμοῦ· διὸ καὶ τὴν οὐσίαν αὐτοῦ τῶν φιλοσόφων οἱ δοκιμώτατοι τοιαύτην εἶναι φασὶ συμβεβηκὸς γάρ τι καὶ οὐκ οὐσία τοῦ θυμοῦ ἐστίν ἢ τῆς ἀντιτιμωρήσεως ὄρεξις. αὐξάνεται δὲ καὶ τοῖς αἰδεσθεῖσιν ἢ ἐμφυτος θερμότης, εἴσω μὲν τὰ πρῶτα συνδραμόντος ἅπαντος τοῦ θερμοῦ, μετὰ

either more or less, or without either, is a mode of use of an exercise.

9. Accordingly, since we have already determined all the things the hygienist must be experienced in, it is time to proceed to the kinds of exercises, and first to go over what is common to all of them, and what is specific to each one, and next to determine the times of use. Common, certainly, to all exercises is to produce an increase in heat in animals from them. Our bodies are heated in bath houses, baths of warm waters, the hot seasons of the year, lying in the sun, being warmed beside a fire, and by being massaged with warm medicaments. But all such things heat externally, not internally, nor are they kindled or increased from one's own source. 138K

In exercises, there is an increase in the innate heat in animals, arising from our own bodies themselves. And this is common to all exercises and is not specific [to exercise], if in fact an increase of the innate heat occurs in those who have become angry, have contended or are ashamed. Anger is not simply an increase but a kind of seething of heat in relation to the heart, on which account also the most notable of philosophers say the essence of it is of this kind, for the desire for vengeance is something contingent and not the essential component of anger. Also, the innate heat is increased in those who are ashamed, all the heat at first running together inward, and after this having collected

²⁴ τῆς χρήσεως Ko; τῆς τρίψεως Ku

²⁵ post ἐμφύτου: τοῖς ζώοις θερμασίας Ko; θερμότητος τοῖς ζώοις Ku

²⁶ τίς ἐστὶ τοῦ add. Ko

139K ταῦτα δ' ἀθροισθέντος ἐν τῷ βάθει, κᾶπειτα αὐξηθέν-
τος καὶ διὰ τὴν ἀθροισιν μὲν τὴν ἐνταῦθα καὶ διὰ τὴν
κίνησιν δὲ τὴν συνεχῆ. οὐ γὰρ ἡσυχάζει τὸ πνεῦμα
τῶν αἰδουμένων, ἀλλ' ἔνδον τε καὶ περὶ αὐτὸ μετὰ τοῦ
σύμπαντος αἵματος κυκᾶται πολυειδῶς, ὥσπερ γε καὶ
τοιοῦτων ἀπάντων παθῶν τῆς ψυχῆς ἐπὶ προήκοντι
τῷ λόγῳ. νυνὶ μὲν γὰρ διὰ τὸ κοινὸν ἔπεσθαι σύμ-
πτωμα τούτοις τε τοῖς πάθεσι καὶ τοῖς γυμνασίοις
ἠναγκάσθην αὐτῶν μνημονεῦσαι δεικνύς, ὡς ἀπάν-
των κοινὸν γυμνασίων ἐστὶν ἡ τῆς ἐμφύτου θερμότη-
τος αὐξήσις ἔνδοθεν τε καὶ ἐξ αὐτῆς, οὐ μὴν ὅτι γε
μόνοις ὑπάρχει τοῦτο τοῖς γυμνασίοις, ἀλλὰ καὶ τοῖς
εἰρημένοις ἄρτι πάθεσιν.

ἤδη δ' ἐπὶ τὰ καθ' ἕκαστον τῶν γυμνασίων ἴδια
τὸν λόγον ἄγειν καιρὸς, ἐπισημηνάμενόν γε πρότε-
ρον, ὡς καὶ κατὰ ταῦτα πλείους εἰσὶν αἱ διαφοραί. τὰ
μὲν γὰρ ἄλλοτε ἄλλο τι μέρος ἕτερον ἑτέρου γυμνάζει
μᾶλλον, καὶ τὰ μὲν ἐλινυόντων γίνεται, τὰ δὲ ὀξύτατα
κινουμένων, καὶ τὰ μὲν εὐτόνως, τὰ δὲ ἀτόνως, καὶ
πρὸς τούτοις ἔτι τὰ μὲν σφοδρῶς, τὰ δ' ἀμυδρῶς.
εὐτονὸν μὲν οὖν γυμνάσιον ὀνομάζω τὸ βιαίως ἄνευ
τάχους διαπονοῦν, σφοδρὸν δὲ τὸ βιαίως τε καὶ σὺν
140K τάχει βιαίως δὲ ἡ ῥωμαλέως λέγειν οὐ διοίσει. τὸ μὲν
οὖν σκάπτειν εὐτονόν τε καὶ ῥωμαλέον ἐστίν, οὕτω δὲ

¹⁹ The issue here is the difference (if any) in the use of εὐτονος: when applied to men's bodies and limbs, it is taken to

139K together in the depths, is increased, due to both the col-
lection there and the movement that is continuous.
For the *pneuma* of those who are ashamed is not at
rest but within and around it is stirred up in various ways
along with all the blood, just as it also is in those who are
contending. I shall, however, say more about all such af-
fections of the soul as the discussion advances. For the
present, because a common symptom follows both these
affections and exercises, I was compelled to make mention
of them, showing that an increase of innate heat within is
common to all exercises, intrinsically and from this, and
that this is not in exercises alone, but also in the affections
spoken of just now.

Now is an appropriate time to lead the discussion to
the specifics in relation to each of the exercises, indicating
first that there are also many differences in these. There
are those that, at one time or another, exercise one part
more than another, those that are restful, those that in-
volve very quick movements, those done vigorously, those
done in a relaxed fashion, and in addition to these, those
done violently, and those done weakly. I term an exercise
"vigorous" (*eutonon*) when a man works out violently but
without speed, and "violent" (*sphodros*) when he works
out violently with speed. Whether we say "violently" or
"strongly" makes no difference.¹⁹ Thus digging is vigorous
and strong, and in the same way, controlling four horses
140K

mean "well-strung and vigorous" (Hippocrates, *Aphorisms* 3.17);
when used more generally, it is taken to mean "active and ener-
getic." Among the meanings listed in LSJ for σφόδρος are "vehe-
ment," "violent," "active," and "excessive." In the present passage
εὐτονος is rendered "vigorous."

καὶ τὸ τέτταρας ἵππους ἅμα κατέχειν ἠνίαις εὐτονου
 μὲν ἱκανῶς γυμνάσιον, οὐ μὴν ὠκύ γε. κατὰ δὲ τὸν
 αὐτὸν τρόπον εἴ τις ἀράμενος ὀτιοῦν μέγιστον φορ-
 τίον ἢ μένοι κατὰ χώραν ἢ προβαίνοι σμικρὰ καὶ οἱ
 ἀνάντεις περίπατοι τούτου τοῦ γένους εἰσίν. ἀναφέρε-
 ται γοῦν καὶ ἀναβαστάζεται κατ' αὐτοὺς ὑπὸ τῶν
 πρώτων κινουμένων ὀργάνων ἅπαντα τὰ λοιπὰ μόρια
 τοῦ σώματος, ὥσπερ τι φορτίον. οὕτω δὲ καὶ ὅστις
 ἀναρριχᾶται διὰ σχοινίου, καθάπερ ἐν παλαίστρα
 γυμνάζουσι τοὺς παῖδας εἰς εὐτονίαν παρασκευάζον-
 τες. ὡσαύτως δὲ καὶ ὅστις ἢ σχοινίου λαβόμενος ἢ
 τινος ὑψηλοῦ ξύλου μέχρι πλείστου κατέχει κρεμάμε-
 νος ἐξ αὐτοῦ, ῥωμαλέον μὲν τι καὶ ἰσχυρὸν γυμνάζε-
 ται γυμνάσιον, οὐ μὴν ὠκύ γε, καὶ ὅστις προτείνας ἢ
 ἀνατείνας τὸ χεῖρε πύξ ἔχων ἀτρεμίζει μέχρι πλεί-
 στου. εἰ δὲ καὶ παραστήσας τινὰ κελεύει καθέλκειν
 κάτω τὸ χεῖρε, μὴ ἐνδιδοὺς αὐτός, ἔτι δὴ μάλλον
 οὗτος εἰς εὐρωστίαν παρασκευάζει τοὺς τε μῦς καὶ τὰ
 νεῦρα· τούτων γὰρ ἴδια τὰ τοιαῦτα μάλιστα σύμ-
 παντα γυμνάσια· πολὺ δὲ δὴ μάλλον, εἴ τι βᾶρος ταῖς
 χερσὶν ἄκραις περιλαβὼν ἐκατέραις καταμόνας, οἷοί-
 περ οἱ κατὰ παλαίστραν εἰσὶν ἀλτῆρες, ἀτρέμας ἔχει
 προτείνας ἢ ἀνατείνας αὐτάς. εἰ δὲ δὴ καὶ κελεύσειε
 τινι καθέλκειν τε καὶ κάμπτειν βιαίως, ἑαυτὸν ἀκίνη-
 τόν τε καὶ ἄκαμπτον οὐ ταῖς χερσὶ μόνον, ἀλλὰ καὶ
 τοῖς σκέλεσι καὶ τῇ ῥάχει διαφυλάττων, οὐ σμικρὸν
 γυμνάσεται γυμνάσιον εἰς εὐτονίαν ὀργάνων.

with reins is a very vigorous exercise, although not in fact rapid. By the same token, if someone, having lifted a great weight, were either to remain on the spot, or step forward a little, and then walk uphill, [the movements] would be of this class. Anyway, all the remaining parts of the body are carried and lifted up during the latter by the first-moving organs, like some weight. This also applies to someone who climbs up a rope with hands and feet, like they train children to do in the wrestling school, preparing them for vigorous activity. And similarly, when someone takes hold of a rope or some high piece of wood, and remains hanging from it as long as possible, he is practicing a robust and strong exercise, but not in fact one that is rapid. The same applies to someone who stretches out or holds up both hands as clenched fists, and stays still for as long as possible. Also, if having made somebody stand next to him, he orders this person to drag down both his hands while he himself doesn't yield, this prepares the muscles and sinews for strength even more. For all such exercises are particularly specific, and much more so if, taking hold of some weight with each of the outstretched hands apart, such as the weights that are in the wrestling school, he holds the hands motionless, having extended them forward or raised them up. If he then were to direct someone to draw them down or bend them forcibly, while keeping himself immobile and rigid, not with his hands only but also with his legs and spine, he will be carrying out a substantial exercise for the vigor of the organs.

οὕτω τοι λόγος ἔχει κακῆνον τὸν Μίλωνα γυμνά-
 ζειν ἑαυτόν, ἐνίοτε μὲν ἀποσαλευσαί τε καὶ μετακι-
 νῆσαι τῆς ἔδρας ἐπιτρέποντα τῷ βουλομένῳ (ἀλλὰ
 τοῦτο μὲν σκελῶν ἂν εἴη μάλιστα γυμνάσιον), ἐνίοτε
 δέ, εἰ τὰς χεῖρας γυμνάζειν βούλοιτο, τὴν πυγμὴν
 διαλύειν κελεύοντα· αὐθις δ' ἂν, ὡς φασιν, ἐν ταῖν
 χεροῖν ἔχων ἢ ῥοιὰν ἢ ἕτερόν τι τοιοῦτον ἀφαιρεῖσθαι
 τῷ βουλομένῳ παρέιχε. ταυτὶ μὲν οὖν τὰ γυμνάσια
 142K μεγίστης ἰσχύος ἐπίδειξιν τε ἅμα καὶ ἄσκησιν ἔχει,
 τόνον δὲ μορίων γυμνάζει τε καὶ ῥώννυσι, κάπειδαν
 ἦτοι διαλαβὼν ἕτερόν τινα μέσον ἢ διαληφθεὶς αὐτὸς
 ἐπηλλαγμένων πρὸς ἀλλήλας τῶν χειρῶν τε καὶ τῶν
 δακτύλων ἦτοι τῷ κρατουμένῳ προστάξῃ διαλύειν ἢ
 αὐτὸς λύῃ τοῦ κρατοῦντος· οὕτω δὲ κάπειδαν, ἑτέρου
 προνεύσαντος ἐκ πλαγίων αὐτῷ προσελθὼν ἐν κύκλῳ
 τοῖς λαγόσι περιβαλὼν τὰς χεῖρας, ὥσπερ γέ τι φορ-
 τίον ἀράμενος ἀναφέρῃ τε ἅμα καὶ περιφέρῃ τὸν ἀρ-
 θέντα, καὶ μᾶλλον εἰ ἐπινεύοι τε καὶ ἀνανεύοι βαστά-
 ζων· ὧδε γὰρ ἂν ἀκριβῶς τις ἄπασαν τὴν ῥάχιν εἰς
 ῥώμην παρασκευάσειεν. οὕτω δὲ καὶ ὅσοι τὰ στέρνα
 πρὸς ἀλλήλους ἀπηρεισάμενοι βιαίως ὠθοῦσιν εἰς
 τοῦπίσω καὶ ὅσοι τῶν αὐχένων ἐκκρεμάμενοι κατα-
 σπῶσιν, εἰς εὐτονίαν παρασκευάζουσιν.

²⁰ Milo, a noted strongman, is mentioned earlier (see Book 1, n. 14 above). The feat for which he was most renowned was carrying a dead bull on his shoulders around the arena. Galen's comment on this is: "But what about the story of Milo of Kroton? He once did a lap of the stadium with a sacrificed bull on his

There is a story, let me tell you, that the famous Milo²⁰ exercised himself in this way, sometimes presenting himself to anyone wishing to loosen and remove him from his seat (but this would be particularly an exercise of the legs), and sometimes, if he should wish to exercise his hands, directing another to unclench his clenched fists, or again, so they say, having a pomegranate or some other such thing in his two hands, he would offer it to anyone who wished to take it away. These exercises are, then, a demonstration of the greatest strength while at the same time being training. And they exercise and strengthen the vigor of the parts, and whenever, either seizing some other person about the middle or being seized thus oneself, and interlocking the hands and the fingers with each other, he himself enjoins the one being held to release himself, or he releases himself from the one holding him. In the same way too, when someone approaches another from the side, when the other has bent forward, throwing his arms around the flanks to encircle them, lifts him up like some burden and holds him lifted while at the same time carrying him forward, and particularly if the one carrying bends forward and backward while carrying him. In this way someone might perfectly prepare the whole spine for strength. In the same way too, those who place their chests against one another, forcibly thrusting in opposition, and those who, hanging by the neck, pull downward, prepare themselves for vigor.

shoulders. What incredible stupidity that was! Not to realise that just a little earlier, while it was alive, the animal's body was lifted up by a soul which drove it and made it run with much less effort than Milo's" (*Protr.*, I.34K [trans. after Singer, *Galen: Selected Works*, 50]).

ἀλλὰ τὰ μὲν τοιαῦτα καὶ χωρὶς παλαίστρας ἢ
βαθείας κόνεως δύναται γίνεσθαι καθ' ὅτι οὖν χωρίου
ἐπικροτον ὀρθῶν ἐστῶτων· ὅσα δὲ παλαίοντες εἰς ἀλ-
λήλους δρῶσιν ἀσκούντες τὸν τόνον, ἤτοι κόνεως βα-
θείας ἢ παλαίστρας δέεται. ἔστι δὲ τὰ <τοιαῦτα>²⁷
τοιάδε· περιπλέξαντες τοῖς ἑαυτοῦ δύο σκέλεσι τὸ ἕτε-
ρον σκέλος τοῦ προσπαλαίουτος, ἔπειθ' ἄψαντες πρὸς
143K ἀλλήλας τὴν χεῖρα, τὴν μὲν ἐπὶ τὸν αὐχένα βιαίως
ἐρείδειν, ἣτις ἂν ἦ κατ' εὐθὺ τὸ κατειλημμένου σκέ-
λους, τὴν δ' ἑτέραν ἐπὶ τὸν βραχίονα. δύναται δ' ἂν
καὶ περὶ τὴν κεφαλὴν ἄκραν τὸ ἄμμα περιθεῖς ἀνα-
κλᾶν εἰς τοῦπίσω βιαζόμενος. τὰ τοιαῦτα γὰρ παλαι-
σματα πρὸς εὐτονίαν ἐκάτερον τῶν παλαιόντων ἀσκεῖ,
καθάπερ γε καὶ ὅσα ζώσαντος τοῖς σκέλεσι θατέρου
τὸ ἕτερον ἢ κατ' ἀμφοῖν ἄμφω καθέντος γίνεται· καὶ
γὰρ καὶ ταῦτ' ἀμφότερα εἰς ῥώμην παρασκευάζει.

μυρία δὲ ἕτερα τοιαῦτα κατὰ παλαίστραν ἐστὶν
εὐτονα γυμνάσια, περὶ ὧν ἀπάντων τὴν ἐμπειρίαν τε
ἄμα καὶ τριβὴν ὁ παιδοτρίβης ἔχει, ἕτερος δέ τις ὧν
ὁδε τοῦ γυμναστοῦ, καθάπερ ὁ μάγειρος τοῦ ἱατροῦ.
καὶ πῶς ἔοικεν αὐτῷ καὶ τοῦθ' ἡμῖν ἦκειν εἰς σκέμμα·
περὶ οὗ λέλεκται μὲν ἤδη καὶ κατ' ἐκεῖνο τὸ βιβλίον,
ὁ Θρασύβουλον ἐπιγράφομεν, εἰρήσεται δὲ καὶ νῦν
ὅσον αὐτάρκες εἰς τὰ παρόντα, πρότερόν γε διελθόν-
των ἡμῶν τὰς τῶν γυμνασίων διαφοράς. ὅσα μὲν οὖν
εὐτονα, καὶ δὴ λέλεκται.

144K 10. Μεταβαίνειν δὲ ἤδη καιρὸς ἐπὶ τὰ ταχέα χωρὶς
εὐτονίας καὶ βίας. δρόμοι δ' εἰσὶ ταῦτα καὶ σκιομα-

But such things can also be done away from the wres-
tling school or deep sand, while standing upright in any
place that is trampled down. All the things they do to each
other when wrestling and exercising their strength need
either deep sand or the wrestling school. These exercises
are as follows: gripping with their own two legs one leg of
the wrestling partner and then, clasping the two hands
together, forcibly to press on the neck, using whichever
hand is on the side of the gripped leg and putting the other
hand on the arm. And he would also be able, placing the
arm around the top of the head, to forcibly bend it back-
ward. Such feats of strength train each of the wrestlers for
vigor, just as those which happen when the one has girded
the other's leg with his legs; both these maneuvers also
prepare for strength.

There are countless other such vigorous exercises in
the wrestling school, and the gymnastic trainer is experi-
enced as well as practiced in all of them, although he
himself is as different from the gymnast as the cook is from
the doctor. And it seems to me that in some way this too
has come to us for consideration, which I have already
spoken about in that book I entitled *Thrasybulus*.²¹ I shall
also say now as much as is sufficient for my present pur-
pose, having gone over the different exercises. Those that
are vigorous, I have already described.

10. It is time now to pass on to the exercises that are
rapid without being vigorous and violent. These are run-

²¹ See note 18 above.

²⁷ τοιαῦτα add. Ku

χίαι καὶ ἀκροχειρισμοὶ καὶ τὸ διὰ τοῦ κωρύκου τε καὶ τῆς σμικρᾶς σφαίρας γυμνάσιον, ὅταν ἐκ διεστῶτων τε καὶ διαθεόντων γίνηται. τοιοῦτον δέ τι καὶ τὸ ἐκπλεθρίζειν ἐστὶ καὶ τὸ πιτυλίζειν. τὸ μὲν ἐκπλεθρίζειν ἐστίν, ἐπειδὴν τις ἐν πλέθρῳ πρόσω τε ἅμα καὶ ὀπίσω διαθέν ἐν μέρει πολλάκις ἐφ' ἑκάτερα χωρὶς καμπῆς ἀφαιρῆ τοῦ μήκους ἐκάστοτε βραχὺ καὶ τελευτῶν εἰς ἐν καταστῆ βῆμα· τὸ δὲ πιτυλίζειν, ἐπειδὴν ἐπ' ἄκρων τῶν ποδῶν βεβηκῶς ἀνατείνας τὴν χεῖρα κινῆ τάχιστα, τὴν μὲν ὀπίσω φέρων, τὴν δὲ πρόσω. μάλιστα δὲ τοίχῳ προσιστάμενοι γυμνάζονται τοῦτο τὸ γυμνάσιον, ἵν' εἰ καὶ ποτε σφάλλοιντο, προσαψάμενοι τοῦ τοίχου ῥαδίως ὀρθῶνται· καὶ οὕτω δὴ γυμναζομένων λανθάνει τε τὰ σφάλματα καὶ ἀσφαλέστερον²⁸ γίνεται τὸ γυμνάσιον. ὠκείαι δὲ κινήσεις εἰσὶν, οὐ μὴν βίαιοί γε, καὶ ὅσαι κατὰ παλαίστραν ἐπιτελοῦνται κυλινδουμένων ὀξέως μεθ' ἑτέρων τε καὶ καταμόνας.

145K

ἐγχωρεῖ δὲ καὶ ὀρθοὺς ἐνειλουμένους τε ἅμα καὶ μεταβαλόντας ἐν τάχει τὸν πέλας ὀξὺ γυμνάσασθαι γυμνάσιον. ἐγχωρεῖ δὲ καὶ διὰ τῶν σκελῶν μόνων ὀρθὸν ἐφ' ἑνὸς χωρίου γυμνάσασθαι γυμνάσιον ὀξὺ, πολλάκις μὲν εἰς τοῦπίσω μόνον ἐφαλλόμενον, ἔστιν ὅτε δὲ καὶ εἰς τούμπροσθεν ἀναφέροντα τῶν σκελῶν ἑκάτερον ἐν μέρει. καὶ μὲν δὴ καὶ διὰ τῶν χειρῶν ἔστιν ὀξὺ γυμνάσιον ὁμοιόρροπον γυμνάσασθαι χωρὶς τοῦ κατέχειν ἀλτήρας, ἐπισπεύδοντα τὰς κινήσεις αὐτῶν εἰς πυκνότητά τε ἅμα καὶ τάχος, εἴτε πύξ

ning, shadow fighting, *acrocheirism*,²² and the exercise with the punching bag and small ball, done both standing at distance and running. *Ekplethrism* is such an exercise, as is *pitulism*. *Ekplethrism* is when someone runs forward and back repeatedly over a plethron (approx. one hundred ft.) course without deviating to either side, but takes away a short length each time until finally coming to a stop at one pace. *Pitulism* is when someone, standing on tiptoe, stretches his arms up and, moving very quickly, carries them backward and forward. For the most part people practice this exercise against a wall, so if at any time they should start to fall, they could easily right themselves by touching the wall. But when they exercise in this way concealing their mistakes, the exercise also becomes weaker. The movements are rapid but not violent, and when they carry them out in the wrestling school, they roll around swiftly, either with others or alone.

145K

It is possible to exercise rapidly while standing upright, engaging and at the same time changing position with those adjacent. It is also possible to practice a rapid exercise with the legs alone, upright in one place, repeatedly springing backward only, and sometimes also advancing each of the legs forward in turn. And furthermore, it is possible to practice a similar swift exercise with the hands without holding jumping weights, urging on their movements in frequency and rapidity, either with the fist closed,

²² For these and the following transliterated terms, see note 17 above.

²⁸ ἀσφαλέστερον Ko; ἀσθενέστερον Ku; imbecillius L

ἔθελαι τις εἴτε καὶ χωρὶς πυγμῆς ἀνασείειν²⁹ ἀπλῶς, τοιοῦτον μὲν δὴ τι καὶ τὸ ταχὺ γυμνάσιόν ἐστιν ἐν οἷς εἵπομεν εἶδесιν ἀφωρισμένον.

ἐπὶ δὲ τὸ σφοδρὸν ἰέναι καιρός. ἔστι δ', ὡς εἴρηται, τοῦτο σύνθετον ἐξ εὐτόνου τε καὶ ταχέος. ὅσα γὰρ εὔτονα τῶν γυμνασίων εἴρηται, τούτοις ἅπασιν ὡς σφοδροῖς ἂν τις χρῶτο, ταχείας κινήσεις προστιθείς, οὐχ ἤκιστα δὲ καὶ τὰ τοιάδε γυμνάσια σφοδρά, σκάψαι καὶ δισκεῦσαι καὶ κινήσαι καὶ πηδηῆσαι συνεχῶς ἄνευ τοῦ διαναπαύεσθαι. οὕτω δὲ καὶ τὸ ἀκοντίζειν ὀτιοῦν τῶν βαρέων βελῶν συνείροντα τὴν ἐνέργειαν ἢ βαρέσιν ὅπλοις ἐσκεπασμένον ἐνεργεῖν ὀξέως. ἀμέλει καὶ οἱ γυμναζόμενοι διὰ τινος τῶν τοιούτων ἀναπαύονται κατὰ βραχύ. καί σοι καὶ ἢ κατὰ τὸ συνεχές τε καὶ διαλείπον γυμνάσιον ἤδη πως γινωσκέσθω διαφορά. τὰ γὰρ εἰρημένα νῦν δὴ πάντα διαλείποντες μᾶλλον εἰς χρείαν ἄγουσι, καὶ μάλισθ' ὅσα πόνοι τινές εἰσι καὶ ἔργα, μὴ μόνον γυμνάσια, καθάπερ τὸ ἐρέσσειν τε καὶ σκάπτειν. ὅσα δ' ἀσθενέστερα τῶν γυμνασίων ἐστίν, ἄνευ τοῦ διαναπαύεσθαι γίνεται μᾶλλον, ὥσπερ ὁ δόλιχος τε καὶ αἱ ὁδοιπορίαι.

11. Ταῦτ' οὖν ἅπαντα γυμνασίων ἐστὶν εἶδη, τὰς γε νῦν εἰρημένας ἔχοντα διαφορὰς καὶ πρὸς τούτοις ἔτι τὸ τὰ μὲν ὀσφῦν μᾶλλον ἢ χεῖρας ἢ σκέλη διαπονεῖν, τὰ δὲ τὴν ράχιν ὅλην ἢ τὸν θώρακα μόνον ἢ τὸν πνεύμονα. βάδισις μὲν γε καὶ δρόμος ἴδια σκελῶν γυμνάσια, ἀκροχειρισμοὶ δὲ καὶ σκιομαχίαι ἴδια χειρῶν, ὀσφύος δὲ τὸ ἐπικύπτειν τε καὶ ἀνακύπτειν συν-

if one wishes, or simply swinging to and fro without making a fist. This, then, is the rapid exercise I spoke of, divided into kinds.

It is time now to go on to violent exercise. This, as I said, is a combination of vigor and rapidity. Someone might use as violent all those exercises described as vigorous, if swift movements are added. Not least also the following exercises are violent: digging, throwing a quoit, and moving and jumping continuously without a rest. The same also applies to the act of hurling any one of the heavy weapons, while joining together the activity, or acting rapidly while clad in heavy armor. Of course, those who exercise with one of these things stop after a short time. And you already know to some degree the difference between continuous and intermittent exercise. All those exercises mentioned now are particularly brought into use intermittently, and especially those that are hard work and activities, and not only exercises, like rowing and digging. Those exercises that are gentler mostly occur without an interval—examples are long-distance running and walking.

11. These, then, are all the kinds of exercises, some having the differences now mentioned. In addition to these, there are those that work out the loins more, or the arms, or the legs, and in other cases the whole spine, or the chest alone, or the lungs. In fact, walking and running are exercises specific for the legs, *acrocheirism* and shadow fighting are specific for the arms, bending forward and backward continuously for the loins, or lifting a weight

²⁹ ἀνασείειν Ko; ἀναχθήσειεν Ku

147K εχῶς ἢ αἶροντά τι βάρος ἀπὸ τῆς γῆς ἢ ἐν ταῖν
χειροῖν βαστάζοντά τι διαπαντός. ἔνιοι μὲν γὰρ
καταθέντες ἀλτήρας ἐν τῷ πρόσθεν διεστῶτας ἀλ-
λήλων ὀργυιάν, εἴτ' ἐν τῷ μέσῳ στάντες αὐτῶν ἀναι-
ροῦνται προκύπτοντες, τῇ μὲν δεξιᾷ χειρὶ τὸν ἐν τοῖς
ἀριστεροῖς, τῇ δὲ ἀριστερᾷ τὸν ἐν τοῖς δεξιοῖς, καὶ
αὐθις ἐκάτερον εἰς τὴν οἰκείαν κατατίθενται χώραν
καὶ τοῦτο δρῶσιν ἐφεξῆς πολλάκις ἀτρεμίζοντες τῇ
βάσει. τὰ δὲ πλάγια μέρη τῆς ράχεως ἢ κίνησις ἥδε
διαπονεῖ μᾶλλον, ὥσπερ ἡ προειρημένη τὰ κατ' εὐθύ.
θώρακος δὲ καὶ πνεύμονος αἱ μέγισται τῶν ἀναπνοῶν
οἰκεία γυμνάσια, καθάπερ γε καὶ αἱ μέγισται φωναὶ
πρὸς τοῖς εἰρημένοις ἀπάντων τῶν φωνητικῶν ὀργά-
νων. εἴρηται δ' ὁ κατάλογος αὐτῶν ἐν τοῖς Περὶ φωνῆς
ὑπομνήμασι.

ἐπεὶ δ' ἐνταῦθα τοῦ λόγου γεγόναμεν, οὐ χεῖρον
ὑπὲρ ἀπάντων διελθεῖν τῶν τοῦ ζώου μορίων, ὅσα τε
κινήσεις ἐναργεῖς ἔχει καὶ ὅσα βραχείας τε καὶ ἀμαν-
ράς, καὶ τίνα μὲν ἐξ ἑαυτῶν κινεῖται, τίνα δὲ ὑφ'
ἐτέρων· ἢ γὰρ τοιαύτη διαίρεσις οὐ σμικρὰν εὐπορίαν
148K παρέξει τῷ γυμναστῇ πρὸς τὸ κινεῖν ἅπαντα τοῦ
ζώου τὰ μόρια, ποτὲ μὲν ἐξ ἑαυτῶν τε καὶ κατὰ τὰς
οἰκείας δυνάμεις, ἔστιν ὅτε δ' ὑφ' ἐτέρων τε καὶ δι'
ἐτέρων. αἱ μὲν γε κατὰ προαίρεσιν ἐνέργειαι πᾶσαι
μυῶν τε καὶ νεύρων καὶ τενόντων ἴδιαι κινήσεις εἰσίν·
εἰ δὲ καὶ σφοδρότεραι γίνονται, τὰ μὲν εἰρημένα μό-
ρια πρῶτά τε καὶ μάλιστα γυμνάζουσι, κατὰ δέ τι
συμβεβηκὸς καὶ τὰς ἀρτηρίας. ὅστᾳ δὲ καὶ φλέβας

from the ground or supporting something in a sustained
fashion in both arms. Some people place jumping weights
in front of them that are six feet apart, then standing in
between them and bending forward, raise them up, the
one on the left with the right hand and the one on the right
with the left hand, and replace each again in its proper
place; and they do this in sequence repeatedly, keeping
their base still. This movement particularly works out the
lateral parts of the spine, just as the previously mentioned
movement does those parts that are central (vertical). Very
deep breaths are specific exercises for the chest and lungs,
just as very loud sounds, in addition to the aforemen-
tioned, are for all the organs of speech. The list of these is
set out in the treatises *On the Voice*.²³

Since we have come to this point of the discussion, it
would not be bad to go over all the parts of the animal,
both those which have visible movements and those which
have small and indistinct movements; and which of them
are moved by themselves and which of them by other
parts. Such a division will provide no little advantage to
the gymnastic trainer regarding moving all the parts of the
animal, sometimes from themselves and in accord with
their intrinsic powers, and sometimes by other parts and
through other parts. All the voluntary functions of mus-
cles, sinews and tendons are intrinsic movements. If, how-
ever, they were to become more violent, they would exer-
cise the aforementioned parts primarily and particularly,
while incidentally also exercising the arteries. They move

²³ The work *De voce* was in four books and dedicated to Bo-
ethius. The original has been lost, although some fragments and
an Arabic summary remain. See Boudon, *Galen*, 419n3.

καὶ σάρκας καὶ συνδέσμους καὶ τὰλλα σύμπαντα τοῦ ζώου μόρια συγκινοῦσιν ἴσως τοῖς προειρημένοις.

αἱ δ' ἄλλαι κινήσεις ἐν τοῖς τῶν ζώων σώμασιν, ὅσαι μὴ κατὰ κοινὴν προαίρεσιν, ἀλλ' ἤτοι φυσικαί τινες ἢ κατὰ τὰ τῆς ψυχῆς γίνονται πάθη, διτταὶ μὲν εἰσι κατὰ γένος· αἱ μὲν ἕτεραι καρδίας τε καὶ ἀρτηριῶν, αἱ δὲ ἕτεραι φλεβῶν τε καὶ ἥπατος ἐνέργειαι, πρῶτον μὲν τούτων καὶ μάλιστα, δεύτερον δὲ τῶν ἄλλων ἀπάντων μορίων, ἐπειδὴ πάντα ταῖς τέτταρσι φυσικαῖς διοικεῖται δυνάμεσιν. ἡ μὲν δὴ τῶν ἀρτηριῶν τε καὶ τῆς καρδίας κίνησις οὐκ ἔστιν ὅτ' ἐκλείπει τὸ πάμπαν, ἐπιτείνεται μέντοι³⁰ δὲ καὶ ἀνίεται κατὰ μέγεθος καὶ σμικρότητα καὶ τάχος καὶ βραδυτήτητα καὶ σφοδρότητα καὶ ἀμυδρότητα παρὰ πολλὰς αἰτίας, ἃς συμπάσας μὲν ἐν τῇ Περὶ τῶν ἐν τοῖς σφυγμοῖς αἰτιῶν πραγματεία διήλθον, ἀρκεῖ δ' ἐν τῷ παρόντι τὰ κεφάλαια μόνον αὐτῶν εἰπεῖν τὰ πρῶτα. μία μὲν οὖν αἰτία τῆς τῶν σφυγμῶν μεταβολῆς ἐστὶν αὔξησις τε καὶ μείωσις τῆς ἐμφύτου θερμασίας, ἕτερα δὲ ἢ κατὰ τὴν ποσότητα τοῦ ψυχικοῦ πνεύματος ἀνάλωσις,³¹ τρίτη δὲ ἢ κατὰ τὴν τῆς δυνάμεως εὐρωστίαν τε καὶ ἀρρωστίαν, τετάρτη δὲ ἢ κατὰ τὰ τῶν ὀργάνων πάθη.

³⁰ μέντοι add. Ku

³¹ ἀνάλωσις Ko; ἀλλοίωσις Ku (here and subsequently)

²⁴ See particularly Book 1 of Galen's *Nat. Fac.*, II.1-73K (English trans., Brock, *On the Natural Faculties*).

bones, veins, flesh and ligaments, and all other parts of the animal together equally with those previously mentioned.

The other movements in the bodies of animals—those not in relation to ordinary volition—which are either physical or occur in relation to the affections of the soul, are twofold in terms of class. Some are functions of the heart and arteries, and others of the veins and liver, and are first and foremost of these and secondarily of all the other parts, since all are governed by the four natural capacities (physical powers).²⁴ Now it is not possible for the movement of the heart and arteries to fail altogether. It does, however, increase and decrease in largeness and smallness, quickness and slowness, and strength and weakness due to many causes, all of which I went over in the work, *The Causes of the Pulses*.²⁵ It is sufficient for the present to state only the chief and primary of these. Thus, one cause of the change of the pulses is an increase or decrease of the innate heat; another is the change of the quantity of psychic *pneuma*;²⁶ a third relates to strength or weakness of the capacity; and a fourth relates to the affections of the organs.

149K

²⁵ This is one of Galen's four major treatises on the pulses—*Caus. Puls.*, IX.1-204K. The other three are on classification (*Diff. Puls.*, VIII.493-765K); diagnosis (*Diagn. Puls.*, 766-961K); and prognosis (*Praesag. Puls.*, IX.205-430K), respectively. Also extant are three shorter treatises on the pulses: *Puls. ad Tir.*, VIII.451-492K; *UPuls.*, V.149-180K; and *Syn. Puls.*, IX.431-549K.

²⁶ Of the textual variations, the Kühn version is followed: both here and below "consumption" would seem to be the appropriate rendering if Koch were followed.

150K ἀλλὰ περὶ μὲν ταύτης οὐ νῦν διδάσκειν καιρός· ἤδη γὰρ νοσεῖν ἀνάγκη τὸ ζῶον ἐν τοῖς τοιούτοις πάθεσιν· αἱ δὲ ἄλλαι πᾶσαι τῶν σφυγμῶν ἀλλοιώσεις καὶ ἐν τοῖς ὑγιαίνουσι γίνονται, παρὰ μὲν τὴν αὐξησίν τε καὶ μείωσιν τῆς ἐμφύτου θερμότητος αἷ τε παρὰ τὰς ὥρας καὶ τροφᾶς καὶ πόματα καὶ λουτρὰ καὶ τρίψεις καὶ ὕπνους καὶ ἐγρηγόρσεις ἔτι τε τὰ ψυχικὰ πάθη καὶ τὰς κατὰ προαίρεσιν ἐνεργείας, ἢ δὲ παρὰ τὴν τοῦ ψυχικοῦ πνεύματος ἀνάλωσιν ἐν ταῖς τῶν καθ' ὁρμὴν κινήσεων διαφοραῖς, ἢ δὲ παρὰ τὴν τῆς δυνάμεως εὐρωστίαν τε καὶ ἀρρωστίαν ἐν ταῖς εὐκρασίαις τε καὶ δυσκρασίαις αὐτοῦ τοῦ σώματος τῆς τε καρδίας καὶ τῶν ἀρτηριῶν. ἢ δὲ τῶν φλεβῶν ἐνέργεια σὺν καὶ τοῖς ἄλλοις ἅπασιν ὀργάνοις, ὅσα περὶ τὴν τῆς τροφῆς οἰκονομίαν ὑπὸ τῆς φύσεως ἐγένετο, κατὰ τὰς ἐδωδᾶς τε καὶ πόσεις, ἀναδόσεις τε καὶ πέψεις καὶ θρέψεις ἀλλοιοῦνται· μέρος δέ τι ταύτης ἐστὶν καὶ ταῖς ἀρτηρίαις.

ὅσαι δὲ τῶν κινήσεων οὐκ εἰσιν ἐνέργειαι, τριττὴ τούτων ἢ διαφορά· τινὲς μὲν γὰρ ἐξ ἑαυτῶν τοῖς ζῴοις ἐγγίνονται, τινὲς δὲ ἔξωθεν προσέρχονται, τινὲς δὲ ὑπὸ φαρμάκων καταναγκάζονται. ἐξ ἑαυτῶν μὲν, ἃς ἔμπροσθεν εἶπον· ἔξωθεν δὲ κατὰ τε τοὺς πλοῦς, τὰς ἵππασίας, τὰς αἰωρήσεις, ὅσαι τε δι' ὀχημάτων γίνονται καὶ ὅσαι διὰ σκιμπόδων κρεμαμένων ἢ λίκνων σειομένων ἢ ἐν ταῖς τῶν τροφῶν ἀγκάλαις τοῖς βρέφουσιν. ἐκ δὲ τῶν ἔξωθεν κινήσεων εἴη ἂν καὶ ἡ ἀνάτριψις (εἴθ' οὕτω τις αὐτὴν ὀνομάζειν ὁμοίως τοῖς

150K But now is not the time to teach about this, for the animal is, of necessity, already diseased in such affections, whereas all the other changes of the pulses occur also in those who are healthy—those on account of an increase or decrease of the innate heat, those on account of the seasons, nutriments, drinks, baths, massages, sleep and wakefulness, and further, the psychical affections and the voluntary functions. That due to the change of the psychic *pneuma* is in the differences of the movements initiated voluntarily; that due to the strength or weakness of the capacity is in the *eukrasias* or *dyskrasias* of the actual body and of the heart and arteries. The function of the veins, along with all the other organs created by Nature for the management of nutrition, changes in relation to foods and drinks, and their distribution, concoction and nourishing. Some part of this is even in the arteries.

There is a threefold difference in those movements that are not functions: some spring up in animals of themselves, some come upon them from without, and some are forced upon them by medications. Those from themselves I spoke of previously. Those from without relate to sailing, horse riding, and the passive (oscillatory) movements, such as occur from chariots, from being suspended in a traveling hammock,²⁷ or infants being shaken in a cradle or in the arms of nurses. Also, among the extrinsic movements is rubbing (whether someone wishes to so name it

²⁷ LSJ lists two meanings for *σκιμπους*: (1) a small pallet or couch; (2) "a kind of hammock used by invalids travelling" with reference to this passage, although there is no specific mention of invalids here.

151K παλαιοῖς εἴτε καὶ χωρὶς τῆς "ἀνά" προθέσεως ὁμοίως
 τοῖς νεωτέροις βούλοιο· διαφέρει γὰρ οὐδὲν εἰς τὰ
 παρόντα). ἔναι μέντοι κινήσεις εἰσὶ μικταί, καθάπερ
 καὶ ἡ ἵππασία· οὐ γὰρ ὥσπερ ἐν τοῖς ὀχήμασι καὶ
 μάλιστα ἐν οἷς κατακλινάμενοι ἀτρεμίζομεν, οὕτω
 καὶ ταῖς τῶν ἵππων ὀχήσεσι συμπίπτει σείεσθαι μό-
 νον ὑπὸ τοῦ φέροντος ἐνεργοῦντα μηδέν, ἀλλὰ τὴν τε
 ῥάχιν ὄρθιον ἀπευθύνειν χρῆ καὶ τοῖς μηροῖς ἀμφο-
 τέροις ἀκριβῶς ἔχεσθαι τῶν πλευρῶν τοῦ ἵππου καὶ
 τετάσθαι τὰ σκέλη καὶ προορᾶσθαι τὰ πρόσθεν· ἐν
 τούτῳ δὲ καὶ ἡ ὄψις γυμνάζεται καὶ ὁ τράχηλος πο-
 νεῖ. μάλιστα δ' ἐν τῷ τοιούτῳ γυμνασίῳ σείεται τὰ
 σπλάγχνα. σείεται γε μὴν οὐδὲν ἥττον τὰ σπλάγχνα
 καὶ τοῖς ἀλλομένοις, ἐν μέντοι ταῖς ἐπὶ τῶν ὀχημάτων
 αἰωρήσεσιν ἥττον. ὥστε εἴ τις ἐθέλοι τὰ κάτω τῶν
 φρενῶν σπλάγχνα κινήσαι βιαιότερον, ἐπὶ τε τοὺς
 εἰρημένους ἢ κέτω πόνους καὶ πρὸς τούτοις ὅσα διὰ
 τῆς τῶν ἀμμάτων περιθέσεως τρίβουσι. χρῆ δ' ὄπι-
 σθεν εἶναι τὸν τρίβοντα, περιφέροντα τὸ χεῖρε ποτὲ
 μὲν ἐπ' ἀριστερά, ποτὲ δ' ἐπὶ δεξιὰ, συνεπικλινομένου
 πρὸς ταῦτα καὶ τοῦ τριβομένου. συγκινοῦσι μὲν πως
 152K τὰ κάτω τῶν φρενῶν σπλάγχνα καὶ αἱ μέγισται τῶν
 ἀναπνοῶν τε καὶ φωνῶν, ὥσπερ γε καὶ αἱ ἐκφυσῆσεις
 αἷ τε καταμόνας γινόμεναι καὶ αἱ μετὰ καταλήψεως
 ἐν αὐλήσεσιν τε καὶ φωναῖς, καὶ αὐτὴ δ' ἡ κατάληψις
 τοῦ πνεύματος γυμνασιὸν ἐστὶν οὐχ ἥττον τῶν κατ'
 ἐπιγάστριον ἢ τῶν κατὰ θώρακα μυῶν. ἀλλὰ περὶ μὲν
 ταύτης αὐθις εἰρήσεται· πρὸς γὰρ ταῖς εἰρημέναις

like the ancients or prefers to omit the prefix ἀνά in the
 manner of those of later times, makes no difference to
 present matters).²⁸ Some movements are, however, mixed, 151K
 as horse riding is. For it is not the case that, just as in car-
 riages, and particularly those in which we lie quiet and
 reclining, and even in the carriages drawn by horses,
 where it happens that one is shaken only by the bearer and
 does nothing oneself, in horse riding one must keep the
 spine straight, hold the sides of the horse firmly with both
 thighs, stretch the legs out, and look forward. In the last,
 the vision is also exercised and the neck works. Particularly
 in such an exercise, the internal organs are shaken. And
 they are shaken no less in jumping, although of course less
 in the case of those passively exercising in carriages. As a
 result, if someone should wish to move the internal organs
 below the diaphragm more vigorously, he should come to
 the aforementioned exercises and, in addition to these,
 those that massage through the application of bindings. It
 is necessary for the one doing the massaging to be behind,
 applying both hands at one time to the left and at another
 to the right, the person being massaged inclining at the
 same time toward these. The largest of the movements of
 inspiration and phonation in some way move the internal 152K
 organs below the diaphragm, as do the expirations, both
 those that occur alone and those that accompany a holding
 of breath in flute playing and phonation. And the holding
 of breath itself is an exercise no less of the muscles of the
 epigastrium or those of the thorax. But I shall speak of this
 again, for in addition to the movements mentioned just

²⁸ This is a distinction made by Galen earlier—see note 5
 above.

ἄρτι καὶ ἄλλην οὐ σμικρὰν ἔχει χρεῖαν, ἧς ἔνεκεν ἐπὶ
τελευτῇ τῶν γυμνασίων αὐτὴν παραλαμβάνομεν.

ἐπὶ δὲ τὸ προκείμενον ἐπανιτέον, ὡς πολλαὶ τῶν
ἐγγινομένων κινήσεων τοῖς τοῦ ζώου μορίοις οὐτ'
ἐνέργειαι τῶν μορίων αὐτῶν εἰσιν οὐτ' ἐνεργείαις ἀκο-
λουθοῦσιν, ἀλλ' ὑφ' ἐτέρων τε καὶ δι' ἐτέρων ἀποτε-
λοῦνται, ὡς ἐπὶ τε τῶν ὀχουμένων γίνονται καὶ πλεόν-
των καὶ τριβομένων καὶ καθαιρομένων ὑπὸ φαρμάκων
ἐμετηρίων τε καὶ ὑπηλάτων. ἀλλ' ἡ τοιαύτη κίνησις
οὐκ ἐστὶ τῆς ὑγιεινῆς πραγματείας, αἱ δ' ἄλλαι πᾶ-
σαι, καὶ μάλιστα αἱ διὰ τρίψεως ἀναγκαιόταται γινώ-
σκεσθαι τοῖς ὑγιεινοῖς. τῆς γὰρ τούτων τέχνης ἐστὶν
153K ἀπασῶν τῶν κινήσεων ἐπίστασθαι τὰς δυνάμεις,
ὥσπερ, οἶμαι, τῶν τεχνιτῶν αὐτῶν ἀπάσας τὰς κατὰ
μέρος· ἐκεῖνοι μὲν γὰρ τῆς κατὰ τὴν ὕλην ποικιλίας,
ὁ γυμναστής δὲ τῆς δυνάμεως αὐτῶν ἔχει τὴν γνῶσιν.

εἰ γοῦν τίς μοι κελεύσειεν ὀπλομαχικὰς κινήσεις ἢ
ἕτερον διδάσκειν ἢ αὐτὸν εὐρύθμως κινεῖσθαι, οὐκ ἂν
δυναίμην καλῶς ἐνεργῆσαι μίαν ἐξ αὐτῶν τὴν ἐπι-
τυχοῦσαν· εἰ μὲντοι παρέιην τινὲ τῶν ὀπλομαχικῶν
ἐνεργούντι, καὶ τίνα δύνάμιν ἐκάστη τῶν ἐνεργειῶν
ἔχει καὶ τί μάλιστα μόριον ἐκπονεῖ, πάντων ἂν ἐκέι-
νων ἀκριβέστερον εἰδείην. μᾶλλον δ', εἰ χρὴ τάληθές
εἰπεῖν, ὁ μὲν ὀπλομαχικὸς οὐδὲν ἂν εἴποι τῆς δυνά-
μεως αὐτῶν, ὁ δὲ τὴν περὶ τὰ γυμνάσια τέχνην ἐπι-
στάμενος ἀκριβῶς ἀπάσας διαγνώσεται πρὸς ὠρι-
σμένους σκοποὺς ἀναφέρων· ἡ γὰρ βίαιοί τινές εἰσι
καὶ βαρεῖαι καὶ εὐτονοὶ ἢ κοῦφαι καὶ ταχεῖαι καὶ σύν-

now, massage has another not insignificant use, for the
sake of which we are taking it up at the end of the exer-
cises.

I must return to what is before us since many of the
movements arising in the parts of the animal are not func-
tions of the parts themselves, nor do they follow functions,
but are brought about by and through other things, such
as those that occur in riding in carriages, sailing, massage
and purification by emetic and purging medications. But
such a movement is not a matter of hygiene, whereas all
the others, and particularly those through massage, are
very necessary for hygienists to know, for to know the
powers of all these movements is part of the art, just as, I
think, for craftsmen themselves to know all the powers of
the individual arts, for the latter have the knowledge of
the variations of the material while the gymnastic trainer
has the knowledge of their power.

Anyway, if someone were to order me to teach the
movements of fighting with heavy arms, or something else,
or to teach him to move in a coordinated manner, I would
not be able to carry out properly whichever one of these
it happened to be. If, however, I were to be present with
someone carrying out fighting with heavy arms, I would
know quite accurately in all cases what power each of the
actions has, and what part especially it works out hard of
all those. Much more, however, if one must speak the
truth, the fighter with heavy arms might say nothing of the
power of these, whereas the one who knows the art per-
taining to exercise will recognize them all precisely, refer-
ring to defined objectives. Thus, some are violent, strong
and vigorous, some are light, swift and intense, or violent

154K *τονοι ἢ βίαιοί τε ἅμα καὶ ὀξεῖαι. ταῦτα τε οὖν γνωρί-
σεις ῥαδίως ἐν αὐτῷ θεασάμενος γινόμενα καὶ πρὸς
τούτοις ἔτι, τίνες μὲν ἐνεργεῖαι σκέλη μᾶλλον ἢ χεῖ-
ρας ἢ θώρακα, τίνες δὲ ὀσφύν ἢ κεφαλὴν ἢ ῥάχιν ἢ
γαστέρα, τίνες δ' ὀτιοῦν ἄλλο μέρος ὑπὲρ τᾶλλα δια-
πονοῦσιν.*

*ὁ μὲν γὰρ ὀπλομαχικὸς εὐρύθμως μὲν ἐνεργήσει
κινήσεις ταχείας ἢ, εἰ οὕτως ἔτυχεν, εὐτόνους τε ἅμα
καὶ βαρείας, οὐ μὴν ὅτι γε πυκνοῦσιν καὶ ἰσχυραίνου-
σιν αἱ τοιαῦται κινήσεις οἶδεν, ὥσπερ οὐδ' ὅτι σαρ-
κοῦσί τε καὶ ἀραιοῦσιν αἱ βραδύτεραι. κατὰ δὲ τὸν
αὐτὸν τρόπον ἐνεργήσει μὲν ποτε κινήσεις εὐτόνους
καὶ βαρείας καὶ βραδείας, οὐ μὴν ὅτι γε ῥώμην αὐταὶ
καὶ βάρος σώματος κατασκευάζουσιν οἶδεν. οὕτω δὲ
καὶ ὁ ἥνιοχικὸς ἐνεργήσει μὲν ἀπάσας τὰς κατὰ
μέρος ἐνεργείας εὐρυθμότατα, ἅμα δὲ καὶ τῇ χρεῖα
συμφωρότατα, ποῖαι δ' αὐτῶν ἦτοι λεπτύνουσιν ἢ
σαρκοῦσιν ἢ ῥώμην ἢ συντονίαν ἀποτελοῦσιν, ἢ μα-
λακὸν ἢ σκληρὸν ἢ πυκνὸν ἢ ἀραιὸν ἐργάζονται τὸ
σῶμα, παντάπασιν ἀγνοεῖ. κατὰ δὲ τὸν αὐτὸν τρόπον
ὁ σφαιριστικὸς ἀπάσας μὲν ἐπίσταται τὰς τῆς σφαί-
ρας βολὰς τε καὶ λήψεις, οὐ μὴν ἦντινά γε διάθεσιν
ἐκάστη τῷ σώματι περιποιεῖ. οὕτω δὲ καὶ ὁ παιδοτρί-
βης ἀπασῶν μὲν τῶν κατὰ παλαίστραν ἐνεργειῶν
ἐπιστήμων ἐστίν, ὅτι δὲ ἐκάστη πέφυκε δρᾶν ἀγνοεῖ.
155K καὶ συλλήβδην εἰπεῖν ἅπαντες ἄνθρωποι τεχνῖταί τε
καὶ ἄτεχνοι, διὰ τῶν σωμάτων ἐνεργοῦντες, ἀγνοοῦσι
τῶν ἐνεργειῶν τὰς δυνάμεις, ὀρχησται ναυτίλοι τέκτο-*

and rapid at the same time. You will recognize these easily
by actually seeing them occurring in him, and in addition
to these things, which actions particularly work the legs 154K
out hard, or the arms, or the chest, and which work out
the loins, head, spine, or abdomen, and which any part
more than others.

Thus the fighter with heavy arms carries out rapid
movements in a coordinated manner and, should it so hap-
pen, [movements that are] vigorous and strong. But he
doesn't know that such movements condense and reduce,
just as he doesn't know that the slower movements en-
flesh and rarefy. In the same way, he will on occasion perform
movements that are vigorous, strong and slow without
knowing that these in fact make for strength and weight
in a body. In this way too, the charioteer will perform all
the actions individually in very coordinated fashion that
are at the same time also most suitable for use, but is al-
together ignorant as to which kinds of these either thin,
enflesh, bring about strength or tension, or make the body
soft, hard, condensed or rarefied. In the same way, the
ballplayer knows all the throws and catches of the ball, but
not what condition each produces in the body. And in like
manner, the physical trainer is knowledgeable about all 155K
the actions pertaining to the wrestling school, but doesn't
know what each one naturally does. In summary, all men,
trained and untrained, when acting with their bodies, do
not know the powers of the actions, and this applies gener-
ally to all those who do anything whatsoever, whether they

νες ἀλιεῖς γεωργοὶ χαλκεῖς οἰκοδόμοι σκυτοτόμοι πάντες ἀπλῶς οἱ ὀτιοῦν πράττοντες.

ἀλλ' ὁ γυμναστικός, ἀφ' ὧν εἶπον ὀλίγον ἔμ- προσθεν ὀρμώμενος, εἰ καὶ νῦν πρῶτον εἶη θεώμενος ἡντινοῦν ἐνέργειαν, οὐκ ἀγνοήσῃ τὴν δύναμιν αὐτῆς. οἷον αὐτίκα τῶν ὀρχηστῶν αἱ σύντονοι κινήσεις, ἐν αἷς ἄλλονται τε μέγιστα καὶ περιδινούνται στρεφό- μενοι τάχιστα καὶ ὀκλάσαντες ἐξανίστανται καὶ προσσύρουσι καὶ διασύρουσι³² καὶ διασχίζουσιν ἐπὶ πλείστον τὰ σκέλη καὶ ἀπλῶς εἰπεῖν ἐν αἷς ὀξύτατα κινούνται, λεπτὸν καὶ μυῶδες καὶ σκληρὸν καὶ πυκνὸν ἔτι τε σύντονον ἀποτελοῦσι τὸ σῶμα. κατὰ δὲ τὰς ἐκλύτους τε καὶ βραδείας καὶ μαλακὰς κινήσεις οὐ μόνον οὐκ ἂν γένοιτο τὸ σῶμα τοιοῦτον, οἷον εἶρηται νῦν, ἀλλ' εἰ καὶ φύσει μυῶδὲς τε καὶ σύντονον ὑπάρ- χουσι, τὴν ἐναντίαν ἀμείψει διάθεσιν. ὅπερ οὖν ὀλίγον ἔμπροσθεν ἔλεγον, ὡς ὁ παιδοτρίβης ὑπηρέτης ἐστὶ τοῦ γυμναστοῦ τοιοῦτος, οἷόσπερ ὁ μάγειρος τοῦ ἰα- τροῦ, τοῦτο καὶ νῦν ἐπιδέδεικται. σκευάζει γὰρ ὁ μά- γειρος ἢ τεῦτλον ἢ φακῆν ἢ ππισάνην ἄλλοτε ἄλ- λοίως, οὔτε δὲ τὸ σκευαζόμενον ὁποῖόν τι τὴν δύναμιν ἐστὶν ἐπιστάμενος οὔθ' ἦτις τῶν σκευασιῶν ἢ βελτί- στη· ὁ δ' ἰατρὸς οὐδὲν μὲν τούτων ὁμοίως τῷ μαγείρῳ παρασκευάσαι δυνατὸς ἐστίν, παντὸς δὲ τοῦ παρα- σκευασθέντος ἐπίσταται τὴν δύναμιν.

12. Ὁ τοίνυν γυμναστής τοῦ προκειμένου νῦν ἐν τῷ λόγῳ μεираκίου, τοῦ τὴν ἀρίστην ἔχοντος κατα- σκευήν, ἐπίσταται μὲν τῶν γυμνασιῶν ἀπάντων τὰς

be dancers, sailors, carpenters, fishermen, farmers, smiths, builders or cobblers.

But the gymnastic trainer, among those whom I began to speak about a little earlier, if now he is first aware of any action whatsoever, will not be ignorant of its power. For example, the vigorous movements of dancers, in which they jump very high and whirl around, turn very quickly and crouch down, rise up, drag along, disperse and separate their legs to a great degree, and to speak generally, move very quickly in their actions, make the body thin, muscular, hard, condensed and vigorous. However, in the relaxed, slow and gentle movements, not only would the body not become as I described just now, but even if it were naturally muscular and taut, it would change to the opposite condition. Therefore, as I was saying a little ear- lier, the physical trainer is the same sort of servant to the gymnast as the cook is to the doctor; and this I have now demonstrated. Thus the cook prepares beets, lentils and barley sometimes in one way and sometimes in another, not knowing what kind of preparation it is in terms of potency or what is the best of the preparations. The doc- tor, however, while he is not able to prepare these things like the cook, knows the potency of every preparation.

12. Therefore, the gymnastic trainer of the young lad now proposed in the discussion—a boy having the best constitution—knows the powers of all exercises and

³² καὶ διασύρουσι *add.* Ko

δυνάμεις, ἐκλέγεται δὲ καθ' ἕκαστον εἶδος τὰ σύμμε-
 τρά τε καὶ μέσα τῶν ἀμετριῶν ἐκατέρων. οὔτε γὰρ
 ὀξέος οὔτε βραδέος ἢ ἀρίστη κατασκευὴ τοῦ σώμα-
 τος, ἀλλὰ τοῦ συμμέτρου τε καὶ μέσου δεῖται γυμνα-
 σίου, κατὰ τε τὸν αὐτὸν λόγον οὔτε βιαίου καὶ σφο-
 δροῦ οὔτ' ἐκλύτου καὶ ἀμυδροῦ, ἀλλὰ κἀνταῦθα τὸ
 σύμμετρον ἄριστον. οὐ γὰρ ὑπαλλάττειν προσήκει
 τὴν ἀρίστην κατασκευὴν τοῦ σώματος, ἀλλὰ φυλάτ-
 τειν.

157K εἴτ' οὖν ἐν ὅπλοις ἐθέλοι γυμνάζεσθαι τὸ τοιοῦτον
 μειράκιον ὁ γυμναστής αὐτοῦ, τὸν ἐμπειρότατον τῆς
 ὕλης τῶν ὀπλομαχικῶν ἐνεργειῶν παραλαβὼν ἀπά-
 σας αὐτῷ δειχθῆναι κελεύσει, κἄπειτ' αὐτὸς ἐκλέξεται
 καὶ διακρινεῖ καὶ προστάξει, κατὰ ποίας μὲν αὐτῶν
 ἐπὶ πλεον χρῆ γυμνάζεσθαι, κατὰ ποίας δ' ὀλιγάκις
 ἢ συμμέτρως ἢ οὐδ' ὄλως ἢ διαπαντός. οὐ γὰρ δύνα-
 ται λαθεῖν αὐτὸν οὔθ' ὅ τι μόριον ἐκάστη διαπονεῖ
 μᾶλλον οὔθ' ἤτις αὐτῆς ἐστὶν ἢ ποιότης τε καὶ ἡ
 δύναμις. εἰ δὲ διὰ σφαίρας ἐπιθυμήσειε γυμνάζεσθαι,
 κἀνταῦθα πάλιν ἐξευρήσει τό τε εἶδος τῶν ἐνεργειῶν
 καὶ τὴν ποιότητα καὶ τὸ μέτρον, ὑπηρέτην λαβὼν τὸν
 σφαιριστικὸν ὑπὲρ τοῦ τὴν ὕλην ἅπασαν θεάσασθαι
 τῶν ἐνεργειῶν. αὐτῆς μὲν γὰρ τῆς κατὰ μέρος ὕλης
 ἐν ἐκάστη τῶν τεχνῶν ἀπειρός ἐστὶν ὁ γυμναστής, ἢ
 γυμναστής ἐστὶν· εἰ δὲ ἅπαξ αὐτὴν θεάσαιτο, τὴν τε
 ποιότητα καὶ τὴν δύναμιν αὐτίκα γνωρίσει. μυρίους
 158K ἔχοντας, ὡς συνεχέστατα τοῖς κατ' αὐτὰ νοσήμασιν

chooses from each kind, those that are moderate and mid-
 way between the excesses of each. For the best constitu-
 tion of the body does not require exercise that is fast or
 slow, but that which is moderate and intermediate. By the
 same token, it requires neither strong and violent nor re-
 laxed and light exercise, but here too moderate exercise is
 best because it is not appropriate to change the best con-
 stitution of the body but to preserve it.

If, then, such a young lad should wish to exercise in
 arms, his gymnastic trainer, taking the one most practiced
 in the range²⁹ of actions of fighting, will order all of them
 to be demonstrated to him, then he himself will choose,
 distinguish and assign according to their kinds, which of
 them he must exercise with more and the kinds he must
 exercise with rarely, moderately, not at all, or continually,
 for it cannot escape him what part each works out more,
 nor what the quality and potency of this is. If he is keen to
 use exercise with a ball, even here again he will discover
 the kind of actions, and the quality and measure, taking as
 an assistant a ballplayer for the purpose of seeing the
 whole range of the actions. This is because the gymnastic
 trainer himself is ignorant of the range in each of the arts
 individually. But if he were to look at the whole range all
 at once, he would immediately recognize both the quality
 and the potency. Anyway, I have restored strength in a
 countless number of people who have certain parts of the
 body weaker so as to very frequently be attacked by dis-

²⁹ The translation of ὕλη is "range" (Soranus 1.46, 2.15) rather
 than the more usual "matter," "material," or "stuff."

άλίσκεσθαι, διὰ μόνης γυμναστικῆς ἀνερρώσαμεν οὐκ ἀπαγαγόντες ἀπὸ τῶν οἰκείων γυμνασίων, ἀλλ', εἴτ' ὀρχηστικὸς ἦν ὁ ἄνθρωπος εἴθ' ὀπλομαχικὸς εἴτε παγκρατιαστικὸς εἴτε παλαιστρικὸς εἴθ' ὀτιοῦν ἄλλο, τὰς ἐν ἐκείνῃ τῇ τέχνῃ κινήσεις ἀπάσας αὐτὸν ἐπιτάξαντες ἡμῶν παρόντων κινήθησθαι καὶ αὐτῶν ἐκλεξάμενοι τὰς ἐπιτηδαιοτάτας ἅμα καιρῶ τε καὶ μέτρῳ προσετάττομεν ταύταις χρῆσθαι.³³ περὶ μὲν δὲ τῶν τοιούτων ἐπανορθώσεων ἐπὶ προήκοντι τῷ λόγῳ διαλέξομαι κατ' ἐκείνο τὸ μέρος τῆς πραγματείας, ἐν ᾧ περὶ τῶν μοχθηρῶν κατασκευῶν τοῦ σώματος διέξειμι.

159K νυνὶ δὲ τὸ μὲν ἄριστον σῶμα ἐπειδὴ³⁴ πρόκειται φυλάττειν ἄριστον, ἐξ ἀπάντων οὖν ἐκλεκτέον αὐτῷ τὸ σύμμετρον, ἐκ τρίψεων, ἐκ γυμνασίων, ἐκ λουτρῶν, ἐκ τροφῶν, ἐξ ὕπνων, μήτε μαλακωτέραν αὐτοῦ τὴν ἕξιν τοῦ σώματος ἐργαζομένους μήτε σκληροτέραν ἢ μὲν γὰρ εὐνίκητος ὑπὸ τῶν ἕξωθεν αἰτίων, ἢ δὲ τὴν αὐξήσιν κωλύει μήτε πυκνοτέραν, ὡς ἰσχεσθαί τι τῶν κατὰ τὴν σάρκα περιττωμάτων, μήτ' ἀραιότεραν, ὡς ἀπορρεῖν τι καὶ τοῦ χρηστοῦ. κατὰ δὲ τὸν αὐτὸν τρόπον οὐδ' ἰσχυροτέραν ἑαυτῆς ποιητέον οὐδὲ παχυτέραν, εἴπερ ἄριστα διέκειτο, γινώσκοντας, ὡς τὸ μὲν ἰσχυρότερον εὐεπηρέαστον ὑπὸ τῶν ἕξωθεν αἰτίων, τὸ δὲ παχύτερον ὑπὸ τῶν ἔνδοθεν καὶ αὐτοῦ τοῦ σώματος ὀρμωμένων. τί δεῖ λέγειν, ὡς οὐδὲ θερμότερον αὐτὸν ἢ ψυχρότερον ἢ ξηρότερον ἢ ὑγρότερον ἀποδεικτέον, εἴπερ ἀμέμπτως ἐκέκρατο; εἰς οὖν ἐπὶ τοῦ

eases in these parts, through exercise alone, without taking them away from their own exercises. But whether the man were to be a dancer, or a fighter with heavy weapons, or an all-in fighter (*pancratist*), or a wrestler, or whatever else, I would enjoin him to practice all the movements in that art, to be carried out in my presence and then I would choose from these the most suitable for use in time and measure. I shall discourse about such restorations in the discussion to come, in that part of the treatise in which I shall go over in detail the defective constitutions of the body.

For the present, since what lies before us is to maintain the best body as the best, one must choose for it moderation in all things—[this applies to] massage, exercises, baths, nutriments and sleep—making the state of the body itself neither softer nor harder, for the one is easily overcome by external causes while the other prevents growth, nor more dense, as this retains some of the superfluties in the flesh, nor more loose textured, as also some of what is useful flows away. And in the same way, we must not make it thinner or thicker (fatter) than it was, if it was in the best state, recognizing that what is thinner is exposed to harm from external causes while what is thicker (fatter) from those arising within from the body itself. What need is there to say that we must not make it warmer, colder, drier or moister, if it had been mixed faultlessly? There-

159K

³³ προσετάττομεν ταύταις χρῆσθαι *add.* Ko

³⁴ ἐπειδὴ *add.* Ko

τοιούτου σώματος ὁ σκοπὸς ἐν ἀπάσαις ταῖς ὑγιει-
ναῖς ὕλαις τὸ σύμμετρόν τε καὶ μέτριον, ὅπερ ἀκρι-
βῶς ἐστὶ μέσον ἐκατέρων τῶν ἀμετριῶν. ὡς δ' ἂν τις
μάλιστα τοῦ σκοποῦ τυγχάνοι, λέλεκται μὲν ἤδη καὶ
πρόσθεν, ἀλλ' οὐδὲν χεῖρον ὑπὲρ τῶν ἀναγκαιοτάτων
ἀναμιμνήσκειν πολλάκις.

ἡ μὲν γὰρ πρώτη τῶν ἡμερῶν πλατὺν ἔχει τὸν
στοχασμόν, ἡ δευτέρα δὲ καὶ ἡ τρίτη καὶ ἡ τετάρτη
καὶ τῶν λοιπῶν ἐκάστη κατὰ τὸ ἐξῆς ἀκριβέστερον.
ἐν μὲν γὰρ τῇ πρώτῃ διὰ τῶν εἰρημένων σκοπῶν
ἅπαντά σοι πραττέσθω. ἀποδυσέσθω μὲν ἐπὶ πεπεμμέ-
νοις ἀκριβῶς τοῖς οὖροις, ὡς Αἰγίμιος ἐκέλευσεν.
160K ἐφεξῆς δὲ τῆς μὲν ἀνατρέψεως ὁ σκοπός, ὡς μαλα-
χθῆναι τὰ μόρια· δηλώσει δὲ τό τε ἐπιτρέχον ἄνθος
αὐτοῖς καὶ τὸ ῥαδίως ἐκμαλάττεσθαι τὰ κῶλα καὶ τὸ
πρὸς τὰς κινήσεις ἀπάσας ἐτοίμως ἔχειν. μετὰ ταῦτα
δὲ ἤδη γυμναζέσθω, μέχρις ἂν εἰς ὄγκον αἴρηται τὸ
σῶμα καὶ εὐανθὲς ὑπάρχη καὶ αἱ κινήσεις ἐτοιμοί τε
καὶ ὁμαλαὶ καὶ εὐρυθμοὶ γίνωνται. ἐν τούτῳ δὲ καὶ
ιδρῶτα θεάση θερμὸν ἀτμῶ συμμιγῆ. παύεσθαι δὲ
τηνικαῦτα πρῶτον, ἐπειδὴν ἐν τι τῶν εἰρημένων ἀ-
λοιωθῆ. καὶ γὰρ εἰ φανείη συστελλόμενος ὁ τοῦ σώ-
ματος ὄγκος, αὐτίκα παύειν τὸ μειράκιον· εἰ γὰρ ἐπὶ
πλέον γυμνάζοις, ἐκκενώσεις τι καὶ τῶν χρηστῶν,
ὥστ' ἰσχυρότερον ἀποδείξεις τὸ σῶμα καὶ ξηρότερον
καὶ ἀναυξέστερον.

ὡσαύτως δὲ καὶ εἰ τὸ τῆς χροῆς εὐανθὲς μαραί-

fore, in the case of such a body, the one objective in all the
healthy materials is moderation and balance, which is pre-
cisely in the middle of each of the extremes. How someone
might best attain the objective has already been stated
previously, but it is no bad thing to call to mind frequently
those things that are most essential.

The first day provides a broad estimate, while the sec-
ond, third, fourth, and each of the remaining days to fol-
low allow greater precision. Thus, on the first day, you
should do everything by way of the previously mentioned
objectives. Let the person strip off when the urine is en-
tirely concocted, as Aegimius³⁰ directed. Next, the aim of
the rubbing is that the parts be softened. The blush run-
ning over them will show this, as will the limbs being eas-
ily relaxed and ready for all movements. After this, let the
person now be exercised up to the point where the body
is raised to a swelling and a blush exists, and the move-
ments become ready, even and well-coordinated. In this
you will also see warm sweat mixed with vapor. Under
these circumstances, first cease whenever there is a change
in one of the aforementioned things. And if the swelling
of the body seems to you to be reducing, you should stop
the young lad immediately, for if you exercise him more,
you will also empty out some of what is useful, so that you
will make the body thinner, drier and less likely to grow.

In like manner too, if the bloom of color dies away,

³⁰ Aegimius (Aigimios of Elea, fl. 325–300 BC) was a Greek
doctor credited by Galen with a work on the pulses (*Diff. Puls.*,
VIII.498 and 751–52K). He is said to have attributed disease to
foods and superfluities (*Londonensis Medicus* 13.2–14.3). See
also Manetti, EANS, 47–48.

161K νοιτο, παύεσθαι καὶ γὰρ καταψύξεις τὸ σῶμα καὶ διαφορήσεις ἐπὶ πλέον, εἰ γυμνάζοις ἔτι. καὶ μὲν δὴ καὶ τὸ τῶν κινήσεων ἔτοιμον ἢ εὐρυθμον ἢ ὀμαλές ἐπειδὰν ἐνδιδόναι που φαίνεται καὶ ὀκλάζειν κατὰ τι, παύειν αὐτίκα, καὶ εἰ περὶ τὸν ἰδρῶτα γίνοιτό τις ἢ κατὰ τὸ πλῆθος ἢ κατὰ τὴν ποιότητα μεταβολή. πλείονα γὰρ αὐτὸν αἰεὶ καὶ μάλλον χρὴ γίνεσθαι καὶ θερμότερον, ἐς ὅσον ἂν αἱ κινήσεις ἀνάγωνται πρὸς τὸ σφοδρότερον. ὅταν οὖν ἢ ἐλάττων ἢ ψυχρότερος γένηται, διαφορεῖται ἤδη τὸ σῶμα καὶ ψύχεται καὶ ἐκλύεται³⁵ καὶ ξηραίνεται περαιτέρω τοῦ προσήκοντος. ἀκριβῶς οὖν προσέχειν τὸν νοῦν τῷ γυμναζομένῳ σώματι καὶ διαπαύειν εὐθέως, ἐπειδὰν προφαίνεται τι τῶν εἰρημένων σημείων, οὐ μὴν αὐτίκα γε ἀπολύειν λουσόμενον, ἀλλὰ τῆς μὲν ἀκμῆς τῶν γυμνασίων ἐπισχεῖν καὶ στηῆναι κελεύσαι, καὶ εἰ βουληθείης μετὰ κατοχῆς πνεύματος πληρῶσαι τὸν λαγόνα, περιχέοντα τοῦλαιον ἀποθεραπεύειν τούντεῦθεν. οἷον δέ τι πρᾶγμά ἐστιν ἢ ἀποθεραπεία καὶ τίνες ἐν αὐτῇ σκοποὶ καὶ τί τὸ μέτρον, ἐξ ὧν συμπληροῦνται κινήσεών τε καὶ τρίψεων, ἐν τῷ μετὰ ταῦτα λόγῳ δηλωθήσεται.

162K νυνὶ γάρ μοι δοκῶ καταπαύειν ἤδη τὸν ἐνεστῶτα λόγον³⁶ αὐταρκες ἔχοντα μέτρον, ἐκεῖνο μόνον ἔτι προσθείς, ὡς καὶ τὸ λουτρὸν τὸ ἀκριβῶς εὐκρατον ἐπὶ τῆς προκειμένης ἡλικίας τε καὶ φύσεως ἐκλέγεσθαι προσήκει. προῦκειτο δ', εἴ τι μεμνήμεθα,³⁷ τρίτη τις ἑβδομάς ἐτῶν ἀπὸ τῆς γενετῆς, τουτέστιν ἢ μετὰ <τὸ>

161K stop, for you will cool the body and cause more sweating, if you continue to exercise [him]. Furthermore, whenever the readiness, coordination or evenness of the movements appears to give way or abate somewhat, stop immediately, and also if some change occurs in either the amount or quality of the sweats. For this latter must always become more abundant and warmer to the degree that the movements are carried toward a greater vigor. Therefore, whenever it becomes less or colder, the body is already dissipated and is cooled, loosened and dried more than is appropriate. So direct your attention completely to the exercising body and immediately stop when one of the aforementioned signs appears. Do not, however, release him it to bathe at once, but prevent the completion of the exercises and direct him to stop, and if you should wish to fill the flanks with retention of *pneuma*, after pouring on oil, apply apothecary thereafter. What kind of thing apothecary is, what objectives are in it, what its measure is, and by what movements and massage they are accomplished will be shown in the book following this one.

Now it seems to me I should stop the present book which has reached a sufficient length, although I shall add this one further thing only: the bath should also be exactly *eukratic*, chosen appropriately for the age and nature under consideration. What is before us, if I remember rightly, is someone in the third of the seven-year periods from

³⁵ καὶ ἐκλύεται *add.* Ko

³⁶ λόγον *add.* Ko

³⁷ si recte meminimus L

τεσσαρεσκαιδέκατον ἔτος ἡλικία μέχρι <τοῦ> πρώτου
καὶ εἰκοστοῦ, καθ' ἣν οὐδέπω κελεύω ψυχρολουτεῖν τὸ
μειράκιον, ἵν' ἐπὶ πλείστον αὔξοιτο. τελειωθέντος δ'
αὐτοῦ κατὰ τὸ μέγεθος, ἐπισκεψώμεθα τι καὶ περὶ τῆς
ψυχρολουσίας. ὡσαύτως δὲ καὶ περὶ τῶν ἐπὶ κόνει
γυμνασίων ἀκριβέστερον ἐπισκεψώμεθα κατὰ τὸν
ἐξῆς λόγον. ἐν δέ γε τῷ παρόντι τοῦτο εἰπεῖν ἀρκέσει,
τὸ μηδὲ κόνεως χρῆζειν τὸ μειράκιον, εἰ τὸν οἶκον, ἐν
ᾧ γυμνάζεται, καθ' ὃν ἐν ἀρχῇ τρόπον ἐκέλευσα
παρασκευασμένον ἔχει. εἰ δέ γε θερμότερος εἴη ποτέ,
καὶ κόνει χρηστέον. εἰ μὲν δὴ κονίσαιτο, πάντως λου-
στέον· εἰ δὲ μὴ κόνει χρήσαιτο, δυνατόν καὶ μὴ λε-
λουσθαι, καὶ μάλιστα χειμῶνος.

163K ἐφεξῆς δὲ ὅσα περὶ τροφήν ἢ ποτὸν ἢ ὕπνον ἢ
περίπατον ἐστοχάσθαι χρῆ τὸν ἐπιστατοῦντα τοῦ
μειρακίου, λεχθήσεται μὲν ἐν τοῖς ἐξῆς· ἀδύνατον δ'
ἀκριβῶς τυχεῖν αὐτῶν ἐν τῇ πρώτῃ τῶν ἡμερῶν· ἀλλὰ
κατὰ τὴν δευτέραν, ἐπὶ πόσοις γυμνασίοις ὅπως δια-
τηθῆ γινώσκων, εἰ μὲν ἀκριβῶς φαίνοιτο διαφυλάτ-
των τὴν ἑαυτοῦ φύσιν, ἐν τοῖς αὐτοῖς μέτροις διαιτή-
σει τε καὶ γυμνάσει, μὴ φυλάττοντα δέ, καθότι ἂν
ἐξίστηται τῶν ἀρχαίων, ἐπανάγειν πειράσεται μετα-
βάλλων τὰ μέτρα. καὶ τοῦτ' οὐ παύσεται ποιῶν, ἄχρι-
περ ἂν ἐφ' ἐκάστῳ τῶν πραττομένων ἀκριβῶς ὀρίσῃ
τὸ μέτρον. ὅποσαι δ' εἰσὶ καὶ τίνες αἰ εἰς τὸ παρὰ
φύσιν ἐκτροπαὶ καὶ πῶς ἐκάστην χρῆ διαγινώσκειν
τε καὶ θεραπεύειν, ὁ ἐφεξῆς λόγος ἐξηγήσεται.

birth—that is to say, the age between fourteen and twenty-
one—in which I do not yet direct the young lad to take a
cold bath, so that he may grow to the maximum. If, how-
ever, he has grown to full size, let us also consider cold
baths. In similar manner too, let us give more precise
consideration to exercises with powder in the next book.
In the present book it will be enough to say this: the young
lad has no need of powder if the house in which he is ex-
ercising is prepared in the manner I directed it to be pre-
pared at the beginning. If, however, it is too warm at some
time, we must use powder also. If he is powdered, we must
by all means bathe him. If he doesn't use powder, it is also
possible not to bathe, and especially in winter.

Next in order, I shall speak in what follows about those
things regarding nutriment, drink, sleep and ambulation
with which the guardian of the young lad must concern
himself. It is impossible to hit the mark accurately regard-
ing these on the first day, but on the second day, recogniz-
ing after how much exercise he has been fed, if he is obvi-
ously preserving his own nature exactly, he will diet and
carry out hard exercise within these limits. However, if he
is not preserving his previous nature, depending on how
he may deviate from the original circumstances, he will
attempt restoration by changing the measures. And he will
not stop doing this until he determines the measure ac-
curately in each of the things he is doing. The next book
will expound on how many and what the deviations con-
trary to nature are, and how we must diagnose and treat
each one.

164K 1. Τῶν γραψάντων ὑγιεινὰς πραγματείας ἰατρῶν τε
καὶ γυμναστῶν ἔνιοι μὲν ἅπασιν ἀνθρώποις κοινὰς
τινας ὑποθήκας ἐποίησαντο, μηδὲν νοήσαντες ὅλως
ὑπὲρ τῆς κατ' εἶδος ἐν τοῖς σώμασιν ἡμῶν διαφορᾶς·
ἔνιοι δ', ὅτι μὲν οὐ μικρῶ τιμι διαφέρομεν ἀλλήλων,
ἐδήλωσαν, ὡς δ' ἀδυνάτον ὄντος ἀπάσας ἐπελθεῖν τὰς
διαφορὰς ἐκόντες παρέλιπον· ὀλίγοι δέ τινες εἶδεσί τε
καὶ γένεσιν ἐπιχειρήσαντες ἀφορίσασθαι πλέονα δι-
ῆμαρτον ὦν κατώρθωσαν. ἡμεῖς δὲ κατὰ τὸ πρῶτον
165K εὐθέως βιβλίον ἐδηλώσαμεν, ὅποσα τὰ πάντα ἐστὶν
εἶδη τῶν ἀνθρωπίνων σωμάτων, ἐπηγγειλάμεθά τε
καθ' ἕκαστον ἰδίᾳ γράφειν ὑποθήκας ὑγιεινὰς.

ἤρξάμεθα δ' ἀπὸ τοῦ τὴν κατασκευὴν ἄμεμπτον
ἔχοντος. ἐπεὶ δὲ καὶ ὁ τοιοῦτος ἄνθρωπος ἐν περιστά-
σεσι πραγμάτων ἐνίοτε γινόμενος ἢ ἐκῶν ἢ ἄκων
ἐμποδίζεται κατὰ τὰ προστάγματα τῆς ὑγιεινῆς τέ-
χνης διαιτᾶσθαι, κάλλιον ἔδοξεν ὑποθέσθαι πρῶτον
αὐτὸν ἐλεύθερον ἀκριβῶς, αὐτῇ μόνον τῇ τοῦ σώμα-
τος ὑγείᾳ σχολάζοντα. ὅπως μὲν οὖν ἀνατρέφεσθαι
χρὴ τὸν τοιοῦτον ἄνθρωπον, ὁ πρῶτος λόγος ἐδίδαξε¹
μέχρι τῆς τεσσαρεσκαίδεκαέτιδος ἡλικίας ἐκτείνας

1. Of the doctors and gymnastic trainers who have written 164K
on matters of hygiene, some have devised certain instruc-
tions common to all men, not giving any consideration at
all to the differences in kinds of our bodies, whereas some
have declared that we differ from each other to no small
degree. However, as it is impossible to go over all the dif-
ferences, I have deliberately left them out. Those few who
have attempted to make distinctions in kinds and classes
have erred more than they have been correct. I showed
right from the first book, how many kinds of human bodies 165K
there are in all and promised I would write instructions on
hygiene for each one individually.

I began from the person who has a faultless constitu-
tion. And although such a man is sometimes involved in
states of affairs, whether voluntarily or involuntarily, and
is prevented from following a regimen in accordance with
the dictates of the art of hygiene, it seemed better to as-
sume first that he was completely free to devote his time
solely to the actual health of the body. The first book
taught how such a man must be reared, extending his care
up to the fourteenth year of age. How he should be

¹ ἐδίδαξε Κο; ἔδειξε, Ku

αὐτοῦ τὴν ἐπιμέλειαν ὅπως δ' ἀνδρουσθαι, διὰ τοῦ
 δευτέρου γράμματος ἐδηλώσαμεν. ἐμηκύνθη δ' ὁ λό-
 γος εἰς κοινὰ κεφάλαια τῆς ὑγιεινῆς πραγματείας
 ἀφικόμενος, ὧν χωρὶς οὐχ οἶόν τ' ἦν οὐδὲ περὶ τῆς
 ὑποκειμένης ἡλικίας τε καὶ φύσεως ἀκριβῶς διελθεῖν.
 ἀπάσας γὰρ ἐξηριθμησάμεθα τὰς τε τῶν τρίψεων καὶ
 τῶν γυμνασίων διαφοράς, οὐ μὰ Δία τὰς κατὰ μέρος,
 ὅτι μὴ πάρεργον ἔνεκα παραδείγματος εἰς χρείαν ἐλ-
 θούσας, ἀλλὰ τὰς γε ἐν εἰδεσί τε καὶ γένεσιν ἀφωρι-
 σμένας, ἐν μὲν ταῖς τρίψεσι τὴν σκληρὰν καὶ τὴν
 μαλακὴν καὶ πρὸ τούτων γε τὴν σύμμετρον ἦντινα
 δύναμιν ἔχουσιν ἐξηγησάμενοι, προσθέντες δ' αὐταῖς
 τὰς κατὰ τὸ ποσὸν διαφοράς, τρεῖς οὐσας καὶ αὐτάς,
 εἶτα κατὰ συζυγίαν ἐννέα τὰς πάσας ἐπιδείξαντες,
 ἐκάστης τε τὴν δύναμιν εἰπόντες.

ἐν δὲ τοῖς γυμνασίοις τίνα μὲν ὀξέα τε καὶ ταχέα
 προσαγορεύομεν, τίνα δ' ἀμβλέα τε καὶ βραδέα, καὶ
 τίνα τούτων μέσα τε καὶ πρῶτα κατὰ γε τὴν φύσιν
 ὑπάρχοντα καὶ περὶ τῶν εὐτόνων καὶ μαλακῶν καὶ
 βαρέων δὴ καὶ κούφων ὁμοίως, ὅσα τε τούτων ἐστὶ
 τὰ μέσα διελθόντες ἐδείξαμεν, ὡς χρὴ τὴν ἀρίστην
 κατασκευὴν ἐν ἅπασι τοῖς μετρίοις τε καὶ συμμέτροις,
 ἃ δὴ καὶ μέσα τῶν ἀμέτρων ἐστὶ, διαιτᾶσθαι κατὰ τε
 τρίψεις καὶ γυμνάσια καὶ λουτρὰ καὶ τροφὰς ὅσα τ'
 ἄλλα συμπληροῖ τὴν ὑγιεινὴν δίαιταν. ὑπεσχόμεθα
 δέ, καθάπερ ἐπὶ τρίψεων τε καὶ γυμνασίων ἐποιήσα-
 μεν, εἰς εἶδη τινὰ κοινὰ τὴν θεωρίαν ἀναγαγόντες,
 ὥστε εὐμνημόνευτόν τε ἅμα καὶ μεθοδικὴν εἶναι τὴν

166K

167K

brought to manhood, I showed in the second book. This
 book was extended because it had to come to the general
 headings of the matter of hygiene, without which it was
 not possible to go over the assumed age and nature pre-
 cisely. I enumerated all the differences of massages and
 exercises, although not, by Zeus, individually, in that they
 did not come to be useful in a subordinate manner for the
 sake of exemplification, but for the differentiation into
 kinds and classes. In the massages I explained the hard
 and soft and preferable to these, the moderate, and what
 potency they have. In addition to these, I explained the
 differences in terms of quantity, there being three of
 these. I then showed that, in respect of conjunction, there
 are nine combinations in all, and discussed the potency of
 each.

In exercises, I termed some sharp and quick, some
 gentle and slow, some the means of both of these, having
 primary features in accord with nature, and similarly for
 the vigorous, gentle, heavy and light. Going through the
 means of these, I showed that in respect of the best con-
 stitution, in all cases the mean and moderate forms, which
 are the means of the extremes, must be administered in
 massages, exercises, baths and nutriments, and those
 other things that complete the hygienic regimen. And I
 undertook, just as I did in the cases of massages and exer-
 cises, to refer the theory to certain common kinds, so that
 the teaching is easy to remember and at the same time

166K

167K

διδασκαλίαν, οὕτω καὶ τῶν ἄλλων ἀπάντων ποι-
ῆσαι καὶ πρῶτόν γε περὶ τῆς καλουμένης ἀποθε-
ραπείας, ἐπειδὴ τοῖς εἰρημένοις² ἔμπροσθεν ἐφεξῆς
ἐτέτακτο· δηλώσαντες γάρ, εἰς ὅσον ἐπιτείνειν τε καὶ
παραύξειν χρὴ τὰ γυμνάσια πρὸς τὸ τέλειον, ὡς ἐν
ὑγείας λόγῳ, ἀκολουθεῖν ἔφαμεν αὐτοῖς τὴν καλου-
μένην ἀποθεραπείαν, ὑπὲρ ἧς ἤδη λέγωμεν.

2. Ἐν μὲν καὶ πρῶτον, ὡς διττὴ κατὰ γένος ἐστὶ
ἢ μὲν τις ὡς μέρος, ἢ δ' ὡς εἶδος γυμνασίου. περὶ μὲν
δὴ τῆς ὡς εἶδος ἐξῆς ἐρουῦμεν, περὶ δὲ τῆς ὡς μέρος
ἤδη λέγωμεν. ἅπαντος γυμνασίου καλῶς ἐπιτελουμέ-
νου τὸ τελευταῖον μέρος ἀποθεραπεία καλεῖται· δύο δ'
αὐτῆς οἱ σκοποί, κενῶσαί τε τὰ περιττώματα καὶ ἄκο-
πον φυλάξαι τὸ σῶμα. κοινὸς μὲν οὖν ὁ πρότερος³
ὄλῳ τῷ γυμνασίῳ.⁴ καὶ γὰρ κακείνου δύο τοὺς πάντας
ἐλέγομεν εἶναι σκοπούς, ἐπιρρῶσαί τε τὰ στερεὰ μό-
ρια τοῦ ζώου καὶ κενῶσαι τὰ περιττώματα.

ὁ δ' ἴδιος τῆς ἀποθεραπείας σκοπὸς ἐνστήναί τε
καὶ διακωλύσαι τοὺς εἰωθότας ἐπιγίνεσθαι τοῖς ἀμε-
τροτέροις γυμνασίοις κόπους. ἐπὶ μὲν οὖν τῶν ἀθλη-
τῶν⁵ καὶ τῶν ὀτιοῦν ἔργον ἀναγκαῖον ἐν τῷ βίῳ δια-
πραττομένων, οἷον ἤτοι σκαπτόντων ἢ ὀδοιπορούντων

² τοῖς εἰρημένοις *add.* Ko

³ *post* πρότερος; σκοπὸς (Ku) *om.* ⁴ *post* τῷ γυμνα-
σίῳ: τῶν ἀθλητῶν τε καὶ ὀτιοῦν ἔργον ἀναγκαῖον ἐν τῷ βίῳ
διαπραττομένων, οἷον ἤτοι σκαπτόντων Ku ⁵ *post* τῶν
ἀθλητῶν: καὶ τῶν ὀτιοῦν ἔργον ἀναγκαῖον ἐν τῷ βίῳ δια-
πραττομένων *om.* Ku—*see note 4 above.*

methodical, and to do likewise in all the other things.
First, regarding what is termed "apotherapy,"¹ since order
had been brought to what was previously said, and having
shown how much one must extend and increase the exer-
cises toward the goal, as in the discussion on hygiene, I
said so-called apotherapy follows these, so let me speak
about this now.

2. One thing is primary; apotherapy is twofold in terms
of class—it is both a part of exercise and a kind of exercise.
About apotherapy as a kind of exercise, I shall speak in due
course: about apotherapy as a part of exercise, let me
speak now. Apotherapy is called the final part of all exer-
cise properly completed. Its two aims are to evacuate the
superfluities and to keep the body free of fatigue. The first
aim is common to all exercise, both for athletes and for
those who perform any necessary work whatever in their
lives, as for example diggers.² I also said there are two
objectives of exercise in all: to strengthen the solid parts
of the organism and to evacuate the superfluities.

The specific aim of apotherapy is to resist and prevent
the customary fatigues supervening in the more immoder-
ate exercises. Thus, in the case of athletes and those who
do any kind of work necessary in their lives, like those who

¹ Essentially, this term, no longer in medical use, means "re-
storative therapy" in a medical context, although the primary
meaning is given as "regular worship of the gods."

² The Kühn text is followed here. The additional material is
present in Linacre's Latin translation.

ἢ ἐρεσσόντων ἢ τι τοιοῦτον διαπραττόντων, ἐτοιμότερον οἱ κόποι συνίστανται, πλὴν εἴ τις ἀποθεραπεία χρῶτο· κατὰ δὲ τὸ προκείμενον ἐν τῷ νῦν λόγῳ σῶμα, τὸ κάλλιστά τε κατεσκευασμένον ἀπηλλαγμένον τε δουλείας ἀπάσης, ὡς μόνη σχολάζειν ὑγεία, σπάνιος ἢ τοῦ κόπου γένεσις. ὥσπερ γὰρ οὐδ' οἱ πλείστα πονούντες ἀθληταὶ κατ' ἄλλο τι γυμνάσιον ἐφεδρεύοντα κόπον ἔχουσι, πλὴν τὸ καλούμενον ὑπ' αὐτῶν τέλειον, οὕτως οὐδ' οἱ βίον ἐλευθέριον ζῶντες ὑγείας μόνης ἔνεκα γυμναζόμενοι κοπωθήσονται ποτε διὰ τὸ μηδ' εἰς ἀνάγκην ἀφικνεῖσθαι τοῦ τοιοῦτου γυμνασίου. τοῖς μὲν γὰρ ἀθληταῖς ἀναγκαῖόν ἐστιν, ὡς ἂν παρασκευάζωσι τὰ σώματα πρὸς τοὺς ἐν τοῖς ἄθλοις πόνους ἀμέτρους ἔσθ' ὅτε καὶ δι' ὅλης ἡμέρας γινόμενους, γυμνάζεσθαι ποτε τὸ τελεώτατον ἐκείνο γυμνάσιον, ὃ δὴ καὶ κατασκευὴν ὀνομάζουσι. τοῖς δ' ὑγείας μόνης ἔνεκα γυμναζομένοις οὐτ' ἀναγκαῖον οὔτε χρήσιμον ὅλως ἐστὶν εἰς ὑπερβάλλοντας ἀγεσθαι πόνους, ὥστ' οὐδεὶς φόβος ἀλῶναι κόποις. ἀλλ' ὅμως ἀποθεραπεύειν αὐτῶν χρὴ τὰ σώματα, κἂν εἰ μὴ διὰ κόπου προσδοκίαν, ἀλλὰ τοι τοῦ κενῶσαι ἔνεκα τὰ περιττώματα. προσγίνεται δ' ἐξ ἐπιμέτρου τῷδε καὶ ἡ πρὸς τὸν κόπον ἀσφάλεια.

καὶ γὰρ εἰ καὶ ὅτι μάλιστα τὸ μέτρον αὐτοῖς τῶν γυμνασίων ἄκοπόν ἐστιν καὶ ὁ τῆς ἐνεργείας τρόπος ἀβίαστος, ἐνδέχεται ποτε λαθεῖν τὸν γυμναστήν ἐν ἑκατέρῳ τι σμικρόν, ὃ παροφθὲν ἐργάζεται τινα, κἂν μὴ μέγαν, ἀλλὰ βραχύν γε τῷ γυμναζομένῳ τὸν κό-

dig, walk or row, or do some other such thing, the fatigues more readily arise unless the person uses apotherapy. However, in the body proposed in the present discussion—perfectly constituted and removed from all servitude so as to have time for health alone—the creation of fatigue is rare. For just as not even athletes who work the most have any other kind of exercise which has fatigue lying in wait, except what is called by them the goal, so those living a free life and exercising for the sake of health alone will never at any time be fatigued because they do not come to the point of necessity of such exercise. It is essential for athletes, so their bodies might be prepared for the excessive exertions in competitions that sometimes last a whole day, to exercise at times to the most complete level, which they also call preparation. However, for those exercising for the sake of health alone, it is neither necessary nor at all useful to lead themselves into excessive exertions, so there is no fear of being overcome by fatigues. Nonetheless, apotherapy is necessary for their bodies, even if there is no expectation of fatigue; it is for the purpose of evacuating superfluities. To this is added, for extra measure, safety with respect to fatigue.

And even if the measure of the exercises is for them particularly free from fatigue and the manner of the activity without violence, it is sometimes possible for the gymnastic trainer to overlook some small matter in each respect, and for what is neglected to have some effect, even if it is a small rather than large fatigue in the one exercis-

πον. οὐ μὴν προσήκει τὸν ἑαυτῷ ζῶντα καὶ μόνῃ
σχολάζοντα τῇ τοῦ σώματος ὑγείᾳ βλάπτεσθαι ποτε
οὐδὲ τὸ σμικρότατον. ἀσφαλέστατον οὖν ἀποθερα-
πείᾳ χρῆσθαι διαπαντός. ὁποῖαν δὲ τινα ποιητέον αὐ-
τήν, ἢ τῶν σκοπῶν φύσις ἐνδείξεται.

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ἐπειδὴ γὰρ πρόκειται τῶν ἐν τοῖς στερεοῖς τοῦ ζῴου
μέρεσι περιττωμάτων, ὅσα θερμανθέντα καὶ λεπτυ-
θέντα πρὸς τῶν γυμνασίων ἔτι μένει κατὰ τὸ σῶμα,
κένωσιν ἀκριβῆ ποιήσασθαι, χρῆ δῆπου τὰς τε δι-
έτερων ἀνατρίψεις παραλαμβάνεσθαι μετὰ τοῦ συν-
τείνειν τὰ τριβόμενα μόρια καὶ πρὸς τούτοις ἔτι τὴν
καλουμένην τοῦ πνεύματος κατάληψιν. ἐπεὶ δ' οὔτε
τῶν τρίψεων ἐν ἀπασῶν ἐστὶν εἶδος οὔτε τῆς τοῦ
πνεύματος καταλήψεως, ἄμεινον ἐκλέξασθαι τὸ χρη-
σιμώτατον ἐξ ἑκατέρου. τῶν μὲν δὴ τρίψεων αἱ σκλη-
ραὶ συνδεῖν ἐδείκνυντο, τουτέστι πυκνότερόν τε ἅμα
καὶ σκληρότερον ἀποφαίνειν τὸ σῶμα· ὥστ' οὐκ ἂν
ἀρμόττοιεν αἱ τοιαῦται τοῖς παροῦσιν, εἴ γε δὴ τὸ μὲν
πυκνούμενον ἐντὸς ἑαυτοῦ στέγει, τὸ δ' ἀραιούμενον
ἐπιτρέπει διαρρεῖν τοῖς περιττοῖς. οὕτω δὲ καὶ τὸ μὲν
σκληρύνεσθαι τοῖς συντεταμένοις ἐναντιώτατον (αὐ-
ξάνει γὰρ αὐτῶν τὴν διάθεσιν), τὸ δὲ μαλάττεσθαι
χρησιμώτατον. εἴπερ οὖν ἅμα τε διαφορεῖν χρῆ τὰ
περιττώματα καὶ μαλάττειν τὰ συντεταμένα, τὰς
σκληρὰς τῶν τρίψεων φευκτέον. οὐδὲν δ' ἦττον, οἶμαι,

³ The main account of this maneuver and its application is

ing. It is not appropriate for the person living for himself
and having leisure time for the health of the body alone to
be harmed to the slightest degree at any time. It is there-
fore safest to use apothecary throughout. The nature of
the objectives will show what kind of apothecary must be
carried out.

Since what is proposed is to effect complete evacuation
of the superfluities in the solid parts of the organism, such
as those which are heated and thinned by the exercises and
still remain in the body, it is obviously necessary that mas-
sages by others should be undertaken, along with stretch-
ing of the massaged parts, and in addition to these things,
the so-called suppression of the breath (*pneuma*).³ Since
the kind is not the same in all the massages, nor in the
suppression of the breath (*pneuma*), it is better to choose
the most useful of each. The hard massages were already
shown to bind—that is to say, to render the body more
condensed (with small pores) and at the same time
harder—so that such massages would not be suitable for
present purposes, if in fact that which is made dense re-
tains within itself what is superfluous, whereas what is
loose textured allows the superfluities to flow through.
In this way too, to be hardened is most inimical to what
is drawn tight (for it increases the condition of these),
whereas to be softened is most useful. Therefore, if it is
necessary at the same time to dissipate the superfluities
and soften those things that are drawn tight, one must
avoid the hard massages. No less, I think, must one avoid

170K

here, although it is also described in *UPart.* (III.582K; May, *On the Usefulness*, 1.358–59). Its use in clearing superfluities is men-
tioned in *Diffic. Resp.*, VII.941K.

171K φευκτέον ἐστὶ καὶ τὰς βραδείας. ἐπειδὴ γὰρ οὐκέτ' ἐξ ἑαυτοῦ κινεῖται τὸ σῶμα, κίνδυνος αὐτῷ ψυχθῆναι τε καὶ πυκνωθῆναι, μηδὲν ἐπικούρημα θερμαῖνον ἔξωθεν προσλαβόντι.

διὰ ταῦτ' οὖν οὐ μόνον εἰς τάχος χρὴ τρίβειν, ἀλλὰ καὶ πολλαῖς χερσίν, ἵν' ὡς οἶόν τ' ἐστὶ μάλιστα μηδὲν ἢ μέρος τοῦ τριβομένου γυμνόν. ἀλλ' εἴπερ μήτε βραδείαν εἶναι προσήκει τὴν τρίψιν μήτε σκληράν, ἔλαιον δαψιλὲς χρὴ περικεχύσθαι τῷ τριβομένῳ σώματι· καὶ γὰρ εἰς τάχος τοῦτο καὶ εἰς μαλακότητα τῇ τρίψει συντελεῖ, καὶ πρόσεστιν αὐτῷ τι καὶ ἄλλο μέγιστον ἀγαθόν· ἐκλύει γὰρ τὰς τάσεις καὶ μαλάττει τὰ πεπονηκότα κατὰ τὰς σφοδροτέρας ἐνεργείας. διὰ ταῦτα μὲν δὴ φευκτέον ἐστὶ τὴν σκληρὰν τρίψιν, δι' ἕτερα δὲ τὴν μαλακὴν· οὔτε γὰρ ἐξικνεῖται πρὸς τὸ βάθος ἢ τοιαύτη τρίψις, ἀλλ' αὐτόθι που κατὰ τὸ δέρμα καὶ τὰς πλησίον αὐτοῦ σάρκας ἐκλύεται, οὔτ' ἐκθλίβει τὰ περιεχόμενα κατὰ τοὺς στενοὺς τῶν πόρων περιπτώματα. δι' ὃ δὴ τὴν τε συνέντασιν⁶ τῶν τριβομένων παραλαμβάνομεν καὶ τὴν τοῦ πνεύματος κατάληψιν. ἢ μέση τοίνυν μαλακῆς καὶ σκληρᾶς, ἥπερ δὴ καὶ 172K σύμμετρός ἐστιν, ἐκπεφευγέναι φαίνεται τό τε τῆς μαλακῆς ἄπρακτον καὶ τὸ τῆς σκληρᾶς βίαιον καὶ βλαβερόν.

ἐνεργηθήσεται δὲ τῶν μὲν τοῦ τρίβοντος χειρῶν ἐρρωμένως ἐπιβαλλομένων, ὡς ἐγγύς που τὴν ἀπ' αὐτῶν θλίψιν εἶναι τῇ σκληρᾷ τρίψει, διὰ δὲ τὸ πλῆθος τοῦ λίπους καὶ τὸ τάχος τῆς φορᾶς ἐκλυομένων τοσ-

the slow massages. Since the body is no longer moving of itself, it is dangerous for it to be cooled and condensed, receiving no heating remedy from without. 171K

Because of these things, then, it is necessary to massage not only quickly but also with many hands, so that, as far as possible, no part of the person being massaged is bare. But if it is fitting for the massage to be neither slow nor hard, it is necessary to pour oil in abundance over the body being massaged, for this contributes to quickness and softness in massage, and in addition to this, has another major benefit because it relaxes tensions and softens those things that have suffered in the stronger actions. Because of these things, what one must certainly avoid is hard massage; because of other things, one must avoid soft massage, for such massage does not reach the depths but relaxes the skin at the site and the flesh near it, and doesn't squeeze out the superfluities contained in the constricted pores. This is why I undertake the stretching of the parts being massaged and suppression of the breath (*pneuma*). Moreover, the mean between soft and hard, which is in fact also moderate, appears to escape the ineffectiveness of soft massage and the violence and harm of hard massage. 172K

[Moderate massage] will be done with the hands of the masseur firmly applied so that the pressure from them is close to the hard massage, but due to the amount of fat and the speed of the motion, with the hands being reduced

⁶ συνέντασιν Κο; σύντασιν Ku

οὔτον, ὡς ἀκριβῶς γίνεσθαι σύμμετρον. τό τε γὰρ λίπος οὐ σμικρὸν ἀλεξητήριόν ἐστι βιαίας ἐπιβολῆς, τό τε βραχυχρόνιον τῆς ὀμιλίας τοσοῦτον ἀφαιρεῖ τῆς βίας, ὅσον καὶ τοῦ χρόνου. τείνει δ' ἀξιούμεν ἐν τούτῳ τὰ τριβόμενα μόρια χάριν τοῦ πᾶν ὅσον ἐστὶ μεταξὺ τοῦ δέρματος καὶ τῆς ὑποκειμένης σαρκὸς περίττωμα διὰ τοῦ δέρματος ἐκκενοῦσθαι. χαλαρῶν γὰρ ἀμφοτέρων ὑπαρχόντων οὐδὲν μᾶλλον εἴσω φέρεσθαι τοῖς περιπτώμασιν ἢ ἔξω συμβήσεται· ταθέντων δὲ τῶν ὑποκειμένων τῷ δέρματι πάντ' ἐκτὸς ἐκκρίνεται, καθάπερ ὑπὸ δυοῖν πιεζόμενα χεροῖν, μιᾶς μὲν αὐτῆς τῆς ἔξωθεν ἐπιβεβλημένης τοῦ τρίβοντος, ἑτέρας δὲ τῶν τεταμένων ἔνδον μερῶν.

173K δι' αὐτὰ δὲ ταῦτα καὶ ἡ τοῦ πνεύματος κατοχή τε καὶ κατάληψις οὐ σμικρὸν μόριον ἀποθεραπείας ἐστίν· ὀνομάζεται δὲ οὕτως, ἐπειδὴν ἅπαντας ἐντείναντές τε καὶ προσστείλαντες τοὺς μῦς τοῦ θώρακος, οἱ κατὰ τὰς πλευράς εἰσιν, ἐπέχωμεν τὴν ἐκπνοήν. συμβαίνει γὰρ τῆνικαῦτα τὸ θλιβόμενον ὑπὸ τῶν πλευρῶν πνεῦμα κεκωλυμένον ἐκπνεῖσθαι διὰ τὸ κλείσθαι τὸν λάρυγγα πᾶν ὠθείσθαι κάτω πρὸς τὸ διάφραγμα· τούτῳ δὲ ὑποκειμένων ἥπατός τε καὶ σπληνὸς καὶ γαστρὸς καὶ τινῶν ἑτέρων, συνεξαίρεται ταῦτα σύμπαντα τῷ διαφράγματι. χρῆ δ' ἐν τούτῳ συνεντείνειν ἀτρέμα τοὺς κατ' ἐπιγαστριον μῦς, ἵν' ὑπὸ τούτων τε ἅμα καὶ τοῦ διαφράγματος, ὥσπερ ὑπὸ δυοῖν θλιβόμενα χεροῖν, ὅσα μεταξὺ κείται μόρια τὸ περιεχόμενον ἐν αὐτοῖς περίττωμα πρὸς τοὺς εἴκοντας

to such an extent as to become precisely moderate. For the fat is able to protect against the forceful application to no small extent, while the brevity of contact takes away the force as much as the time does. I think it worthwhile in this to stretch the parts being massaged for the purpose of evacuating through the skin all superfluities between the skin and the underlying flesh. For when both the skin and flesh are relaxed, what will happen to the superfluities is that they are no more carried inward than they are carried outward.⁴ But when the parts underlying the skin are stretched, all the superfluities are evacuated outward, as if squeezed by two "hands"; one of these hands is what the masseur applies externally and the other is of the stretched parts within.

Due to these same things too, retention and suppression of the breath (*pneuma*) is no small part of apotherapy. It is so termed whenever we restrain the exhalation when we stretch and draw tight all the muscles of the chest which are related to the ribs. What happens under these circumstances is that the breath (*pneuma*), compressed by the ribs, is prevented from being exhaled due to the larynx having been closed, so it is all thrust downward toward the diaphragm. By this, the underlying structures—liver, spleen, stomach and certain others—are all lifted up by the diaphragm. In this, there must be gentle straining of the muscles in the epigastrium so that, by these and the diaphragm squeezing like two hands, those parts that lie in between urge the superfluity contained in them toward

⁴ Inward and outward are reversed in order in the Kühn text.

174K τόπους⁷ ὠθῆ. τὰ μὲν οὖν μεταξὺ κείμενα τό τε ἡπάρ
 ἔστι καὶ ὁ σπλήν καὶ ἡ γαστήρ καὶ κώλων τε καὶ
 λεπτῶν ἐντέρων τὰ προὔχοντα· χῶραι δ' εἰς ὑποδοχὴν
 ἔτοιμοι τοῖς ἐκθλιβομένοις περιττώμασιν ἢ τε τῆς γασ-
 τρὸς εὐρυχωρία πᾶσα καὶ τῶν ἐνταῦθα κειμένων
 ἐντέρων αἱ κοιλότητες. εἰ δ' ἀργοὺς ἀκριβῶς ἑάσαιοι
 τοὺς κατ' ἐπιγάστριον μῦς, οὐδενὸς μὲν τῶν εἰρη-
 μένων ἐκκενώσεις τὰ περιττώματα, τὰ δ' ἐν θώρακί τε
 καὶ πνεύμονι μεταστήσεις κάτω. προσήκει δ' ἐνταῦθα
 μεθίστασθαι μᾶλλον αὐτοῖς τοῦ μένειν ἐν ἐκείνοις,
 ὅσῳ καὶ ἡ κένωσις ἐτοιμότερα τῶν ἐν τῇ κοιλίᾳ περι-
 εχομένων ἢ περ ἢ τῶν ἐν πνεύμονί τε καὶ θώρακι. τὰ
 μὲν γὰρ ἐμείται τε καὶ ἀποπατεῖται ῥαδίως, τὰ δὲ
 μετὰ συντονίας τε καὶ βίας ὑπὸ βηχὸς ἐκβάλλεται.

εἰ μὲντοι τις ὁμοίως ταῖς φρεσὶν ἐντείνει τοὺς κατ'
 ἐπιγάστριον μῦς ἐν ταῖς τοῦ πνεύματος καταλήψεσιν,
 ἀκριβέστερον μὲν ἐκκαθαρθήσεται τὰ κάτω τῶν φρε-
 νῶν σπλάγχνα, μεταστήσεται δὲ οὐδὲν ἐκ τῶν τοῦ
 πνεύματος ὀργάνων εἰς τὰ τῆς τροφῆς, ἀλλ' ἅπαν ἐν
 θώρακί τε καὶ πνεύμονι μενεῖ τὸ περίττωμα. διὸ τὴν
 τοιαύτην κατάληψιν τοῦ πνεύματος οὐκ ἐπαινῶ,⁸ ἔτι δὲ
 μᾶλλον, ὅταν ἦτοι μηδ' ὅλως ἐντείνῃ τις τὰς φρένας
 ἰσχυρῶς καὶ βιαίως ἢ ἐπ' ὀλίγον⁹ προσστείλῃ τοὺς
 κατ' ἐπιγάστριον μῦς. ἀνάγκη γὰρ ἐν τῷδε ἐμπίπλα-
 σθαι μὲν αἵματός τε καὶ πνεύματος ἅπαντα τὰ κατὰ
 τὸν τράχηλον ἀγγεῖα καὶ μόρια, φέρεσθαι δ' ἄνω τε

⁷ τοὺς εἰκοντας τόπους Ko; τοῦκτὸς Ku

the places that yield. The parts lying between are the liver, spleen, stomach and the ventral (forward lying) parts of the colon and small intestines. The places prepared for the reception of the compressed superfluities are the whole open space of the stomach and the cavities of the intestines lying there. If, however, you allow the muscles in the epigastrium to be entirely inactive, you will not evacuate the superfluities of any of the organs mentioned, but you will transfer downward those in the chest and lungs. It is more appropriate for them to be transferred there than to remain in those structures by virtue of the fact the evacuation of those superfluities contained in the belly occurs more readily than that of the superfluities contained in the lungs and thorax. For the former are easily evacuated by vomiting and defecation whereas the latter are expelled with exertion and force by coughing.

If, however, someone stretches the muscles in the epigastrium in like manner to those in the diaphragm in the suppressions of the breath (*pneuma*), the organs below the diaphragm will be more completely evacuated, while nothing from the organs of respiration will be transferred to those of nutrition, but all the superfluity will remain in the thorax and lungs. This is why I do not recommend such a suppression of breath (*pneuma*)—and still more so, whenever someone, having not completely strained the diaphragm strongly and forcibly or for a little while, compresses the muscles in the epigastrium. For inevitably in this all the vessels and parts in the neck are filled quite full of blood and *pneuma*, and the superfluities are carried

⁸ post ἐπαινῶ; νῦν (Ku) om.

⁹ ἢ ἐπ' ὀλίγον add. Ko

175K καὶ πρὸς τὴν κεφαλὴν, οὐκ ἐπὶ τὴν γαστέρα τε καὶ
 κάτω τὰ περιπτώματα. θεάσασθαι δ' ἔστιν αὐτὸ κατὰ
 τῶν ἀυλούντων ἢ μέγιστον ἢ ὀξύτατα φωνούντων.
 εὐρύνεται γὰρ αὐτῶν ἅπας ὁ τράχηλος, οἰδίσκεται δὲ
 τὸ πρόσωπον, ἢ τε κεφαλὴ πληροῦται σφοδρῶς, ὅτι
 καὶ κατὰ τοῦτο τὸ ἔργον οἱ κατ' ἐπιγαστριον ἐντείνον-
 ται μύες εἰκόντος αὐτοῖς τοῦ διαφράγματος. ἔστι γὰρ
 δὴ τὸ τοιοῦτον ἔργον ἅπαν, ὡς ἐν τοῖς Περὶ φωνῆς
 ἀποδέδεικται, μικτὸν καὶ σύνθετον ἔκ τε μεγίστης ἐκ-
 πνοῆς καὶ πνεύματος καταλήψεως, ἐν μὲν ταῖς ἀθρόαις
 ἐκφυσήσεσι μεγίστης ἐκπνοῆς γινομένης ἐπὶ σφο-
 δροτάταις ἐντάσεσι τῶν κατὰ τὰς πλευρὰς μυῶν ἅμα
 τοῖς κατ' ἐπιγαστριον, ἐν δὲ ταῖς τοῦ πνεύματος κατα-
 λήψεσι τῆς μὲν αὐτῆς ἐντάσεως γινομένης ἐκατέρων
 τῶν μυῶν, ἐκπνεομένου δ' οὐδενός, ἐπὶ δὲ τῶν ἀυλούν-
 των τε καὶ φωνούντων ὀξὺ τῶν μὲν μυῶν ὡσαύτως
 τεινομένων, οὔτε δ' ἐπεχομένης ἀκριβῶς τῆς ἐκπνοῆς
 οὔτε ἀθρόως ἐπιτελουμένης, ἀλλὰ μέσσην ἐχούσης
 κατάστασιν, ὥστε ταῖς τρισὶν ἐνεργείαις κοινὴν μὲν
 176K εἶναι τὴν τάσιν τῶν μυῶν, ἰδίαν δὲ κατὰ μὲν τὰς
 ἀθρόας ἐκφυσήσεις τὴν ταχείαν ἔξω φορὰν τοῦ πνεύ-
 ματος, κατὰ δὲ τὰς καταλήψεις τὴν ἐπί σχεσιν, ἐν δὲ
 ταῖς ἀυλήσεσιν τε καὶ φωναῖς σύμμετρον κένωσιν.
 αἰτία δὲ τῆς διαφορᾶς τῶν τριῶν ἐνεργειῶν ἢ φάρυγξ,
 ἀνοιγνυμένη μὲν ἐπὶ πλείστον ἐν ταῖς ἀθρόαις ἐκφυ-
 σήσεσιν, ἀκριβῶς δὲ κλειομένη καταλαμβάνοντων τὸ
 πνεῦμα, μέσσην δ' ἔχουσα κατάστασιν ἀυλούντων τε

upward and toward the head and not downward to the
 stomach. It is possible to see this same thing in the case of
 flute players, when they are playing either very loudly or
 shrilly. For the whole neck broadens, the face becomes
 swollen and the head is filled excessively. This is because,
 in this action, the muscles in the epigastrium are strained
 and those of the diaphragm yield to them. Such an action
 in its entirety is a mixture and combination of maximal
 exhalation and stoppage of breath (*pneuma*), as was shown
 in my work *On the Voice*,⁵ in the concentrated emissions
 of breath, when maximal exhalation occurs immediately
 following the most violent strainings of the muscles in
 relation to the ribs along with those in the epigastrium. On
 the other hand, in the stoppages of the breath (*pneuma*),
 when the same tension occurs in each of the groups of
 muscles, no air is expelled, whereas in the case of flute
 players and those crying out shrilly, when the muscles are
 strained in a similar way, exhalation is neither completely
 held back nor accomplished in a concentrated fashion, but
 is in an intermediate state. Consequently, in the three ac-
 tions, the tension of the muscles is a common factor; what
 is specific in the concentrated exhalations is the swift out-
 ward passage of the breath, the retention of breath in
 the stoppages, and moderate expulsion in flute players
 and those phonating (crying out). The cause of the differ-
 ence of the three actions is the pharynx, which opens to
 the greatest extent in the concentrated exhalations, closes
 completely in holding the breath, and has an intermediate

⁵ The work *De voce* was in four books and dedicated to Boe-
 thus. The original has been lost, although some fragments and an
 Arabic summary remain. See Boudon, *Galen*, 419n3.

καὶ φωνούντων ὀξύ τε ἄμα καὶ μέγα. περὶ μὲν δὴ
τούτων ἀνάγκη ποτὲ καὶ αὐθις εἰπεῖν ἐν τῷ περὶ τῆς
ἀναφωνήσεως λόγῳ.

ἢ δ' εἰς τὴν ἀποθεραπείαν ἐπιτήδειος ἐξαίρει τὴν
γαστέρα, τεινομένων μὲν ἀπάντων τῶν τοῦ θώρακος
μυῶν, ἀνιεμένων δὲ τῶν κατ' ἐπιγαστριὸν τε καὶ τὰς
φρένας· οὕτω γὰρ ἐνεχθήσεται κάτω τὰ περιτώματα.
δευτέραν δὲ ἔχει τάξιν ἢ μετρίως ἐντείνουσα τοὺς κατ'
ἐπιγαστριον μῦς ὑπὲρ τοῦ τὰ κάτω τῶν φρενῶν ἀπο-
θεραπεῦσαι σπλάγχνα. τῶν δ' αὐτῶν τούτων ἕνεκα
καὶ αἱ τῶν ἀμμάτων περιφοραὶ γινέσθωσαν, ἃς ἐξ-
ὀπισθεν τῶν τριβομένων οἱ τρίβοντες ἰστάμενοι ποι-
οῦνται περὶ τὴν γαστέρα σύμπασαν· ἄλλας δ' ἐκ τῶν
πρόσθεν ἰστάμενοι τῶν μεταφρένων περιβολὰς ἀμ-
μάτων ποιοῦνται τὸ χεῖρε περιάγοντες· ἄλλας δὲ ταῖς
πλευραῖς τε καὶ τῇ ῥάχει καὶ τῷ στέρνῳ συνεπιστρε-
φομένου πως αὐτοῖς τοῦ τριβομένου. κατὰ τῆς ὀσφύος
δὲ γινέσθωσαν ἀμμάτων ὅμοιαι περιβολαὶ τε καὶ
περιφοραὶ, συνεντεινομένου μὲν ἀπάσαις αὐταῖς τοῦ
τριβομένου, συνεπιστρεφομένου δὲ οὐχ ἀπάσαις·
οὐδὲ γὰρ συνεχεῖς ἔτ' αὐτὸν ἀπὸ τῆς θεραπείας¹⁰ χρῆ
ποιεῖσθαι τὰς κινήσεις, ὥσπερ οὐδὲ σφοδράς, ἀλλὰ
ποιεῖσθαι μὲν τινὰς, ἐκ διαλειμμάτων δ' ἐχόντων τρί-
ψεις.

αἱ μὲν γὰρ συνεχεῖς τε καὶ σφοδραὶ τρίψεις ἴδιαι
τῶν κατασκευαστικῶν γυμνασίων εἰσίν, αἱ δὲ μήτε
συνχεῖς μήτε σφοδραὶ τῆς ἀποθεραπείας οἰκείαι.

state in flute players and those crying out shrilly and
loudly. It is necessary to speak again about these things in
the discussions on vocal exercises.⁶

The usefulness (of retention of breath) to apotherapy
is that it lifts up the stomach, strains all the muscles of
the thorax and relaxes those in the epigastrium and dia-
phragm, for in this way, the superfluities will be carried
downward. The moderate straining of the muscles in the
epigastrium has a secondary importance in the apotherapy
for the organs below the diaphragm. Also serving these
same purposes are the encircling bindings which mas-
seurs, standing behind the person being massaged, make
around the whole abdomen. When they stand in front,
they make other bindings encircling the broad parts of the
back, twisting them around with their hands, and others
around the ribs, spine and sternum, somehow turning the
person being massaged around with them. Similar encir-
clings and windings around of bindings should be applied
to the loins, putting the person being massaged on the
stretch together with all these, but not turned around at
the same time with them all. It is necessary not to make
his movements from the apotherapy continuous, just as
you should not make them violent, but make some move-
ments with massage occurring in the intervals.

Continuous and vigorous massages are specific to
the preparatory exercises, whereas neither continuous
nor vigorous massages are fitting for apotherapy. Conse-

⁶ On ἀναφωνήσις as "vocal exercises," see Soranus 1.49, and
Aretaeus, *Treatment of Chronic Disease*, 2.7.13.

¹⁰ θεραπείας Κο; ἀποθεραπείας Κυ

178K ὥστε πολλάκις μὲν ἐνανειλείσθω, πολλάκις δὲ καὶ
 διανωθείσθω, πολλάκις δὲ καὶ μεταβαλλέτω τὸν προ-
 γυμναζόμενον ἐν τούτῳ τῷ καιρῷ. πολλάκις δὲ καὶ
 κατὰ νότου γινόμενος αὐτός, ἑκάτερον ἐν μέρει τῶν
 σκελῶν περιπλέκων τῷ προγυμναστῇ μετ' ἐντάσεώς
 τινος οὐκ ἠπειγμένης, ὑφ' ἑτέρων εὐκαίρως ἐπαφω-
 μένων τριβέσθω. οὕτω γὰρ ἂν μάλιστα διαφυλάττου-
 τε τὴν ἐν τοῖς γυμνασίοις ἠϋξημένην θερμότητα καὶ
 συνεκκρίνοιτο ταῖς ἰδίαις ἐντάσεσί τε καὶ κινήσει τὰ
 περιττώματα· πρὸς ὃ δὴ καὶ ἡ τοῦ πνεύματος κατάλη-
 ψις οὐκ ὀλίγον μοι ἔοικεν ἐπιβοηθεῖν. ὠθούμενον γὰρ
 τοῦτο πανταχόθεν εἰς τοὺς λεπτοὺς πόρους ἀναγκάζε-
 ται καταδύεσθαι, καὶ ἦν ἐπὶ πλέον θλίβηται τε καὶ
 προωθῆται, πάντας αὐτοὺς διεξέρχεται, συναποφερό-
 μενον ἑαυτῷ τι καὶ τῶν λελεπτυσμένων περιττωμάτων.
 οὕτω γέ τοι καὶ τρήματα πολλάκις ὀργάνων λεπτὰ
 τοὺς δημιουργοὺς ἔστιν ἰδεῖν ἐκκαθαίροντας ἐμφυσή-
 σει σφοδροτέρου πνεύματος.

179K εἰς ὅσον γὰρ τοῦτο φέρεται πρόσω βιαίως ἐπαναγ-
 καζόμενον, εἰς τοσοῦτον τὰ μὲν ὠθεῖται πρὸς αὐτοῦ,
 τὰ δὲ παρασύρεται διεξελθεῖν ἐφιέμενα τὴν ὁδὸν ἄπα-
 σαν· ὠθεῖται μὲν τὰ πρόσω, παρασύρεται δὲ τὰ πλά-
 για, τῇ ρύμῃ τῆς φορᾶς ἄμφω βιαζόμενα. καὶ τοίνυν
 καὶ τῶν γυμνασίων αὐτῶν μεταξὺ παραλαμβάνουσιν
 οἱ ἄριστοι γυμνασταὶ κατάληψιν πνεύματος, ὥσπερ
 γε καὶ τὴν προειρημένην ἀποθεραπευτικὴν τρίψιν,
 ἅμα μὲν ἀναπαύοντες, ὅταν ἄρχωνται κάμνειν, ἅμα δὲ
 κατὰ βραχὺ διακαθαίροντες τοὺς πόρους, ἵν' εὕπνουν

178K quently, let someone prior to exercise be rolled back often,
 thrust away often and turned quickly often in this time.
 Often also the one who is at his back, when each of the
 legs in turn are intertwined with those of the one prior to
 exercise, with some tension but not excessive, let him be
 massaged by others touching him lightly at opportune
 times. For in this way particularly, he would preserve the
 heat increased in the exercises which, with the specific
 stretchings and movements, would help in clearing out
 the superfluities. Toward this also the stoppage of the
 breath seems to me to help to no small extent, for this,
 being pushed on all sides, is compelled to go down into
 the fine channels, and if it is compressed still more and
 thrust forward, passes through all these and helps to carry
 off with itself some of the superfluities that have been
 thinned. In this way too, it is often possible for practi-
 tioners to see the fine orifices of organs when purging
 them with inflations of more violent breath.

179K For to the extent that this is carried forward, being
 strongly compelled by force, so to this extent also are some
 superfluities thrust on before it, while some are swept
 along, desiring to complete their whole journey. Those in
 front are thrust forward while those to the sides are swept
 along, both being compelled by the strength of the move-
 ment. And accordingly, the best gymnastic trainers under-
 take suppression of breath between the actual exercises,
 just as they also use the previously mentioned apothera-
 peutic massage. At the same time, they make [their sub-
 jects] rest when they begin to tire, at the same time thor-
 oughly purging the pores briefly, so the body is breathing

τε ἅμα καὶ καθαρὸν ἢ τὸ σῶμα πρὸς τοὺς ἐξῆς πόρους, ὡς κίνδυνός γε μηδενὸς τοιούτου προνοηθέντα τὸν γυμναστήν ἐμφράξαι μᾶλλον ἢ καθῆραι τοὺς πόρους.

αἱ γάρ τοι σφοδρόταται φοραὶ τῶν ὑλῶν τὰναντία πεφύκασιν ἐργάζεσθαι, κατὰ διαφέροντας καιροὺς καὶ τρόπους ἐνεργούμεναι· ἐμφράξεις μὲν, ὅταν ἀθρόον τε ἅμα καὶ πολὺ καὶ παχὺ τὸ φερόμενον ἦ, καθάρσεις δέ, ἐπειδὴν ὀλίγον τε καὶ λεπτομερές ὑπάρχον μὴ πάνυ κατεπείγεται καὶ καταναγκάζεται πᾶν ἀθρόως ἐκκενοῦσθαι. φαίνεται γὰρ οὕτω ταῦτα γινόμενα κατὰ τι τῶν ἐκτὸς ἀπάντων ὀργάνων τε καὶ πλοκάμων. ἀποπλύνεται γάρ τοι καὶ ἀπορρύπτεται τὸ περιττὸν ἅπαν ἐξ αὐτῶν, οὐχ ὅταν, ὑπεξιόντων ἔτι τῶν προτέρων, ἕτερα βιαίως ἐπιφέρηται (κίνδυνος γὰρ ἐν τῷδε, σφηνωθέντα καὶ διερεισθέντα πρὸς ἄλληλα τὰ διερχόμενα ἐμφράξαι τὴν ὁδόν),¹¹ ἀλλ' ὅταν τῶν προτέρων ἤδη κεκενωμένων αὐθις ἕτερα κενωθῆ. καὶ τί δεῖ περὶ τῶν μικροτέρων¹² θαυμάζειν, ὅπου γε καὶ τῶν θεάτρων ἀθρόως ἐξιόντες πολλοὶ κατὰ τὰς διεξόδους ἴσχονται; διὰ ταῦτα μὲν δὴ καὶ τοὺς ἐν μέσοις τοῖς πόνοις ἀποθεραπεία χρωμένους ἐπαινώ, καὶ μάλιστα ἐπὶ τῶν τοὺς βαρεῖς καλουμένους ἄθλους ἀσκούντων. ἀλλὰ περὶ μὲν τούτων αὐθις, ὁ δὲ νῦν ἡμῖν ὑποκείμενος ἄνθρωπος οὐκ ἀθλητικὴν εὐεξίαν,

¹¹ διαιρεθέντα . . . διερχόμενα φράξαι . . . Ku

¹² post μικροτέρων; πόρων (Ku) om.

freely and is pure for the subsequent exertions, as there is in fact a danger, if no provision is made for such a thing, that the gymnastic trainer will obstruct rather than clear the pores.

Mark you, the most violent movements of the materials naturally create effects that are opposite, operating at different times and in different ways. Obstructions occur when what is carried is concentrated, large in amount and thick, while purifications occur whenever it is small in amount and fine-particled, and does not greatly urge on and compel the whole to be evacuated in a concentrated fashion. It is obvious that these things occur according to something outside all organs and plexuses [of veins].⁷ For certainly, all the superfluity is washed away and cleansed from them, not when, while the former are still going out beneath, other things are forcibly carried against them—for there is a danger in this of those things passing through being plugged up and thrust against each other, blocking the path—but when the first things have already been evacuated, others in turn are evacuated. And what about the smaller pores, I wonder! Is this like a large number of people leaving the theater all at once and blocking up the exits? For these reasons, I also commend those who use apotherapy in the middle of exertions, and particularly in the case of those practicing the so-called strong contests. But I shall speak again about these. The matter before us now is a man whose objective is simply health and

⁷ I am uncertain as to what is being described here, and particularly about the meaning of πλοκάμων. The Kühn Latin has *calathorum plexibus*. See *UPart.*, 9.4.

ἀλλ' ἀπλῶς υἰείαν ἔχει τὸν σκοπόν. οὐτ' οὖν πολλῶν αὐτῷ χρεία γυμνασίων ἐστὶν οὔτε πρὸς ἀνάγκην ἐδωδῆς, ἀλλ' οὐδὲ πλήθους κρεῶν χοιρείων οὐδ' ἄρτων τοιούτων, οἷους ἐσθίουσιν οἱ βαρεῖς ἀθληταί. διὰ ταῦτα γοῦν ἅπαντα τῷ μὲν οὐδεὶς κίνδυνος ἐμφραχθῆναι τοὺς πόρους, εἰ καλῶς προπαρασκευάσαιο, τουτέστι ἐπιτηδεία τε τρίψει καὶ πόνοις ἐξ ὀλίγου τε ἅμα καὶ κατὰ βραχὺ προϊούσιν, ἀθλητῇ δὲ βαρεῖ κίνδυνός ἐστι διὰ τε τὴν ποιότητα καὶ τὸ πλῆθος τῶν ἐδεσμάτων, εἰ μὴ πάντα γίνοιτο καλῶς, ἐμφραχθῆναι μᾶλλον ἐν τοῖς γυμνασίοις ἢ καθαρθῆναι τοὺς πόρους.

181K

3. Ἄλις μὲν ἤδη μοι τῶν περὶ τῆς ἀποθεραπείας λόγων. ἴωμεν δ' ἐξῆς ἐπὶ τὰ λουτρά, τοσοῦτον ἔτι μόνον εἰπόντες ὑπὲρ τῶν προκειμένων, ὡς, ὅστις ἂν ἐλάττοσιν ἔπεσιν ἐρμηνεύσῃ ταῦτα, μακρολογίαν ἡμῖν ἐγκαλείτω. εἰ δὲ τῶν ἀναγκαιοτάτων τι θεωρημάτων ἢ τῶν ταῦτα πιστουμένων ἀποδείξεων ὑπερβάς τινας βραχὺν ἠγοῖτο πεποιηκέναι τὸν λόγον, οὐκ ἀγάλλεσθαι προσῆκεν, ἀλλ' αἰσχύνεσθαι μᾶλλον αὐτῷ ταῖς τοιαύταις βραχυλογίαις. ἐγὼ δέ, καίτοι βιβλίον ὅλον ὑπὲρ τῆς καλουμένης ἀποθεραπείας γράψαι δυνάμενος, οὐκ ἐδικαίωσα ποιεῖν οὕτως, συντέμνειν ὅτι μάλιστα τὸ μῆκος τῆσδε τῆς πραγματείας προηρημένος. εἰ γὰρ ἐπὶ τὸ διελέγχειν ὅσα κακῶς εἴρηται τοῖς πλείστοις ἐτραπόμην, οὐ μικρὰν οὐδὲ φαύλην ὕλην εἰς μῆκος λόγων ἔσχον ἄν. ἀλλ' ἐξ ὧν

not the high condition of an athlete. For him, then, there is no need of many exercises, nor of food beyond what is necessary; nor of an abundance of pig's flesh or such breads as the heavy athletes eat. Anyway, for all these reasons, there is no danger to him of the pores being obstructed, if he prepares properly beforehand—that is to say, with beneficial massage and exertions, proceeding from the small and brief. The danger to the heavy athlete is through the quality and amount of foods; if everything does not occur properly, the pores are more likely to be obstructed in the exercises than cleaned out.

3. This is already enough from me on the discussion of apothery. Let me come next to baths, saying only as much about these matters that, if someone should explain them in fewer words, let him accuse me of prolixity. On the other hand, if someone passes over any of the most essential concepts or any of the confirmatory demonstrations of these, and thinks he has made the discussion of them brief, it is inappropriate to exalt him; rather, he should be particularly ashamed of such brief descriptions. And yet I, though I could have written a whole book about the so-called apothery, did not think it fit to do so, choosing as far as possible to cut short the length of this work. For if I had turned to the detailed refutation of those things stated badly by the majority, I would have had no small amount of material, nor would it have been trivial, for the length of the discussion. But from the things I

181K

ἀπέδειξα, νομίζω τοῖς ἔχουσι νοῦν ἀπάσας τῆς ἀντι-
λογίας τὰς ἀφορμὰς παρεσχῆσθαι.

182K λέγοντος γοῦν Ἀσκληπιάδου τὴν κατάληψιν τοῦ
πνεύματος ἐμπιπλάναι τὴν κεφαλὴν, ἐξ ὧν ἐγὼ διω-
φοράς, ἔνεστι τῷ βουλομένῳ τὴν πρὸς αὐτὸν ἀντιλο-
γίαν ποιεῖσθαι. οὕτω δὲ καὶ κατὰ τὸ δεύτερον βιβλίον
ἐξῆν δήπου κἀμοὶ τὰ κατὰ μέρος ἅπαντα γυμνάσια
διηγουμένῳ μηκῦναι τὸν λόγον, ὥσπερ ἄλλοι τέτινες
ἐποίησαν ὃ τε κάλλιστα μεταχειρισάμενος ὅλην τὴν
πραγματείαν Θεῶν ὁ Ἀλεξανδρεὺς· τέτταρα γὰρ οὗ-
τος ἔγραψε βιβλία περὶ τῶν κατὰ μέρος γυμνασίων,
ἃ πάντα κἀμοὶ λέγειν ἐξῆν ἄμεινόν γε ἐρμηνεύειν
ἐκείνου δυναμένῳ καὶ προσέτι καὶ ἄλλων πολλῶν
μνημονεύειν γυμνασίων ἔργοις κοινῶν. ἐκείνος μὲν
γὰρ ὡς ἂν ἀθλητὰς μάλιστα γυμνάζειν ἔργον πεποι-
ημένος ἐν τοῖς ἐπ' ἐκείνων ἐπλεόνασε γυμνασίοις, ἐξ-
εστι δὲ τῷ βουλομένῳ περὶ πάντων τῶν κατὰ πάσας
τὰς τέχνας διεξέρχεσθαι. ταῦτα μὲν οὖν μοι λελέχθω
πρὸς τοὺς ἀγανακτῆσοντα τῷ μήκει τῆς πραγμα-
τείας.

183K 4. Καιρὸς δ' ἤδη περὶ λουτρῶν διέρχεσθαι, πρῶτον
μὲν, ὅποσα γλυκέων ὑδάτων ἐστὶ θερμαινομένων,
ἐπειδὴ τούτων ἡ χρεία πλείων, ἐξῆς δὲ τῶν ψυχρῶν,
εἴθ' οὕτω τῶν αὐτοφυῶν ὀνομαζομένων, καὶ αὐτῶν δὴ
που τὰ μὲν εὐκρατα, τὰ δὲ ζέοντα, τὰ δὲ χλιαρά, τὰ
δὲ ψυχρὰ παντάπασιν ὑπάρχει. ἔστι δὲ ἡ τῶν γλυ-

did show, I think for those who have the intelligence, I
have provided all the means for the refutation.

182K Anyway, when Asclepiades says that suppression of the
breath (*pneuma*) fills the head,⁸ it is possible for anyone
who so wishes to fashion the refutation against him from
those things I distinguished a little earlier, when I demon-
strated the differences of this. In the same way too, in the
second book, I could, of course, have lengthened the dis-
cussion by describing in full all the exercises individually,
as certain others did, and especially Theon the Alexan-
drian,⁹ who handled the whole matter best, for he wrote
four books about the individual exercises, all of which I
might say too, being better able to explain them than that
man, and besides, to mention many other exercises com-
mon to actions. For that man, since he created a work
chiefly for training athletes, wrote at length in these on the
exercises for those men. However, it is possible for some-
one who wishes to do so to go through all the exercises
pertaining to all the arts. Let this, then, be my response to
those who are vexed by the length of the work.

183K 4. It is now time to go over baths: first, those of sweet
waters that are being heated, since the use of these is
considerable, and next of cold waters, and then, in like
manner, those of the so-called natural waters; of the last,
there are of course the *eukratic*, the bubbling, the luke-
warm and those that are altogether cold. The potency of

⁸ For Asclepiades' views on respiration, see J. Vallance, *The Lost Theory of Asclepiades of Bithynia* (1990), 67–74 and 82–85.

⁹ On Theon, frequently referred to in the present work, see EANS, 795, and the General Introduction to the present work (pp. xix–xx).

κέων ὑδάτων θερμῶν δύναμις εὐκράτων μὲν ὄντων ὑγρὰ καὶ θερμῆ, χλιαρωτέρων δὲ γενομένων ὑγρὰ καὶ ψυχρά, θερμότερων δὲ τοῦ δέοντος ἀποτελεσθέντων θερμῆ μὲν, οὐκέτι δ' ὁμοίως ὑγρά. φρίπτειν γὰρ ἀναγκάζει τὰ σώματα καὶ πυκνοῦσθαι τοὺς πόρους αὐτῶν, ὡς μήτ' ἀπολαύειν ἔτι τῆς ἔξωθεν ὑγρότητος μήτ' ἐκκενοῦσθαι τι τῶν ἔνδον περιττωμάτων. ἀλλὰ γὰρ ἀπὸ τῶν εὐκράτων ἀρκτέον, ἃ διὰ παντὸς ὑγραίνει μὲν καὶ θερμαίνει καθ' ἑαυτά. συμβαίνει δ' αὐτοῖς ἐνίοτε κατὰ τι συμβεβηκὸς ἤτοι διαφορεῖν τὰς ὑγρότητας ἢ πληροῦν ρεύματος περιττοῦ τὰ μέρη τοῦ σώματος ἢ μαλάττειν ἢ πέπτειν ἢ ῥωννύναι τὴν δύναμιν ἢ καταλύειν. εἰς ταῦτα μὲν γε καὶ ἡ ποσότης αὐτῶν οὐκ ὀλίγα συντελεῖ. πολλὰ δὲ καὶ ἄλλα τῶν τοῖς εἰρημένοισ ἐπομένων ἔνεστι καταλέγειν ἔργα τῶν εὐκράτων ποτίμων λουτρῶν, ὧν τὰ πρέποντα τῇ νῦν ἡμῖν ἐνεστώσῃ πραγματεῖα λεχθήσεται καθ' ὅσον ἐγχωρεῖ διὰ βραχυτάτων, ἀναβεβλημένης ἐν τῷ παρόντι τῆς εἰς τὰ νοσήματα χρείας αὐτῶν.

εἰς δὲ τὴν ὑγιεινὴν χρῆσιν ὁ προκείμενος ἐν τῷ λόγῳ νεανίσκος ἠκέτω γεγυμνασμένος ὡς εἴρηται πρόσθεν. ἐπὶ τούτου τοίνυν ὀλίγη μὲν ἢ ἐξ αὐτοῦ ὠφέλεια· πάντα γὰρ ἔχει φθάνων ἐκεῖνος ἔκ τε τῶν συμμέτρων γυμνασιῶν καὶ τῆς εἰρημένης ἀποθεραπείας. ὁμως δ' οὖν, εἰ καλῶς παραλαμβάνοιτο τὰ λουτρά, μέρος ἂν τι γένοιτο καὶ αὐτὰ τῆς ἀποθεραπείας, εἴ γε δὴ μαλάττει μὲν τὰ σκληρὰ καὶ τὰ τεταμένα μέρη, διαφορεῖ δ', εἴ τι περίττωμα καὶ σύντηγμα

the sweet, warm waters, if they are *eukratic*, is moist and hot; of those that are more lukewarm, it is moist and cold; and of those that are made hotter than they need be, it is hot but no longer similarly moist. For the last compels bodies to shiver and condenses their pores, so they do not still enjoy the benefit of the external moisture, nor is there any evacuation of the superfluities within. But I must begin with the *eukratic*, which are throughout moistening and heating in themselves. What happens with them is that sometimes, *per accidens*, they either disperse the fluids, or fill the parts of the body with excessive flow, or soften, or concoct, or strengthen the capacity, or break it down. The quantity of these baths contributes to these effects to no small extent. And it is possible to add to those mentioned many other actions of those that follow *eukratic* baths of potable waters. I shall speak now, as briefly as possible, about those most clearly relevant to our present matter, postponing for the moment the use of these baths for those who are sick.

Let the young man proposed in the discussion come to the hygienic use [of a bath], having exercised, as was said earlier. In this case, benefit from the bath is slight, for he has gained everything beforehand from his moderate exercises and the apothecy mentioned. Nevertheless, if he should undertake the baths properly, these would also become part of the apothecy, if in fact they soften the hard and tense parts and disperse whatever superfluity

πρὸς τοῦ δέρματος ἐντὸς ἰσχοῖτο. ἀλλὰ τούτων γε οὐδετέρου χρήζειν ἔοικεν ὁ ὑποκείμενος ἄνθρωπος ἐν τῷ λόγῳ· οὔτε γὰρ σύντηγμα σαρκὸς ἀπαλῆς ἢ πιμελῆς εἰκὸς αὐτῷ γεγονέναι τι κατὰ τὰ γυμνάσια. ταῖς γὰρ ἀμέτροις τε καὶ σφοδραῖς κινήσεσιν εἶπετο τὰ τοιαῦτα, κεκένωται δὲ πάντ' αὐτῷ τὰ περιττώματα καὶ μεμάλακται τὰ στερεὰ μόρια κατὰ τὸν τῆς ἀποθεραπείας καιρόν, ὥστ' ἀποπλύνασθαι τὸν ἰδρῶτα καὶ τὴν κόνιν, εἰ καὶ ταύτη ποτὲ χρήσαιτο, δεῖται μᾶλλον ἢ θερμανθῆναι κατὰ τὸ βαλανεῖον. διαβαδίσαι τοιγαροῦν χρήζει μόνον ἄχρι τῆς δεξαμενῆς, οὐκ ἐνδιατρῦσαι τῷ βαλανείῳ καθάπερ οἱ χωρὶς τοῦ γυμνάσασθαι καθέψοντες ἑαυτούς. οὐ μὴν οὐδ' ἐγχρονίζειν ἐν τῇ κολυμβήθρα δεῖται, περιπλυνάμενος δ', ὡς εἴρηται, πρὸς τὸ ψυχρὸν ὕδωρ ἐπειγέσθω. σύμμετρον δ' ἔστω καὶ τοῦτο τῇ συμμέτρῳ φύσει τοῦ σώματος. ἐφ' ὅσον γὰρ ἦτοι σφόδρα ψυχροῦ χρεία τοῦ ὕδατος ἢ χλιαροῦ¹³ τε καὶ οἶον εἰληθεροῦς, αὐθις εἰρήσεται. τὸ δ' ἄριστα πεφυκὸς σῶμα, μέχρι μὲν αὐξάνεται, λέλεκταί που καὶ πρόσθεν, ὡς οὐ χρὴ ψυχρῷ λούειν, ἵνα μή τι τῆς αὐξήσεως αὐτοῦ κωλύσωμεν· ἠϋξημένου δ' ἱκανῶς, ἐθίζειν ἤδη καὶ τῷδε κρατύνει τε γὰρ ἅπαν τὸ σῶμα καὶ τὸ δέρμα πυκνὸν καὶ σκληρὸν ἀποτελεῖ· κράτιστον δὲ τοῦτο πρὸς τὴν ἀπὸ τῶν ἕξωθεν βλάβην.

ὡς δ' ἂν τις ὑπάρξαιτο λούσασθαι ψυχρῷ, μηδενὸς ἀπὸ τῆς ἐξαιφνιδίας μεταβολῆς ἀπολαύσας βλαβεροῦ, παντὸς μᾶλλον ἐπίστασθαι χρή. πολλοὶ γὰρ κα-

and waste material is retained within by the skin. But the person proposed in the discussion seems to need neither of these things, as it is unlikely that waste products of soft flesh or fat have arisen in him during the exercises. Such things follow the excessive and violent movements, whereas in him all the superfluities have been evacuated and the solid parts softened during the time of the apotherapy, so he needs to wash away the sweat and the powder, if he should also use the latter at any time, more than he needs to be heated by the bath. For that very reason, he needs only to walk across as far as the receiving tank and not to spend time in the bath, like those who refresh themselves apart from exercising. There is no need to delay in the swimming bath—having washed, as I said, he should hurry on to the cold water. However, this should be moderate too, like the moderate nature of the body. I shall speak again on how much there is a strong need for cold water, or lukewarm, or, as it were, water warmed by the sun. The naturally best body, until it grows up, as I have said somewhere else before, we must not wash in cold water, so that we do not hinder its growth in any way. However, when it has grown sufficiently, it should now be made accustomed to this, for it strengthens the whole body and makes the skin thick and hard. This is best against damage from external factors.

It is necessary to know above all that, should someone begin to bathe in cold water, he would experience nothing harmful from the sudden change. Many, having started off

¹³ ἢ χλιαροῦ Κο; ἢ μαλακοῦ Κυ

κῶς ἀρξάμενοι διεβλήθησαν οὕτω πρὸς ὅλον τὸ ἐπι-
 τήδευμα τῆς ψυχρολουσίας, ὥστε μηδὲ τοῖς ἀσφαλῶς
 αὐτὸ μεταχειριζομένοις ὑπομένειν ἑαυτούς ποτε παρα-
 σχεῖν. ἔστω τοίνυν ὁ μὲν τοῦ ἔτους καιρὸς ἀρχόμενον
 θέρος, ἵνα πρὸ τοῦ χειμῶνος ἐν ἅπαντι τῷ μεταξύ
 χρόνῳ γένηται τις ἐθισμὸς ἀξιόλογος. ἔστω δὲ δὴ
 πού και ἡ ἡμέρα, καθ' ἣν ἀρχόμεθα, νήνεμος ὡς ἐν-
 μάλιστα καὶ εἰς ὅσον οἶόν τε κατ' ἐκείνον τὸν καιρὸν
 θερμοτάτη. δῆλον δ', ὡς καὶ τῆς ἡμέρας αὐτῆς ἐκλέ-
 γεσθαι χρὴ τὸ θερμότατον ὥσπερ γε καὶ τὸ γυμνα-
 στήριον εὐκρατότατον.

ἡ μὲν οὖν ἔξωθεν αὕτη παρασκευή. τὸ σῶμα δ'
 αὐτὸ τὸ μέλλον χρῆσθαι τῷ ψυχρῷ παρεσκευάσθω
 κατὰ τάδε. τῇ μὲν ἡλικίᾳ ἔστω κατὰ τὴν τετάρτην
 ἑβδομάδα μεσοῦσαν μάλιστα, μηδὲν ὑπὸ μηδενὸς
 ἠλλοιωμένος αἰτίου προσφάτου κατ' ἐκείνην τὴν ἡμέ-
 ραν ἢ τὴν πρὸ αὐτῆς νύκτα, τὴν δ' ὑγιεινὴν κατάστα-
 σιν, ἣν εἶχεν ἔμπροσθεν, ἀκριβῶς διαφυλάττων. ἔστω
 δὲ καὶ κατὰ τὴν ψυχὴν εὐθυμὸς τε καὶ φαιδρὸς ὁ μέλ-
 λων χρῆσασθαι τῷ ψυχρῷ νεανίας, εἴπερ ποτὲ ἄλ-
 λοτε, καὶ τότε μάλιστα. πρῶτον μὲν οὖν ἀνατριβέσθω
 σινδόσιν ἐπιπλέον ἢ πρόσθεν.¹⁴ ἔστωσαν δὲ καὶ σφο-
 δρότεραι νῦν μᾶλλον ἢ πρόσθεν αἱ τρίψεις καὶ διὰ
 σκληροτέρων ὀθονίων· εἰ δὲ καὶ χειρῖδας ῥαπτὰς
 περιθέμενοι ταῖς χερσὶν οἱ προγυμνασταὶ τρίβοιεν,
 ὡς ὀμαλωτέραν γενέσθαι τὴν ἐνέργειαν, οὐδὲν ἂν εἴη
 χεῖρον. ἐφεξῆς δὲ δι' ἐλαίου τριβέσθω, καθότι σύν-
 ηθες ἦν αὐτῷ· κάπειτα γυμναζέσθω τῷ πλήθει μὲν

badly, were filled with doubt in this way toward the whole
 usefulness of the cold bath so as not to permit those who
 administered such a bath safely, to provide one for them-
 selves at any time. Accordingly, let the time of year be the
 beginning of summer, so that, in the whole time interven-
 ing before the winter, significant habituation occurs. Let
 the day on which we begin be without wind as far as pos-
 sible, and be as warm as possible for that time. It is clear
 also that it is necessary to choose the hottest part of the
 day itself, just as the gymnastic school should also be most
eukratic.

The external preparation is this. Prepare the actual
 body that is going to use the cold bath as follows: in age,
 let it be particularly in the middle of the fourth seven-year
 period (i.e., approximately twenty-four), not changed by
 any fresh cause on that day or during the night before it,
 and maintaining perfectly the healthy state it had before.
 Also, let the young man who is going to use the cold bath
 be in good spirits and cheerful generally at other times and
 particularly at this time. First, let him be rubbed down
 more than before with muslin. Also, let the massages now
 be more vigorous than before and through harder linen.
 And if the gymnastic trainers massage with stitched gloves
 on their hands so as to make the action more even, it would
 be no bad thing. Next, let the skin be rubbed with oil in
 the manner customary for him and then let him be exer-
 cised with exercises equal in amount but now quicker than

¹⁴ ἢ πρόσθεν *add.* Ko

ἴσα γυμνάσια, θάπτονα δὲ νῦν ἢ πρόσθεν· ἔπειθ' οὐ-
 τως εἰς τὸ ψυχρὸν ὕδωρ καταβαινέτω μὴ βλακεύων,
 ἀλλ' ἐπωκύνων τὴν ἐνέργειαν ἢ ἀθρόως ἐναλλέσθω,
 σκοπὸν ἐν ἀμφοῖν ἔχων, ὡς μάλιστα καθ' ἓνα χρόνον
 ἅπασι τοῖς σώματος μέλεσι περιχυθῆναι τὸ ὕδωρ· τὸ
 γὰρ κατὰ βραχὺ πλησιάζειν αὐτῷ φρίκης ἐστὶ ποιη-
 τικόν. ἔστω δὲ μήτε χλιαρὸν τὸ ὕδωρ μήτε ἀτέραμνόν
 τε καὶ παγετῶδες· τὸ μὲν γὰρ οὐ ποιεῖ θερμασίας
 ἐπανάκλησιν, τὸ δὲ ψύχει καὶ καταπλήττει¹⁵ τοὺς
 ἀήθεις. ὡς ἔν γε τῷ χρόνῳ προϊόντι καὶ τοιούτῳ ποτὲ
 188K χρήσεται ἂν ἡμῖν ὁ νεανίσκος, ἀνάγκης καταλαβού-
 σης· ἀλλὰ κατὰ γε τὴν πρώτην ἡμέραν ἀκριβῶς χρή
 φυλάττεσθαι τὸ λίαν ψυχρὸν. ἐξελθόντα δὲ τοῦ ὕδα-
 τος ἐπιπλέον¹⁶ ἀνατρίβεσθαι προσήκει δι' ἐλαίου, μέ-
 χρις ἂν ἐκθερμανθῇ τὸ δέρμα· καὶ μετὰ ταῦτα σιτία
 μὲν πλείω τῶν εἰωθότων, ἔλαττον δὲ προσφερέσθω τὸ
 πόμα.

ταῦτα δ', εἰ καὶ σὺ μὴ κελεύσεις, αὐτὸς ἂν οὕτω
 ποιήσειεν ἀπάντων ὀρθῶς γενομένων. καὶ γὰρ ὀρέγον-
 ται πλεόνων ἐπὶ ταῖς ψυχρολουσίαις καὶ πέττουσιν
 ἄμεινον καὶ διψῶσιν ἥττον. ἀφικνοῦνται δὲ καὶ κατὰ
 τὴν ὑστεραίαν ἐπὶ τὰ γυμνάσια σαφῶς εὐεκτικώτεροι,
 τὸν μὲν τοῦ σώματος ὄγκον ἴσον ἔχοντες τῷ πρόσθεν,
 ἐσφιγμένον δὲ καὶ μυωδέστερον καὶ συντονώτερον
 καὶ τὸ δέρμα σκληρότερον τε καὶ πυκνότερον. ὁμοίως
 οὖν ἐπ' αὐτοῦ κατὰ τὴν δευτέραν ἡμέραν πρακτέον
 ἅπαντα καὶ κατὰ τὴν τρίτην τε καὶ τετάρτην. εἴθ'
 οὕτως ἐπὶ προήκοντι τῷ χρόνῳ κελεύσομεν αὐτὸν ἐμ-

before. Then, in the same way, let him go down into the
 cold water, and not in a leisurely manner, but quickening
 the action, or leaping in all of a sudden, having as the aim
 in both, that water be especially poured over all parts of
 the body at the same time; a gradual approach will pro-
 duce shivering in him. The water should be neither luke-
 warm nor unsoftened and ice-cold, for the former does not
 produce the reaction of heating, while the latter chills and
 surprises those unaccustomed to it. It may be that at some
 future time our young man could use such water, being
 compelled by necessity, but on the first day it is absolutely
 necessary to guard against extreme cold. When he comes
 out of the water, it is appropriate for him to be rubbed with
 oil further until the skin is heated. After these things, let
 him be given more food than is customary but less drink.

He himself would do these things in this way, even if
 you didn't order him to, when everything occurs properly.
 For people desire more food after cold baths and digest
 better, and they are less thirsty. During the following day
 too, they clearly come to exercises in a more healthy state,
 having a body mass the same as before but tightened up,
 more muscular and more toned, and with skin that is
 harder and thicker. One must do everything for him simi-
 larly during the second day, and during the third and
 fourth days. Then, in like manner, with the advance of

¹⁵ τὸ δὲ ψύχει καὶ καταπλήττει Κο; τὸ δὲ πλήττει καὶ
 καταψύχει Κυ

¹⁶ ἐπιπλέον Κο; ὑπὸ πλείονων Κυ

189K βαίνειν τὸ δεύτερον τῷ ψυχρῷ μετὰ τὴν ἐπὶ τῷ προ-
 τέρῳ τρίψιν, ὡς εἴρηται πρόσθεν. τὸ δὲ καὶ τὸ τρίτον
 ἔτι τοῦτο ποιεῖν, ὡς ἔνιοί τινες ἐκέλευσαν, οὐκ ἐπαινώ-
 καὶ γὰρ καὶ τὸ δεύτερον αὐταρκες εἶναί μοι δοκεῖ δυ-
 ναμένων γε ἡμῶν, εἰς ὅσον ἂν ἐθελήσωμεν, ἐν αὐτῷ
 κελεῦσαι διατρίβειν. ὁ δὲ σκοπὸς κἀνταῦθα τοῦ χρό-
 νου τῆς διατριβῆς ἐκ τῆς καθ' ἐκάστην ἡμέραν λαμ-
 βανέσθω πείρας. εἰ μὲν γὰρ ἀνελθὼν ἐκ τοῦ ὕδατος
 ἐπὶ ταῖς ἀνατρίψεσιν εὐχρους ἐν τάχει γίνοιτο, με-
 τρίως ἐν αὐτῷ διέτριψεν· εἰ δὲ δυσεκθέρμαντός τε καὶ
 ἄχρους διαμένοι μέχρι πλείονος, ἀμετρότερον ἐχρή-
 σατο τῷ ψυχρῷ. τοῦ χρωτὸς τοίνυν προσέχων τοῖς
 γνωρίσμασιν ἐξευρήσεις ῥαδίως, εἴτε τὸν ἴσον χρό-
 νον αὐθις ἐν τῷ ψυχρῷ διατρίβειν προσήκει εἴτε καὶ
 μετακινήσῃ τι πρὸς τὸ ἔλαττον ἢ τὸ πλεόν. καὶ περὶ
 μὲν ψυχρολουσίας ὡς πρὸς τὴν ἀρίστην φύσιν ἱκανὰ
 καὶ ταῦτα.

190K 5. Τὰς δὲ τῶν παρεμπιπτόντων ἀμαρτημάτων ἐπ-
 ανορθώσεις ὅπως ἂν τις κάλλιστα ποιοῖτο, διελθεῖν
 ἤδη καιρός· εἰ γὰρ καὶ ὅτι μάλιστα τὴν κατασκευὴν
 τοῦ σώματος ἀμεμπτον ἔχει τις ἀπηλλαγμένος τε εἴη
 τῶν κατὰ τὸν βίον ἀπάντων πραγμάτων καὶ ἑαυτῷ
 μόνῳ ζῶν, ἀλλὰ τό γε μηδέποθ' ἀμαρτάνειν μηδὲν ἢ
 αὐτὸν ἢ τὸν ἐπιστάτην αὐτοῦ παντάπασιν ἀδύνατον.
 εἰκὸς τοίνυν ἐστὶ πρῶτόν τε καὶ μάλιστα καὶ συνεχέ-
 στατα περιπίπτειν ἀμαρτήματι νεανίσκον γυμναστι-
 κόν, οἷον ὁ κόπος ἐστίν· ὑπὲρ οὗ πολλάκις μὲν ἤδη
 πολλοῖς οὐκ ἰατροῖς μόνον ἢ γυμνασταῖς, ἀλλὰ καὶ

189K time, we shall direct him to step into a cold bath a second
 time, after the massage following the previous one, as I
 said before. I do not, however, recommend doing this
 again a third time, as some have directed, for truly, the
 second seems to me to be sufficient, if we are able to direct
 him to spend as much time in it as we should wish. The
 aim here is to take the time to be spent from the experi-
 ence of each day. For if, when he comes out of the water,
 he were to become of good complexion from the massages
 quickly, he spent a moderate time in it, but if he should be
 hard to warm and stays a poor color for a longer time, he
 used the cold water too immoderately. Accordingly, if you
 direct your attention to the signs of the body surface, you
 will easily discover whether it is appropriate to spend an
 equal time again in the cold water or to change toward less
 or more. These things are sufficient about cold baths with
 regard to the best nature.

5. It is now time to go over how someone might effect
 in the best way the corrections of the faults that befall
 [people]. For even if someone were to have the most fault-
 less constitution of the body possible and be freed from all
 the matters pertaining to life, and to live for himself alone,
 it would still be altogether impossible for either he himself
 or his supervisor [of training]¹⁰ never to err. Moreover,
 first and foremost, it is likely that a young man exercising
 will very frequently fall into faults such as fatigue. This has
 already been spoken about often by many men—and not
 only by doctors or gymnastic trainers but also by philoso-

¹⁰ On the term ἐπιστάτης in this sense, see Plato, *Republic*,
 412a.

φιλοσόφοις εἴρηται, ὥσπερ καὶ Θεοφράστῳ βιβλίου ὄλον ὑπὲρ αὐτοῦ γέγραπται. ἐγὼ δὲ κἀνταῦθα μήκους φειδόμενος, ὅσα μὲν εἴρηται κακῶς ὑπὲρ αὐτοῦ τισιν, ὑπερβῆναι διέγνωκα, τὰ δ' ἀναγκαιότατα τοῖς ὑγιεινοῖς ἅμα ταῖς οἰκείαις ἀποδείξεσι διελθεῖν. καὶ πρῶτόν γε περὶ τῆς ἐννοίας αὐτοῦ· δίκαιον γὰρ ἀπὸ ταύτης ἀρξάμενον οὕτως ἐπὶ τὴν οὐσίαν μεταβῆναι.

ἐννοίαν δ' ἔχουσι κόπου τινὲς μὲν ἐν τῷ ἐμπίπρασθαι τε καὶ τετάσθαι δοκεῖν ἥτοι πάντα τὰ μέλη τοῦ σώματος ἢ τὰ πονήσαντα μόνον· τινὲς δ' ἐν τῷ δυσχερῇ τινα καὶ ἀνιαρὰν αἴσθησιν ἑαυτῶν κατὰ τὰς κινήσεις λαμβάνειν, ἣν τινες μὲν ἄρρητον ὑπάρχειν¹⁷ ἔφασαν, ἔνιοι δὲ ἐλκώδη προσηγόρευσαν· ἄλλοι δὲ τινες, ὅτι ὡς τεθλασμένων τε καὶ φλεγμαινόντων αἰσθανόμεθα τῶν μελῶν. εἰσὶν μὲν οἱ καὶ μιγνύουσιν ἀλλήλαις τὰς ἀπλᾶς ταύτας διαθέσεις, τὴν τε τῆς τάσεως καὶ τὴν ἐλκώδη καὶ τὴν φλεγμονώδη· τινὲς δὲ δύο μιγνύουσιν ἐξ αὐτῶν, ἥτοι τὴν ἐλκώδη τῇ μετὰ τάσεως ἢ τὴν φλεγμονώδη μεθ' ἑκατέρας αὐτῶν ἀνὰ μέρος. ὥσθ' ἐπὶ τὰς πάσας γίνεσθαι δόξας περὶ τῆς κατὰ τὸν κόπον ἐννοίας, ἐκ μέρους μὲν τινος ἀπάσας ἀληθείς, τὸ σύμπαν δὲ οὐχ ἀπλῶς. εἴαν τε γὰρ ἐλκώδης αἴσθησις γίνηται κινουμένοις, εἴαν τε φλεγμονώδης, εἴαν τ' ἐμπίπρασθαι καὶ τείνεσθαι δοκῶσιν, εἴαν τε κατὰ συζυγίαν τινὰ τούτων, ἂν θ' ὁμοῦ συνέλθῃ τὰ

¹⁷ ὑπάρχειν *add.* Κο

phers; the whole book written by Theophrastus about this is an example.¹¹ Even here, refraining from prolixity, I have decided to pass over those things said badly about this by some, and go through those things most essential for hygienists, together with suitable demonstrations. And first, I shall go over the concept of fatigue, for I think it right and proper to begin from this, and then pass on to the essence.

Some have a concept of fatigue in which either all the parts of the body or only those that have been working seem to be burning up and under tension. Others take it to be in a vexatious and distressing sensation of themselves, in relation to movements, while others are accustomed to saying it is ineffable and others again term it "wound-like." Certain others liken it to when we perceive the limbs as bruised and inflamed. There are also those who mix these simple conditions with each other—that of the tensive, and the wound-like, and the inflammation-like. Some mix two of these—either the wound-like with the tensive, or the inflammation-like with each of the former two in turn. Consequently, there are in all seven ideas on the concept of fatigue, all in some part true, but none wholly and absolutely so. For if a wound-like sensation occurs to those moving, and if an inflammation-like sensation occurs, and if they think they are burning up and stretched, and if there is some conjunction of these, or if

¹¹ Theophrastus of Eresos (ca. 340–286 BC) wrote a short work *On Fatigue*. There is an English translation of this by W. W. Fortenbaugh, R. W. Sharple, and Michael G. Sollenberger (2003). For a summary of his theory on fatigues, see the EANS, 800, and the General Introduction to the present work (p. xlii).

πάντα, κόπος ὀνομάζεται τῶν εἰρημένων διαθέσεων
 ἐκάστη. ὥστ' εἶναι τὰς συμπάσας διαφορὰς τῶν κό-
 πων ἑπτὰ· ἀπλᾶς μὲν τρεῖς, συνθέτους δὲ τέτταρας.
 ἐπανορθώσεις δὲ τῶν οὕτως ἔχόντων σωμάτων αἱ μὲν
 τινες ἴδιαι καθ' ἐκάστην εἰσὶ διαθέσειν, αἱ δὲ τινες
 ἀπασῶν κοιναί. λεχθήσεται δ' ἐξῆς ὑπὲρ αὐτῶν, ἐὰν
 πρότερον ὑπὲρ τῆς παρακειμένης τοῖς κόποις διαθέ-
 σεως εἴπωμεν, ἣν ἐξαπατώμενοί τινες ὀνομάζουσι
 κόπον. ὅποια δ' ἐστὶν αὕτη καὶ τίνα κέκτηται γνω-
 ρίσματα, δηλωθήσεται σαφέστερον, ἂν τὴν οὐσίαν
 192K πρότερον¹⁸ ἐκάστης τῶν κοπωδῶν διαθέσεων εὔρωμεν.

ἄχρι μὲν γὰρ τοῦδε τὰ συμπτώματα μόνον εἴρηται
 καὶ γὰρ τὸ πίμπρασθαί τε καὶ τείνεσθαι δοκεῖν τὰ
 μόρια καὶ τὸ τοῖς κινουμένοις ἦτοι φλεγμονώδη τινα
 ἢ ἐλκώδη γίνεσθαι τὴν αἴσθησιν, οὐ διαθέσεις εἰσὶν,
 ἀλλὰ συμπτώματα. διαθέσεις δὲ γε τῶν σωμάτων αὐ-
 τῶν, ἐφ' αἷς εἴωθε τὰ τοιαῦτα συμπίπτειν, ἀπλᾶι μὲν
 τρεῖς, σύνθετοι δὲ τέσσαρες. ἡ μὲν οὖν ἐλκώδης διά-
 θεσις ἐπὶ πλήθει γίνεται περιττωμάτων λεπτῶν τε
 ἄμα καὶ δριμέων, ἄπερ ἐν τῷ γυμνάζεσθαι γεννᾶται
 κατὰ διττὴν αἰτίαν, ἦτοι τῶν παχυτέρων περιττω-
 μάτων χυθέντων τε καὶ λεπτυνθέντων, οὐχ ἀπάντων
 δὲ ἐκκριθέντων, ἢ τακείσης τινὸς πιμελῆς ἢ σαρκὸς
 ἀπαλῆς. ἀνάγκη γὰρ ὑπὸ τῶν τοιούτων ὑγρῶν, λε-
 πτῶν καὶ δριμέων ὑπαρχόντων, κεντᾶσθαί τε καὶ οἶον
 τιτρώσκεσθαι τὸ δέρμα καὶ τὰς σάρκας, ὥστε καὶ
 φρίκην ἐνίοτε γίνεσθαι καὶ τι καὶ ρίγους, ὅταν ἰσχυ-

they all come together in the same place, each of the con-
 ditions mentioned is called a fatigue. As a result, there are
 seven *differentiae* of fatigues in all—three simple and four
 compound. In regard to the restorations of the bodies so
 affected, some are specific to each condition, while others
 are common to all. I shall speak about these in due course,
 if I first speak about the predisposing condition for the
 fatigues, which some being misled term a fatigue. What
 this is and what signs it has acquired will be revealed more
 clearly, if we first discover the essence of each of the fa-
 tigue conditions. 192K

For up to this point, I have spoken only of the symp-
 toms; the thought that the parts are burning up and
 stretched, and the sensation of some inflammation or
 wounding in those who are moving are not conditions but
 symptoms. However, conditions of the bodies themselves,
 in which such things are wont to occur, are three simple
 and four compound ones. Thus, the wound-like condition
 arises due to an abundance of thin and, at the same time,
 acrid superfluties, which in exercise are generated due
 to a twofold cause—either when the thicker superfluties
 have been poured out and thinned but not all evacuated,
 or when there is some dissolution of fat or soft flesh. For
 of necessity, there is, by such fluids, which are thin and
 pungent, a stinging and wounding, as it were, of the skin
 and flesh, so that sometimes shivering also occurs, and
 even rigors, when it is strongly acrid and, at the same

¹⁸ πρότερον add. Ko

ρῶς ἢ δριμέα τε ἅμα καὶ πολλά. τοιοῦτος μὲν δὴ τις ὁ οἶον ἐλκώδης κόπος.

193K ἐν ᾧ δὲ τείνεσθαι δοκεῖ τὰ μόρια μόνον, ἐλκώδης δ' οὐκ ἔστιν αἴσθησις, ἐν τῷδε τῷ κόπῳ περίπτωμα μὲν οὐδέν, ὃ τι καὶ ἄξιον λόγου, περιέχεται τοῖς σώμασι, κατὰ δὲ τοὺς μῦς καὶ τὰ νεῦρα διάθεσις τις ἐπιταῖς σφοδροτέραις ἐντάσεσιν, ἃς ἐποίησαντο κατὰ τὰ γυμνάσια, συνίσταται τοῦ ποιήσαντος αἰτίου τὴν δύναμιν ἐνδεικνυμένη. συμβαίνει γὰρ ἐν ταῖς σφοδροτέραις ἐντάσεσιν ἀπάσας μὲν τῶν μυῶν τείνεσθαι τὰς ἴνας, οὐχ ὁμοίως δὲ ἀπάσας κάμνειν, ἀλλ' ὅσαι μάλιστα κατὰ τὴν εὐθύτητα τῆς τάσεώς εἰσιν· ὡς ὅσαι γελοξότεραί πως ὑπάρχουσιν, ἤττον εὐθύνονται τεινόμεναι. ὥστε ταύταις μὲν οὐδεὶς ἐφεδρεύει κίνδυνος, ἐν δὲ ταῖς ἐπὶ πλεόν ἐκτεινομέναις, ὡς ἐγγὺς ἦκειν τοῦ διασπασθῆναι, καταλείπεται τις διάθεσις ὁμοία τῇ κατὰ τὰς ἐνεργείας ἐγγινομένη· τείνεσθαι γὰρ ἔτι δοκοῦσι, κἂν μηκέτι τείνωνται.

194K ἡ δὲ δὴ τρίτη τοῦ κόπου διαφορά, καθ' ἣν ὥσπερ τεθλασμένων ἢ φλεγμαινόντων αισθανόμεθα τῶν μορίων, τῆνικαῦτα μάλιστα συμπίπτειν εἴωθεν, ὅταν ἐκθερμανθέντες ἱκανῶς οἱ μῦες ἐπισπᾶσονται τι τῶν περικεχυμένων ἑαυτοῖς περιπτωμάτων. εἰ δὲ καὶ περὶ τοὺς τένοντας ἢ τὰ νεῦρα τὴν αὐτὴν γενέσθαι διάθεσιν συμβαίνει, ὀστοκόπον ὀνομάζουσι τὸ πάθημα, τῷ

¹² ὀστοκόπος (also ὀστεοκόπος, ὀστακόπος) is defined in LSJ as, "an inflammatory attack which makes one feel as if one's

time, abundant. Such, certainly, is the kind of wound-like fatigue.

193K In that fatigue in which the parts seem only to be stretched to the uttermost, and there is not a wound-like sensation, there is, in this particular fatigue, no superfluity worth speaking of retained in the bodies, but in the muscles and sinews, there is a condition following the more violent exertions which they made during the exercises, indicative of the power associated with the effecting cause. What happens in the more violent strainings is that all the fibers of the muscles are stretched, but are not all similarly distressed. Rather, it is particularly those that are in a straight line with the tension; those that are in fact somewhat more oblique are kept straight less when being stretched. As a result, no danger lies in wait for these, whereas in those that are stretched still more, so as to come near to being ruptured, a certain condition remains like that which may develop during the actions, for they seem to be still being stretched, even if they are no longer stretched.

The third *differentia* of fatigue, during which we have a sensation of the parts as bruised and inflamed, is especially wont to happen under those circumstances whenever the muscles are heated enough to attract some of the surrounding superfluities to themselves. And if the same condition happens to arise involving the tendons and sinews, they call the affection *ostokopos* (bone fatigue)¹² due 194K

bones are giving way." See also Hippocrates, *Acute (Sp.)*, 1, Theophrastus, *On Fatigue*, and particularly Galen's *Sympt. Caus.* 2, VII.178-79K; Johnston, *Galen: On Diseases and Symptoms*, 253.

βάθει τῆς αἰσθήσεως ἐπὶ τὰ διὰ βάθους κείμενα μόρια τοῦνομα φέροντες. ἐπιπολῆς μὲν γὰρ τὸ δέρμα, δευτέραν δὲ ἔχουσι θέσεως τάξιν οἱ μῦες, ἐν κύκλῳ τοῖς ὀστοῖς περικείμενοι, συμφυεῖς δὲ οἱ τένοντες ὑπάρχουσι τοῖς ὀστοῖς, ὥστ' εὐλόγως, ὅταν οὗτοί τι τῶν εἰρημένων πάσχωσιν, ἐν τῷ βάθει τε καὶ περὶ τοῖς ὀστοῖς αὐτοῖς ἢ διάθεσις εἶναι δοκεῖ.

αὗται μὲν¹⁹ δὴ τρεῖς ἀπλαῖ τῶν κόπων εἰσὶ διαφοραὶ σύνθετοι δ' ἐξ αὐτῶν, ὡς ἔμπροσθεν εἴρηται, τέταρες, ὑπὲρ ὧν ἐξῆς ἐροῦμεν, ἐὰν πρότερον τὸν περὶ τῶν ἀπλῶν διέλθωμεν λόγον. ἔστι γὰρ δὴ τις καὶ ἄλλη διάθεσις ἐξαπατῶσά τινας ὡς κόπος, ἧς ἢ μὲν γένεσις ἐν τῷ ξηρανθῆναι τοὺς μῦς περαιτέρω τοῦ προσήκοντος, ὥστε ἅπαν ἀνχμηρὸν καὶ προσεσταλμένον φαίνεσθαι τὸ σῶμα καὶ πρὸς τὰς κινήσεις ὀκνεῖν ἀτρέμα, ἄλλο δ' οὐδὲν ὑπάρχειν αὐτῷ τῶν ἔμπροσθεν εἰρημένων, οὔτε τὴν οἶον ἔλκους αἰσθησιν ἢ τάσεως, οὔτε δὲ πολὺ μᾶλλον τὴν οἶον φλεγμονῆς. ἐναντιωτάτη γὰρ ἢ ὄψις τοῦ γε τοιούτου καὶ τῆς νῦν λεγομένης διαθέσεώς ἐστιν. αὕτη μὲν γὰρ ἀνχμῶδεις καὶ προσεσταλμένους ἀπεργάζεται τοὺς μῦς,²⁰ ὁ δὲ φλεγμονώδης κόπος ἐν ὄγκῳ μείζονι καὶ αὐτοῦ τοῦ κατὰ φύσιν. ὥστ' εἶναι τὰς πάσας τέταρας ἀπλᾶς διαθέσεις, ἰδίας ἐκάστην ἐπανορθώσεως δεομένην.

6. Ἀρκτέον οὖν ἀπὸ τοῦ τὴν ἐλκώδη φέροντος αἰσθησιν, ὃν καὶ διὰ δριμύτητα περιττωμάτων ἐλέγομεν συνίστασθαι. οὗτος ὁ κόπος συμπίπτει μὲν μάλι-

to the depth of the sensation in the case of the parts lying in the depths bearing the name (i.e., bones). For the skin is on the surface, while the muscles have the second order of position, lying around the bones in a circular fashion, while the tendons naturally grow with the bones. As a consequence, it is reasonable that whenever any of the things mentioned are affected, the condition seems to be in the depths and involving the bones themselves.

These are the three simple *differentiae* of the fatigues. Those compounded from them, as I said before, are four in number and I shall speak about them next, after I first complete the discussion about the simple fatigues. For there is, in fact, also another condition which deceives some people into taking it as a fatigue. Its origin is in the muscles being dried out beyond what is appropriate, so that the whole body appears parched and drawn tight and hesitates motionless with regard to movements. But there is nothing in it of those things previously mentioned—that is, no perception like wounding or tension, nor much more importantly, like inflammation. For the appearance is the very opposite of such a thing and of the condition described just now. This condition makes the muscles parched and drawn tight, whereas the inflammatory fatigue makes it greater in mass than normal. So there are four simple conditions in all, each requiring specific correction.

6. We must begin, then, from the fatigue producing the wound-like sensation which we said is established by acidity of superfluities. This fatigue happens particularly

¹⁹ post μὲν: δὴ Κο; αἱ μόναι Κυ

²⁰ τοὺς μῦς Κο; τὸ σῶμα Κυ

στα τοῖς κακοχύμοις τε καὶ περιττωματικοῖς σώμα-
σιν. ἐπιγίνεται δὲ καὶ ταῖς ὑπογυίοις ἀπεψίαις, ὅταν
ἤτοι γυμνάσωνται προπετέστερον ἢ ἐν ἡλίῳ διατρί-
ψωσιν. οὐ μὴν ἀδύνατόν γε αὐτὸν συστήναί ποτε χω-
ρὶς ἀπεψίας ἐν εὐχύμῳ σώματι δι' ὑπερβολὴν ἀμέτρων
γυμνασίων. εἰώθασι δ' αὐτὸν ὀξεῖαί τε καὶ πολλαὶ
φέρειν κινήσεις. πυκνὸν δὲ καὶ φρικῶδες φαίνεται τῶν
ἐν τούτῳ τῷ κόπῳ τὸ δέρμα, καὶ ὁμολογοῦσιν ἐν τῷ
κινεῖσθαι καθάπερ ἔλκος ἀλγεῖν, οἱ μὲν τὸ δέρμα μό-
νον, οἱ δὲ καὶ τὰς ὑπ' αὐτῷ σάρκας.

196K ἢ δ' ἴασις ἐξ ὑπεναντίου τῇ διαθέσει· διαφορῆσαι
γὰρ χρὴ τὰ περιττώματα, καὶ πέπαιται τὸ πάθημα.
διαφορηθήσεται δὲ τρίψει πολλῇ καὶ μαλακῇ σὺν
ἐλαίῳ μηδεμίαν ἔχοντι στύψιν, ὁποῖον μάλιστα ἐστὶ
τὸ Σαβῖνον. ἐναντιώτατον δὲ τῇ διαθέσει τό τ' ἐκ τῆς
Ἰσπανίας καὶ τὸ ἐκ τῆς Ἰβηρίας, ὅπερ Ἰσπανὸν ὀνο-
μάζουσι, τό τε καλούμενον ὀμφάκινον ἢ ὠμοτριβές·
ἐνὶ δὲ λόγῳ τὸ αὐστηρὸν ἅπαν οὐκ ἐπιτήδειον, ὡς
ἐνεστὶ σοι γενομένῳ διαγινώσκειν τὴν δύναμιν αὐτοῦ,
κἂν μήπω πρότερον ἦς πεπειραμένος. οὕτω γοῦν καὶ
ἡμεῖς ἐν Μακεδονίᾳ ποτὲ γευσάμενοι τοῦ κατὰ τὸν
Αὐλῶνα τὸν περὶ τῷ Στρυμόνι γεννωμένου²¹ τῆς αὐτῆς
εἶναι δυνάμεως ἐγνωρίσαμεν αὐτὸ τῷ καλουμένῳ
Ἰσπανῷ. καὶ μὲν δὴ καὶ τῶν ἄλλων ἐλαίων ἀπάντων
οὕτω γνωρίσεις τὴν δύναμιν, ὅσα τε καταχρηστικῶς

²¹ γεννωμένου Κο; γινομένου ἐλαίου Ku

in *kakochymous* and excrementitious bodies. It also super-
venes in the sudden *apepsias* (failures of concoction)
when people either exercise too rashly or spend time
in the sun. It is not impossible for it to exist sometimes
apart from *apepsia* in a *euchymous* body due to an excess
of immoderate exercises. Movements that are rapid and
many are wont to produce it. The skin of those with this
fatigue appears condensed and rough, and [the sufferers]
agree that in moving they feel pain like a wound, some in
the skin alone and some in the underlying flesh.

The cure is from what is opposite to the condition: it is
necessary to disperse the superfluities and the affection
ceases. They will be dispersed by much gentle massage
with oil having no astringency; a particular example is the
Sabine. The most opposite to the condition is the oil from
Spain and that from Iberia, which they call Hispanic, and
the so-called *omphakinos* or *omotribes* (oil from unripe
olives);¹³ in a word, all astringent oil is not beneficial, as it
is possible for you to recognize by tasting its the potency,
even if you have not experienced it before. At all events,
in this way, once in Macedonia, when I tasted the oil aris-
ing from Aulis around Strymon,¹⁴ I recognized its potency
to be the same as that of the so-called Hispanic. Further-
more, you will also recognize the potency of all the other
oils in this way—those that are named catachrestically and

¹³ Both are taken to refer to the oil from unripe olives—see
Dioscorides 1.29.

¹⁴ Aulis was a small Greek town near Tanagra. It was where
Iphigenia was sacrificed to ensure a safe journey for the Achaean
fleet.

ὀνομάζεται καὶ ὅσα σκευάζεται δι' ἀνθῶν²² ἢ ῥιζῶν ἢ βοτανῶν ἢ φύλλων ἢ βλαστῶν ἢ καρπῶν.

197K εἴρηται δ' αὐτάρκως μὲν ὑπὲρ αὐτῶν ἀπάντων ἐν τῇ περὶ φαρμάκων πραγματείᾳ· λεχθήσεται δὲ καὶ κατὰ τὸν ἐνεστῶτα λόγον ἐν οἰκείῳ καιρῷ. νῦν δὲ τοῦτ' ἀρκεῖ μόνον εἰπεῖν, ὡς, ὅπερ ἂν ἡ γλυκύτετον ἔλαιον, ἐπιτηδειότατόν ἐστιν εἰς τὰ παρόντα. τούτῳ τοίνυν χρῆσθαι δαψιλῆ μετὰ τρίψεως πολλῆς, ἐν μὲν τῇ πρώτῃ τῶν ἡμερῶν ὑπὲρ τοῦ μηδ' ὅλως γενέσθαι τὸν ὑποπτευόμενον ἔσεσθαι κόπον, ἐν δὲ τῇ δευτέρᾳ χάριν τοῦ λῦσαι τὸν ἤδη γεγονότα. λύει δ' αὐτὸν τὸ καλούμενον ἀποθεραπευτικὸν γυμνάσιον, ἐν ᾧ καὶ κινήσεις ἐνεστι ποιεῖν συμμέτρος μὲν τῇ ποσότητι, βραδυτέρας δὲ τῇ ποιότητι, μετὰ πολλῶν τῶν μεταξὺ διαναπαύσεων, ἐν αἷς χρῆ τρίβειν τὸν ἄνθρωπον, ἐφαπτομένων ὁμοῦ πλειόνων, ὅπως μήτε καταψύχοιτό τι μέρος αὐτοῦ καὶ τάχιστα διαφοροῖτο τὰ περιτώματα. πλεονάζειν δὲ χρῆ ταῖς μὲν τρίψεσι κατὰ τὸν ἐν τῷ δέρματι τε καὶ ὑπὸ τῷ δέρματι τὸ πλῆθος τῶν περιπτωμάτων ἔχοντα, ταῖς δ' ἐξ ἑαυτοῦ κινήσεσι κατὰ τὸν ἕτερον κόπον, ᾧ τὸ πλεόν ἐν τοῖς μυσίν ἤθροισται. τὰ γὰρ ἐν τούτοις περιπτώματα τρίψις μόνη διαφορεῖν οὐχ ἱκανή. δέεται γὰρ οὐκ ἕξωθεν μόνον ἔλκεσθαι πρὸς τινος, ἀλλὰ καὶ συναπωθεῖσθαι πρὸς ἑτέρου τινὸς ἕσωθεν. ἐπωθεῖ δ' αὐτὰ τό τ' ἀναπτόμενον θερμὸν ἐν ταῖς κινήσεσι καὶ τὸ συνεκκρι-

²² ἀνθῶν Κο; ἀλῶν Κυ

those that are prepared from flowers, roots, herbs, shoots, leaves or fruits.

Enough has been said about all these in the work on medications¹⁵ and will be said in the present work at an appropriate time. For now it suffices to say this alone— 197K whichever oil is sweetest is most suitable for the present purposes. Accordingly, use this abundantly with much massage. On the first of the days, in order that the fatigue which is suspected of being imminent may not happen at all, and on the second day, for the sake of resolving that which has already come about. The so-called apotherapeutic exercise, in which it is also possible to make movements which are moderate in quantity and slower in quality, along with many rests in between, dispels this. During rests, it is necessary to massage the person, many together applying it, so no part of him is chilled and the superfluities are very quickly dispersed. It is, however, necessary to use the massages in excess in someone who has a large amount of superfluities in and under the skin, but to increase the movements of the person himself in another kind of fatigue in which the majority [of the superfluities] are collected in the muscles. Massage alone is not sufficient to disperse the superfluities in these, for they not only need to be drawn toward something externally but also to be pushed on by something else internally. The heat which is kindled in the movements pushes them on, 198K

¹⁵ Galen's three major works on materia medica / pharmacology are listed in note 37, p. 106 above. See particularly *Simpl. Med.*, XI.471Kff.

νόμενον πνεῦμα καὶ ἡ αὐτῶν τῶν μυῶν ἔντασις, ἐξ ἐπιμέτρου δὲ καὶ ἡ καθ' ἕκαστον τῶν μορίων ἀποκριτική τῶν ἀλλοτρίων δύναμις.

ὁ δὲ ἕτερος κόπος, ἐφ' οὗ συντάσεως αἰσθάνονται, τὸν σκοπὸν τῆς ἰάσεως ἔχει τὴν πρὸς Ἱπποκράτους ὀνομαζομένην χάλασιν· ἐναντίον γὰρ τοῦτο τῇ συντάσει, καθάπερ τῇ σκληρότητι ἢ μάλαξις. ἔλεγεν οὖν ὧδε· “δέρματος σκληροῦ μάλαξις, συντεταμένου χάλασις,” ὡς ἐναντίον ὑπάρχον τῷ μὲν σκληρῷ τὸ μαλακόν, τῷ δὲ συντεταμένῳ τὸ χαλαρόν. χαλάται δὲ τὸ συντεταμένον ἐν μὲν ταῖς ἄλλαις διαθέσεσιν, ἅς ἐν τῷ πέμπτῳ Περὶ τῆς τῶν ἀπλῶν φαρμάκων δυνάμεως εἵπομεν, ἐτέρως, ἐπὶ δὲ τῇ διὰ τὰ γυμνάσια τρίψει μὲν ὀλίγη τε ἄμα καὶ μαλακῇ δι' ἐλαίου γλυκέος εἰληθεροῦς, ἀναπαύσει τε ὅλως ἢ ἡσυχία ἢ καὶ λουτροῖς εὐκράτοις καὶ διατριβῇ πλέονι κατὰ τὸ θερμὸν ὕδωρ, ὥστε, εἰ καὶ δις αὐτὸν ἢ καὶ τρις λούσαις, ὀνήσεις μειζόνως. οὗτοι καὶ μετὰ τὰ βαλανεῖα ἀλείφεσθαι δέονται πρὶν ἀμφιένυσθαι· καὶ εἰ δι' ἰδρῶτά τινα τύχοιεν ἀπομάξαντες τὸ λίπος, αὐθις ἀλείφεσθαι χρήζουσι. καὶ μέντοι καὶ κατὰ τὴν ἐξῆς ἡμέραν ἀναστάντες ἐκ τῆς κοίτης ἀλειφθῆναι δέονται, μηδέποτε ἄκρως ψυχρῷ τῷ ἐλαίῳ μηδὲ σκληρῶς ἀνατριβόμενοι. γίνεται δ' ὁ τοιοῦτος κόπος εὐχύμοις ἀνδράσι πονήσασιν εὐτονα μᾶλλον ἢ ὀξέα γυμνάσια, καὶ δεινῶς ὀκνηροῦς τε καὶ δυσκαμπεῖς ἐργάζεται τοὺς κοπωθέντας, οὐ μὴν πυκνοί τε καὶ φρικώδεις οἱ τοιοῦτοι φαίνονται, καθάπερ οἱ μικρὸν πρόσθεν εἰρημένοι. προσεσταλμέ-

as does the accompanying evacuated breath (*pneuma*) and the tension of the muscles themselves, and over and above these, there is the eliminative capacity for alien things in each of the parts.

The other fatigue in which people are aware of tension has, as the aim of the cure, what Hippocrates called relaxation; for this is opposite to tension, just as softening is to the hardness. What he said was this: “Softening of hard skin and relaxation of tension,” as the soft is opposite to the hard and the relaxed is opposite to the tense.¹⁶ Relaxation of what is tense in the other conditions, which I spoke about in the fifth book of *On the Nature and Powers of Simple Medications*,¹⁷ is different from that due to exercises, which will stop completely after a small amount of soft massage with sweet oil warmed by the sun, or with rest, *eukratic* baths and spending a longer time in warm water, so that if you also bathe the person two or three times, you will help rather more. These people also need to be anointed with oil after the baths before they are dressed. And if, due to some sweat, they happen to have wiped off the oil, they need to be anointed again. And, of course, also on the following day, when they get out of bed, they need to be anointed, but never with extremely cold oil, nor should they be massaged firmly. Such a fatigue occurs in *euchymous* men who have exerted themselves in vigorous rather than rapid exercise, and it makes those who are fatigued terribly sluggish and inflexible, although such men do not appear condensed and shivering, like those I spoke of a little earlier. But these men are no less

¹⁶ Hippocrates, *On the Use of Liquids* 1, Hippocrates VIII, LCL 482, 320–21. ¹⁷ *Simpl. Med.*, XI.741K.

νοι δ' οὐδὲν ἤττον ἐκείνων οὗτοι καὶ αὐχμώδεις ὀρώνται, καὶ θερμότεροι τοῖς ἀπτομένοις εἶναι δοκοῦσιν οὐ μόνον τῶν τὴν ἐλκώδη διάθεσιν ἔχόντων, ἀλλὰ καὶ σφῶν αὐτῶν, ὅθ' ὑγίαινον.

200K 7. Ὁ δὲ τρίτος τῶν κόπων ἐπὶ σφοδροτάταις γίνεται κινήσει καὶ μόνος ἐξαίρει τοὺς μῦς εἰς ὄγκον ὑπὲρ τὸ κατὰ φύσιν, ὡς εἰκέναι φλεγμονῇ τὴν διάθεσιν αὐτῶν. ταῦτά τοι καὶ ψαύοντων ὀδυνῶνται καὶ θερμότεροι φαίνονται ὀδυνῶνται δὲ καί, ἢν αὐτοὶ καθ' ἑαυτοὺς ἐπιχειρήσωσι κινεῖσθαι. ἀήθεσι δὲ γυμνασίῳ ἀνθρώποις ὁ τοιοῦτος κόπος ὡς τὰ πολλὰ συμπίπτει, γυμνάζεσθαι δ' εἰθισμένοις ὀλιγάκις ἐγένετο κατὰ τὰς σφοδροτάτας τε ἅμα καὶ παμπόλλας κινήσεις. ἡ δὲ ἴασις αὐτοῦ τρεῖς ἔχει τοὺς σκοπούς, οὗσπερ σχεδόν τι καὶ τὰ φλεγμαίνοντα σύμπαντα, κένωσιν τοῦ περιττώματος καὶ ἀνάπαυσιν τοῦ συντεταμένου καὶ ἀνάψυξιν τοῦ φλογώδους. ἔλαιόν τε οὖν πολὺ χλιαρὸν αἶ τε τρίψεις μαλακώτεραι καὶ ἢ ἐν τοῖς εὐκράτοις ὕδασι διατριβὴ πολυχρονωτάτη τοὺς τοιούτους ἰᾶται κόπους. εἰ δὲ καὶ βραχὺ τι χλιαρώτερον εἴη τὸ ὕδωρ, ὀνήσει μᾶλλον. οὕτω δὲ καὶ ἡσυχία πολλὴ καὶ ἀλείμματα συνεχῇ καὶ πάνθ' ὅσα τὸ μὲν κεκμηκὸς ἀναπαύει τε ἅμα καὶ παρηγορεῖ, τὸ δὲ περιττὸν διαφορεῖ.

τάχα δ' ἂν τις οἰηθείη τὸν τοιοῦτον κόπον οὐχ ἀπλοῦν οὐδὲ τρίτον ἐπὶ τοῖς εἰρημένοις ἔμπροσθεν δύο, σύνθετον δ' ὑπάρχειν ἐξ αὐτῶν, οὐδὲν ἔχοντα πλεον τῆς τε τάσεως τῶν νευρωδῶν σωμαίων καὶ τῆς

drawn tight than those, and look dried out and seem hotter to those who touch them, not only than those with the wound-like condition, but also than they themselves were when healthy.

200K 7. The third of the fatigues occurs after very violent movements and alone raises the muscles to a swelling beyond an accord with nature, so their condition seems like inflammation. They are certainly painful when touched and seem overly hot; and [those affected] suffer pain too, if they attempt to move by themselves. Such a fatigue for the most part befalls men unaccustomed to exercises; it has rarely occurred in those accustomed to exercises, even with movements that are very violent and prolonged. The cure of this has three aims which are those of almost all the inflammations—evacuation of the superfluity, putting an end to the tension, and cooling of what is inflamed. Thus, oil that is abundant and lukewarm, massages that are quite gentle, and a very prolonged time spent in *eukratic* waters cure such fatigues. If the water is slightly more lukewarm, it will help more. In this way too, a lot of rest, continuous use of unguents, and all those things that relieve and at the same time provide comfort for what is fatigued, and disperse the superfluity [will help].

Perhaps someone might think such a fatigue is neither simple nor a third form following the two previously spoken of, but is a compound of these, being nothing more than the stretching of the sinewy bodies and the wound-

201K ἑλκώδους αἰσθήσεως· τὴν γὰρ θερμότητα τοῖς τοιού-
τοις κόποις ἄλλως μὲν ὑπάρχειν φύσει, καθάπερ καὶ
τῶν προειρημένων ἑκατέρω, οὐ μὴν συμπληρωτικὴν
γε τῆς ἐννοίας ἢ τῆς οὐσίας εἶναι. ἀλλὰ τοι τό γε τοῦ
παρὰ φύσιν ὄγκου τούτῳ τῷ κόπῳ μόνῳ παρὰ τοὺς
ἄλλους ἐξαίρετον ὑπάρχει καὶ τὸ τῆς ἀλγεινῆς αἰσθή-
σεως οὐχ ὅμοιον ἔν γε τῷ τουώδει κόπῳ καὶ τῷδε.
τείνεσθαι μὲν γὰρ ἐν ἐκείνῳ, τεθλάσθαι δὲ τὰ νεῦρα
σύμπαντα μέχρι καὶ τῶν ὀστέων οἱ τούτῳ τῷ κόπῳ
κατεχόμενοι νομίζουσιν· ὥστε κατὰ γε ταῦτα δια-
φορὰν τινα ἐξαίρετον ἔχει παρὰ τοὺς ἄλλους δύο κό-
πους, οὐχὶ σύνθετός ἐστι μόνον.

202K αὗται μὲν δὴ τρεῖς εἰσιν, εἴτε καταστάσεις σώμα-
τος εἴτε διαθέσεις εἴθ' ὅ τι βούλεται τις ὀνομάζειν.
ἄλλη δ' ἐπ' αὐταῖς τετάρτη, παραπλησία μὲν ὑπάρ-
χουσα κόπῳ, κόπος δ' οὐκ οὔσα, τῷ μήτε τὴν ἑλκώδη
μήτε τὴν τουώδη μήτε τὴν φλεγμονώδη διάθεσιν
ἔχει, ἀλλὰ μηδὲ φρίκην τινὰ μηδ' ἄλγημα μηδὲ τὸν
πρὸς τὰς κινήσεις ὄκνον ὅμοιον τοῖς κόποις ἐπιφέρειν,
ἰσχύνητα δὲ μόνην ἅμα ξηρότητι. γίνεται μὲν οὖν ἐν
εὐχύμοις τε ἅμα καὶ γυμναστικοῖς σώμασιν, ὅταν
ἀμετρότερον γυμνασθέντα μὴ καλῶς ἀποθεραπευθῆ.
διαφορεῖται γὰρ οὕτω τὰ περιττώματα καὶ χαλᾶται
τὰ τεταμένα καὶ οὐδὲν ἄλλο ὑπολείπεται κατὰ τὸ
σῶμα πλὴν ξηρότητος, ἣν ἐκ τῆς ἀμετροτέρας κινή-
σεως ἔσχον.

δεῖται δὲ κατὰ μὲν τὴν πρώτην ἡμέραν οὐδενὸς
ἐξηλλαγμένου παρὰ τὰ πρόσθεν, ὅτι μὴ θερμότερου

201K like sensation, for the heat in such fatigues is different in
nature, as is that in each of those previously mentioned,
and is not an essential part of either the concept or the
essence. But certainly the presence of the swelling con-
trary to nature in this fatigue alone is remarkable com-
pared to the others, and the presence of the painful sensa-
tion is not the same in the tensive fatigue and in this one.
For there is tension in the former, whereas those pos-
sessed by this fatigue think all the sinews are bruised right
to the bones. So, because of this feature, there is a certain
notable difference compared to the other two fatigues—it
is not just a compound.

202K Surely, then, there are three [fatigues], and they are
either states of the body or conditions or whatever some-
one wishes to call them. But there is another and fourth
in addition to these, which is like a fatigue without actually
being a fatigue in that it is neither the wound-like, nor the
tensive, nor the inflammation-like condition. But neither
is there shivering, pain or hesitancy of movement like that
which accompanies the fatigues; there is only thinness
along with dryness. It occurs in *euchymous* and trained
bodies whenever they are exercised immoderately without
proper apothecary. For in this way, the superfluities are
dispersed, those structures that are tense are relaxed, and
nothing else remains in the body except dryness, which
comes from the more excessive movement.

During the first day nothing needs to change from the
previous days, unless the water is hotter so as to draw to-

τοῦ ὕδατος, ὡς συναγαγεῖν ἀτρέμα καὶ θερμῆναι καὶ
 τονῶσαι τὸ δέρμα, κατὰ δὲ τὴν δευτέραν ἀποθεραπευ-
 τικοῦ γυμνασίου βραχέος τε ἅμα καὶ μαλακοῦ καὶ
 βραδέος ἔν τε κινήσει καὶ τρίψει καὶ τῆς δεξα-
 μενῆς ὁμοίως θερμῆς. ἐκπηδάτωσαν δ' εὐθέως εἰς τὴν
 ψυχρὰν ὑπὲρ τοῦ μένειν αὐτοῖς τὸν ἐν τῷ δέρματι
 τόνον ἅμα θερμότητι. καὶ γὰρ ἦττον ἐν τῷ μετὰ ταῦτα
 χρόνῳ διαφοροῦνται καὶ ῥαδίως εἰς τε τὰς σάρκας
 καὶ τὸ δέρμα τὴν τροφήν ἀναλαμβάνουσιν, οὐ μείζον
 ἀγαθὸν οὐδὲν ἂν ἐξεύροις αὐτοῖς, οὐδεμίαν γε διάθε-
 σιν ἐξαίρετον ἔχουσι παρὰ τὴν τῆς σαρκὸς ἰσχύτητα
 καὶ ξηρότητα. δεῖται δ', οἶμαι, τό γε τοιοῦτον ἀνατρα-
 φῆναί τε ἅμα καὶ ὑγρανθῆναι, καὶ ταῦτ' ἄμφω κάλ-
 λιστ' αὐτῷ γίνεσθαι πέφυκεν ἐκ τῆς ὑγραινούσης
 τροφῆς.

203K

8. Ἐπειδὴ δὲ ἅπαξ ἐμνημόνευσα τῆς ἐπὶ τοῖς λου-
 τροῖς διαίτης, οὐ χεῖρον ἂν εἴη καὶ τὰ περὶ τῶν κο-
 πωδῶν διαθέσεων ἐπεξελεῖν. ὁ μὲν οὖν ἐλκώδης κό-
 πος, εἰ μὲν ἱκανῶς ἀποθεραπευθείη, τῆς συνήθους
 δεῖται τροφῆς ἢ τι βραχὺ μείονος, ἔτι δ' ὑγροτέρας
 τε ἅμα καὶ ἐλάττονος· εἰ δὲ κατὰ τὴν ἀποθεραπείαν
 εἰς τὴν τετάρτην μεταπέσοι διάθεσιν (εἶωθε γὰρ οὕτω
 γίνεσθαι τὰ πολλά), κατ' ἐκείνην καὶ λουέσθω καὶ
 τρεφέσθω. ὁ δὲ τονώδης ἔτι δὴ καὶ μᾶλλον ὀλιγω-
 τέρας δεῖται τροφῆς· ὁ δὲ φλεγμονώδης ὑπὲρ ἅπαντας
 ὑγροτάτης τε καὶ βραχυτάτης καὶ τι καὶ ψυχὸν ἐχού-
 σης. εὐχύμου δ' ὁμοίως πάντες οἱ κεκοπωμένοι δέον-
 ται τροφῆς, ὅποια δηλονότι καὶ ὑγιαίνων ὁ ὑποκείμε-

gether gently, heat and brace the skin. However, during
 the second day, there is need of apotherapeutic exercise
 that is brief, soft, and slow in movements and massages;
 similarly, there is need of the hot tank. Let those so af-
 fected jump out immediately into the cold tank, for the
 sake of preserving in them the tone in the skin along with
 the heat. For in the time after these things, they are dis-
 sipated less and easily take up nourishment to the flesh
 and skin. You would find nothing better for them as they
 have no notable condition apart from thinness and dryness
 of the flesh. Such a body needs, I think, to be built up and
 moistened, and both these things best come about in it
 naturally from nutriment that moistens.

8. Since I have only once mentioned the diet after
 baths, it would be no bad thing to go over those matters
 also concerning the fatigue conditions. Thus, the wound-
 like fatigue, if it is to be treated adequately with apo-
 therapy, requires the customary nourishment or slightly
 less, and less of those nutrients that are more moist. If, in
 relation to apotherapy, it should undergo a change to the
 fourth condition (for this is wont to occur in many in-
 stances), in that condition, both bathe and nourish [the
 person]. However, the tensive fatigue needs even more
 reduction of nutriment, while the inflammation-like fa-
 tigue above all needs nutriment that is very moist and very
 small in amount, and which also contains something cold.
 All those who are fatigued have a similar need for *euchy-*
mous nutriment of the kind, clearly, that the healthy young

203K

νος ἐν τῷ λόγῳ νεανίσκος ἐχρήτο. φυλάττεσθαι δὲ προσήκει τὸ γλίσχρον ἐν αὐτῇ κατὰ τε τὸν ἐλκώδη καὶ τὸν φλεγμονώδη κόπον, ὡς ἂν κωλύον διαφορεῖσθαι τὰ περιπτώματα. κατὰ μέντοι τὸν τονώδη καὶ τὰ τοιαῦτα σιτία δοτέον, ἀφαιρούντα τοῦ πλήθους αὐτῶν.

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οὐδὲν οὖν θαυμαστὸν ἐναντιολογίαν εἶναι πολλὴν οὐκ ἰδιώταις μόνον ἐν ἀλλήλοις, ἀλλὰ καὶ τεχνίταις πρὸς ἑαυτούς τε καὶ τοὺς ἰδιώτας, οὔτε περὶ γυμνασίων οὔτε περὶ τρίψεων οὔτε περὶ λουτρῶν οὔτε περὶ διαιτημάτων ὁμολογοῦσιν ὑπὲρ τῶν κοπωθέντων. ἀκοῦσαι γοῦν ἔστι τῶν μὲν φασκόντων, ὡς κόπῳ χρὴ λύειν τὸν κόπον, ἐτέρων δέ, ὡς ἀνάπαυσις ἰάται τὸν κάματον, καὶ τῶν μὲν, ὡς ἐνδεῶς χρὴ διαιτᾶσθαι τοὺς κοπωθέντας, ἄλλων δέ, ὡς οὐ μόνον <οὐκ>²³ ἀφαιρεῖν προσήκει τῶν εἰθισμένων, ἀλλὰ καὶ τοσούτῳ πλείω προσφέρειν, ὅσῳπέρ τις ἔτυχε πλείω γυμνασάμενος ἀνὰ λόγον γὰρ χρῆναι τοῖς πόνοις προσφέρεσθαι²⁴ τὰς τροφάς, ἄλλων δέ τινων, ὡς οὔτε προστιθέναι χρὴ ταῖς τροφαῖς οὔτ' ἀφαιρεῖν. οὕτω δὲ καὶ λούουσιν οἱ μὲν εὐκράτοις ὕδασι, οἱ δὲ θερμότεροι, οἱ δὲ χλιαρωτέροι. ἢ τε γὰρ ἐμπειρία πρὸς ἐκεῖνο μόνον ἕκαστον ἀπάγει, πρὸς ὅπερ ἔτυχε θεασάμενος πολλάκις, ὃ τε λόγος, ὡς ἂν μὴ τέλειος ὑπάρχων ἐκάστῳ, καθάπερ ἐδείκνυτο πρόσθεν, ἀλλὰ μίαν τινὰ διάθεσιν ἐκδιδάσκων κοπώδη, τὰς δ' ἄλλας ὥσπερ οὐκ οὔσας ὑπερβαίνων, ἐκείνης μόνης ἐκδιδάσκει τὴν ἐπανόρθωσιν, ἧς ἔγνω μόνης.

205K

man assumed in the discussion might use. It is appropriate to guard against what is viscous in the nutriment, both in the wound-like and inflammation-like fatigues, as it would prevent the superfluities being dispersed. However, in the tensive fatigue, one must give such foods while keeping away from an excess of them.

It is not surprising, then, that there is a great difference of opinion, not only in laymen between one another, but also between experts among themselves and with respect to layman; since they agree neither about exercises, nor massages, nor baths, nor regimen for those who are fatigued. Anyway, it is possible to hear some claiming it is necessary to resolve fatigue with fatigue, while there are others who say that rest cures the weariness; and some, that it is necessary to feed those who are fatigued sparingly, and others who say it is not only inappropriate to take away those things that are customary nourishment, but also more should be provided to the extent that they happen to have been exercising more, for it is necessary to provide nutriments in proportion to their exertions. But there are others who say it is neither necessary to add to the nutriments nor to take them away. It is the same with baths. Some use *eukratic* waters, some hotter waters and some more lukewarm waters. For experience leads each person only to that which he has happened to see often and theory is not conclusive in each case, as was shown before. And when a person is taught one particular fatigue condition, he passes over the others as not existing and teaches the correction only of that one which alone he has known.

204K

205K

²³ οὐκ *add.* Ko²⁴ προσφέρεσθαι Ko; προσαίρεσθαι Ku

ἀληθές γοῦν ἔστι καὶ τὸ κόπῳ λύεσθαι τὸν κόπον, ὅταν γε δὴ φαίνηται ποτε δέον εἶναι τοῖς ἐν τῇ προ-
 τεραία γυμνασίοις ἴσα κατὰ τὴν ὑστεραίαν γυμνάζε-
 σθαι, καὶ τὸ τὴν ἴασιν τῶν κόπων ἡσυχίαν ὑπάρχειν.
 τούτων γὰρ τὸ μὲν ἐν τοῖς περιττωματικοῖς κόποις,
 καὶ μάλισθ' ὅσοι κατὰ τοὺς μῦς ἔχουσι τὰ περι-
 τώματα, τὸ δ' ἐν τοῖς τουώδεσί τε καὶ φλεγμονώδεσι
 φαίνεται συμφέρον. ἀληθές δὲ καὶ τὸ χρῆναι τοὺς
 κοπωθέντας ἐνδεῶς διαιτᾶσθαι· τοῦτο γὰρ ἐώραται
 τοὺς φλεγμονώδεις ὠφελοῦν. ἀληθές δὲ καὶ τὸ τὰ
 συνήθη διδόναι· τοῦτο γὰρ ἐπὶ τῶν ἐλκωδῶν, ὅταν
 ἀποθεραπευθῶσιν, ὀρθῶς τετήρηται γινόμενον, ὥσπερ
 γε καὶ τὸ πλείω λαμβάνειν ἐπὶ τῆς ὁμοιουμένης τοῖς
 κόποις διαθέσεως, εἰς ἣν κακὴ τῆς ἐλκώδους ἐνιοὶ
 μεταπίπτουσιν.

οὕτω δὲ καὶ τὸ λούειν εὐκράτοις ὕδασι ἀληθές ἐπὶ
 τοῖς περιττωματικοῖς κόποις. ἀληθές δὲ καὶ τὸ μὴ
 206K λούειν τοιούτοις ἐπὶ τε τῶν φλεγμονωδῶν χλιαρω-
 τέρων γὰρ οὗτοι δέονται κατὰ τῆς ὁμοίας κόπῳ δια-
 θέσεως οὗτοι γὰρ οὐ χρήζουσι θερμότερων. οἴονται δ'
 ἐνιοὶ καὶ τὴν τοιαύτην διάθεσιν εἶναι κόπον. ἕτεροι δέ
 τινες ὅποια μὲν τίς ἐστὶν ἡ διάθεσις οὐκ εἶπον, ἐφ' ὧν
 δ' ἂν ὑποψία τις ἢ γενησομένου κόπου συμβουλεύ-
 ουσιν θερμότερῳ χρῆσθαι τῷ κατὰ τὸ λουτρὸν ὕδατι
 καὶ προστιθέασιν δὲ τὴν αἰτίαν, ὡς ἡμεῖς ἔμπροσθεν
 ἔφαμεν, οἱ μὲν ἀναδόσει φάσκοντες, οἱ δὲ θρέψει συν-
 τελεῖν τὸ τοιοῦτον λουτρὸν, οὐ μὴν καθ' ὄντινά γε
 λόγον οἷα τε κωλύειν ἐστὶ κόπον ἀνάδοσις τε καὶ θρέ-

At any rate, both are true: fatigue is resolved by fatigue,
 whenever there obviously seems to be a need, on a par-
 ticular occasion, for the exercises of the previous day to be
 practiced to an equal extent on the day after, and rest is
 the cure of the fatigues. Of these [two approaches], the
 former applies in the excrementitious fatigues, and par-
 ticularly those who have the superfluities in the muscles,
 while the latter seems beneficial in the tensive and inflam-
 mation-like fatigues. It is also true that you must feed
 those who are fatigued a reduced diet, for this is seen to
 benefit the inflammation-like fatigues. And it is also true
 that you must give the customary nutriment, when peo-
 ple are receiving apothecary. In the case of the wound-like
 fatigues, this is properly protective, just as it also is to take
 more [food] in the case of the condition corresponding to
 the fatigues, into which some change from the wound-like
 fatigues.

In the same way too, it is true that you must bathe in
eukratic waters for the excrementitious fatigues. It also
 true that you must not bathe in such waters for the inflam-
 mation-like fatigues, for these require more lukewarm
 water; in the condition resembling fatigue, they do not
 need warmer water. Some also think that such a condition
 is a fatigue. Some others, however, do not say what kind
 of condition it is; among these are those who, when there
 is some suspicion it will become a fatigue, advise the use
 of warmer water in the bath, adding the reason, as I said
 before, that such a bath contributes to distribution and
 others that it contributes to nutrition. But they do not
 expound any reason as to why distribution and nutrition

207K ψις ἐκδιδάσκουσιν, ἀλλ' οὐδὲ τὴν ἀρχὴν ὅποια τίς ἐστίν ἢ τοῦ κόπου διάθεσις, οὐδὲ τοῦτο γράφουσιν. οἱ γοῦν πλείους αὐτῶν οὐδὲν εἶπον, ἔνιοι δὲ τολμήσαντες εἰπεῖν ἀπεφήναντο ξηρότητα. τὸ μὲν οὖν ὑπὸ τροφῆς θεραπεύεσθαι ξηρότητα καὶ μάλιστα τῆς ὑγραινούσης, ὅπερ οὐδ' αὐτὸ προστιθέασιν οἱ πλείους αὐτῶν, ἀληθέστατον, οὐ μὴν οὐτ' ἴαμα τῶν κόπων ἐστὶν οὔτε προφυλακὴ τὸ τοιοῦτον. ἀλλ' ὅταν, ὡς εἴρηται, ξηρότερα μὲν ἀπεργασθῆ τὰ μόρια, μήτε δὲ τάσις ἢ κατ' αὐτὰ μηδεμία μήτε περιττώματα λεπτὰ καὶ δριμύα μήτε φλεγμονώδης διάθεσις, ἀνατρέφειν δῆπου προσήκει τὰ διὰ τὴν κένωσιν ἐξηραμμένα τροφαῖς ὑγραινούσαις, ὡς, εἴ γε μὴ ἀναθρέψειας αὐτάρκως, ἰσχυρότερόν τε καὶ ξηρότερον ὄψει κατὰ τὴν ἐξῆς ἡμέραν ἑαυτοῦ τὸ σῶμα.

καὶ ταύτην τὴν διάθεσιν ἔνιοι κόπον ὑπολαμβάνοντες ὑπάρχειν οἴονται θερμότερῳ λουτρῷ καὶ τροφῇ δαψιλεῖ κεκωλυκέναι τὴν γένεσιν αὐτῆς. ἀλλ' ἐκεῖνο θαυμάζειν ἐνίων ἄξιον, ὥσπερ καὶ Θεώνος, εἰ τὸν ἤδη γεγεννημένον κόπον οὐκ ἀξιοῦσιν ὁμοίως ἰᾶσθαι. εἴτε γὰρ ἦν νῦν εἴρηκα διάθεσιν ὑπολαμβάνει τις εἶναι κόπον, ἀναθρέψει χρὴ λύειν αὐτὸν καὶ κωλύειν γενέσθαι, εἴτε τῶν ἄλλων τινὰ τῶν ὄντως κόπων, ἐνδεέστερον ἐπὶ πάντων χρὴ τρέφεσθαι τὸν ἄνθρωπον, ἔτι τε προσδοκωμένων καὶ ἤδη γεγενομένων. οὐδὲ γὰρ τοῦτ' ἐστὶν εἰπεῖν, ὡς ἢ τετάρτη²⁵ διάθεσις ἢ παρακει-

²⁵ τετάρτη Κο; τοιαύτη Κυ

are the kinds of things that prevent fatigue, nor do they set down what sort of condition fatigue is in the first place. Anyway, the majority of them said nothing, although some, when they dared to speak, declared flatly that it was dryness. What is most true—and the majority of them do not add this—is that dryness is treated by nutriment and particularly by moist nutriment, but this is not a cure of the fatigues, nor is it prophylactic for such a thing. Rather when, as I said, the parts are made too dry, there is not any tension in them at all, nor are the superfluities thin and acrid. Nor is it an inflammation-like condition, although it may of course be fitting to restore with moist nutriments what has been taken away from these parts dried by the evacuation, because, if you were not to feed sufficiently, you would see on the following day the body thinner and drier than it was. 207K

There are some who, since they assume this particular condition to be a fatigue, think they have prevented the genesis of it with a hotter bath and abundant nutriment. But what is deserving of surprise among these people, of whom Theon is an example, is that if the fatigue has already come about, they do not think it worthwhile to treat it in a similar fashion. For if someone assumes the condition I have spoken about just now is a fatigue, he must resolve it or prevent it occurring by restoration,¹⁸ and if it is one of the other genuine fatigues, the greater need in all cases must be to nourish the person, whether the fatigue is anticipated or has already occurred. For this cannot be said: that the fourth condition lying close to the

¹⁸ On the use of ἀναθρέψεις here (given in LSJ as “renewal” or “restoration”), see Hippocrates, *Aphorisms* 1.3.

208K μένη τοῖς κόποις, εἰ μὴ κατὰ τὴν πρώτην ἡμέραν ἐπανορθωθείη δι' εὐτροφίας, εἰς τινα τῶν τριῶν μεταπίπτειν εἴωθεν. εἰ μὲν γὰρ αὐτὸ τοῦτο μόνον εἴη κατ' αὐτὴν ἢ ξηρότης, ἰσχυρότητος οὐδὲν ἀκολουθήσει πλέον· εἰ δὲ καὶ θερμότης τις συνείη, πυρέξαι κίνδυνος. οὐ μὴν ταῦτόν γ' ἐστὶ κόπος καὶ πυρετός, εἰ καὶ ὅτι μάλιστα τῶν κοπωθέντων ἐπύρεξαν ἔνιοι.

θαυμάζειν οὖν ἐπέρχεται μοι Θέωνος ἐν τῷ τετάρτῳ τῶν κατὰ μέρος γυμνασίων, ἐν οἷς περὶ τοῦ τελείου γυμνασίου διεξέρχεται, τάδε γράφοντος· “καὶ κόπου τινὸς τοῖς οὕτω γυμνασθεῖσιν ὡς τὰ πολλὰ τῇ ἐξῆς ἡμέρᾳ παρακολουθοῦντος, ἢ ζεστολουσία παραιτεῖται τὴν πρὸς τὸν κόπον ἐπιτηδειότητα, πυροῦσα τὴν ἐπιφάνειαν, ἵνα αὕτη σικύας τρόπον τὴν λαμβανομένην τροφήν ἐπισπώμενη τοῖς κεκμηκόσι ἀντιδιέλθῃται νεύροις.” οὗτος μὲν γὰρ πρὸς τοῖς ἄλλοις ὡσπερ ἀινιγμάτι τὸ “ἀντιδιέλθῃται” ῥῆμα παρέλαβεν ἐν τῷ λόγῳ. δύναται μὲν γὰρ τις ἀκούειν, ἵνα ἢ ἐπιφάνεια σικύας τρόπον ἐπισπώμενη τὴν τροφήν μέρος ἐξ αὐτῆς τι καὶ τοῖς νεύροις παρέχῃ· δύναται δὲ καὶ τούναντίον, ἵνα ἢ ἐπιφάνεια σικύας τρόπον ἐφ' ἑαυτὴν ἀντισπῶσα τὴν ἐπὶ τὰ νεῦρα φερομένην τροφήν μερίζηται. ὥστε 209K κατὰ μὲν τὸν πρότερον λόγον εἰς εὐτροφίαν τοῖς νεύροις συναίρεσθαι²⁶ θερμανθὲν τὸ δέρμα (τοῦτο γὰρ

²⁶ συναίρεσθαι Κο; ἐπιτηδεύεσθαι Κυ

¹⁹ The term rendered “bathing in hot water” is ζεστολουσία, for which LSJ has “wash in hot water,” citing only the uses in this chapter.

208K fatigues, if it is not corrected on the first day with good nutrition, is wont to change into one of the three (fatigues). If the dryness itself is the only factor, nothing more than thinness will follow; if, however, there is also some heat present with it, there is a danger of fever. Fatigue and fever are not the same things, even if it is particularly the case that some of those who are fatigued have become febrile.

It comes, then, as a surprise to me when Theon, in his fourth book on the particulars of exercises, in which he goes over the completion of exercise, writes as follows: “Since fatigue on the following day is a close association in those who have undertaken gymnastic exercise in such a way, as a general rule bathing in hot water¹⁹ provides the most suitable relief for fatigue, heating the surface so that this, in the manner of a cupping glass, draws in the nutriment that is being taken and distributes it to the fatigued sinews.” For in addition to other things, he has made use of the word *antidielētai* enigmatically (like a riddle) in his treatise.²⁰ For someone is able to hear, “in order that the surface, like a cupping glass, drawing to itself the nourishment, may provide some part of it also to the sinews.” But it also possible to hear the opposite, “that the surface, like a cupping glass, may draw the nutriment back to itself which is being carried to the sinews and may distribute it.” 209K Consequently, according to the prior argument, the skin being heated takes care of the good nourishment for the

²⁰ This is the aorist subjunctive middle third-person singular of the verb ἀντιδιαίρέω, which basically means “to distinguish logically.” A second use, labeled “medical” is listed in LSJ as “perhaps distribution,” citing the present passage.

ἡγοῦμαι λέγειν αὐτὸν “ἐπιφάνειαν”), κατὰ δὲ τὸν δεύτερον εἰς ὀλιγοτροφίαν.

ὅσον μὲν οὖν ἐπ’ αὐτῇ τῇ ῥήσει, τὴν γνώμην τοῦ Θεώνος οὐκ ἂν τις ἐξεύροι· ἐξ ὧν δ’ ἐν ἄλλοις τε λέγει καὶ τῷ τρίτῳ²⁷ τῶν Γυμναστικῶν, ἐλάττωνα τροφήν δίδοσθαι βούλεται μετὰ τὸ τέλειον γυμνάσιον. καίτοι γ’ οὐδ’ αὐτὸ τοῦτο διεσάφησε, τίνι ποτὲ λογισμῶ συμβουλεύει. δίδοται μὲν γὰρ ἐλάττων τροφή τῆς συνήθους ἢ τῷ μὴ δεῖσθαι τῆς ἴσης ἢ τῷ μὴ δύνασθαι πέψαι. τὸ μὲν οὖν πρότερον οὐκ ἀληθὲς ἐπὶ τῶν πολλὰ γυμνασασμένων, τὸ δὲ δεύτερον ἔστιν ὅτε μὲν ἀληθὲς, ἔστιν ὅτε δὲ ψευδές. εἰ μὲν γὰρ ἀρρωστοτέρα ἔχοιεν τὴν πεπτικὴν δύναμιν, ἀληθὲς, εἰ δὲ μὴ ταύτην, ἀλλ’ ἑτέρα τινά, ψευδές. ἀκούειν δὲ χρὴ πεπτικὴν δύναμιν οὐ τὴν ἐν γαστρὶ μόνον ἢ φλεβῖν ἢ καθ’ ἡπαρ, ἀλλὰ καὶ τὴν καθ’ ἕκαστον μόριον, ὥσπερ ἐν τοῖς παροῦσι τὴν ἐν τοῖς μυσίν, ἐν οἷς δὴ καὶ μάλιστα ἔστιν ἡ διάθεσις, ὑπὲρ ἧς διαλεγόμεθα. διαφορηθέντες γὰρ ἐπὶ πλεον ἐν τοῖς γυμνασίοις ἰσχυρότεροί τε καὶ ξηρότεροι γίνονται. εἰ μὲν οὖν ἐπ’ ὀλίγον αὐτοῖς ταῦτα συμβαίη, κατεργάζεσθαι δύνανται τροφήν, ὅσησπερ δέονται· εἰ δέ τι πολὺ τοῦ κατὰ φύσιν ἀποχωρήσειαν, ἀδυνατοῦσιν. ὧν ὁ Θεών οὐδὲν ὅλως οὔτ’ ἐνενόησεν οὔτε διωρίσατο.

τὴν ἀρχὴν γὰρ οὐδ’ ἐκ λόγου τινός, ἀλλ’ ἐξ ἐμπειρίας, ὡς καὶ αὐτὸς ὁμολογεῖ, τὸ θερμότερον ὕδωρ ἐπὶ τῷ τελείῳ γυμνασίῳ χρήσιμον ὑπάρχον ἐτήρησεν.

sinews (this is what I think he means by “surface”), whereas on the second interpretation, it would be for little nourishment.

Thus, as far as the particular statement is concerned, one would not discover the opinion of Theon. However, from what he says in other places, and also in the third book of his *Gymnastics*, he wishes less food to be given after the completion of exercise. However, he did not make clear what reason he might have for recommending this. Less nourishment than is customary is given either because there is no need of an equal amount, or because it cannot be concocted. The former is not, however, true in the case of those who have exercised a lot, while the latter is sometimes true and sometimes false. For if someone has a digestive capacity that is weaker, it is true, whereas if he does not have this but something else, it is false. It is necessary to understand “digestive capacity” not only in respect of the stomach, veins or liver, but also in each part, just as, in the present circumstances, that in the muscles. Certainly, the condition which I am discussing is in these particularly. For being more dissipated in the exercises, they become thinner and drier. If, then, these things happen to them to a slight extent, they are able to acquire as much nutrition as they need. If, however, there is a major departure from an accord with nature, they are unable to do so. On the whole, Theon neither understood nor distinguished any of these things.

In the first place, not from any theory but from experience, as he himself acknowledges, he observed that warmer water was useful after completed exercise. Thus,

²⁷ τρίτῳ Κο; sign for ἑκκαίδεκα Κυ

οὕτως οὖν ἐφεξῆς γράφει· “τοῦτο δέ, εἰ μὲν καὶ τὸν λόγον ἔχει παρακείμενον, εὐτυχήματος ἔργον, εἰ δὲ μή γε, τὸ πρὸς τῶν ἀποτελεσμάτων ἐπιμαρτυρούμενον οὐ παραδεκτέον, εἰ μὴ καὶ τὸν λόγον ἐξ εὐκαίρου ἔχοι συμπροσπίπτοντα.” εἰ μὲν οὖν ἀκριβῶς ἐξευρῶν τὴν διάθεσιν, ἐφ’ ἧς τὸ θερμὸν ὕδωρ ἐπαινεῖ, τὴν αἰτίαν ἀγνοεῖν ὠμολόγει, συγγνωστός ἂν ἦν εἰκότως· ἐπεὶ δ’ ἀπλῶς εἶπεν ἐπὶ τῶν τελείων γυμνασίων ἀρμόττειν τὴν ζεστολουσίαν οὕτω γὰρ αὐτὴν καὶ ὀνομάζει, δύνανται δὲ πολλαὶ διαθέσεις ἀκολουθησάσαι τῷ τοιούτῳ γυμνασίῳ, μέμψαιτ’ ἂν τις αὐτῷ μὴ διορισμένῳ περὶ πασῶν ἐφεξῆς. αὐτὸς γοῦν οἶδε καὶ τὸν φλεγμονώδη κόπον ἀκολουθοῦντα τῷ τοιούτῳ γυμνασίῳ, καθ’ ὃν εἰς ὄγκον μείζονα τοῦ κατὰ φύσιν ἐξαίρεται τὰ πεπονηκότα, καὶ τὸν ἕτερον, ὃν ὡς ἓνα γράφει, τῷ κοινῷ συμπτώματι προσέχων τὸν νοῦν, ὅπερ ἀντίκειται τῷ παρὰ φύσιν ὄγκῳ.

λεπτότεροι μὲν γὰρ ἐν τοῖς ἄλλοις δύο κόποις ἀποτελοῦνται καὶ προσέτι γε τῇ τετάρτῃ²⁸ διαθέσει, περὶ ἧς ὁ λόγος συνέστηκεν. ἀλλ’ οὐχ, ὥσπερ ἐν κοινῷ συμπτώματι τῶν τριῶν διαθέσεων ἐστίν, οὕτω καὶ ἡ διάθεσις μία. κατὰ μὲν οὖν τὴν ἐπὶ τῇ τάσει τῶν νευρωδῶν σωμάτων οὐ χρὴ λούειν θερμότερῳ τοῦ συνήθους· οὕτω δὲ οὐδὲ κατὰ τὴν ἐπὶ τοῖς περιτώμασι· κατὰ δὲ τὴν ἄνευ τούτων ἰσχύνητα συμφέρει λούειν θερμότερῳ τοῦ συμμέτρου· γίνεται γὰρ

²⁸ τῇ τετάρτῃ Κο; τῇδε τῇ Κυ

he writes as follows: “This, even if it does have an acceptable rationale, is an action of good fortune. If not, it must not be admitted as evidence for the resulting effects, if it does not have a simultaneously occurring theory that is appropriate.” If, therefore, having accurately discovered the condition for which he recommends the warm water, he admits he doesn’t know the cause, his confessing this would be reasonable. However, when he simply said that, in the case of completed exercises, *zestalousia*²¹ (for that is what he terms it) is suitable, and that many conditions can follow such exercise, one might blame him for not making a distinction concerning all of them in order. At all events, he himself also knew the inflammation-like fatigue that follows such exercise, in which those parts affected are raised into a swelling greater than accords with nature, and the other one, which is the one he writes about, directing his attention to the common symptom, which stands opposite to the swelling contrary to nature.

In the other two fatigues, people become thinner, and also in the fourth condition, which the discussion is about. But just as there is not one common symptom of the three conditions, so too there is also not one condition. Thus, in the condition due to tension of the sinew-like structures, you must not bathe in water that is hotter than customary, just as you must not in the condition due to superfluities. In the thinness without these, it does help to bathe in water hotter than moderate. For the condition itself arises

²¹ See note 19 above. The term is attributed to Theon on the basis of its use here and subsequently in this chapter.

ἡ διάθεσις αὕτη, διαφορηθέντων ἐπὶ πλεόν ἐν τοῖς
 γυμνασίοις τῶν σωμάτων, οὕτως ὡς ἐν ταῖς μακρο-
 τέραις ἀσιτίαις εἴωθε συμβαίνειν. ὥστε καὶ ἡ ἐπανόρ-
 θωσις αὐτῶν ἐν προσθέσει τε καὶ ἀναπληρώσει τοῦ
 κενωθέντος ἐστίν. οὐ δύναται δ' αὕτη γενέσθαι τοῦ
 212K δέρματος ἀραιοῦ μένοντος.

συναγαγεῖν οὖν αὐτὸ χρὴ καὶ πυκνῶσαι καὶ σφίγ-
 ξαι πρότερον, εἰ μέλλει τι τῆς δαψιλοῦς τροφῆς ὄφε-
 λος ἔσεσθαι. συνάγει δὲ καὶ στεγνοῖ τό τε ψυχρὸν
 ὕδωρ καὶ τὸ ζέον. ἀλλ' ὑπὸ μὲν τοῦ ψυχροῦ κίνδυνος
 βλαβῆναι τὸν ἄνθρωπον, ἀραιόν τε ἅμα καὶ κενὸν ἐπὶ
 τῷ πλήθει τῶν γυμνασίων γεγενημένον· ὑπὸ δὲ τοῦ
 ζέοντος βλάβη μὲν οὐδεμία, πυκνότης δ' ἀσφαλῆς
 ἐγγίνεται τῷ δέρματι, συνεπιλαμβανούσης τι καὶ τῆς
 ἐγκαταλειπομένης αὐτῷ θερμότητος. ὅθεν οὐδὲ χρονί-
 ζειν ἐπὶ πλεόν ἐν τῷ ψυχρῷ προσήκει τὸν οὕτω λου-
 σάμενον, ἀλλ', ὥσπερ καὶ αὐτὸς ὁ Θεὸν τοῦτό γε
 παρετήρησεν ὀρθῶς, φυλακτέον ἐστὶ τὴν ἐν τῷ ψυ-
 χρῷ διατριβήν, ὡς τὴν ἐκ τῆς ζεστολουσίας ἀναλύου-
 σαν ὠφέλειαν. ἡ δὲ αἰτία τοῦ σφαλῆναι τὸν Θεῶνα,
 τὸ μιᾶ διαθέσει συμφέρον ὡς πάσαις ἀρμόττον γρά-
 φοντα, τῶν γυμναζομένων ὑπ' αὐτοῦ σωμάτων ἢ ἕξις
 ἐστίν· ἀθλητὰς γὰρ ἐγύμναζε τοὺς μετὰ τὸ τέλειον
 γυμνάσιον εἰς μὲν τὴν τετάρτην διάθεσιν ἐτοιμῶς
 213K ἐθεάσατο πολλάκις, ὡς διηνεκὲς ἔγραψεν. εἰ δέ γε κα-
 κοχύμους ἢ καχέκτας ἢ ἀήθεις γυμνασίων ἢ ἀσθενεῖς
 ἢ μὴ νεανίσκους ἐγύμναζε, σπανιάκις μὲν ἂν εἰς τὴν

when there is greater dissipation of the bodies in the ex-
 ercises, as is wont to happen in prolonged fasts. Conse-
 quently, the correction of these is in the administration of
 food and the replenishment of what is evacuated, But this
 cannot occur if the skin remains thin. 212K

Therefore, it is necessary to contract the skin, and con-
 dense and compress it first, if some of the abundant nutri-
 ment is going to be of benefit. Both cold and seething
 water contract the skin and make it impervious, but with
 cold water, there is a danger of the person who has become
 thin and empty due to the amount of exercises being
 harmed. There is no injury with seething water as a safe
 thickness arises in the skin with the heat being present
 remaining in it. On this account, it is not appropriate for
 the one being bathed in this way to spend too long in the
 cold water but (and Theon himself correctly observed this
 at least) what must be avoided is spending time in the cold
 water, as this does away with the benefit from bathing in
 hot water. The reason for Theon's error in writing that
 what benefits one condition is suitable for all conditions is
 the state of the bodies trained by him. For he trained
 athletes who, after the completion of exercise, readily fell
 into the fourth condition but rarely into the third. Then,
 what he often saw, he wrote as invariable. However, if he
 were also training those who were *kakochymous*, *kachek-*
tic (cachectic), unaccustomed to exercise, weak or not
 young men, he would rarely have seen them fall into such 213K

τοιαύτην διάθεσιν ἐμπίπτοντας ἐθεάσατο, μυριάκις δ' εἰς τὰς ἄλλας. ἢ τοῦτο μὲν ἴσως καὶ λέγειν περιττόν· αὐτὸς γὰρ ὁμολογεῖ μετὰ τὰ κατασκευαστικὰ γυμνάσια χρῆσθαι τῇ ζεστολουσίᾳ· τὰ δὲ τοιαῦτα γυμνάσια μόνοις ἀθληταῖς ἐπιτηδεύεται. καίτοι φήσει τις, ὡς ἐκείνοις μὲν ἐκουσίως καὶ κατὰ περίοδον, ἄλλοις δὲ πολλοῖς ἢ δι' ἀνάγκην ἢ φιλονεικίαν ἢ τι τοιοῦτον ἕτερον.

ἀλλ' ἐπὶ γε τῶν τοιούτων ἐπὶ τοῖς ἀμέτροις γυμνασίοις ἀνάγκη πρότερον ἢ καὶ μίαν ἢ καὶ πλείους συστήναι κόπων διαθέσεις. ὥστ' ἐν μόνοις τοῖς εὐεκτικοῖς σώμασιν ἢ τετάρτη γίνεται διάθεσις, οἷάπερ ἐστὶ τὰ τε τῶν καλῶς ἀγομένων ἀθλητῶν καὶ τοῦ νῦν ἡμῖν ἐν τῷ λόγῳ προκειμένου νεανίσκου. καὶ εἴ τις ἀπλῶς ἀποφαίνοιτο, μετὰ τὰ σφοδρότατα γυμνάσια τὴν τοῦ θερμοτέρου λουτροῦ χρῆσιν ἐπιτήδειον ὑπάρχειν, ἐπὶ μιᾶς μὲν ἀληθεύσει καταστάσεως, ἐπὶ τριῶν δὲ ψεύσεται. 214K πολλὰ δὲ καὶ ἄλλα τοιαῦτα καθ' ὅλην τὴν ὑγιεινὴν πραγματείαν ἰατροῖς τε καὶ γυμνασταῖς γέγραπται ψευδῆ. κεφάλαιον δ' αὐτῶν ἐστὶ παρὰ τὸ τῆς ῥήσεως ἀδιόριστον, ὅταν, ὅπερ ἐπὶ μιᾶς ἕκαστος ἐθεάσατο διαθέσεως, ἐπὶ πολλῶν ἀναγράφῃ.

9. Καὶ μὲν δὴ καὶ πέμπτη²⁹ τίς ἐστὶ διάθεσις ἐγγύς τι ταῖς προειρημέναις, ἣν ὀνομάζουσι³⁰ στέγνωσιν, ὑπὲρ ἧς, ἐπειδὴν συμπεραίνωμεν τὸν ἐπὶ τοῖς κόποις λόγον, ἐφεξῆς ἐρῶ. αἱ μὲν γὰρ ἀπλαῖ διαφοραὶ τρεῖς

²⁹ πέμπτη Κο; ἐτι Κυ

³⁰ ὀνομάζουσι Κο; ὀνομάζω Κυ

a condition, but countless times into the others. Perhaps it is superfluous to say this because he himself acknowledges he uses a hot bath after the preparatory exercises. Such exercises are only practiced by athletes. And indeed, someone will say those men [do the exercises] voluntarily and according to a prescribed schedule, whereas in many others [they are done] through necessity, love of fighting, or some other such thing.

But in the case of such people, there is a prior necessity that after the excessive exercises, they will sustain one or more of the fatigue conditions. Consequently, only in healthy bodies does the fourth condition occur—bodies such as those of well-trained athletes and of the young man we are now proposing in the discussion. And if someone were simply to declare that the use of the hotter bath is suitable after very violent exercises, he will be speaking truly in the case of one condition but falsely in the case of three. Many other such things in relation to the whole matter of hygiene have been falsely written by doctors and gymnastic trainers. The chief of these is due to the indefiniteness of the statement whenever each person sees one condition and documents it as occurring in many instances. 214K

9. Furthermore, there is also a fifth condition, closely related to those previously spoken of, which they term "stoppage of the pores."²² I shall speak about this next after I have brought the discussion on the fatigues to completion. There are three simple *differentiae* of these which

²² This specific use of the term *στεγνωσις* is listed in LSJ as attested by this passage and also Oribasius, *Synopsis* 5.16. Galen defines the term at 218K below.

αὐτῶν εἰσιν, ὑπὲρ ὧν ἤδη μοι λέλεκται· κατὰ σύνδυο δὲ λαμβανομένων ἄλλαι γίνονται τρεῖς· ἐβδόμη δ' ἐπὶ πάσαις ἐστὶν ἢ τῶν τριῶν ἅμα συνερχομένων. ἢ μὲν δὴ διάγνωσις αὐτῶν ἐστὶν ἀπὸ τοῦ συνδυάζεσθαι τὰ γνωρίσματα, σκοπὸς δὲ τῆς ἐπανορθώσεως ὁ μὲν κοινὸς ἀπασῶν ἀποβλέποντα πρὸς τὸ ἐπικρατοῦν μηδὲ τοῦ λοιποῦ παντάπασιν ἀμελεῖν, ὁ δ' ἴδιος ἐπὶ τῷ κοινῷ κατὰ τὰς ἐν μέρει διαθέσεις λαμβάνεται.

215K πάσας μὲν οὖν ἐπέρχεσθαι τὰς συζυγίας μακρόν, ἔνεκα δὲ σαφηνείας ἐπὶ μιᾶς ὡς παραδείγματος ὁ λόγος περανθήσεται. εἰάν τοίνυν ὄγκος τε ἅμα περὶ τοὺς μῦς ὑπάρχη καὶ τεθλάσθαι δοκῶσιν αὐτοὶ καὶ ἡ ἐλκώδης αἴσθησις ἢ φλεγμονώδης κόπος ἅμα τῷ περιττωματικῷ κατειλήφῃ τὸν ἄνθρωπον, ἢ ἀποθεραπεία γενήσεται στοχαζομένη μὲν ἀμφοῖν, ἀλλὰ μᾶλλον τοῦ μείζονος. οὐχ ἀπλή δ' ἐν ἅπασιν τοῖς οὖσιν ἢ τοῦ μείζονος φύσις, ἀλλ' ἢ μὲν κατὰ δύναμιν τε καὶ τὸ οἶον ἀξίωμα τοῦ πράγματος, ἢ δὲ κατὰ τὴν οἰκείαν οὐσίαν. ἀξιώματι μὲν οὖν καὶ δυνάμει μείζων ἐστὶν ὁ φλεγμονώδης κόπος τοῦ περιττωματικοῦ· κατὰ δὲ τὴν οἰκείαν οὐσίαν ἑκάτερος αὐτῶν οὕτω δύναται γενέσθαι μέγας τε καὶ μικρός, ὡς εἰ καὶ κατὰ μόναν ἑκάτερος ἦν. εἰ μὲν οὖν ἴσον ἐξειστήκει τοῦ κατὰ φύσιν ἑκάτερος, ὁ φλεγμονώδης ἐφ' ἑαυτὸν ἐπισπάσεται τὸ κῦρος τῆς θεραπείας, ἐπικρατῶν γε κατὰ δύναμιν· ἂν δ' ὀλίγιστον μὲν ὁ φλεγμονώδης, πλείιστον δ' ὁ ἐλκώδης ἀποκεχωρήκη τοῦ κατὰ φύσιν, ἐπισκεπτέον, εἴτε τοσοῦτον ὑπερέχει κατὰ τὸ μέγεθος ὁ ἐλκώδης,

I have already described, and there are three others consisting of two of the simple ones combined; there is a seventh, in addition to all these, which consists of a combination of the three at the same time. The diagnosis of these is from combining the signs of the two, while the aim of their correction is common to all, focusing on the prevailing one without altogether neglecting the remaining one, the specific being taken in addition to the common in relation to the conditions one by one.

To go over all the conjunctions would then be a long job; for the sake of clarity the discussion will concentrate on one as an example. Accordingly, if at the same time a swelling exists in the muscles and they seem to be bruised, and a wound-like sensation, or an inflammation-like fatigue along with the excrementitious has taken hold of the person, apotherapy will be aimed at both, but more at the greater. The nature of the greater in all these entities is not simple but relates to the power and rank, as it were, of the matter, or to the specific essence. Thus, in rank and power, the inflammation-like fatigue is greater than the excrementitious. In relation to the specific essence, each of them is able to become great or small in such a way as if each existed alone. If, then, each deviates equally from an accord with nature, the inflammation-like will draw to itself the prime importance in treatment, since it predominates in terms of power, but if the inflammation-like departs a slight amount and the wound-like more from an accord with nature, one must consider whether the wound-like is higher in terms of magnitude to the degree

216K ὅσον ὁ φλεγμονώδης κατὰ δύναμιν, ἢ ἔλαττον ἢ μεί-
ζον, καὶ οὕτως ἐξευρίσκειν τὸν ἐπικρατοῦντα· καὶ
ἰσοσθενεῖς δέ ποτε φαίνονται, πρὸς ἀμφοτέρους
ὁμοίως ἀποβλεπτόν. αὕτη μὲν οὖν ἡ μέθοδος ἔστω
σοι κοινὴ πασῶν τῶν ἐπιπεπλεγμένων διαθέσεων.

ὥσπερ δ' οἱ κόποι τρεῖς ὄντες, εἴτ' ἀλλήλοις ἐπι-
πλεκόμενοι τέτταρας ποιούσι τὰς συζυγίας, οὕτως, εἰ
καὶ τὴν τετάρτην αὐτοῖς ἐπιπλέξειέ τις διάθεσις, αἱ
συζυγίαι πολὺ πλείους γενήσονται. μάθοις δ' ἂν
ἐναργῶς, ὃ λέγομεν, ἐπὶ διαγράμματος. ἔστω δ' ἐν
αὐτῷ πρώτη μὲν διάθεσις ἡ ἐλκώδης· δευτέρα δὲ ἡ
τονώδης· τρίτη δ' ἡ φλεγμονώδης· τετάρτη δ' ἡ τῆς
ἰσχύουτος. ἢ τοίνυν ἡ πρώτη μετὰ τῆς δευτέρας συ-
στήσεται διαθέσεως ἢ μετὰ τῆς τρίτης ἢ μετὰ τῆς
τετάρτης· ἢ πάλιν ἡ δευτέρα μετὰ τῆς τρίτης ἢ τῆς
τετάρτης· ἢ πάλιν ἡ τρίτη μετὰ τῆς τετάρτης. ὥστ'
εἶναι τὰς πάσας ἕξ συζυγίας, ἀνὰ σύνδυο λαμβανο-
μένων τῶν διαθέσεων, ἄλλας δὲ τέτταρας, ὅταν ἅμα
τρεῖς ἐπιπλέκωνται διαθέσεις ἀλλήλαις. ἤτοι γὰρ ἡ
πρώτη μετὰ τῆς δευτέρας <τε> καὶ τρίτης ἢ μετὰ τῆς
217K δευτέρας τε καὶ τετάρτης ἢ μετὰ τῆς τρίτης τε καὶ
τετάρτης³¹ συστήσεται· ἢ πάλιν ἡ δευτέρα μετὰ τῆς
τρίτης τε καὶ τετάρτης. ὕστατη δὲ πασῶν ἐπιπεπλεγ-
μένη διάθεσις ἔσται τῶν τετάρων ἅμα διαθέσεων
ἀλλήλαις μιγνυμένων. ὥστ' εἶναι τὰς πάσας ἕνδεκα
τὸν ἀριθμόν. ἦσαν δὲ γε καὶ αἱ τῶν ἀπλῶν τέτταρες.
γενήσονται τοίνυν αἱ σύμπασαι πεντεκαίδεκα· α
(ἐλκώδης), β (τονώδης), γ (φλεγμονώδης), δ (ἰσχύου-
τος)

216K that the inflammation-like is either less or more in respect
of power; in this way you discover the prevailing one. And
if at any time, they appear equipollent, one must give
consideration to both equally. Let this, then, be for you
the method common to all the mixed conditions.

Just as there are three fatigues which, when combined
with each other, make four conjunctions, so too, if you
combine some fourth condition with them, the conjunc-
tions will become much more in number. You would
clearly understand what I am saying by means of a dia-
gram. Let the wound-like fatigue be the first condition in
this, the second, the tensive, the third, the inflammation-
like, and the fourth that of thinness. Accordingly, either
the first will be associated with the second condition, or
with the third, or with the fourth. Or again, the second
with the third or the fourth; or again, the third with the
fourth. As a result, there are six conjunctions in all when
you take the conditions in twos at the same time. But there
are four others, when three conditions are combined with
each other at the same time—either the first with the
second and third; or with the second and fourth; or with
the third and fourth; or again, there will be the second
with the third and fourth. Last of all, there will be a com-
bined condition when the four conditions are mixed with
each other at the same time. There are also the four simple
conditions.

Accordingly, there will be fifteen in all: the first, wound-
like (A); the second, tensive (B); the third, inflammation-
like (C); the fourth, thinness (D); and then AB, AC, AD,

³¹ post τετάρτης: συστήσεται· ἢ πάλιν ἡ δευτέρα μετὰ τῆς
τρίτης τε καὶ τετάρτης. Κο; πάλιν. Κυ

της), αβ, αγ, αδ, βγ, βδ, γδ, αβγ, αβδ, αγδ, βγδ, αβγδ.³² εἰ δὲ καὶ τὰς τῆς στεγνώσεως διαφορὰς ἐπιπλέκοις ἀλλήλαις τε καὶ ταῖς πεντεκαίδεκα, παμπληθείς ἑτέρας ἐργάσῃ συζυγίας. εἰ δὲ καὶ τὰς τῆς ἀπεψίας αὐταῖς ἢ τὰς ἐπὶ τοῖς ἀφροδισίοις ἢ ταῖς ἐγκαύσεσιν ἢ ταῖς ἀγρυπνίαις ἢ ταῖς λύπαις ἐπιπλέξιας καταστάσεις τοῦ σώματος, οὐδ' ἀριθμηθῆναι ῥαδίως ἄπασαι δυνήσονται. καὶ οὐπω λέγω τὰς τῆς πληθώρας ἢ κακοχυμίας ἢ ἐπισχέσεως γαστρὸς ἢ διαρροίας ἢ ἐμέτων ἢ βάρους κεφαλῆς ἢ τινος ἄλλου μέρους ἢ ὅλως ὅσαι κατὰ τι σύμπτωμα συνίστανται. λεχθήσεται γὰρ αὖθις ὑπὲρ τῶν τοιούτων ἀπάντων. ἀλλὰ νῦν γε τούτου χάριν ἐπεμνήσθην αὐτῶν ὑπὲρ τοῦ δεῖξαι τὸ πλῆθος τῶν ἐπιπλοκῶν ὅποσον ἐστί. θαυμάσαι γὰρ οἶμαί³³ τινα τοὺς ἐπὶ τοῖς ἀθροίσμασιν αὐτῶν, ἃς ὀνομάζουσι συνδρομάς, ἥτοι θεραπείαν ἢ πρόγνωσιν τῶν ἀποβησομένων ἐπαγγελλομένους τε τηρηκένοι. καθ' ἓνα γὰρ τρόπον οἷόν τ' ἐστὶ καὶ προγνώναί τι καὶ θεραπεῦσαι δεόντως, ὡς Ἰπποκράτης ἐδίδαξεν, ἐκάστου τῶν ἀπλῶν πραγμάτων ἀξιῶν ἐπίστασθαι τὴν δύναμιν, ὡς ἐγὼ νῦν ἐπέδειξα περὶ τῶν τεττάρων διαθέσεων. εἰ μὲν γὰρ ἐκάστη καθ' ἑαυτὴν συσταίῃ, τὴν ἐπανόρθωσιν ἀπλῆν ἐνδείξεται, μυχθεῖσα δ' ἑτέρα, κατὰ τὴν ὀλίγον ἔμπροσθεν εἰρημένην μέθοδον ὑπὲρ ἀπασῶν τῶν ἐπιπεπλεγμένων διαθέσεων.

10. Ὅπότ' οὖν τοῦτ' ἔχον οὕτω φαίνεται, ἰτέον αὖθις ἐπὶ τὰς ἀπλᾶς διαθέσεις, ὧν ἐφεξῆς ταῖς εἰρημέναις

BC, BD, CD, ABC, ABD, ACD, BCD and ABCD.²³ If you also combine the *differentiae* of *stagnosis* (stoppage of the pores) with each other and with the fifteen, you will create very many other conjunctions. If you also combine the *differentiae* of the *apepsias* with them, or those after sexual intercourse, or heatstrokes, or insomnias, or griefs, all the combined states of the body will not even be able to be easily enumerated. And I haven't yet mentioned the *differentiae* of the plethora, *kakochymia*, stoppages of the stomach, diarrhea, vomiting, heaviness of the head or of some other part, or altogether those things that exist in relation to some symptom. I shall speak again about all such things. But for the present I make mention of them for this purpose—to show how great the number of combinations is. One may, I think, marvel at someone who, by gathering these together, calls them syndromes, or therapy or prognosis of things that are going to occur, proclaiming they have been observed. Only in one way is it possible to prognosticate anything and treat properly, as Hippocrates taught, when he claims to know the potency of each of the important simple matters, as I showed just now concerning the four conditions. For if each should exist by itself, it will indicate a simple correction, whereas if it is mixed with another, the restoration will involve the method I spoke about a little earlier in regard to all the combined conditions.

10. Therefore, since this is obviously the case, we must move on in turn to the simple conditions of which, in suc-

²³ In the translation, C replaces the γ of the Greek.

³² The sequence here has been slightly reordered in the interest of clarity. ³³ οἶμαί Κο; οἷόν τ' ἐστὶ Κυ

ἦσαν αἱ κατὰ τὴν στέγνωσιν· οὕτω δ' ὀνομάζω τὴν βλάβην τῶν πόρων, ἐφ' ἣ κωλύεται διαφορεῖσθαι τὰ περιπτώματα. γίνεται δ' αὕτη δι' ἔμφραξιν ἢ πύκνωσιν, ἣν δὴ καὶ μύσιν ὀνομάζουσι τῶν πόρων. ἔμφραξις μὲν οὖν ὑπὸ γλίσχρων ἢ παχέων γίνεται περιπτώματων ἀθροώτερον ὀρμησάντων ἐπὶ τὸ δέρμα, πύκνωσις δὲ ὑπὸ τε τῶν στυφόντων καὶ ψυχόντων. ἀλλ' ἔμφράξει μὲν ἀλῶναι τὸ προκείμενον ἐν τῷ λόγῳ σῶμα, κατὰ τὴν εἰρημένην ἐπιμέλειαν ἀγόμενον, οὐκ ἐγχωρεῖ, πυκνωθῆναι δὲ δύναται ποτε διὰ τε κρύος καρτερόν καὶ λουτρον στυπτηριῶδες. ἐγχωρεῖ δὲ ποτε καὶ μετὰ βαλανεῖον ἢ ἰδρῶτα καὶ ἄλλως ἀραιοῦ τοῦ δέρματος ἔκ τινος ἑτέρας αἰτίας γενομένου καταπνεύσασαν αὔραν ἔμφυξιν τέ τινα καὶ πύκνωσιν ἀποτελέσαι. διαγινώσκειται μὲν οὖν ἡ εἰρημένη διάθεσις εὐθὺς μὲν ἀποδύντων ἀχροῖα τε λευκῆ καὶ σκληρότητι καὶ πυκνώσει τοῦ δέρματος, κατὰ δὲ τὸ γυμνάζεσθαι τῷ δυσεκθερμάντῳ. οὕτε γὰρ ἰδρῶσιν ὁμοίως ὡς πρόσθεν οὐτ' εὐχροῦσιν, ἀλλ' εἰ καὶ βιάσαιντο τῇ εὐτονίᾳ τῶν γυμνασίων ἰδρῶτός τι προκαλέσασθαι, καὶ μείων οὕτος γίνεται τοῦ συνήθους καὶ ψυχρότερος καὶ ἥττον ἀτμώδης. ἡ δ' ἴασις τῆς τοιαύτης διαθέσεως θέρμανσις ἐστίν· ἐναντίον γὰρ τοῦτο τῇ ψύξει.

220K συντονωτέροις τε οὖν γυμνασίοις χρηστέον ἐστὶ καὶ βαλανείοις θερμότεροις. ἄμεινον δὲ καὶ καλινδέσθαι κατὰ τὸν πρῶτον οἶκον ἐπὶ ἐλαίου λιπαρῶς. ἔστω δὲ καὶ τὸ ἔλαιον τῶν χαλαστικῶν, οἷόνπερ ἐστὶν ἐν Ἰταλίᾳ τὸ Σαβῖνον· ἄμεινον δ' ἐπὶ τῶν τοιούτων

cession to those spoken of, were those related to *stagnosis*. I term in this way damage of the pores due to which the superfluities are prevented from being dispersed. This arises through blockage or constriction (condensation)²⁴ which people also call occlusion of the pores. Blockage arises from viscid or thick superfluities when they come to be overly collected together in the skin, while constriction arises due to astringents and cooling agents. But it is not possible for the body proposed in the discussion to be seized by obstruction, if it is treated with the care mentioned, whereas it can be constricted on occasion due to severe cold and bathing in alum-containing water. It is also possible on occasion after a bath or sweating, and otherwise, if the skin becomes loose textured from any other cause, as when a cooling breeze blows over [him] to produce some cooling and constriction. The condition mentioned will, then, be diagnosed, as soon as people undress, from the lack of color, whiteness, hardness and condensation of the skin, and by being hard to warm thoroughly during exercise. For they do not sweat in the same way as before, nor do they have a good color, but even if someone were to compel them, by the vigor of the exercises, to call forth sweat, this too is less than usual, colder and less vaporous. The cure of such a condition is heating because this is the opposite of cooling.

One must, then, use more vigorous exercises and warmer baths. It is also better to roll oneself in fatty oil in the first chamber. The oil should be of the relaxing kind as, for example, the Sabine is in Italy. In such conditions,

²⁴ Although not listed in LSJ, "constriction" is preferred to "condensation" for πύκνωσις based on context.

διαθέσεων ἐτῶν εἶναι δύο ἢ τριῶν αὐτό· καὶ γὰρ λεπτομερέστερον τοῦτο καὶ θερμότερον. ἢ δὲ ἐν τῇ ψυχρᾷ κολυμβήθρα διατριβὴ μὴ πολυχρόνιος γινέσθω, μηδ' αὐτὸ τὸ ὕδωρ ἄγαν ἔστω ψυχρόν. ἐνδύεσθαι δὲ μέλλοντες ἀλειφέσθωσάν τινα τῶν μετρίως θαλπόντων, ἐλαίων μὲν, ὅσα γε κατ' Αἴγυπτόν εἰσι, κικίνω καὶ ραφανίνω, κατὰ δὲ τὴν ἄλλην οἰκουμένην τῷ γλυκεῖ καὶ λεπτομερεῖ καὶ μετρίως παλαιῷ, μύροις δὲ Σουσίνω τε καὶ γλευκίνω καὶ ἱρίνω καὶ ἀμαρακίνω καὶ Κομμαγηνῷ. τὸ μὲν δὴ γλεύκινον ἄκοπον ἀκριβῶς ἐστὶν καὶ χαλαστικόν, ὥστε καὶ τοῖς ἰσχυρῶς κοπωθείσιν ἐπιτήδειον ὑπάρχει· βραχεῖ δὲ αὐτοῦ τὸ Σούσινον θερμότερόν ἐστι καὶ μαλακτικώτερον.³⁴ ἱρίνον δὲ καὶ ἀμαράκινον καὶ Κομμαγηνὸν ἰκανώτερον τούτων θερμῆναι, ὥστε καὶ ταῖς καλουμέναις ἰδίως ψύξεσι χρήσιμα τετύχηκεν ὄντα. τὰς μέντοι πυκνώσεις τοῦ δέρματος αὐτάρκως ἰᾶται καὶ τὸ ἀνήθινον ἔλαιον, καὶ μάλιστ' εἰ χλωρόν εἴη τὸ ἀνήθινον. ἀρμόττει δὲ ταῖς τοιαύταις διαθέσεσιν, ὥσπερ οὖν καὶ τοῖς ἰσχυροῖς κόποις, τὸ διὰ τοῦ σπέρματος τῆς ἐλάτης ἄκοπον· εἰρήσεται δὲ ἐν τοῖς ἐφεξῆς ὅπως χρῆ σκευάζειν αὐτό. νυνὶ μὲν γὰρ μοι δοκῶ καὶ ταῦτα περαιτέρω τῆς ὑποθέσεως εἰρηκέναι. τῷ γὰρ ἄριστα κατεσκευασμένῳ τὸ σῶμα καὶ βίον ἐλεύθερον ἐπανηρημένῳ καὶ μηδὲν αὐτῷ πλημμελοῦντι καὶ τὸν ἐπιστατοῦντα

³⁴ μαλακτικώτερον Κο; χαλαστικώτερον Κυ

it is better for this to be two or three years old, for this is more fine-particled and hotter. The time spent in the cold swimming bath should not be long, nor should the water itself be excessively cold. When people are about to dress, they should be anointed with one of the moderate warming agents; of the oils which are in Egypt, these are that from the *kiki* tree and from radishes; from the rest of the inhabited world, oil that is sweet, fine-particled and moderately old, or with unguents such as that from Susa;²⁵ and with *gleukinos*,²⁶ iris, amaracus and from Commagenus.²⁷ *Gleukinos* is entirely refreshing and emollient, so it is suitable even for those who are strongly fatigued. The Susene is a little warmer and more relaxing than this, while the iris, amaracus and Commagene oils are more adequate than these for warming, so they happen to be suitable for the so-called chills specifically. Also dill (anis) oil cures the constriction of the skin adequately, and particularly if the dill is green. The oil from the seed of the silver fir is refreshing and is suitable for such conditions, just as it also is for the strong fatigues. I shall describe how this must be prepared in what follows. For the present, it seems to me I have spoken about these matters more than the subject requires. The body which is best in constitution and chooses a free life, which never indulges in excess, and

²⁵ Susa was an ancient city in the early Iranian empire and one of the most important cities of the ancient Near East. It was located in the lower Zagros mountains about 150 miles east of the Tigris.

²⁶ According to LSJ this is oil made with sweet, new wine or grape juice as a vehicle—see Dioscorides 1.57, and Galen XIII.1039K.

²⁷ Commagenus was the northern province of Syria; the chief town was Samosata.

τῆς ὑγείας ἄριστον ἔχοντι τὰς νοσωδεστέρας διαθέσεις οὐ πάνυ τι συμπίπτειν εἰκός.

11. Ἐπανέλθωμεν οὖν αὖθις ἐπὶ τὴν ἐξ ἀρχῆς ὑπόθεσιν καὶ παραλιπόντες ἐκκαύσεις καὶ ψύξεις καὶ ἀπεψίας καὶ διαρροίας ὅσα τ' ἄλλα τοιαῦτα (βέλτιον γὰρ ἀναβαλέσθαι σύμπαντα ταῦτα εἰς ἓνα λόγον, τὸν περὶ τῶν νοσωδῶν συμπτωμάτων ἐπιγραφησόμενον) ἐν τῷ παρόντι περὶ τῶν ἐπ' ἀφροδισίοις γυμνασίων ἐπισκεψώμεθα. καὶ γὰρ διαπεφώνηται πως ὑπὲρ αὐτῶν, ἐνίων μὲν οἰομένων οὕτω χρῆναι γυμνάζειν ἐπ' αὐτοῖς ὡς κατὰ τὸ καλούμενον ἀποθεραπευτικόν, ἐνίων δὲ ὡς κατὰ τὸ παρασκευαστικόν. ἔστι δὲ δήπου τὸ παρασκευαστικὸν γυμνάσιον ἐν μὲν τῇ ποσότητι τῶν κινήσεων ἔλαττον τοῦ συμμέτρου, κατὰ δὲ τὴν ποιότητα συντονώτερόν τε καὶ ὀξύτερον. οἱ μὲν οὖν ἀποθεραπεύειν ἀξιοῦντες, ὥσπερ τοὺς ἀπὸ καμάτου, τὴν τε κατάλυσιν τῆς δυνάμεως ὑφορῶνται καὶ τὴν ξηρότητα τοῦ σώματος· ἄμφω γὰρ ταῦτα πάσχομεν ἐπ' ἀφροδισίοις τε καὶ πλήθει τῶν γυμνασίων· οἱ δὲ τῷ παρασκευαστικῷ χρῆσθαι γυμνασίῳ, τὴν ἀραιότητά τε καὶ τὸ εὐίδρωτον, ἅπερ ἐπιτείνεσθαι μὲν ὑπὸ τῶν ἀποθεραπευτικῶν, ἐπανορθοῦσθαι δ' ὑπὸ τῶν παρασκευαστικῶν. ἐγὼ δ' ἐκατέρους ἐπαινέσας, ὡς ἑωρακότας ἐκ μέρους τάληθές, ἐς ταῦτόν συνθήσω τὰς δόξας αὐτῶν. ὅτι μὲν γὰρ ἀναρρώσαί τε χρὴ τὴν δύναμιν καὶ σφίγξαι τὴν ἀραιότητα καὶ μὴ παρανξῆσαι τὴν ξηρότητα, συγχωρήσουσιν ἑκάτεροι. λείπει δ' αὖ εἰς διορισμὸς ἀμφοτέροις, ὥσπερ ἐν ταῖς ἐπιπέ-

which has the best supervisor of health, is not very likely to fall into these more morbid conditions.

11. Let us return, then, once more to the original hypothesis, and leaving aside heatstrokes, chillings, *aepsias*, diarrheas and other such things (for it is better to put all these off to one book I shall write about disease symptoms),²⁸ and for the moment consider the exercises following sexual intercourse. There is disagreement in some respects about these: there are some who think a person ought to exercise after it, as with the so-called apotherapeutic exercise, whereas there are others who think of exercise as preparatory. Now, of course, preparatory exercise, in terms of the amount of movement, is less than moderate, but in terms of quality, it is quite vigorous and rapid. Those, then, who regard apotherapy as worthwhile, as in those fatigued from toil, are anticipating the dissipation of the capacity and dryness of the body. For we suffer both of these immediately after sexual intercourse and excessive exercise. However, those who think it right to use preparatory exercise are anticipating looseness of texture and easy sweating, which are intensified by the apotherapeutic but corrected by the preparatory exercises. I commend each, and seeing the truth on each side, will combine their opinions into one and the same. Both sides agree it is necessary to strengthen the capacity and condense the looseness but not increase the dryness. However, one distinction still remains in both, just as in all the

²⁸ *Sympt. Caus.*, VII.85-272K—see for example VII.206 and 263K (English trans., Johnston, *Galen: On Diseases and Symptoms*). See also Book 6 in the present treatise.

πλεγμέναις ἀπάσαις διαθέσεσιν ὑφ' ἡμῶν ἔμπροσθεν εἴρηται, ῥηθήσεται δὲ καὶ νῦν οὐδὲν ἥττον.

223K ἐπειδὴν γὰρ ἐς ταῦτόν συνέλθωσι³⁵ πλείους διαθέσεις, εἰ μὲν ἓνα τρόπον ἐνδείκνυται θεραπείας, ἐπιτείνεσθαι χρὴ τὸν τρόπον μᾶλλον ἢπερ εἰ κατὰ μόνας ἐκάστη τῶν διαθέσεων ἦν, εἰ δ' ἐναντιούμεναι, κατὰ τὴν ἐπικρατοῦσαν διάθεσιν ἐπανορθωτέον ἐστὶ πρότερον, οὐδὲ τῶν ἄλλων ἀμελοῦντας τὸ σύμπαν. ὅσοι μὲν οὖν ἦτοι δι' ἡλικίαν ἢ καὶ ἄλλως ἀσθενεῖς ὑπάρχοντες ἀφροδισίοις ἐχρήσαντο, τούτοις μὲν ἀναγκαῖόν ἐστιν ἐπικρατεῖν τὴν ἀρρωστίαν τῆς δυνάμεως· ὅσοι δ' ἰσχυροὶ τε καὶ νέοι, καθάπερ ὁ νῦν³⁶ ὑποκείμενος ἐν τῷ λόγῳ νεανίσκος, ἐν τούτοις ἢ τοῦ σώματος ἕξις εἰς ἀραιότητα πλέον ἢπερ ἢ δύναμις εἰς ἀρρωστίαν ἀλλοιοῦται. καὶ τοίνυν ἢ ἐπανόρθωσις οὐ διὰ τῶν ἀραιούτων, οἷόν ἐστι τὸ ἀποθεραπευτικὸν γυμνάσιον, ἀλλὰ διὰ τῶν συναγόντων τε καὶ σφιγγόντων, ὁποῖόν ἐστι τὸ παρασκευαστικόν, ἐν τοῖς τοιούτοις γίνεται σώμασιν.³⁷ εἰ δὲ δὴ καὶ ψύξις τις ἐπὶ τοῖς ἀφροδισίοις ἐγγίνεται τοῖς σώμασι, καὶ κατὰ τοῦτ' ἂν εἴη τῷ παρασκευαστικῷ γυμνασίῳ χρηστότεον· ἐπεγείρει γὰρ ἐκείνο τὴν θερμότητα τῷ τε τῶν κινήσεων ὀξεῖ καὶ συντόνῳ καὶ τῷ συνάγειν καὶ σφίγγειν τὴν ἕξιν. 224K δὲ τὴν ἀραιότητα τοῦτο μόνον τῶν γυμνασίων ἰᾶται, πρὸς ἀπάντων ὁμολόγηται τῶν γυμναστῶν, ὑπὸ τῆς πείρας δεδιδασγμένων. ὥστ' οὐδὲν ἂν εἴη βέλτιον εἰς τὰ παρόντα τοῦ τοιούτου γυμνασίου.

combined conditions which I spoke about earlier and will also speak no less about now.

Whenever we bring together a number of conditions into one, if they indicate one kind of treatment, it is more necessary to increase the intensity of that kind than if each of the conditions existed by itself. If, however, they are opposing, what must first be restored pertains to the predominating condition without neglecting the others altogether. Thus, those who either through age or otherwise are weak inevitably have a weakness of capacity that prevails when they indulge in sexual intercourse, whereas in those who are strong and young, just like the young man we are now assuming in the discussion, the state of the body is changed to a looseness of texture more than the capacity is changed to weakness. Accordingly, the restoration is not through those things that loosen the texture, like for example apotherapeutic exercise, but through those things that bring together and compress, such as the preparatory exercise is in such bodies. And certainly, if some chilling is engendered in bodies after sexual intercourse, what must be used in this is the preparatory exercise, for that stirs up the heat by the speed and vigor of the movements, and by bringing together and compressing the state (of the body). Also, that this alone of the exercises cures the looseness of texture is agreed by all gymnastic trainers who have been taught by experience. Consequently, there is nothing better for the present purposes than such exercise. 224K

³⁵ συνέλθωσι Ko; συναχθῶσι Ku

³⁶ post νῦν: ἡνὶν (Ku) om.

³⁷ ἐν τοῖς τοιούτοις γίνεται σώμασιν add. Ko

τῆς δὲ ὥρας τοῦ ἔτους ἐπιτρεπούσης οὐδὲ τῆς ψυχρολουσίας ἀφεκτέον ἐστίν. ἐδέσματα δὲ τῷ πλήθει μὲν ἐλάττω, τῇ ποιότητι δὲ ὑγρότερα δοτέον, ἵνα καὶ πέψη καλῶς αὐτὰ καὶ τὴν ἐκ τῶν ἀφροδισίων ἐπανορθώσηται ξηρότητα. χρῆ δ' οὐδὲ ψυχρότερα τὴν κράσιν, ἀλλ' ἤτοι τῆς μέσης ιδέας ἢ τῶν θερμότερων ὑπάρχειν αὐτά. διότι γὰρ ἐξ ἀφροδισίων ἀραιότερον καὶ ψυχρότερον ἅμα καὶ ἀσθενέστερον καὶ ξηρότερον ἀποτελεῖται τὸ σῶμα, χρῆ δὴπου τὰ πυκνοῦντα καὶ θερμαίνοντα καὶ ὑγραίνοντα³⁸ καὶ τὴν δύναμιν ἀναρρωνύοντα προσφέρεσθαι, καὶ τούτους εἶναι τοὺς σκοποὺς ἐπ' αὐτοῖς.

225K ὅτι δὲ αὕτη δύναμις ἐστίν τῶν ἀφροδισίων, οὐ τοῦ νῦν ἐνεστῶτος λόγου· προὔκειτο γὰρ ἐν αὐτῷ διελεθῆναι, ὅπως ἂν κάλλιστα γυμνάζοιτο τὸ προκείμενον σῶμα μετὰ τὴν τῶν ἀφροδισίων χρῆσιν, ὅπερ οὐκ ἠδύνατο περανθῆναι καλῶς ἄνευ τοῦ προλαβεῖν ἐξ ὑποθέσεως, ὅποια τίς ἐστίν ἢ ἐν τῷ σώματι γινομένη διάθεσις ἐπὶ τοῖς ἀφροδισίοις. ἀλλὰ νῦν μὲν ἐξ ὑποθέσεως, αὐθις δὲ μετ' ἀποδείξεως εἰρήσεται, τίς τε ἢ δύναμις αὐτῶν ἐστὶ καὶ εἰ χρηστότερον ὅλως ἢ μὴ καὶ τίνες αὐτῶν ὠφέλεια καὶ βλάβαι κατὰ τε τὰς τοῦ σώματος διαθέσεις εἰσὶ καὶ τὰς ὥρας τοῦ ἔτους καὶ τὰς χώρας ὅσα τ' ἄλλα τοιαῦτα χρῆ προσδιορίζεσθαι.

12. Μετὰ μὲν δὴ τὴν τῶν ἀφροδισίων χρῆσιν εἶδος ἔστω γυμνασίου τὸ παρασκευαστικὸν ὀνομαζόμενον, ἀγρυπνίας δὲ προσγυνομένης ἢ λύπης ἢ ἀμφοτέρων

If the season of the year permits, one must not abstain from cold baths. Foods should be less in quantity but in quality one must give those that are more moist, so you may concoct them well and correct the dryness from sexual intercourse. They must not be colder in respect of *krasis* but either intermediate in kind or be among those that are hotter. Because the body is made looser in texture and colder, and at the same time weaker and drier from sexual intercourse, one must, of course, provide things that are condensing, heating and moistening, and that strengthen the capacity. Such are the objectives after these [activities].

What this potency is in sexual intercourse is not part of the present discussion. What lies before us in it is to go over how best the body presently proposed may exercise after the use of sexual intercourse. This could not be accomplished well without anticipating from the hypothesis what kind of condition exists in the body after sexual intercourse. But now, from hypothesis and again along with demonstration, I shall say what the potency of sexual intercourse is, and if on the whole one should indulge in it or not, and what the benefits and harms are in respect of the conditions of the body, the seasons of the year, the places and other such things that one must determine besides.

12. Certainly, after the use of sexual intercourse, the kind of exercise should be what is termed preparatory. However, when insomnia is added, or grief, or both, it

³⁸ καὶ ὑγραίνοντα add. Ko

226K τὸ ἀποθεραπευτικόν, ὅταν γε χωρὶς ἀπεψίας γεννηθῶ-
 σιν· ἐπὶ γὰρ ταῖς ἀπεψίαις οὐδ' ὅλως γυμναστέον. ὅτι
 δὲ τὸ ἀποθεραπευτικὸν γυμνάσιον ἐπὶ λύπαις τε καὶ
 ἀγρυπνίαις ἀρμόττει, δηλοῖ μὲν καὶ ἡ πείρα· φαίνον-
 ται γὰρ ὑπὸ τῶν ἄλλων γυμνασίων βλαπτόμενοι,
 πρὸς τῷ μηδ' ἀνέχεσθαι τῶν ἐπιταπτόντων, εἰ τύχοιεν
 ἔτι λυπούμενοι. δηλοῖ δ' οὐχ ἥττον τῆς πείρας καὶ ὁ
 λόγος· ἐπειδὴ γὰρ ἐπ' ἀγρυπνίαις τε καὶ λύπαις ὀρῶν-
 ται λεπτότεροί τε καὶ αὐχμηρότεροι καὶ δυσήκοοι γι-
 νόμενοι, ξηρότερον ἠγητέον αὐτοῖς εἶναι τὸ σῶμα. τὰς
 δὲ τοιαύτας διαθέσεις αἱ τε μαλακώτεραι τρίψεις ἐξ-
 ἰῶνται σὺν ἐλαίῳ πλείονι γινόμεναι καὶ λουτροῖς
 εὐκράτοις αἱ τε κινήσεις αἱ βραδύτεραι καὶ χωρὶς
 ἰσχυροτέρας τάσεως ἀναπαύσεσι πλείοσι διειλημμέ-
 ναι. τύπος δ' ἦν οὗτος ἀποθεραπευτικοῦ γυμνασίου.

κατὰ δὲ τὸν αὐτὸν τρόπον καὶ τὰς ἐπὶ θυμοῖς ἢ δι'
 ἔνδειαν ποτοῦ γινομένας ξηρότητας ἐπανορθωτέον
 ἐστίν. ἐναντίως δὲ τοῖς εἰρημένοις ἐπανορθοῦσθαι
 χρὴ τὰς κατὰ ταύτην τὴν ἕξιν ὑγρότητας, εἴτε διὰ
 πόμα πλέον εἴτε δι' ἄλλην τινὰ πρόφασιν ἐγένοντο.
 σκοπὸς γὰρ οὖν δὴ καὶ τῶν τοιούτων διαθέσεών ἐστιν
 ἡ ξήρανσις. ἀλλὰ τοῦτο μὲν ἀπασῶν κοινόν, ἴδιον δ'
 ἐκάστης ἐν ταῖς κατὰ μέρος διαφοραῖς. εἰ μὲν οὖν ἐπ'
 ἀργία πλείονι καὶ ταῖς τῶν ὑγραινόντων ἐδεσμάτων
 ἀμέτροις τε καὶ ἀκαίροις χρήσεσιν ὑγρότης ἐγένετο,
 μακροτέρας δεῖται τῆς ἐπανορθώσεως· εἰ δ' ἐπὶ ποτῷ
 πλείονι κατὰ τὴν προτεραίαν ἡμέραν γεγονότι χωρὶς
 τοῦ πεπονθέναι τι τὴν κεφαλὴν ἢ τὸ στόμα τῆς κοι-

226K should be apotherapeutic, whenever they are engendered
 apart from *aepsia*, because, after the *aepsias*, there
 must be no exercise at all. Experience also makes it clear
 that apotherapeutic exercise is suitable in the griefs and
 insomnias, for people are obviously harmed by the other
 exercises, besides not putting up with those who order
 them, if they happen to be still grieving. And reason makes
 this clear no less than experience. Since in the insomnias
 and griefs, greater thinness and dryness are seen, and
 people become intractable, one must consider the body to
 be drier in them. The softer massages dispel such condi-
 tions when they are done with plenty of oil and *eukratic*
 baths, and the movements are slower and without too
 strong a tension, and they are divided by numerous rests.
 This is an outline of apotherapeutic exercise.

In the same way too, one must correct the dryness fol-
 lowing anger or lack of drink. In the opposite manner to
 the things mentioned, it is necessary to correct the moist-
 ness in the bodily state produced by either excessive drink
 or some other cause. Drying, then, is certainly the aim in
 such conditions. But this is common to all; what is specific
 to each lies in the individual differences. If, therefore, in
 excessive idleness and in the immoderate and untimely
 use of moistening foods, moistness arises, a longer period
 of correction is needed. If, however, it follows excessive
 drink on the previous day, without the head or the opening

227K λίας, ἐν μιᾷ δυνατὸν ἡμέρα τελέως ἐξιάσασθαι πλεονάσαντας μὲν ἐν ταῖς ξηραῖς τρίψεσι, γυμνάσαντας δ' ὀξύτερον, ἐλάττονι δὲ ποτῶ χρησαμένους ἐδέσμασί τε ξηραντικωτέροις. ὡς, ὅσαι γε μετὰ τοῦ τὴν κεφαλὴν ἢ τὸν στόμαχον ἀπολαῦσαί τι τῆς ἐξ οἴνου βλάβης ὑγρότητές εἰσι κατὰ τὸ σῶμα³⁹ περιτταί, τοῦ νῦν ἐνεστῶτος οὐ δέονται λόγου· ῥηθήσεται γὰρ ὑπὲρ αὐτῶν ἐν τοῖς περὶ τῶν νοσῶδων συμπτωμάτων.

αἱ δ' ἐπ' ἀργία πάνυ μακροτέρα τὴν ἀρχὴν μὲν οὐδ' ἂν γένοιτό ποτε κατὰ τὴν προκειμένην διάθεσιν, ὡσπερ οὐδ' αἱ διὰ πλῆθος ἐδεσμάτων ὑγρῶν τὴν φύσιν, οἰαίπερ αἱ πλείσται τῶν ὀπωρῶν εἰσι καὶ τῶν λαχάνων ὅσα μὴ δριμέα· γενομένας δ' αὐτὰς ἀθρόον μὲν οὐχ οἶόν τε θεραπεύειν· εἰ γὰρ εἰς τοσοῦτον πονήσειεν ὁ ἄνθρωπος, ὡς αὐτάρκως ξηρᾶναι τὴν ἕξιν, ἀλώσεται κόπῳ καὶ πυρέξει πυρετὸν μὲν ἐφήμερον πάντως, ἂν δὲ καὶ μοχθηραὶ τύχωσιν αἱ ὑγρότητες ὑπάρχουσαι, πλειόνων ἡμερῶν· ἐν χρόνῳ δ' ἂν ἐπανορθωθείεν, ὡς ὕστερον εἰρήσεται κατ' ἐκείνον τὸν λόγον, ἐν ᾧ τὰς μοχθηρὰς κράσεις ἐπὶ τὸ βέλτιον ἀλλοιοῦμεν. ὁμοία γὰρ ἡ πρόνοια τῶν ἐπικτήτων

228K διαθέσεών ἐστι καὶ τῶν φυσικῶν δυσκρασιῶν, ὥστ' οὐδὲν χρὴ τό γε νῦν εἶναι περὶ αὐτῶν διεξέρχεσθαι.

13. Λείπεται οὖν ἔτι περὶ τῶν ἐρωθινῶν τε καὶ κατὰ τὴν ἐσπέραν τρίψεων διελθεῖν, οὐ μὰ Δία οὕτως, ὡς

³⁹ κατὰ τὸ σῶμα add. Ko

of the stomach having been affected, it is possible to effect a complete cure in one day by an increase in the dry massages, exercising more rapidly, and by using less drink and more drying foods. Those moist excesses involving the body along with the head and esophagus, "enjoyed" as part of the harm from wine, are not a required component of the present discussion. I shall speak about these in the works on disease symptoms.²⁹ 227K

The moist superfluities following very prolonged idleness would not occur in the first place in the proposed condition, just as those due to an abundance of foods that are moist in nature would not—foods like the majority of fruits and herbs that are not acrid. When these do occur, it is not possible to treat them all at once. If the person has labored to such a degree as to dry the bodily state enough, he will be seized by fatigue and become febrile with a fever, which in all cases will be ephemeral. If, however, abnormal moisture also happens to exist, [the fever] lasts a number of days. They would be corrected in time, as I shall recount later in that discussion in which we change the bad *krasias* to the better. For there is the same care for the acquired conditions as there is for the natural *dyskrasias*, so there is no need to go over these now. 228K

13. It still remains, then, to go over morning and evening massages, although not, by the gods, in the way they

²⁹ *Sympt. Diff.* (VII.42–84K), and *Sympt. Caus.* (VII.85–272K) (English trans., Johnston, *Galen: On Diseases and Symptoms*).

φασιν ἀποκρίνασθαι Κόιντον ἐρομένῳ τινὶ γυμναστῆ, τίνα δύναμιν ἔχει τὸ ὑποσυγχρίεσθαι, φάμενον ἀφανίζειν τὰ ἱμάτια. τούτοις γὰρ τοῖς ὀνόμασιν, οἷς ἐγὼ νῦν ἐχρησάμην, ἐρέσθαι τε λέγουσι τὸν γυμναστὴν ἀποκρίνασθαι τε τὸν Κόιντον. ὁμοίον τι τοῦ Κοίντου περιφέρεται ἀπόφθεγμα τό τε περὶ τῶν οὔρων, ὡς γναφέως⁴⁰ ἐστὶ καταμανθάνειν αὐτά, καὶ τὸ περὶ θερμοῦ, ψυχροῦ, ξηροῦ καὶ ὑγροῦ, διότι βαλανέων ἐστὶν ὀνόματα ταῦτα.⁴¹ ἂ ἐγὼ μὲν οὐκ ἂν πεισθείην,⁴² μὴ ὅτι Κόιντον, ἀλλ' οὐδὲ τῶν ἀπὸ Θεσσαλοῦ τινα φθέγγασθαι βωμολοχικὰ γὰρ ἅπαντ' ἐστὶ τὰ τοιαῦτα κομψεύματα καὶ οὐδαμῶς ἀνδρὶ προσήκοντα σεμνῆς οὔτω τέχνης ἐπιστήμονι.

229K βέλτιον οὖν ὑπὲρ μὲν τῆς ἐωθινῆς ἀνατρίψεως ὧδέ πως σκοπεῖσθαι κατὰ γε τὸ προκείμενον ἐν τῷ νῦν ἐνεστῶτι λόγῳ σῶμα. τουτὶ γὰρ ἦτοι παντάπασιν ἄμεμπτόν ἐστι μετὰ τοὺς ὕπνους ἢ τινι τῶν κοπωδῶν ἐνέχεται διαθέσεων ἢ καὶ τῶν ἄλλων τινί, περὶ ὧν ἐφεξῆς ταῖς κοπώδεσιν ὀλίγον ἔμπροσθεν ἄχρι τοῦ δεῦρο διήλθον. εἰ μὲν οὖν ἄμεμπτον ὑπάρχει, περίεργόν ἐστιν ἢ ἀνατρίβειν ἢ ἀλείφειν αὐτό, πλὴν εἴ ποτ' ἀναγκαῖον εἴη συνενεχθῆναι κρύει κρατερῶ· τῆνικαῦτα γὰρ ὡς τοὺς μέλλοντας ψυχρολουτρέϊν οὔτω καὶ τούτους τῇ τρίψει παρασκευάσομεν. εἰ δέ τις αἰσθησις εἴη κοπώδης, λέλεκται καὶ πρόσθεν, ὡς ἀλεί-

⁴⁰ γναφέως Κο; γραφέως Κυ
τὰ τοιαῦτα τῶν ὀνομάτων Κυ

⁴¹ ὀνόματα ταῦτα Κο;
⁴² πεισθείην Κο; δοίην Κυ

say Quintus³⁰ replied to some gymnastic trainer who asked him what value anointing has, when he said, "it gets rid of the tunic." The words I used just now are those they say the gymnastic trainer asked, and what Quintus replied. This apothegm, put about by Quintus, is rather like that about the urine—it is for the scribe to find out about this—and about hot, cold, dry and moist, that they are the names of baths. These are things I would not be persuaded that Quintus or any of those associated with Thessalus³¹ said. All such quibbles smack of ribaldry and are in no way fitting for a man knowledgeable in so serious an art.

Better, then, to consider morning massage in relation to the body proposed in the present discussion as follows. For this is either altogether without fault after sleep, or is subject to one of the fatigue conditions, or one of the others which I went over following the fatigues a little earlier up to this point. If, then, the body is without fault, it is superfluous to massage or anoint it, unless at any time it is necessary to cope with severe cold. Under these circumstances, we shall prepare such people with massage as we would those about to undergo a cold bath. If there is some sensation of fatigue, as has also been said before, it is then

³⁰ Quintus (fl. AD 115–145) was a student of Marinos and was praised by Galen, who described him as "being like an Empiric but not of that school" (see EANS, 717). The story about the four qualities was that they were just the names of baths and not those of fundamental qualities / components of the body.

³¹ Thessalos of Tralleis (ca. AD 20–70) was a leading exponent of Methodism and the subject of very severe criticism by Galen. This is well exemplified in Book 1 of Galen's *MM*, 1–1021K (English trans., Johnston and Horsley, *Galen: Method of Medicine*).

φειν τε χρῆ τῆνικαῦτα καὶ ἀνατρίβειν μαλακῶς. οὕτω δὲ καὶ εἰ ξηρότερον εἶη πλέον τοῦ δέοντος, ἀλειπτέον μὲν ἐλαίῳ γλυκεῖ τέγγει γὰρ τοῦτο τὸν ξηρὸν χρώτα, τριπτέον δ' ἐλάχιστα μὲν, ἀλλὰ μήτε σκληρᾶ τρίψει μήτε μαλακῆ. προτρέψαι γὰρ μόνον δεόμεθα τὴν ἀνάδοσιν, οὔτε δ' ἀλλοιωῶσαι τοῦ δέρματος ἢ τῆς σαρκὸς τὴν ἕξιν οὔτε διαφορῆσαί τι τῶν περιεχομένων ἐν αὐτοῖς. ἐργάζεται δὲ ἄμφω μὲν ἡ μαλακῆ, θάτερον δὲ καὶ ἡ σκληρὰ τρίψις, εἴ γε δὴ πυκνοῖ μὲν αὕτη καὶ σκληρύνει τὸ δέρμα, διαφορεῖ δ' ἡ μαλακῆ καὶ ἀραιοῖ⁴³ καὶ μαλακὸν ἀπεργάζεται τὸ σῶμα.

230K πύκνωσιν μέντοι τοῦ δέρματος ἐπανορθώσασθαι βουλόμενοι, τὴν μὲν ἐπὶ ταῖς σκληραῖς ἀνατρίψεσι καὶ λαβαῖς καὶ σφοδρῶ γυμνασίῳ καὶ κόνει πολλῇ γεγενημένην ἐλαίῳ δαψιλῆ καὶ γλυκεῖ χρώμενοι μαλακῶς ἀνατρίψομεν, τὴν δ' ἐπὶ ψύξει πρώτως μὲν ταῖς ξηραῖς τε ἅμα καὶ ταχείαις ἀνατρίψεσι, δευτέρως δὲ ταῖς δι' ἐλαίου θερμαίνοντος εἰς τὸ κατὰ φύσιν ἐπανάξομεν. ἀραιότητα δὲ τὴν ἐπὶ τε λουτροῖς πλείοσι καὶ τρίψεσι μαλακαῖς ἀφροδισίων τε χρήσεσι γεγενημένην ὀλίγαις μὲν ταῖς ξηραῖς ἀνατρίψεσιν, ὀλίγαις δ' ἐφεξῆς αὐτῶν ταῖς σὺν ἐλαίῳ τινὶ τῶν στυφόντων ἰασόμεθα. τὰς δ' ἐπὶ πλείοσι ποτοῖς ὑγρότητας τρίψεις⁴⁴ ξηραὶ μόναι θεραπεύουσι διὰ τε σινδόνων ἢ χειριδίων ἐπιτελούμεναι καὶ αὐτῶν μόνων ἐνίοτε τῶν χειρῶν ἢ χωρὶς λίπους παντὸς ἢ σὺν ἐλαίῳ⁴⁵ ἐλαχίστω τινί. ἔστω δὲ τοῦτο τοῦλαιον γλυκύ, ἵν' ἢ διαφο-

necessary to anoint and massage gently. In this way too, if the body is drier than it should be, it must be anointed with sweet oil, for this moistens the dry surface of the body, and it must be massaged for the shortest time, but with neither hard nor soft massage. For we only need to promote the distribution and not to change the state of the skin or flesh, or disperse any of those things contained in them. Soft massage effects both, whereas hard massage effects one of the two, if in fact it condenses and hardens the skin, while soft massage disperses and makes the body loose textured and soft. 230K

However, if we wish to correct condensation of the skin which has arisen following hard massages, wrestling holds, violent exercise and much powder, we shall massage gently using sweet oil in abundance. On the other hand, we shall return to an accord with nature that condensation which has arisen from chilling primarily with dry and rapid massages and secondarily to these with oil that is warming. Loose texture that has arisen after many baths, gentle massages and the use of sexual intercourse, we shall cure with a few dry massages, and following a few of these, with those with some oil that has astringent properties. Dry massages alone treat the moistness after too many drinks. These massages are done with muslin cloths and the hands, but sometimes just with the hands alone, either without oil altogether or with the least amount. This oil

⁴³ ἀραιοῖ Κο; ἀραιὸν Ku

⁴⁴ τρίψεις Κο; αἱ Ku

⁴⁵ ἐλαίῳ add. Κο

ρητικόν, ἀπάσης ἀπηλλαγμένον στυφούσης ποιότη-
τος. ὧδε μὲν ἔχει περὶ τῆς ἐωθινῆς ἀνατρίψεως.

231K ἢ δ' εἰς ἐσπέραν ἦτοι κοπώδεσιν ἰκανῶς ὑπάρχου-
σιν ἢ κατεξηρασμένοις ἢ ἀτροφουῖσιν ἐπιτήδειος.
ἀλλὰ τὸ μὲν τῆς ἀτροφίας σύμπτωμα τό γε νῦν ἐξαι-
ρείσθω τοῦ λόγου μετὰ τῶν ἄλλων ἀπάντων νοσωδῶν
συμπτωμάτων ἐξῆς προχειρισθησόμενον. ἐπὶ δὲ τῆς
ὑποκειμένης φύσεως, ὅταν ἦτοι κόπος ἰσχυρὸς ἢ ξη-
ρότης τις ἄμετρος ὑπάρχη κατὰ τὸ σῶμα, τὸ μὲν ἄρι-
στον ἔλαττον γινέσθω, πλείων δ' ὁ μεταξὺ χρόνος
ἄχρι τοῦ δείπνου, τὰ πολλὰ δ' ἐφ' ἡσυχίας· ὀλίγον δέ
τι καὶ περιπατεῖτωσαν, ὡς ὑποκαταβῆναι τὰ σιτία
ταῖς ὀρθαῖς κινήσεσι κατασεισθέντα· βέλτιον δὲ καὶ
εἰ ἀποπατήσαι δυνηθεῖεν. τούτων γὰρ ἀπάντων καλῶς
γενομένων ἀκίνδυνον ἀνατρίβειν ἐλαίῳ γλυκεῖ, μὴ
πάνυ τι τῆς γαστρὸς ἐφαπτόμενον· εἰ δὲ μή, κίνδυνος
αὐτὰ τε τὰ σιτία πεφθῆναι χεῖρον ἀναδοθῆναί τε τινα
χυμὸν ἐξ αὐτῶν ἡμίπεπτον ἐπιθολωθῆναί τε τὴν κε-
φαλὴν ἀνατραπῆναί τε τὸν στόμαχον. ἄριστον μὲν
οὖν ἐστὶ τὸ μηδ' ὅλως ἄπτεσθαι τῆς γαστρὸς· εἰ δέ
ποτε τῶν ἀμφ' αὐτῇ μυῶν ἦτοι κοπώδης τις αἴσθησις
ἢ πλείων ἐμφαίνοιτο ξηρότης, ἀλείφειν τὰ μέτρια
232K πρῶως ἐφαπτόμενον. εἰ δὲ καὶ τὰς αἰτίας τις ἀκούσαι
ποθεῖ τῶν εἰρημένων, τὸν ἐξῆς ἀναμεινάτω λόγον, ἐν
ᾧ περὶ τῶν νοσωδῶν συμπτωμάτων διερχόμεθα· νυνὶ
μὲν γὰρ ἤδη μοι δοκῶ μέγεθος αὐταρκὲς ἔχειν τὸν
ἐνεστῶτα λόγον.

should be sweet so that it is dispersing (diaphoretic) and
is free of any astringent quality. Such, then, is the matter
of morning massage.

The evening massage is suitable for those who are 231K
greatly fatigued, or dried out, or wasting away. But let the
symptom of atrophy be set aside from the present discus-
sion along with all the other disease symptoms which will
be dealt with in due course. In the case of the assumed
nature, whenever there is either strong fatigue or some
immoderate dryness involving the body, let the breakfast
be less and the time between it and dinner be longer, and
for the most part be spent resting, although there should
also be a little walking around, so that the foods, shaken
by the upright movements, settle down. And it is better if
the person is enabled to move the bowels. When all these
things occur properly, massage with sweet oil is free of
danger, if there is no touching of the abdomen at all. Oth-
erwise, there is a danger that the foods themselves will be
concocted badly and that some semiconcocted humor
from them will be distributed, making the head turbid and
the stomach upset. Therefore, it is best not to touch the
abdomen at all. If, at any time, there is either a sensation
of fatigue of the muscles on both sides of this, or an exces- 232K
sive dryness appears, anoint moderately with a gentle ap-
plication. If someone is anxious to learn the causes of the
things mentioned, let him await the subsequent discussion
in which I go over the disease symptoms. For now, the
present discussion seems to me already long enough.

233K 1. Οὐχ ὡς οἱ πλείστοι τῶν νεωτέρων ἰατρῶν ἐν τοῖς σοφιστικοῖς ζητήμασι κατατρίψαντες τὸν χρόνον ἤτοι διὰ βραχέων ἐπιτρέχουσι τὸν περὶ τῶν ἀναγκασι-
 234K οτάτων λόγον ἢ καὶ παντάπασι παραλείπουσιν, οὕτω καὶ ἡμεῖς ποιήσομεν, ἀλλ', ὅπερ ἐξ ἀρχῆς ἐνεστησά-
 μεθα, τὸ χρήσιμον αὐτὸ διερχόμενοι τὰ λογικωτέραν ἔχοντα τὴν ἐπίσκεψιν εἰς ἕτερον ἀναβαλλόμεθα και-
 ρόν. αὐτίκα γέ τοι περὶ τῶν νοσωδῶν συμπτωμάτων, ὑπὲρ ὧν ἐν τῷδε τῷ λόγῳ πρόκειται διελθεῖν, οὐ μι-
 κρὰ ζήτησίς ἐστι, πότερον ἐκ τῆς ὑγιεινῆς ὑπάρχει
 πραγματείας ἢ ἐκ τῆς θεραπευτικῆς ἢ τούτων μὲν οὐδετέρας, ἄλλης δέ τινος ἀμφοῖν τρίτης, ἣν δὴ καὶ μέσσην ὑγείας τε καὶ νόσου τίθενταί τινες οὐδετέραν ὀνομάζοντες.

ἐγὼ δ' ἐπιστάμενος μὲν, ὡς, εἴτ' ἐν τοῖς ὑγιεινοῖς τις εἴτ' ἐν τοῖς θεραπευτικοῖς αὐτῶν μνημονεύσειεν, ὁμοίως ὑπὸ τῶν σοφιστῶν ἐπηρεασθήσεται, γινώσκων δ' οὐδὲν ἤττον, ὡς, εἰ καὶ τρίτης τις αὐτοῖς ἀναθείη γενέσθαι πραγματείας ὑπὲρ τῶν οὐδετέρων δια-

¹ On this issue—what is intermediate between health and disease—see Galen's *Ars M.*, particularly chapters 1–4; Johnston,

BOOK IV

1. I shall not do as the majority of younger doctors do who waste their time in sophistical inquiries, either treating in summary fashion the discussion of the most essential things or leaving them out altogether. Instead, as I set out to do from the beginning, going over what is actually useful, I shall defer to another time those matters that have a more logical investigation. For certainly the immediate inquiry into disease symptoms, which lie before us to consider in this book, is no small matter, whether it belongs to the subject of hygiene, or to therapeutics, or to neither of these, but rather to some third matter different to both which therefore occupies some place between health and disease; some call this "neither" ("neutral").¹

However, since I feel sure that, whether I make mention of these things under hygiene or therapeutics, they will be similarly spoken of disparagingly by the Sophists,² knowing no less that, even if I were to ascribe some third category to them, writing about neither of the other condi-

On the Constitution, 156–77, and von Staden, *The Art of Medicine in Early Alexandria*, 103–7.

² It is not clear whether Galen is referring to anyone in particular here or simply using "Sophist" in a general pejorative sense applied to those who indulge in fruitless quibbles about names.

θέσεων ἐπιγράψας, ἔτι καὶ μᾶλλον ἐπιγελάσονται τε καὶ τωθάσονται καὶ ἐρήσονται, περὶ τῶν ἀρρενικῶν καὶ θηλυκῶν ἐν ποίᾳ πραγματεία διδάσκομεν, εἰλόμην ἐν τῷ νῦν ἐνεστῶτι λόγῳ διελθεῖν ὑπὲρ αὐτῶν. εἰ γὰρ ἀδύνατον μὲν ἔστι διαφυγεῖν¹ τῶν σοφιστῶν τὴν γλωσσαλγίαν, ἔλαττον δ' ἐπηρεάσουσιν οὕτω διαπραξάντων, ἄμεινον ἴσως ἔστιν τοῦτο ποιεῖν. ἔτι δὲ μᾶλλον ἂν τις ἐξ αὐτῆς τῆς θεωρίας ἐπιγνοίη τὴν κοινωνίαν τῆς διδασκαλίας, εἰ προσέχοι τὸν νοῦν ἀκριβῶς τοῖς λεχθησομένοις, ὧν ἀρκτέον ἐνθένδε.

235K τῆς ὑγιεινῆς ἐπιστήμης οὐ φαυλότατόν ἐστι μόριον ἢ περὶ τὰ γυμνάσια τέχνη· ταύτης δ' αὐτῆς οὐ μικρὰ μοῖρα τὸ φυλάξασθαι κόπους. ἐδείχθη δ' ἔμπροσθεν, ὡς ὁμοία τίς ἐστιν ἢ τε προφυλακὴ τῶν ἐσομένων κόπων καὶ ἢ ἐπανόρθωσις τῶν ἤδη γεγονότων. οὐκ οὐν ἐτέρωθι μὲν ἐχρῆν ἐκδιδάσκειν, ὅπως χρῆ φυλάττεσθαι κόπους, ἐτέρωθι δ', ὅπως εἰς τὸ κατὰ φύσιν ἐπανάγειν προσήκει τοὺς ἤδη γεγονότας. διὰ ταῦτα μὲν οὖν ἐν τῷ πρὸ τούτου γράμματι, τρίτῳ τῆς ὅλης πραγματείας ὄντι, περὶ τῶν ἐπὶ γυμνασίοις κόπων ὁ λόγος ἡμῖν ἐγένετο μετὰ τοῦ τῶν ὁμοίων αὐτοῖς ἐπιμνησθῆναι διαθέσεων, ὧν ἔνιαί τινες ἐπὶ γυμνασίοις ἐγίνοντο μάλιστα. νυνὶ δὲ πρῶτον μὲν ὑπὲρ αὐτῶν ἐροῦμεν, ἐπειδὴν ἄνευ τῶν γυμνασίων γίνονται, δεύτερον δὲ καὶ περὶ τῶν ὁμοειδῶν αὐτοῖς.

2. Ὁ μὲν οὖν ἐπὶ γυμνασίοις ἀμέτροις γινόμενος κόπος ὑγιεινόν τι σύμπτωμα ἐστίν, ὁ δὲ χωρὶς τούτων νοσώδης. ὥστε καὶ Ἰπποκράτει δοκεῖ κάλλιστα εἰρη-

tions, they will laugh and mock even more and will ask under what kind of subject heading I will teach about men and women, which is what I have chosen to consider in the present discussion. If it is impossible to escape the endless talking of the Sophists, but they would be less disparaging if I were to do it in this way, perhaps it would be better if I were to do so. Still more, someone might recognize the generality of the teaching from this same theory, if he directs his attention closely to the things that will be said, of which I must make a start here.

The art concerning exercises is by no means the most trivial part of the knowledge of hygiene. And no small part of the same knowledge is the avoidance of fatigues. It was shown previously that what is prophylactic for fatigues that will occur and what is corrective of those that have already occurred are the same. It is not therefore necessary to teach thoroughly in one place how one must avoid fatigues but in another place how it is appropriate to return to an accord with nature those fatigues that have already occurred. Because of these things then, in the book prior to this one—the third in the whole work—our discussion was about the fatigues after exercises, together with that of the conditions similar to them that have occurred and were mentioned by me. Some of these occurred particularly after exercises. I shall now speak first about these when they occur without exercise and second, about the conditions of a similar kind to them.

2. The fatigue that occurs after excessive exercises is a healthy symptom whereas that which occurs apart from exercises is a disease symptom. So Hippocrates seems

¹ διαφυγεῖν Κο; ἐκφυγεῖν Κυ

236K σθαι. "κόποι αὐτόματοι φράζουσι νόσους." ἡ μὲν οὖν ἐλκώδης αἴσθησις σύμπτωμά ἐστι κοπῶδες, ἡ δ' αἰτία, δι' ἣν αὕτη γίνεται, διάθεσις κοπώδης. ἡ δὲ καὶ ταύτης αὐτῆς αἰτία διττὴν ἔχει τὴν διαφοράν, ἥτοι κατ' αὐτὸ τοῦ ζώου τὸ σῶμα περιεχομένη, καὶ ὀνομάζεται τηνικαῦτα προηγούμενον αἴτιον, ἢ μηδ' ὄλως ἐννύπαρχουσα, καὶ καλεῖται τηνικαῦτα² προκαταρκτικὸν αἴτιον. ὡς εἶναι μὲν τρία τὰ σύμπαντα γένη, περὶ ὧν ὁ νῦν ἡμῖν ἐνέστηκε λόγος, τό τε σύμπτωμα τὸ κοπῶδες καὶ τὴν διάθεσιν τὴν κοπώδη καὶ τὴν αἰτίαν αὐτῆς. ἐκάστου δ' αὐτῶν εἰδικὰς τινὰς ὑπάρχειν διαφοράς, ἐν μὲν ταῖς αἰτίαις, ὡς εἴρηται νῦν δὴ, τὴν προηγούμενην καὶ τὴν προκατάρχουσαν, ἐν δὲ ταῖς διαθέσεσιν, ὡς ἔν γε τῷ πρὸ τούτου λόγῳ δέδεικται, τὴν ἐλκώδη καὶ τὴν τονώδη καὶ τὴν φλεγμονώδη, καὶ μέντοι καὶ τοῖς συμπτώμασι τρεῖς τὰς αὐτάς. ὀνομάζειν μὲν οὖν ἔξεστιν, εἰ βούλοιτό τις, ἑτέρως· οὔτε δὲ πλείω τῶν εἰρημένων λέγειν τε καὶ ποιεῖν ἔξεστιν, ἀληθεύειν γε βουλομένοις, οὔτε πλείους διαφορὰς τῶν λελεγμένων.

237K ὁ μὲν οὖν ἐλκώδης κόπος (ἀρκτέον γὰρ ἀπὸ τούδε) κινουμένοις αἴσθησιν ὀδυνηρὰν³ ὡς ἐλκουμένου φέρει τοῦ σώματος, ἥτοι κατὰ τὸ δέρμα μόνον, ὅταν ἦ μετριώτερος, ἢ κατὰ τὰς ὑποκειμένας αὐτῷ σάρκας,

² τηνικαῦτα add. Κο

³ ὀδυνηρὰν Κο; ἀνιαρὰν Κυ

236K to have said it best: "spontaneous fatigues announce diseases."³ Thus, the wound-like sensation is a fatigue symptom; the cause due to which it occurs is a fatigue condition. And the cause of this same condition has a twofold difference. Either it is contained within the actual body of the animal, and under these circumstances is called a *proegoumenic* cause, or it is not at all intrinsic, and under these circumstances is called a *prokatarktic* cause.⁴ So there are in all three classes about which our discussion is now established: the symptom of fatigue, the condition of fatigue, and the cause of this condition. And there are certain specific differences of each of these. Among the causes, as I said just now, there are the *proegoumenic* and *prokatarktic*; among the conditions, as has been shown in the discussion prior to this, there are the wound-like, the tensive (tension-like) and the inflammation-like [fatigues], and of course, in the symptoms too, there are the same three. It is possible for someone to name these differently, should he wish to. However, it is not possible for those who wish to speak the truth, to name or make more conditions than those spoken of or more *differentiae* than those that have been stated.

Therefore, the wound-like fatigue (for we must begin from this) produces a sensation that is distressing in those who move, as if the body were wounded, either in the skin alone whenever it is more moderate, in the flesh underly-

³ Hippocrates, *Aphorisms* 2.5, *Hippocrates* IV, LCL 150, 108-9.

⁴ For a consideration of these two terms, which might be rendered "internal antecedent" and "external antecedent," see Johnston, *Galen: On Diseases and Symptoms*, 33-35.

ὅταν γένηται σφοδρότερος, ἢ κατὰ τὸ συναμφότερον, ἐπειδὴν ἰσχυρότερος ἦ. καὶ τοῦτο μὲν ἐστὶ τὸ κοπῶδες σύμπτωμα. διάθεσις δὲ κοπῶδης, ἐφ' ἣ γίνεται τὸ σύμπτωμα, δριμύτης ὑγρῶν ἐστὶ λεπτῶν καὶ θερμῶν, ὡς διαβιβρώσκειν τε καὶ κεντεῖν καὶ νύττειν τὰ σώματα. γίνεται δὲ αὕτη ποτὲ μὲν ἐπὶ ταῖς ἀμέτροις κινήσεσιν, ὡς ἐν τῷ πρὸ τούτου δέδεικται λόγῳ, ποτὲ δ' ἐπὶ κακοχυμῖα τινὶ λεληθότως ὑποτραφείσῃ, καὶ τοὺς τοιοῦτους κόπους αὐτομάτους ὁ Ἰπποκράτης ὀνομάζει.

τὸ δ' ἕτερον γένος τοῦ κόπου τὸ τονῶδες, ὅταν αὐτόματον συνίστηται, ταῖς καλουμέναις πληθώραις ἔπεται. διατείνεται γὰρ ἐν ταύταις τὰ στερεὰ τοῦ ζώου μόρια, καὶ μάλιστα ἐν οἷς οἱ χυμοὶ περιέχονται. τὸ δὲ τρίτον τοῦ κόπου γένος τὸ φλεγμονῶδες ἐπὶ πληθώρα τε ἅμα καὶ τῇ προειρημένη γίνεται κακοχυμῖα. οὐ γὰρ δὴ πᾶν εἶδος κακοχυμῖας, ἀλλ' ἐκείνο μόνον, ἐν ᾧ δριμύτης ἐστὶ δακνώδης, ἐργάζεται τὸν ἐλκῶδη κόπον· οὐδ' οὖν οὐδ' αὕτη κατὰ τὰς φλέβας ἀναμεμιγμένη τῷ αἵματι λανθάνει γὰρ αὐτῆς ἡ δύναμις τῆνικαῦτα διαρρεούσης τε ἅμα καὶ νικωμένης ὑπὸ τῆς τοῦ αἵματος χρηστότητος, ἀλλ' ὅταν εἷς τε τὰς σάρκας καὶ τὸ δέρμα μόνη μεταληφθεῖσα στηριχθῇ, τὴν ἐλκῶδη διάθεσιν τε καὶ αἴσθησιν ἐπιφέρει. ὅσοι δὲ πλήθους ἔκγονον ὑπάρχειν οἴονται τὸν κόπον τοῦτον, ἀμαρτάνουσιν.⁴ οὔτε γὰρ τοῦ τοιοῦτου πλήθους, ὃ δὴ καὶ πληθώραν ὀνομάζουσι τὸν τονῶδη γὰρ ἐκείνο κόπον ἐργάζεται, οὔτε τοῦ τὴν δύναμιν βαρύνοντος· οὐ

ing the skin, when it becomes more severe, or in both together when it is stronger. This is the fatigue symptom. However, the condition of fatigue, in which the symptom occurs, is an acridity of fluids that are thin and hot, such as to corrode, sting and prick the bodies. Sometimes this occurs after excessive movements, as I have shown in the discussion prior to this, and sometimes grows up imperceptibly from some *kakochymia*—Hippocrates termed such fatigues "spontaneous."

The second class of fatigue—the tensive (tension-like)—when it exists spontaneously, follows the so-called *plethoras*. For in these, the solid parts of the animal are stretched to the uttermost, and especially those in which the humors are contained. The third class of fatigue—the inflammation-like—occurs with *plethora* and with the previously mentioned *kakochymia*. For not every kind of *kakochymia*, but only that in which there is a biting acridity, brings about the wound-like fatigue. But even this does not do so, if it is mixed with the blood in the veins, for under these circumstances its potency escapes notice since it flows along and is overcome by the most useful of the blood, but only when it is transferred to the flesh and skin, and is firmly fixed, does it bring the wound-like condition and sensation. However, those who think this fatigue is a product of excess are mistaken, for it is not of the kind of excess which they also term *plethora*, for that brings about the tensive fatigue, nor of that which weighs

238K

⁴ ἀμαρτάνουσιν Κο; σφάλλονται Ku

239K γὰρ δῆξις οὐδὲ ἐλκώδης αἴσθησις,⁵ ἀλλ' ἦτοι βάρος τε καὶ δυσκινησία τοῦ τοιούτου πλήθους ἐστὶ συμπτώματα τὴν ψυχικὴν βαρύνοντος δύναμιν, ὅταν ὡς πρὸς ταύτην ὑπάρχη πλεον, ἢ κακοσφυξίαι τινές, ὅταν ὡς πρὸς τὴν ζωτικὴν. εἴρηται δ' ὑπὲρ αὐτῶν αὐτάρκως ἐν τοῖς περὶ σφυγμῶν, ὥσπερ γε καὶ τῷ Περὶ πλήθους βιβλίῳ τὰ γνωρίσματα τῆς φυσικῆς δυνάμεως εἴρηται βαρυνομένης ἅμα τοῖς τῶν ἄλλων ἀμφοτέρων. οὐκ οὐκ τὸ πλήθος αἰτιὸν ἐστὶ τοῦ τὴν ἐλκώδη φέροντος αἴσθησιν κόπου, ἀλλὰ τῶν ἐν τῷ δέρματι καὶ τῇ σαρκὶ περιεχομένων χυμῶν ἢ δριμύτης. αὕτη γάρ, ἐπειδὴ μὲν ἡσυχάζουσα περικέχεται, διαλανθάνει τὴν αἴσθησιν, εἰς κίνησιν δ' ἀφικομένη παραχρῆμα γνωρίζεται. κίνησις δ' αὐτῇ πρώτως μὲν καὶ μάλιστ' ἐγγίνεται κατὰ τινὰς οἰκείους λόγους, οὓς ἐξῆς ἐροῦμεν, ἑτέρα δὲ κατὰ συμβεβηκός, ἐπειδὴ ἡμεῖς αὐτοὶ προελόμενοι κινήσαί τι μέρος ἢ καὶ σὺν παντὸ σῶμα σὺν ἐκείνῳ καὶ τὰς ἐν αὐτῷ περιεχομένας κινήσωμεν ὑγρότητας. ἀλλ' ἢ μὲν τοιαύτη κίνησις ἐλαχίστη τέ ἐστὶ καὶ τὴν κοπώδη μόνην αἴσθησιν ἐπιφέρει, ἢ δὲ σφοδροτέρα ρίγους ἐστὶν αἰτία, ἢ μέση δ' ἀμφοῖν φρίκης. ὅτι δ' οὐδὲν κωλύει, καὶ θερμὸν

⁵ ἐλκώδης αἴσθησις Κο; ἐλκωσις Κυ

⁵ The only other use of this term I could find in Galen is in his *Sympt. Diff.*, VII.63K. In discussing symptoms due to abnormal nutrition there, among the symptoms he writes, "stoppages and

239K down the capacity. For neither a biting nor a wound-like sensation, but either heaviness or difficulty of movement are the symptoms of such an excess, weighing down the psychical capacity when it is more in relation to this, or creating certain *kakosphyxias* (pulse abnormalities),⁵ when it is more in relation to the physical capacity.⁶ Enough has been said about these in the works on the pulses,⁷ just as the signs of the physical capacity being weighed down have been spoken about in the book, *On Plethora*,⁸ along with those of both the others. The amount is not therefore a cause which produces the wound-like sensation of the fatigue; rather, it is the acidity of the humors contained in the skin and flesh. For this, when it lies about at rest, escapes perception, but if it comes to movement it is immediately detected. Movement in it arises first and foremost in relation to certain specific reasons, which I shall speak about next; others are contingent when we ourselves choose to move some part or the whole body, and with that we also move the fluids contained in it. But such movement, when it is at its least, brings only the fatigue sensation, whereas a stronger movement is a cause of rigors, and that in between both, of shivering. That nothing prevents even heat also being the cause, and

irregularities are symptoms involving the function of the pulses." (See Johnston, *Galen: On Diseases and Symptoms*, 192 [VII.63K]).

⁶ Galen's detailed account of the capacities or faculties (*dunamis*) is to be found in his *Nat. Fac.*, II.1-204K (English trans., Brock, *On the Natural Faculties*).

⁷ There are seven extant works on the pulses—see Johnston, *On the Constitution*, 312n73. Relevant passages include VIII.493K ff. and IX.1K ff.

⁸ *Plenit.*, VII.513-83K. See particularly VII.513ff.

ὑπάρχη τὸ αἷτιον, ῥίγος τε καὶ φρίκην αὐτὸ ποιεῖν, ἐν ταῖς τῶν συμπτωμάτων αἰτίαις ἀναδέδεικται. νυνὶ δ' ἀρκεῖ μόνον αὐτὰ τὰ κεφάλαια τῶν ἐν ἐκείνῳ τῷ βιβλίῳ⁶ δεδειγμένων ὑπόθεσιν ποιήσασθαι τοῖς παροῦσιν.

240K ὅταν οὖν ἐν τοῖς αἰσθητικοῖς σώμασιν ὑποτραφῆ περιπτώματα δάκνοντα, κατὰ διττὸν τρόπον εἰς κινήσιν ἀφικνεῖται, καθ' ἓνα μὲν ὑπ' αὐτῶν τῶν αἰσθητικῶν σωμάτων ὠθούμενα, δύναμιν ἐχόντων ἀποκριτικὴν τῶν ἀλλοτρίων, καθ' ἕτερον δὲ ὑπὸ κινήσεως σφοδροτέρας, ἣν ἔκ τε γυμνασίων καὶ θυμοῦ ἢ καὶ τῆς ἐκ τοῦ περιέχοντος θερμασίας ἐπικτᾶται. τὰ μὲν οὖν ὑπόθερμά τε καὶ σηπεδονώδη περιπτώματα, κινήθεντα σφοδρότερον, οὐ φρίκην μόνον ἢ ῥίγος ἐπιφέρει, ἀλλὰ καὶ πυρετὸν ἐξάπτει· τὰ δὲ ψυχρά τε ἅμα καὶ λεπτομερῆ φρίκην μὲν καὶ ῥίγος ἐπιφέρει, πυρετὸν δὲ οὐκ ἐξάπτει. προσεῖναι δέ τι καὶ πλῆθος ἀξιόλογον ἑκατέροις ἀναγκαῖον, εἰ μέλλοι ταῦτα ποιῆσιν. ὅσα δ' ἦτοι παντάπασιν ὀλίγα περιπτώματα δάκνοντα τοῖς αἰσθητικοῖς ἐγγίνεται σώμασιν ἢ πλείω μὲν ἐστίν, οὕτω δ' ἀκριβῶς δακνώδη, τὸν ἐλκώδη κόπον ἐργάζεται. καὶ δὴ καὶ λεκτέον ἡμῖν ὑπὲρ τούτων⁷ ἐν τῷ παρόντι· τὰ γὰρ τοὺς πυρετοὺς ἐπιφέροντα τῆς θεραπευτικῆς ἐστὶ πραγματείας· οὐ μὴν ἀλλὰ καὶ ὅσα φρίκην μὲν ἐργάζεται, πυρετοὺς δ' οὐκ ἐξάπτει, καὶ ταῦτα τῆς ἐνεστώσης ἐστὶ πραγματείας.

⁶ βιβλίῳ Κο; λόγῳ Κυ

that this creates rigors and shivering, was shown in the work, *On the Causes of Symptoms*.⁹ For the present, this alone is sufficient—to establish the hypothesis for our current purposes, having demonstrated the actual chief points in that book.

Whenever, in perceiving bodies, biting superfluities are produced, they come to movement in a twofold way. In the first case, they are urged on by the perceiving bodies themselves, since these have a capacity which separates alien materials. In the second case, they are urged on by a stronger movement which is gained as an adjunct from exercises and anger, and also from the surrounding heat. Therefore, somewhat hot and putrefying superfluities, when they are moved more violently, bring about not only shivering or rigors, but also kindle a fever. The cold superfluities, that are at the same time fine-particled, bring shivering and rigors but do not kindle a fever. It is, however, necessary for a notable excess to be present in both cases, if they are going to create these effects. Those superfluities that are biting, but only slightly so, or are more so but not yet entirely biting, arising in perceiving bodies, bring about the wound-like fatigue. And actually, we must speak about these in the present discussion, for those things that produce fevers fall within the province of therapeutics, whereas those that produce shivering but do not kindle fevers fall within the scope of the present subject.

⁹ See *Sympt. Caus.*, 2.5 (VII.179–80K); Johnston, *Galen: On Diseases and Symptoms* 253–54.

⁷ post τούτων: ἐν τῷ παρόντι Κο; ἐστίν ἐν τῷ παρόντι λόγῳ Κυ

241K

3. Ἡ ἴασις δὲ ἢ μὲν τις εἰς κοινούς ἀμφοτέροις ἀνάγεται σκοπούς, ἢ δὲ ἐστὶν ἑκατέρων ἴδιος· εἰρήσεται δὲ πρότερον ἢ κοινή. χρὴ τοίνυν, εἴτε θερμὸν εἴτε ψυχρὸν εἴη τὸ περίττωμα, κενούην ἢ ἀλλοιοῦν αὐτό. δέχεται δ' οὐ πᾶν περίττωμα τὴν ἐκ τῆς φύσεως ἀλλοίωσιν, ὥσπερ οὐδὲ πᾶν ἔδεσμα πᾶσι τοῖς ζώοις τὴν ἐν τῇ γαστρὶ πέψιν, ἀλλ' εἶναι χρὴ τινα συγγένειαν αἰεὶ τῷ πεττομένῳ πρὸς τὸ πέττον. ὅταν οὖν ἀλλότριον ἢ παντάπασιν, οὐδεμία μηχανὴ τοῦτο τὸν ἐκ τῆς φύσεως ἀναδέξασθαι κόσμον, ἀλλὰ χρὴ κενούην αὐτὸ πειρᾶσθαι διὰ ταχέων, ὥσπερ γε καὶ τὰ κατὰ τὴν γαστέρα διεφθαρμένα τελέως ἢ ἐμέτοις ἢ διαχωρήσασιν ἐκκενοῦσθαι κράτιστον. οὐ μὴν ἐνδέχεται τὴν ἐν τῇ σαρκὶ καὶ τοῖς ἄλλοις σώμασιν ἀναπεπομένην κακοχυμίαν ἐτοίμως οὕτως ἐκκενοῦν, ὡς τὴν ἐν ταῖς αἰσθηταῖς εὐρυχωρίαις περιεχομένην. ἐνίοτε δὲ καὶ ἡ φύσις αὐτὴ τοῦ κάμνοντος οὐ προσίεται βοήθημα ταχέως ἐκκενωῦσαι δυνάμενον. ἔστιν δ' ὅτε καὶ ἄλλη

242K

τις διάθεσις ἀνθίσταται τε καὶ ἀπαγορεύει τὸν τοιοῦτον τρόπον τῆς κενώσεως, ὑπὲρ ὧν ἐφεξῆς εἰρήσεται, πρότερόν γε τὸ λείπον ἐν τῇ πρώτῃ διαιρέσει προσθέντων ἡμῶν.

οἱ μὲν γὰρ κοινοὶ σκοποὶ τῆς τῶν περιττωμάτων ἰάσεως εἴρηνται, κένωσις τε καὶ ἀλλοίωσις. ἰδίου δ' ἑκατέρων προσθετέον ἡμῖν· οὐ γὰρ ἐνὶ τρόπῳ κενώτεον οὐδὲ ἀλλοιωτέον ἐστίν,⁸ ἀλλὰ τὸν οἰκείον αἰεὶ τοῦ λυποῦντος ζητητέον. οἰκείος δὲ συλλήβδην μὲν εἰπεῖν ὁ διὰ τῶν ἐναντίων ἐστίν, ἐν μέρει δὲ ὁ καθ' ἕκαστον

3. The cure is either what pertains to common objectives in both or is specific for each. I shall speak about the common first. Thus, it is necessary to evacuate the superfluity, whether it is hot or cold, or to change it. Not every superfluity is susceptible to change by Nature, just as not every food is susceptible to concoction in the stomach in all animals; there must always be a certain relationship between what is being concocted and what is doing the concocting. Whenever the superfluity is altogether alien, there is no mechanism for this to receive the good order of Nature; rather, it is necessary to attempt to evacuate it quickly, just as it is best to evacuate completely, by vomiting or defecation, those things corrupted in the stomach. It is not possible for the reconcocted *kakochymia* in the flesh and other bodies to be readily evacuated in the same way as that contained in the perceptible open spaces. Sometimes too, the actual nature of the one suffering is not able to contribute assistance for rapid evacuation. Sometimes too, another condition opposes and prevents such a kind of evacuation. I shall speak about this next after first adding what remains in the first division.

242K

The common objectives of the cure of the superfluities are as stated: evacuation and change. However, we must add the specific objectives of each, for we must not evacuate or change in one way only, but must always seek what is proper for the one who is distressed. In short, what is proper is that which is through opposites, individually in

⁸ ἐστίν *add.* Ko

ἐναντίως. τὰ μὲν κεφάλαια τοῦ λόγου ταῦτα· χρὴ δ' ἐξηγήσασθαι πλατύτερον αὐτὰ καὶ τὴν οἰκείαν ἀπόδειξιν ἐκάστῳ προσθεῖναι, τὴν ἀρχὴν ἀπὸ τῆς ἐλκώδους διαθέσεως ποιησαμένους τῶν αὐτομάτων κόπων.⁹

4. Ἐπεὶ τοίνυν ἐπὶ κακοχυμία δριμέων περιττωμάτων ὁ τοιοῦτος ἐγίνετο κόπος, ἐπισκεπτέον πρότερον, εἴτ' ἐν τοῖς στερεοῖς μόνοις σώμασιν εἴτε καὶ ταῖς κοιλίαις τῶν φλεβῶν ἢ κακοχυμία περιέχεται. γνώρισμα δ' οὐδὲν ἔχομεν ἐναργὲς οὐδὲ σαφὲς ὑπὲρ τῶν ἐν ταῖς φλεβῶν περιττωμάτων, ὅτι μὴ κατὰ τὰ οὖρα μόνον, ἀλλὰ στοχάζεσθαι χρὴ διὰ τῶνδε· πρῶτον μὲν ἐπισκοπούμενους, ἥτινι κέχρηται διαίτη τὸ κάμνον σῶμα· δεύτερον δ', εἰ καὶ φύσει κακοχυμίαν ἦν ἔθος ἀθροίζειν αὐτῷ· καὶ πρὸς τούτοις, εἰ αἱ συνήθεις ἐκρίσεις ἐπέχονται [αἱ φυσικαί].¹⁰ τέταρτον ἐπὶ τούτοις, εἰ γυμνασίοις ἢ καθάρσεσιν ἢ ἐμέτοις ἢ αἰωρήσεσιν ἢ χρήσεσιν αὐτοφυῶν ὑδάτων εἰθισμένος ἐκκενοῦν τὰ περιττώματα νῦν ὠλιγόρησεν. ἐν μὲν οὖν τῇ διαίτη σκεπτέον, εἰ ἀπειψία προήγηται πολὺ πλείους καὶ μείζους τῶν συνήθων ἢ κακοχύμων ἐδεσμάτων ἐνεφ-
 243K ὀρήσατο πλήθος ἢ οἶνον ἀντὶ μὲν παλαιοῦ γλεύκινον, ἀντὶ δὲ λεπτοῦ παχὺν ἢ τεθολωμένον ἔπιεν ἢ καὶ παντάπασιν εἰς ὑδατος πόσιν ἐξ οἴνου μετῆλθεν, οὐχ ἅπαξ ἢ δις ἐφ' ἐκάστῳ τῶν εἰρημένων πλημμελήσας, ἀλλὰ συνεχῶς τε ἅμα καὶ χρόνῳ πολλῷ.

relation to each opposition. These are the chief points of the discussion. It is necessary to elaborate on these more broadly and to add the proper demonstration in each case, making a start from the wound-like condition of the spontaneous fatigues.

4. Accordingly, since such a fatigue arises from a *kakochymia* of the acrid superfluities, we must first consider whether the *kakochymia* is contained in the solid bodies alone or is also in the lumina of the veins. As we have no visible or clear signs about the superfluities in the veins except from the urine alone, we must make our assessment through these. We must consider first what diet the suffering body has used. Second, we must consider whether it was customary for *kakochymia* to naturally collect in it; and in addition to these, if some of the customary and natural excretions are being held back. Fourth, in addition to these, we must consider whether the body is accustomed to evacuate the superfluities with exercises, purgatives, emetics, or passive exercises, or with the use of natural waters, and has now paid little attention to [these measures]. In the regimen, we must consider whether *apepsias* precede much more and to a greater degree than is customary, or whether the person has ingested an abundance of *kakochymous* foods or has drunk wine that is sweet instead of aged, or is thick or turbid instead of thin, or if he has changed completely from drinking wine to drinking water, and has not offended just once or twice in the case of each of the things mentioned, but continuously and over a long time.

243K

⁹ τῶν αὐτομάτων κόπων add. Ko

¹⁰ [αἱ φυσικαί] Ko; καὶ φυσικαί Ku

244K δεύτερον δ' ἐπισκεπτέον, ὡς εἴρηται, μή τις τῶν φύσει κακοχυμίαν ἐτοίμως ἀθροίζοντων ἐστὶν ὁ κάμνων.¹¹ ἐξευρήσεις δὲ τοῦτο πυθόμενος, εἰ ψωρώδης ποτὲ διάθεσις ἢ λεπρώδης ἢ ἀλφώδης ἢ κνησμώδης ἐπὶ πλέον αὐτῷ συνέπεσεν ἢ ἐρυσίπελας ἢ ἔρπηθς ἢ ἐλέφας ἢ ὀφίασις ἢ ἀλωπεκίασις ἢ φλύκταιναι πλείους ἢ ἐλκώδεις ἐξανθήσεις ἢ ἐπινυκτίδες ἢ ὅλως ὁτιοῦν τῶν ἐπὶ κακοχυμία γεννωμένων τε καὶ αὐξανόμενων συμπτωμάτων. ἐπὶ δὲ τούτοις ἐλέγομεν χρῆναι σκοπεῖσθαι, μὴ συνήθης τις ἔκκρισις ἐπέσχηται δι' ἐμέτων ἢ δι' αἰμορροΐδων ἢ σύριγγός τινος ἢ δυσεντερίας ἢ γυναιξὶ καταμήνια· εἴθ' ἐξῆς, εἰ αὐτὸς ἐπιτηδεύων ἐκκαθαίρειν ἑαυτὸν ἀεὶ πέπαυται νῦν.

245K ἔνιοι μὲν γὰρ ὑψηλάτοις φαρμάκοις, ἔνιοι δὲ ἐμετηρίοις ἢ οὐρητικοῖς ἢ ἰδρωτικοῖς ἢ χρήσεσιν ὑδάτων αὐτοφυῶν ἢτοι θειωδῶν ἢ ἀσφαλτωδῶν ἢ νιτρωδῶν ἐκκενοῦντες ἑαυτῶν τὰ περιττώματα καθ' ἕκαστον ἔαρ ἢ φθινόπωρον ὠλιγόρησαν νῦν, πολλοὶ δέ, ὡς εἴρηται, καὶ γυμνασίων ἔθους ἀπέστησαν, ἔνιοι δὲ καὶ τρίψεως ἀπάσης ἢ λουτρῶν ἢ τῶν μετὰ τὸ βαλανεῖον ἐμέτων ἐπ' οἴνω γλυκεῖ. πρόδηλον δὲ ἐστίν, ὡς ὁ λόγος οὐ μόνον τῶν τὴν ἀρίστην ἐχόντων κατασκευὴν ἐμνημόνευσεν, ἀλλ' ὑπὲρ τοῦ μηδὲν λείπειν τῷ καταλόγῳ τῶν τῆς κακοχυμίας αἰτιῶν ἐφήσατο καὶ τῶν ἀθροίζοντων φύσει κακοχυμίαν σωμάτων, ὑπὲρ ὧν ἐν ταῖς μοχθηραῖς κατασκευαῖς τοῦ σώματος ἐν τοῖς ἐξῆς ὑπομνήμασιν ἐπὶ πλέον ἐροῦμεν. ἐκ τούτων μὲν οὖν στοχάζεσθαι χρὴ τοῦ ποσοῦ τῆς κακοχυμίας, ἴα-

The second thing we must consider, as I said, is whether the affected person is someone who by nature readily collects *kakochymia*. You will discover this by inquiring if sometimes a scabby, leprous, dull-white leprous or pruritic condition befalls him more than usual, or erysipelas, 244K herpes, elephas, ophiasis, alopecia, pustules that are frequent (*phlyktania*), an ulcerous efflorescence, epinoctis or generally any one whatsoever of the symptoms generated and increased by *kakochymia*. In addition to these, we said it was necessary to consider whether or not some customary excretion through vomiting, hemorrhoids, a fistula, dysentery or menstrual flow is held back, and then next, if the person himself always makes a practice of purging himself but has now ceased to do so.

There are some who, each spring or autumn, purge their own superfluities with purging medications, some with emetics, diuretics or diaphoretics, or the use of natural waters (those containing sulfur, asphalt or sodium carbonate), and now pay no attention to this. And many, as was said, give up their customary exercises, while some give up all massage, or baths, or vomiting due to sweet wine after a bath. It is clear that the discussion not only makes mention of those who have the best constitution, 245K but so as nothing is left out in the list of causes of *kakochymia*, it should also include the natural *kakochymia* which collects in bodies; I shall say still more about this in the books to follow on the bad constitutions of the body. From these factors, then, it is necessary to estimate the amount of the *kakochymia* and to discover a cure in pro-

¹¹ post κάμνων: ἄνθρωπος add. Ku

σιν δὲ τῷ μέτρῳ τῆς ποσότητος ἐξευρίσκειν ἀνὰ λόγον, εἰ μὲν ὀλίγη παντάπασιν ὑπάρχει καὶ κατ' αὐτὸ μόνον ἠθροισμένη τὸ δέρμα, μετριωτέραν, εἰ δὲ μείζων καὶ διὰ βάθους, ἰσχυροτέραν. εἰρήσεται δὲ πρῶτον μὲν ἢ τῆς ἐπιεικοῦς τε καὶ περὶ τῷ δέρματι μόνον, ἐξῆς δὲ καὶ ἢ τῶν σαρκῶν ἐμπεπλησμένων, καὶ τρίτη πρὸς αὐταῖς, ὅταν ὅλον ἀκάθαρτόν τε καὶ περιττωματικὸν ὑπάρχη τὸ αἷμα.

ὑποτίθεμαι¹² πρῶτον μὲν ἐπὶ τὴν ἐξ ἀρχῆς ὑπόθεσιν ἀνελθὼν εὐχυμόν τινα φύσει νεανίσκον, ἔμπροσθεν μὲν ὑγιεινῶς διαιτώμενον κατὰ πάντα, νῦν δὲ διὰ τινα χρείαν ἀναγκαίαν ἐν ὁδοιπορίᾳ πλείονι χρόνῳ διατετριφότα, μήτε γυμνάσασθαι τὰ συνήθη μήτε λούσασθαι, κεχρηῆσθαι δὲ καὶ βρώμασι καὶ πόμασι μοχθηροῖς καὶ μετὰ τὸ ἄριστον ἢ τὸ δεῖπνον ἢ καὶ δι' ὅλης τῆς ἡμέρας ἐπ' ὀχήματος ἐνηνέχθαι μηδ' ὕπνου τὰ πολλὰ καλῶς ἀπολαύσαντα· προσυποκείσθω δὲ μηδὲν αὐτῷ πεπλημμελῆσθαι περὶ τὴν ποσότητα τῶν προσενηνεγμένων καὶ διὰ τοῦτο μηδ' ἀπεψία τινὶ περιπεπτωκένοι.¹³ τὸν γὰρ τοιοῦτον ἄνθρωπον οὐκ ἐνδέχεται κακοχυμίαν ἠθροικέναι πολλήν. οὐκ οὐδὲ τῆς ἐπανορθώσεως δεῖται μακρᾶς, ἀλλ' ἀρκεῖ¹⁴ γυμνάσιον ἀποθεραπευτικόν, οἷον ἐν τῷ πρὸ τούτου γράμματι διήλθομεν. εἴρηται δὲ καὶ περὶ τῆς ἀκολουθου διαίτης ἐν αὐτῷ. καὶ νῦν οὐδὲν ἔτι χρῆ μῆκύνειν, ἀλλ' ἀναμνήσαι μόνον, ὡς ὁ σκοπὸς τῶν

portion to the measure of quantity. If the amount is altogether small and collected in the skin alone, the cure is more moderate, whereas if it is greater and in the depths, the cure is stronger. I shall speak first of what is suitable for the skin alone; next the cure when the flesh is also involved; and third, in addition to these, when the blood as a whole is impure and excrementitious.

Let us assume first the hypothetical situation I went over at the start: a young man *euchymous* in nature, who previously followed a healthy regimen in every respect, but now, through some need, has found it necessary to make a journey of long duration and has not carried out his customary exercises, nor bathed, but has used deleterious foods and drinks either with breakfast or dinner, and has been borne in a carriage for the whole day, and has not, for the most part, properly benefitted from sleep. Let us postulate that he has made no error in the amount of things taken and because of this has not fallen into any *apepsia*. It is not possible for such a man to accumulate much *kakochymia*. He does not, therefore, need a long period of correction; it is enough to use apotherapeutic exercise, such as I went over in the book prior to this one. I have also spoken about the regimen he should follow in that book. So now there is nothing I must still delay over, other than to call to mind that the objective for the bodies

¹² ὑποτίθεμαι Ko; δοίη ἴδη μοι Ku

¹³ post περιπεπτωκένοι: τονδί Ku

¹⁴ ἀρκεῖ Ko; χρῆ Ku

οὕτω διακειμένων σωμάτων κένωσις ἐστὶ τῶν κατὰ τὸ δέρμα περιπτωμάτων, ὡς ἂν καὶ τῆς διαθέσεως ἐν τούτῳ μόνῳ γεγενημένης.

247K ὑποκείσθω δὲ πάλιν ὁ αὐτὸς ἄνθρωπος ἐπὶ τοῖς ἄλλοις τοῖς αὐτοῖς ἀπεψίαις πλείοσι περιπεπτωκῶς· ὑποκείσθω δὲ καὶ ἡ ἐλκώδης αἴσθησις αὐτῷ μὴ κατὰ τὸ δέρμα μόνον, ἀλλὰ καὶ διὰ βάθους, ὡς ὑπονοεῖν ὅλον ἐμπεπλήσθαι τὸ σῶμα τῆς κακοχυμίας. οὐκέτι τὸν τοιοῦτον οὐτ' ἐπὶ γυμνάσιον ἄξομεν οὐτ' ἐπὶ κίνησιν ὅλως οὐδεμίαν, ἡσυχάσαι δὲ καὶ ὑπνώσαι κελεύσαντες ἐν ἀσιτία διαφυλάξομεν ὅλην τὴν ἡμέραν· εἴτ' εἰς ἑσπέραν ἀλείψαντές τε λιπαρῶς καὶ λούσαντες εὐκράτῳ θερμῷ τροφήν εὐχυμον καὶ ῥοφηματώδη δώσομεν ὀλιγίστην· οὐκ ἀφέξομεν δ' αὐτὸν οὐδ' οἴνου· συμπέττει γὰρ τοὺς ἡμιπέπτους χυμοὺς ὁ οἶνος, εἴπερ τι καὶ ἄλλο, καὶ ἰδρώτας καὶ οὔρα προτρέπει καὶ ὑπνῷ συντελεῖ. δεόμεθα δ' ἐπὶ τῶν οὕτως ἐχόντων, ὅσον μὲν ἤδη ἀκριβῶς μοχθηρόν ἐστι, τῆς κακοχυμίας πεφθῆναι μηκέτι δυναμένης, ἰδρῶσί τε καὶ οὔροις ἐκκενῶσαι, τὸ δ' οἶον ἡμίπεπτον ἔτι συμπέψαι τε καὶ χρηστὸν ἀπεργάσασθαι. τοῦτο δὲ μάλιστα¹⁵ δι' ἡσυχίας καὶ ὑπνου ἀποτελεῖται.

εἰ μὲν οὖν ἐπὶ τοῖς εἰρημένοις κατασταίῃ τὸ σύμπτωμα, πρὸς τὰ συνήθη κατ' ὀλίγον ἐπανάγειν χρὴ τὸν ἄνθρωπον. εἰ δὲ καὶ κατὰ τὴν ἐξῆς ἡμέραν ἔτι παραμένοι, σκεπτέον ἤδη περὶ βοηθήματος ἰσχυροτέρου, καὶ μάλιστ' εἰ διὰ τῆς νυκτὸς ἤτοι κοπώδης ἐπὶ πλέον ἢ ἀσώδης ἢ ἄγρυπνος ἢ ἐν ὑπνοῖς τισὶ φαντα-

in this sort of state is evacuation of the superfluities in the skin, since the condition has occurred in the skin alone.

247K However, let us assume again this same man who, apart from the other things, has fallen into a number of these same *apepsias*. Let us also assume that the wound-like sensation in him is not in the skin alone, but also in the depths, so we suspect the whole body has been filled with *kakochymia*. We shall no longer lead such a person to exercise or to any movement at all, rather directing him to rest and sleep and to maintain a fast for the whole day. Then, when evening comes, after anointing him with oil and bathing him in *eukratic* warm water, we shall give *euchymous* nutriment and a little porridge. But we shall not keep him away from wine, for the wine helps to concoct the semiconcocted humors, and as well as this, encourages sweating and urination, and contributes to bringing about sleep. However, we need in the case of those so disposed, to eliminate with sweat and urine as much of what is already entirely bad of the *kakochymia* that has not yet been able to be concocted, while in the case of what is still, as it were, semidigested, we need to concoct it and make it useful. This is best brought about by rest and sleep.

If, then, after those things mentioned, the symptom should settle, we ought to lead the man toward customary things a little. If, however, it should still remain on the next day, we must now give consideration to a stronger remedy, and particularly if through the night, either the fatigue is greater, or there is nausea or sleeplessness, or in sleep he

¹⁵ μάλιστα Κο; κάλλιστα Κυ

248K σιώδεσί τε καὶ παραχώδεσι γένοιτο. τοὺς γὰρ τοιού-
τους σὺν μὲν ἰσχυρᾷ τῇ δυνάμει δυοῖν θάτερον, ἢ
φλεβοτομεῖν ἢ καθαίρειν προσήκει, διορισάμενον,
ὁποτέρου δεῖ μάλλον, ὡς ἐφεξῆς ἐρῶ. σὺν ἀσθενεί
γὰρ τῇ δυνάμει¹⁶ φλεβοτομεῖν μὲν οὐδαμῶς, ὑποκα-
θαίρειν δὲ μετρίως. ὁποῖαι δ' εἰσὶν αἱ μέτριοι καθάρ-
σεις, ἐν τοῖς ἐξῆς εἰρήσεται, πρότερόν γε διορισά-
μένων ἡμῶν τὰ πρότερον.

τῆς γὰρ δυνάμεως ἰσχυρᾶς οὕσης καὶ τοῦ κόπου
παραμένοντος ἐπισκεπτέον, εἴτε μετὰ πλήθους αἵμα-
τος ἢ ὠμῶν καὶ ἀπέπτων χυμῶν εἴτε αὐτὴ καθ' ἑαυτὴν
μόνη γέγονεν ἢ τὸν κόπον ἐργαζομένη κακοχυμία. εἰ
μὲν γὰρ μετὰ πλήθους αἵματος, ἥτοι φλεβοτομητέον
ἢ τι τῶν ἀνὰ λόγον¹⁷ πρακτέον. ἀνὰ λόγον δὲ ἐστὶ
τόδε τοῖς μὲν αἰμορροΐδας ἐπεσχημένοις ἐκείνας ἀνα-
στομῶσαι, ταῖς δὲ γυναιξὶ τὴν τῶν καταμηνίων ἐκ-
κρισιν κινήσαι, ὥσπερ γε καὶ οἷς τούτων οὐδέν ἐστιν,
ἀποσχάσαι τὰ σφυρά, κᾶπειθ' οὕτως ὑποκαθαίρειν
φαρμάκῳ τῷ μάλιστ' οἰκείῳ τῇ κακοχυμίᾳ. μόνης δὲ
249K συστάσης τῆς κακοχυμίας ἄνευ πλήθους αἵματος ἐπὶ
τὴν οἰκείαν τῷ λυποῦντι περιττώματι κάθαρσιν ἔρχε-
σθαι χρή. λυπεῖ δὲ ποτὲ μὲν ἥτοι πικρόχολον ἢ
μελαγχολικόν, ἐστὶ δ' ὅτε φλεγματώδες ἢ ἀλυκόν ἢ
ὀξύ, καὶ τούτων ἕκαστον ἢ ὀρρωδέστερον ἢ παχύτε-
ρον ἢ μέσον πως κατὰ τὴν σύστασιν. ὑπὲρ ὧν τῆς
διαγνώσεως ἤδη λέγωμεν. εἰ μὲν ἅμα τισὶν ἐξαν-

is troubled with dreams and disturbances. In such people 248K
with a strong capacity one of two things is appropriate—
phlebotomy or purging—and determining which of the
two is required more, as I shall speak about in what fol-
lows. With a weak capacity, on the other hand, never phle-
botomize but purge downward moderately. The kinds of
things that are moderate cathartics will be spoken of sub-
sequently, after we define the first things first.

When the capacity is strong and the fatigue persists, we
must consider whether the *kakochymia* bringing about the
fatigue has occurred in association with an abundance of
blood or of raw and unconcocted humors, or exists by itself
alone. If it is with an abundance of blood, we must either
carry out phlebotomy or do one of the things analogous to
this. The following things are analogous: to open hemor-
rhoids in those who have them; to set in motion the excre-
tion through the menstrual flow in woman; in like manner,
in those in whom there are none of these things, to scarify
the ankles and then in this way purge downward with a
medication which is particularly for the specific *kako-
chymia*. When *kakochymia* exists alone without an abun- 249K
dance of blood, it is necessary to proceed to the evacuation
specific for the distressing superfluity. Sometimes what
brings about distress is either picrocholic or melancholic,
and sometimes phlegmatic, either salty or acidic, and each
of these may be more serous or thicker, or to some degree
intermediate in consistency. Let me now speak about the
diagnosis of these. If the fatigue condition has occurred

¹⁶ post ἀσθενεί: γὰρ τῇ δυνάμει Κο; δὲ Κυ
¹⁷ post τῶν: ἀνὰ λόγον Κο; ἀναλόγων τῷδε Κυ

θήμασιν ἢ κοπώδης γεγένηται διάθεσις, ἐξ ἐκείνων
 ἔτοιμον εὐρίσκειν, ὁποῖόν τι τὸ εἶδος ἐστὶ τοῦ περι-
 τώματος· εἰ δὲ τούτων χωρὶς, ἐπὶ μὲν εὐχύμου φύσεως
 ἔκ τε τῶν προηγησαμένων ἐδεσμάτων καὶ τῶν ἄλλων
 ἀπάντων, ὅποσα συνέπεσεν αὐτῷ, κακοχύμου δ' ὄντος
 φύσει κἀντεῦθεν τι ληπτέον. εἰρήσεται δ' ἐπὶ πλέον
 αὐθις ὑπὲρ τῶν τοιούτων κράσεων· νυνὶ δὲ περὶ τῶν
 ἄλλων λεκτέον, ἐξ ὧν καὶ αὐτῶν ἔνεστι τεκμήρασθαι
 τὸ τῆς κακοχυμίας εἶδος.

250K ἀργότερον μὲν γὰρ διητημένου φλεγματοδέστερος
 ἀθροίζεται χυμός, ἐν πόνοις δὲ πλείοσιν ἤτοι πικρό-
 χολος ἢ μελαγχολικός, ἐν θέρει μὲν πικρόχολος, ἐν
 φθινοπώρῳ δὲ μελαγχολικός. ἀλλὰ καὶ τῶν πόνων τὸ
 μῆκος ἐπισκεπτέον· ὅσῳ γὰρ ἂν ὦσι πολυχρονιώ-
 τεροι, τοσῶδε μᾶλλον ἐπὶ τὸ μελαγχολικὸν ἐκτρέ-
 πονται. καὶ τοίνυν, ὅσοι μὲν ἅμα πολλοῖς ἰδρῶσιν
 ἐγένοντο, παχύτερον ἐργάζονται τὸ περίττωμα, λεπτό-
 τερον δὲ οἱ χωρὶς ἰδρῶτος, ὥσπερ οἱ ἐν χειμῶνι καὶ
 ὅλως ταῖς ψυχραῖς καταστάσεσι. συνεπισκεπτέον δ'
 ἐν τῷδε καὶ περὶ τῶν οὕρων τι τοῦ πλήθους, ὥσπερ
 γε καὶ περὶ τῆς τῶν ἰδρώτων ποιότητος· οἱ μὲν γὰρ
 ὀξῶδες, οἱ δὲ ἀλμυρόν, οἱ δὲ οἶον βορβόρου τινὸς ἢ
 βρώμου σαφῶς ἐξόζουσιν. ἔνεστι δὲ τοῦτο καὶ διὰ
 τῆς στλεγγίδος, ὅποτε λούονται, σκοπεῖσθαι. πολ-
 λάκις γοῦν ἐφάνη πικρόχολος ἀκριβῶς, οἷος ἐπὶ τῶν
 ἰκτεριῶντων ἀποκρίνεται. διάγνωσις δ' αὐτοῦ ῥαδία
 καὶ πρὸ τῆς γεύσεως ἐστὶν ἐκ μόνης τῆς χροῆς·
 ὠχρὸς γὰρ ὁμοίως τῇ τοιαύτῃ χολῇ φαίνεται. πολ-

along with certain exanthemata, it is easy to discover from
 those which kind of superfluity it is. If, however, it is with-
 out these, in the case of a *euchymous* nature, it is from the
 previously taken foods, and from all the other things that
 have befallen him, whereas in one who is *kakochymous* in
 nature, we must undertake something at the time. More
 will be said again about such *krasias*. For the present, I
 must speak about the others, from which it is also possible
 to gain evidence of the kind of *kakochymia* of these.

When a person's life is quite idle, a more phlegmatic
 humor collects. In greater exertions, it is either picrocholic
 or melancholic—in summer, picrocholic and in autumn,
 melancholic. But one must also consider the length of the
 labors, for the longer they are in duration, the more the
 tendency is toward the melancholic. And moreover, those
 that have occurred along with many sweats create a thicker
 superfluity, while those without sweat create a thinner su-
 perfluity, like those in winter and altogether cold climatic
 conditions. In this situation, we must also give consider-
 ation to the amount of urine, just as also to the quality of
 the sweats. Some smell acidic, some salty, some like mud,
 and some clearly smell foul. It is also possible to examine
 this from the skin scraper (*strigil*) when they bathe. Any-
 way, it often appears entirely picrocholic, of the kind that
 is secreted in those who are jaundiced. The diagnosis of
 this is easy, and from the color alone rather than the taste,
 for it appears yellow similar to such bile. In fact, often due

251K λάκεις μὲν ἐπὶ πόνοις ἰσχυροτάτοις καὶ καύμασι σφο-
δροτάτοις ἀκριβῶς ξανθὸς ὤφθη. καὶ μὲν δὴ καὶ μέ-
σος ποτὲ καὶ μικτὸς ἐξ ἀμφοῖν, οἷον ὠχροξάνθος τις,
ὥσπερ γε καὶ ὁ τῆς χολῆς χυμὸς. ἔστι γὰρ οὖν καὶ
τοῦτον ἰδεῖν ἐν ἐμέτοις τε καὶ διαχωρήμασιν ἤτοι γ'
ὠχρὸν ἢ ξανθὸν ἢ ἐξ ἀμφοῖν σύνθετον. ὁποῖος δ' ἂν
οὗτος ἐν τῷ σώματι περιέχεται, τοιοῦτον ἀναγκαῖον
αὐτοῦ φαίνεσθαι καὶ τὸν ὀρρόν.

ὁ μὲν οὖν ἰδρῶς τῶν καθ' ὅλον τὸ σῶμα πλεονα-
ζόντων χυμῶν ἐστὶ γνώρισμα, τὸ δ' οὔρον ἐκείνων
μόνον, ὅσοιπερ ἂν ἐν τοῖς ἀγγείοις περιέχονται. μη-
δὲν οὖν παραλιπεῖν ὅλως, ἀλλὰ καὶ τοὺς ἰδρῶτας ἐπι-
σκεπτέον, ὡς εἴρηται νῦν. καὶ ποτ' αὐτὸν τὸν κάμ-
νοντα κελεύειν αὐτῶν ἀπογεύεσθαι πρὸς ἀκριβεστέραν
διάγνωσιν· ὅπερ εἴωθεν ἐξθ' ὅτε καὶ αὐτομάτως γίνε-
σθαι, παραρρύντος εἰς τὸ στόμα τοῦ καταφερομένου
πολλάκις ἔκ τε τοῦ μετώπου καὶ τῶν ταύτη μορίων.
ἐπισκεπτέον δὲ καὶ τῶν οὔρων τὴν τε σύστασιν ἅμα
καὶ τὴν χροιάν. οὐ παραλειπτέον δὲ οὐδέ τι τῶν ἐναι-
ωρουμένων οὐδὲ τῶν παρυφισταμένων ἀνεπίσκεπτον.
δηλοῖ γὰρ ἀκριβῶς τὰ τοιαῦτα πάντα, ὁποῖόν τι τὸ ἐν
τοῖς ἀγγείοις ἐστὶν αἷμα. χολώδους μὲν οὖν ὄντος,
ἀναγκαῖόν ἐστι καὶ τὸν ὀρρόν αὐτοῦ χολώδη φαίνε-
σθαι καθ' ἑκατέραν τῆς χολῆς τὴν ιδέα, ὁμοίως δ'
ἔτι καὶ φλεγματώδους ὑπάρχοντος.

252K ὅταν μὲν οὖν ἀκριβῶς ἄπεπτον ὑπάρχη, λεπτὸν καὶ
ὑδατώδες ἐστὶ τὸ οὔρον, οὔθ' ὑπόστασιν ἴσχον οὔτε
ἐναιώρημά τι πεπτομένου δὲ ταῦτα φαίνεται καὶ τινες

to the strongest exertions and the most severe heatstrokes,
it is seen to be completely yellow. Furthermore, it is also
sometimes intermediate and a mixture of both—a certain
pale yellow as it were—just like the humor of bile. This is
seen in both vomitus and feces, either as pale, or yellow, 251K
or a combination of both. When this kind of thing is con-
tained in the body, its serum inevitably also has such an
appearance.

Thus the sweat is a sign of excessive humors in the
whole body, while the urine is only a sign of those which
are contained in the blood vessels. Nothing at all must be
neglected; the sweats must also be examined, as I stated
just now. And on occasion, we direct the patient himself
to taste his own sweat toward a more precise diagnosis.
This is also wont to occur sometimes spontaneously, if
it flows into the mouth, often being carried down from
the face and the parts thereof. We must also examine the
urine, both its consistency and its color. And we must not
overlook the suspended matter or be inattentive to the
sediment—all such things show precisely what kind of
blood is in the vessels. Thus, when it is bile-containing, its
serum inevitably appears bilious in relation to each kind
of bile, and similarly when it is phlegmatic.

Therefore, whenever it is completely unconcocted, the 252K
urine is thin and watery and has neither sediment nor any
suspended matter. However, when it is concocted, these

ἄνωθεν ἐφίστανται νεφέλαι λεπταί, καθάπερ καὶ ἡ καλουμένη γραῦς ἢ καὶ ἐπίπαγος ἐπὶ τῶν ἀποψυχομένων ζωμῶν. εἰ δὲ θολερόν, οἶον καὶ τὸ τῶν ὑποζυγίων, φαίνοιτο, δηλώσει μὲν ἐμπεπληῆσθαι τῶν καλουμένων ὠμῶν χυμῶν τὰς φλέβας, οὐ μὴν ἡσυχάζειν γε περὶ αὐτοὺς τὴν φύσιν, ἀλλὰ πέττειν ἐρρωμένως. εἰ δὲ διακρίνοιτο ταχέως καὶ τὸ ὑφιστάμενον εἴη λευκὸν τε καὶ λείον καὶ ὁμαλόν, ὅσον οὖπω δηλοῖ κρατήσειν ἀπάντων αὐτῶν τὴν φύσιν. εἰ δ' οὐρησάντων μὲν εἴη καθαρὸν, ἀναθολωθείη δ' εὐθέως, ἐπιχειρεῖν τῇ πέψει τῶν ὠμῶν χυμῶν ἐνδείκνυται τὴν φύσιν, εἰ δὲ μετὰ πλείονα χρόνον, οὐκ εὐθύς, ἀλλ' ὕστερον ἐπιχειρήσειν. κοινὸν δ' ἐπὶ πάντων οὔρων θολερῶν ἔστω σοι γνώρισμα ἢ διάκρισις, ἥτοι ταχέως ἢ βραδέως ἢ μηδ' ὄλως γινομένη. εἰ μὲν οὖν ταχέως τε γίνοιτο καὶ τὸ ὑφιστάμενον εἴη λευκὸν καὶ λείον καὶ ὁμαλόν, 253K ἰσχυροτέραν ἐνδείκνυται μακρῶ τὴν φύσιν ὧν πέττει χυμῶν. εἰ δ' ἀγαθὴ μὲν ἢ ὑπόστασις, ἐν χρόνῳ δὲ γίνοιτο πλείονι, καὶ τὴν φύσιν ἐν χρόνῳ πλείονι κρατήσειν τῶν χυμῶν ἐπαγγέλλεται. εἰ δ' ἥτοι μὴ διακρίνοιτο παντάπασιν ἢ σὺν μοχθηραῖς ὑποστάσεσιν, ἀσθενῆς ἢ φύσις ἐστὶ καὶ δεῖται βοήθειας τινὸς εἰς τὸ πέψαι τοὺς χυμούς.

ὥσπερ δὲ τὰ οὖρα τῶν ἐν τοῖς ἀγγείοις χυμῶν ἐνδείκνυται τὴν διάθεσιν, οὕτως οἱ ἰδρώτες καὶ τὰλλα τὰ περὶ τὴν σύμπασαν ἔξιν τοῦ ζώου φαινόμενα τῶν κατ' ἐκείνην ἐστὶ δηλωτικά. θερμότητος μὲν γὰρ αἰσθησις ἀήθης ἐν αὐτῇ γίνεται, τῶν θερμῶν ἐπικρα-

things appear and certain thin clouds separate above, just like the so-called scum and congealed surface of cooled soups. If, however, it should appear turbid, like that of asses, it will show the veins are filled with the so-called raw humors, and that the nature¹⁰ is not at ease with them, but is striving to concoct them. Also, if the sediment separates quickly and is white, thin and uniform, it shows that the nature hasn't yet overcome all these. If, however, the urine passed is clear but is immediately made turbid, it shows that the nature is attempting to concoct the unconcocted humors, and if after a longer time—not immediately but later—that it will succeed. In all the turbid urine, the separation should be a general sign for you, whether it occurs quickly, slowly or not at all. Thus, if it occurs quickly, and the sediment is white, thin and uniform, this indicates the nature is far stronger than the humors it is concocting. If, on the other hand, the sediment is good but arises over a longer time, it proclaims that the nature will prevail over the humors in a longer time. If, however, there is no separation at all, or with bad sediments, it shows the nature is weak and needs some help to concoct the humors. 253K

Just as the urine indicates the condition of the humors in the vessels, so the sweats and the other phenomena concerning the whole state of the organism are indicative of things in relation to that. Thus, an unusual sensation of heat occurs in it when hot humors prevail, and of cold

¹⁰ In this passage, φύσις is taken to be the nature of individual, rather than Nature herself, although the latter is a possible rendering.

254K τούντων χυμῶν, ψυχρότητος δέ, τῶν ψυχρῶν. καὶ λευ-
 κότεροι μὲν ἐπὶ ταῖς τοῦ φλέγματος, ὠχρότεροι δὲ ἐπὶ
 ταῖς τῆς χολῆς φαίνονται πλεονεξίαις, εἰ δὲ καὶ ἀκρα-
 τεστέρα ποτ' εἶη, ξανθότεροι. τὸ γὰρ χρῶμα τῶν χυ-
 μῶν ἐστίν, οὐ τῶν στερεῶν τοῦ ζώου μορίων, ὅταν γε
 μὴ ὑποχωρήσωσιν εἰς τὸ βάθος οἱ χυμοί. συμβαίνει
 δ' αὐτοῖς τοῦτο διὰ κρύος ἢ ῥίγος ἢ πάθος ψυχικόν,
 οἷον φόβον ἢ λύπην ἰσχυρὰν ἢ ἀρχομένην αἰδῶ· μη-
 δενὸς δὲ τούτων παρόντος, οὐκ ἂν ποθ' ὑπονοστή-
 σιαν εἰς τὸ βάθος οἱ χυμοί, ὥσπερ οὐδ' ἐπικαύσαιεν
 ἂν ποτε τὸ δέρμα βιαιότερον ὀρμήσαντες ἐπ' αὐτὸ
 χωρὶς τοῦ παθεῖν τι τὴν ψυχὴν ἢ θάλπος ἄμετρον
 ἐξωθεν περιστῆναι τῷ ζῳῷ. ὀργισθέντων οὖν ποτ'
 ἰσχυρῶς ἢ θυμωθέντων ἢ τὴν ἐκ τῆς αἰδοῦς οἷον ἄμ-
 πωτιν τῶν χυμῶν ἀναφερόντων, μὴ προσέχειν τὸν
 νοῦν τῇ χροιά· χωρὶς δὲ τοῦ βιάζεσθαι τὸ περιϋστά-
 μενον ἐξωθεν ἤτοι θερμὸν ἢ ψυχρὸν ἢ τι πάθος ὧν
 ἀρτίως εἴρηται γεγεννημένον, ἀψευδῆς ἐστίν ἢ ἐκ τῆς
 χροιάς τοῦ ζώου διάγνωσις τῶν χυμῶν.

ὡς οὖν τὸ μὲν λευκότερον ἑαυτοῦ γεγονὸς σῶμα
 τὸν φλεγματικὸν ἐπικρατεῖν ἐνδείκνυται χυμόν, τὸ
 δ' ὠχρότερον ἢ ξανθότερον τὸν χολώδη, κατὰ τὸν
 αὐτὸν τρόπον καὶ ἢ ἐπὶ τὸ ἐρυθρότερον ἐκτροπὴ τοῦ
 κατὰ φύσιν αἶμα πλεονάζειν, ἢ δὲ ἐπὶ τὸ μελάντερον
 τὴν μέλαιναν χολὴν δηλοῖ. δόξειε δ' ἂν σοί ποτε καὶ

when cold humors prevail. And people appear paler with
 excesses of phlegm, pale yellow with excesses of bile, and
 sometimes, if it is more pure, more yellow. For the color
 is from the humors and not from the solid parts of the
 organism, whenever the humors do not retreat to the
 depths. This happens to them due to severe cold, rigors,
 or a psychical affection, such as fear, strong grief or in-
 cipient shame. But if none of these were to be present, the
 humors would never go down into the depths, just as they
 would never at any time make the skin burn by rushing
 into it too strongly, apart from some psychical affection or
 excessive heat surrounding the organism externally. If
 then at some time, people are strongly provoked or an-
 gered, or there is a kind of inward return of the humors¹¹
 brought forth by shame, pay no attention to the color.
 However, apart from what is surrounding externally being
 overpowering—either heat or cold—or some affection
 among those spoken of just now having occurred, the di-
 agnosis from the color of the humors of the organism is
 thoroughly reliable.

Therefore, as a body that has become whiter than usual
 indicates the predominance of the phlegmatic humor, and
 one that is more pale yellow or yellow, the predominance
 of the bilious humor, in the same way too, the change to a
 greater redness than accords with nature indicates blood
 in excess, while a change to a greater darkness shows black

¹¹ The term ἄμπωτις can mean the ebb and flow of the tides,
 but a specific medical / physiological meaning is also listed in LSJ
 as, "return of humors inward from the surface of the body," citing
 Hippocrates, *Humors* 1. Jones' translation of the opening sen-
 tence is: "The colour of the humors, when there is no ebb of them,
 is like that of flowers" (*Hippocrates* IV, LCL 150, 63).

255K οἶον¹⁸ μολίβδω τινὶ τὴν χροιάν εἰκέναι καὶ αὖθις οἶόν τις μίξις εἶναι λευκοῦ τε ἄμα καὶ πελιδνοῦ καὶ ποτε τὸ πελιδνὸν αὐτὸ μόνον ἐπικρατεῖν ἄνευ τοῦ λευκοῦ. τὰ τοιαῦτα οὖν χρώματα τὸν ὤμον ἐπικρατεῖν ἐνδείκνυται χυμόν, ἐν εἴδει μὲν ὑπάρχοντα φλέγματος, ἦττον δ' ὑγρὸν ὄντα τοῦ συνήθους ὀνομαζομένου φλέγματος. ὡς τὰ πολλὰ δὲ οὐδὲ γλισχρότης αὐτῷ πρόσεστιν· ὡς, εἴ γε προσείη,¹⁹ τὸν τοιοῦτον χυμόν ὁ Πραξαγόρας ὑαλώδη καλεῖ, ψυχρὸν μὲν ἱκανῶς ὑπάρχοντα, παχύτερον δ' ἦττον ὄντα τοῦ κατ' ἐξοχήν ὤμου προσαγορευομένου. κοινῇ μὲν γὰρ οἱ τοιοῦτοι χυμοὶ λευκοὶ τε καὶ ὠμοὶ πάντες εἰσὶ, προσαγορεύεται δ' αὐτῶν ἄλλος ἄλλη προσηγορία.

καὶ οὐ τοῦ νῦν ἐνεστῶτος καιροῦ διορίσασθαι πάντας αὐτούς· μόνου γὰρ εἰς τὰ παρόντα τοῦ κοινῇ πᾶσι συμβεβηκότος δεόμεθα, τοῦ μηδέπω κατειργάσθαι τελῶς αὐτοὺς ὑπὸ τῆς φύσεως, ἀλλ' ἔθ' ὑπάρχειν ὠμούς. ἐν μεθορίῳ γὰρ ἐστὶ τὸ αἷμα τῶν τε χολωδῶν χυμῶν καὶ τούτων, ὧν τὸ γένος ἐνὶ προσρήματι καλεῖν ἔξεστιν ἢ ὠμὸν χυμὸν ἢ φλέγμα. ἐκείνοι μὲν γὰρ ὑπερκατεργασθέντος ἀποτελοῦνται τοῦ αἵματος, οὗτοι δ' οὐδέπω γεγονότος. ἐστὶ δ' ἑκατέρων ἄπειρος μὲν ἢ κατὰ μέρος διαφορά, διώριστα δὲ πῶς ἤδη πρὸς τῶν περὶ τὰ τοιαῦτα δεινῶν εἵδεσιν εὐαριθμητοῖς· ὧν οὐδ' αὐτῶν ἀναγκαῖόν ἐστιν μεμνήσθαι νῦν

¹⁸ post οἶον: μολίβδω τινὶ τὴν χροιάν εἰκέναι Κο; μολίβδου τὴν χροίαν ἔχειν Κυ

¹⁹ προσείη Κο; προσήκοι Κυ

bile to be in excess. Sometimes it might seem to you as if the skin has a kind of livid color, or again there is some mixture of white and livid, and sometimes livid itself alone prevails without the white. Such colors show the unconcocted humor prevailing is phlegm-like in kind, but less moist than what is customarily called phlegm, as for the most part there is no viscosity present in it, while if the kind of humor that Praxagoras calls hyaloid (green)¹² is present, it is strongly cold, being less thick than the named humor to a great degree. For in general, such humors are white and all are unconcocted, some being called by one name and others by another.

But now is not the appropriate time to distinguish all these; for the present we need only what is contingent to all in common, which is that they have not yet been prevailed upon completely by the nature but are still crude (unconcocted). For blood lies in the boundary zone between the biliary humors and these, the class of which can be called in one word either unconcocted humor or phlegm. Those are produced when the blood is overconcocted while these are produced when concoction has not yet occurred. The individual differences of each are very numerous, but somehow they have already been differentiated into easily enumerated kinds by those skillful in such matters. It is not necessary to mention all these now.

¹² See Fritz Steckerl, *The Fragments of Praxagoras of Cos and His School* (1958), and particularly 22 and 53–55 (which include the present statement). See also Manetti's entry in EANS, 694–95.

ἀπασῶν, ἀλλ' ἀρκεῖ μόνον εἰς ἓν ἀγαγεῖν ἅπαντα τὰ κεφάλαια, ὅπερ οἶον σκοπόν τινα ποιήσασθαι προσήκει τῶν πρακτέων.

ἐπειδὴ γὰρ οἱ μὲν τινές εἰσι, πρὶν ἀκριβῶς αἱματωθῆναι τὴν τροφήν, οἶον ἡμίπεπτοι τινες, οἱ δ' ἄπεπτοι παντάπασιν, οἱ δ' ὀλίγον ἀποδέοντες αἵματος ιδέας, ἕτεροι δ' ἔσχατοι τῆς αἱματώσεως, ἀμετρία θερμότητος ἐπόμενοι, καὶ τούτων αὐτῶν οἱ μὲν ὀλίγον ἀποκεχωρηκότες τοῦ αἵματος, οἱ δὲ πλέον, οἱ δὲ πλείστον, ἐπὶ μὲν τῶν ὀλίγον ἀπεχόντων ἐφ' ἑκάτερα θαρρούντως χρῆσθαι φλεβοτομία, ἐπὶ δὲ τῶν πλέον εὐλαβέστερον, ἐπὶ δὲ τῶν πλείστον οὐδ' ὄλως. συνεπισκοπεῖσθαι δὲ πειρᾶσθαι καὶ τὸ ποσὸν ἐν αὐτοῖς, οἶον, εἰ οὕτως ἔτυχεν, ἂν μὲν ὀλίγον ὑπάρχη τὸ χρηστόν αἶμα, πλείστος δ' ἄλλος τις χυμὸς, ἀφίστασθαι τῆς φλεβοτομίας· ἂν δ' οὗτος μὲν ὀλίγος ᾖ, δαψιλῆς δ' ὑπάρχη τὸ αἶμα, θαρρούντως χρῆσθαι φλεβοτομία.

257K εἴθ' οὕτως, ὡς εἴρηται πρόσθεν, ὑπάγειν γαστέρα πρὸς τε τὸ πλῆθος ἀφορῶντα καὶ τὴν ιδέαν τοῦ πλεονάζοντος χυμοῦ. εἰ δέ τις ἦτοι δι' ἡλικίαν ἢ διὰ δειλίαν οὐκ ἐθέλοι παρέχειν αὐτὸν τῷ ἰατρῷ πρὸς οὐδένα τρόπον αἵματος ἀφαιρέσεως, ἐπὶ κάθαρσιν ἰσχυρότεραν ἄγειν αὐτόν. εἰ δὲ καὶ ταύτην ὑποπτεύοι, δι' ἐτέρων ἐκκενοῦν τὸ περιττόν. ἐπὶ μὲν οὖν τῆς ὑποκειμένης ἐν τῷ λόγῳ φύσεως οὐδὲν χαλεπὸν ἐξευρεῖν ἑτέρας κενώσεις· ἐπ' ἄλλων δὲ μετὰ διορισμῶν ἀκριβεστέρων ἐξευρίσκειν αὐτὰς προσήκειν, οὓς αὐθις

It will suffice simply to reduce all the chief points to one, which it is appropriate to make a kind of objective of the things to be done.

Since there are some [humors] before the nutriment has been made entirely into blood, some that are, as it were, partially concocted, some that are completely unconcocted and some that lack to a slight extent the form of blood, and others in the last stage of blood formation, following an excess of heat, and some of these only a little distance away from blood, and some more distant and some greatly so, in the case of those differing a little in either direction, use phlebotomy with confidence; in the case of those differing more, use it more prudently; and in the case of those that differ the most, do not use it at all. Also attempt to estimate the amount in these. For example, should it so happen that the useful blood is small in amount, while some other humor is most abundant, keep away from phlebotomy. But if the other humor is small in amount, while the blood is abundant, use phlebotomy with confidence.

If it is like this, as I said earlier, empty the stomach downward, keeping the primary focus on the amount and kind of the excess humor. If, however, someone, due either to age or timidity, doesn't wish to present himself to the doctor for any kind of blood removal, bring him to a stronger purging. If he is also suspicious of this, evacuate the superfluity by other means. In the case of the nature assumed in the discussion, it is not difficult to discover other evacuations. In other cases it is appropriate to discover them with more precise distinctions, which I shall

258K ἐροῦμεν, ἐπειδὴν πρότερον ὑπὲρ τῆς εὐχύμου φύσεως εἶπωμεν. ὑποκείσθω γὰρ ὁ τοιοῦτος ἄνθρωπος ἐπὶ μοχθηρᾷ διαίτη κοπώδης γεγενημένος, εἴτ' ἐξ ὧν εἰρήκαμεν σημείων ἐν μὲν τῷ φλεβώδει γένει τῶν ἀγγείων ἐμφαινέσθω τι πλήθος αὐτῷ χυμῶν ἡμιπέπτων, ἐν δὲ τῷ παντὶ σώματι τούτων δὴ τῶν δακνωδῶν, οἷς ὁ κόπος εἶπετο, συνηυξήσθω δὲ πως αὐτῷ καὶ τὸ αἷμα. μάλιστα μὲν οὖν, ὡς εἴρηται, ἐχρήν τοῦ αἵματος ἀφελόντα καθῆραι τούντεῦθεν ἐκείνον τὸν χυμόν, ὃς ἂν ἐπικρατεῖν φαίνηται.

μὴ προσιεμένου δὲ τὴν τοῦ αἵματος ἀφαίρεσιν, αὐξῆσαι τὴν κάθαρσιν. εἰ δὲ μηδέτερον ὑπομένοι, σκοπεῖσθαι τὴν ἑτέραν ὁδόν, ἣ μάλιστα ἂν τις, εἰ καὶ μὴ διὰ ταχέων, ἀλλ' ἐν χρόνῳ τε πλείονι πρὸς τὴν ἀρχαίαν τοῦ σώματος ἕξιν ἐπανάγοιτο τὸν ἄνθρωπον. ἐπεὶ οὖν οἱ πρῶτοι δύο σκοποὶ τῆς ἐπανορθώσεως ἐν ἀπάσαις ταῖς τοιαύταις διαθέσεσιν εἰσι, πέψις μὲν τῶν ἀπέπτων ἢ καὶ ἡμιπέπτων χυμῶν, ὅποσοι πρότεροι τοῦ αἵματος γεννῶνται, κένωσις δὲ τῶν δριμέων τε καὶ δακνωδῶν, ὅποσοι δεύτεροί τ' εἰσὶ καὶ ὕστεροι τοῦ αἵματος, ἀπέχειν μὲν αὐτοὺς χρὴ κινήσεως ἀπάσης ἰσχυρᾶς, ἀτρέμα δ' ἀλείφοντας καὶ ἀνατρίβοντας ἐλαίῳ λούειν ὅτι μάλιστα προσηνεστάτοις λουτροῖς, εἴτ' ἐφ' ἡσυχίας τε καὶ ἀσιτίας διάγειν, εἰ δ' οἷόν τ' εἴη, καὶ ὕπνου, εὖ εἰδότας, ὡς οὐδὲν οὕτω πέττει μὲν τὰ πεφθῆναι δυνάμενα, διαφορεῖ δὲ τοὺς μοχθηροὺς χυμοὺς ὡς ὁ μετὰ τὸ βαλανεῖον ὕπνος. ὅταν οὖν, ὡς ὀλίγον ἔμπροσθεν εἴρηται, τῇ πρώτῃ τῶν ἡμερῶν

258K speak about again when I have first spoken about the *eu-chymous* nature. Let us suppose such a person has become fatigued due to a bad regimen; then, from the signs I have spoken about, there should be displayed in the venous class of vessels some excess of semiconcocted humors in him, and in the whole body an excess of those that are biting; the fatigue follows the latter. And let the blood somehow be increased in him. Especially then, as I said, it is necessary, by removing blood, to purge from the source that humor which appears to prevail.

If the person doesn't allow the removal of blood, increase the purging. However, if he submits to neither, consider the other path by which particularly someone might restore the person to the original state of the body, even if not quickly, at least over a longer time. Since there are two primary objectives of correction in all such conditions—concoction of the unconcocted and semiconcocted humors that are generated prior to the blood and evacuation of the acrid and biting humors that are secondary and subsequent to the blood—you must keep them away from all strong movement, anointing them gently, massaging with oil, and bathing them especially with the mildest baths, then getting them to spend time resting and fasting, and if possible also sleeping, knowing full well that nothing concocts those things that can be concocted and disperses the bad humors like sleep after bathing. Therefore whenever, as I said a little earlier, having made an attempt

259K ἀποπειραθέντες, εἰ καθίσταται ῥαδίως ὁ κόπος, ὁμοίως ἐνοχλούμενον ὀρώμεν τὸν ἄνθρωπον, ἐπὶ τε λουτρὸν ἄγειν αὐτὸν καὶ τῇ δευτέρᾳ τῶν ἡμερῶν ἡσυχάζειν τε καὶ ἀσιτεῖν ἀναγκάζειν· ὡς²⁰ καὶ τὸ δεύτερον ἔτι τε καὶ τρίτον <ἐπιτήδειον>²¹ γνόντας λούσαι νῆστιν, ἡσυχία τε καὶ ὕπνω τὰ μεταξὺ τῶν βαλανείων διαλαμβάνοντα. συντελεῖ δὲ καὶ εἰς τὸν ὕπνον οὐχ ἥκιστα καὶ αὐτὸ τὸ βαλανεῖον αὐτοῖς. ὕπνωδέστεροι γὰρ οἱ λουσάμενοι γίνονται πάντες, εἰ μηδὲν ἄλλο κωλύσει μείζον. ὥστε σοι τὸν ὕπνον αἰτιὸν τε καὶ σημεῖον ἀγαθὸν γίνεσθαι τῆς ἐλπιζομένης ὠφελείας, ὥσπερ γε καὶ τὸ μὴ δυνηθῆναι καθεύδειν ἐπὶ τοῖς βαλανείοις οὐκ ἀγαθὸν αἴτιον ἅμα καὶ σημεῖον.

ὡς τὰ πολλὰ μέντοι καὶ τῶν πλεοναζόντων χυμῶν ἐξ ὕπνου τε καὶ ἀγρυπνίας ἔνεστί σοι λαβεῖν διάγνωσιν. ἐπὶ μὲν γὰρ τοῖς ψυχροῖς τά τε κώματα καὶ οἱ μακρότεροι τῶν ὕπνων, ἐπὶ δὲ τοῖς θερμοῖς καὶ δακνώδεσιν ἀγρυπνία, καὶ εἰ καθυπνώσειέ γέ ποτε, φαντασιώδεις τε καὶ θορυβώδεις ὕπνοι ὑποπίπτουσιν, ὡς ἐξανίστασθαι ταχέως αὐτούς. ὥσπερ δὲ κατὰ τὴν πρώτην ἡμέραν, οὕτω καὶ κατὰ τὴν δευτέραν ἐλάχιστά τε καὶ ἀπλά ροφήματα προσοίσομεν αὐτοῖς· τὸ μὲν γὰρ πλείω διδόναι τοῖς κενώσεως δεομένοις ἀντικρυς ἐναντίον, τὸ δ' αὖ μηδ' ὅλως τρέφειν ἀσῶδές ἐστι καὶ κακωτικὸν τοῦ στομάχου καὶ τῆς δυνάμεως καταβλητικὸν καὶ τῆς κακοχυμίας αὐξητικόν. ἐλάχιστον οὖν αὐτοῖς διδόναι, μάλιστα μὲν, εἰ οἷόν τε, χυλοῦ πτισάνης ἀπλῶς ἠρτυμένης,²² εἰ δὲ μή, ἀλλὰ τοῦ

on the first day [to determine] if the fatigue is easily settled, we see the person to be similarly troubled, bring him to the bath and on the second day compel him to rest and fast. If you discern that on the third day, he is still as he was on the second day, it is useful to bathe him while fasting, keeping the periods between the baths for rest and sleep. The bath itself contributes not least to sleep for them. For all those who are bathed become more drowsy, if nothing else greater prevents this. As a result, sleep becomes for you the best cause and sign of the expected benefit, just as, in fact, not being able to lie down to sleep after the baths is not a good cause and sign. 259K

However, for the most part it is possible for you to take the diagnosis of the excessive humors from sleep and wakefulness. For sleeps that are deep and unduly prolonged are due to cold humors, while sleeplessness is due to hot and biting humors; in the latter case, if people do in fact fall fast asleep at some time, dream-filled and disturbed sleep is their lot, such that they are quickly awakened. Just as on the first day, so too on the second, we shall offer them very small amounts of simple gruel; to give more to those requiring evacuations is utterly contraindicated, whereas not to nourish them at all is accompanied by nausea, is harmful to the esophagus, overthrows the capacity and increases the *kakochymia*. Therefore, we give them the least amount, and particularly, if possible, barley water simply prepared. If not, give another kind of 260K

²⁰ post ὡς: εἰ Ku

²¹ ἐπιτήδειον om. Ku

²² ἠρτυμένης . . . ἠρτυμένου (ἀρτύω) Ko: ἠρτημένον . . . ἠρτημένου (ἀρτάω) Ku

χόνδρου τὸν αὐτὸν τρόπον ἠρτυμένου τῇ πτισάνῃ,²³
καὶ μάλισθ' ὅταν ὠμῶν χυμῶν πλήθος ὑποπτεύωμεν
ἢ ἐν ταῖς φλεβῖν ἢ καθ' ὅλον ὑπάρχειν τὸν ὄγκον.
εἴπερ γὰρ μηδὲν ὅλως ὄξους ὁ χόνδρος προσλάβοι,
γλισχότερός ἐστιν ἢ πρέπει τοῖς παροῦσιν, ὥστ' ἐμ-
φράξει μᾶλλον, οὐ διαρρύνει τοὺς πόρους, οὐ μάλι-
στα χρήζουσιν ἐπὶ τοῖς παχέσι καὶ γλίσχροις χυ-
μοῖς, οἷοίπερ εἰσὶ τοῦπίπαν οἱ φλεγματώδεις ἅπαντες.
εὐχυμος μὲν οὖν ἐστὶ καὶ διὰ τοῦτο κακοχυμίας ἐπι-
κεραστικός. ἀλλ' εἰ μὴ κολασθείη τὸ γλίσχρον ἐν
αὐτῷ, προσλαβὼν ὄξους τε καὶ πράσου τὸ μέτριον
ἐμφράξει τε καὶ θρέψει μειζόνως ἢ συμφέρει τοῖς ἐν-
εστῶσι. διὰ ταῦτ' ἄρα καὶ ὁ τῆς πτισάνης χυλὸς
ἀμείνων ἐστὶν εἰς τὰ τοιαῦτα καὶ τρέφων συμμέτρως
καὶ μηδαμῶσε κατὰ τὰς στενοτέρας ὁδοὺς ἰσχύμενος,
ὥσπερ ὁ χόνδρος, ἀλλ' αὐτὸς τε διεξερχόμενος προσ-
απορρύντων τῶν²⁴ τοὺς πόρους ἅμα τῷ τέμνειν τε καὶ
διαλύειν, ὅπως ἂν ἐν τοῖς ἡμιπέπτοις τε καὶ ἀ-
πέπτοις χυμοῖς ὑπάρχη παχύ.

διὰ ταῦτά γε καὶ τὸ μελικράτον ἐπιτήδειον ἐστὶν
αὐτοῖς, ὀξύμελί τε καὶ ἀπόμελι καὶ πέπερι καὶ ζιγγί-
βερι καὶ πάνθ' ὅσα τέμνει τε καὶ διαλύει τὰ παχέα
χωρὶς τοῦ κακοχυμίων ἐργάζεσθαι. λεχθήσεται δὲ
ὑπὲρ τῆς ὕλης αὐτῶν ἐπὶ πλέον ἐν τοῖς ἐξῆς· εἰς δὲ
τὸν ἐνεστώσα λόγον ὥσπερ τινὰ παραδείγματα τὰ τε
προειρημένα λελέχθω μοι καὶ τὰ μέλλοντα λεχθήσε-

gruel moistened in the same way with ptisane, having a
little vinegar in it,¹³ and especially whenever we suspect
an excess of unconcocted humors exists in the veins or in
the whole mass of the body. For if the gruel were to re-
ceive in addition no vinegar at all, it is more viscid than
befits the cure, so that it obstructs more and doesn't
cleanse the pores thoroughly, which is what they particu-
larly need for the thick and viscous humors, as in general
do all those who are phlegmatic. Thus, it is *euchymous* and
because of this tempers the *kakochymias*. But if the viscid-
ity in it is not corrected by it receiving vinegar and leek in
moderation, it will obstruct and nourish more than is ben-
eficial in the existing circumstances. Because of this, then,
the juice of ptisane is better for such things, is moderately
nourishing, and in no way stops up the narrower passages,
like gruel does, but going through itself, washes out and
thoroughly cleanses the channels at the same time as cut-
ting and dissolving whatever thickness exists in the semi-
concocted and unconcocted humors. 261K

Because of these things, melikratos is also in fact useful
for them, as are oxymel, apomel, pepper, ginger and all
such things that cut and dissolve the thick substances with-
out creating *kakochymia*. More will be said on the mate-
rial of these things in what follows. For the present discus-
sion, let the things I have previously said and those that
are going to be said serve as examples. Of the pulses,

¹³ The Kühn text is followed here in the light of the subse-
quent sentence.

²³ post πτισάνῃ: ὀλίγον ὄξους ἔχοντος Ku

²⁴ post τε: add. καὶ διαρρύντων Ku

σθαι. ὀσπρίων μὲν γὰρ ἐπιτηδειοτάτη ἢ ππισάνη, λαχάνων δ' ἢ θριδακίνη, τῶν δ' ἰχθύων οἱ πετραῖοι, καὶ τῶν ἄρτων οἱ κριβανῖται καὶ ζυμῖται καὶ καθαροὶ συμμέτρως, ὀρνίθων δὲ οἱ ὄρειοι, τῶν δὲ ποτῶν ὄξύμελι, μελίκρατον, οἶνος λεπτὸς καὶ λευκός, ἀπλῶς δ' εἰπεῖν, ὅσαπερ εὔχυμά τ' ἐστὶ καὶ ῥυπτικὰ καὶ μὴ γλίσχρα μὴδὲ παχύχυμα μὴδ' ἱκανῶς πολύτροφα.

262K τὰ δ' οὐρητικὰ προσαγορευόμενα κατὰ τὸν ἐνεστώτα καιρὸν οὐκ ἐπαινώ, καὶ μάλισθ' ὅσα σφοδρότερον θερμαίνει τε καὶ κατατῆκει τὸ αἷμα· τῷ γὰρ μέλλοντι καλῶς πεφθῆσεσθαι τοσαύτης ταραχῆς οὐδέπω χρεία. ταῦτά τε οὖν ἅπαντα πρακτέον οὕτως ἐστὶ κατὰ τὴν δευτέραν ἡμέραν, οὐχ ἤκιστα δὲ κατὰ τὴν τρίτην τε καὶ τὴν τετάρτην. ἔτι τε πρὸς τούτοις, εἰ πραῦνοιτο μὲν ἢ κοπώδης διάθεσις, εὔχρουν δὲ γίνονται τὸ σῶμα καὶ οὖρα πέπονα καὶ ὕπνοι χρηστοί, τρῖψαι μὲν ἐπὶ πλεον αὐτὸν ἀποτολμήσαντα, γυμνάσαι δ' ὀλίγον. πράξαντος γὰρ οὕτως, εἰ μὲν μηδεμία κοπώδης αἴσθησις ἐπιγίνονται, πρὸς τὰ συνήθη γυμνάσια διὰ ταχέων ἐπανάγειν· εἰ δ' ἐπιφανείη τι τῶν ἔμπροσθεν ἦτοι συμπτωμάτων ἢ σημείων, αὐθις οὖν καὶ σὺ πρὸς ἐκείνο βλέπων ἐξαλλάττειν πειρῶ τὰ κατὰ μέρος. εἰ μὲν οὖν τῆς κοπώδους αἰσθήσεως ἀνάμνησις γένοιτο μόνης ἐπὶ τοῖς ἄλλοις ἅπασιν σημείοις ἀγαθοῖς διαμένουσιν, ἀποθεραπευτικῶς ἐπανορθοῦμεν τὸν κόπον· εἰ δὲ τὰ μὲν σημεία ταραχθείη τε καὶ οἶον χυθείη, μὴ παρείη δ' ὁ κόπος, ἐν ἡσυχίᾳ πλείονι διαφυλάττειν τὸν ἄνθρωπον· εἰ δ' ἄμφω συνέλθοι, διὰ

ptisane is the most suitable; of vegetables, lettuce; of fish, those living among rocks; of breads, those that are oven baked, leavened and moderately pure; of birds, those that are mountain dwellers; and of drinks, oxymel, melikraton, wine that is thin and white, and in short, those things that are *euchymous* and cleansing but neither viscous nor with thick juices, nor excessively nutritious.

During this time, I do not recommend the so-called diuretics, and particularly not those that heat and dissolve the blood too strongly; something that is going to be well-concocted has not as yet need of such disturbance. These, then, are all the things that must be done in this way on the second day, and no less on the third and fourth days. In addition to these, if the fatigue condition were to become milder, the body would become a good color, the urine concocted, and sleep beneficial, confidently go ahead to massage the person more and exercise him a little. Having done this, if no fatigue sensation supervenes, quickly bring him back to his customary exercises. If, however, any of the previous symptoms or signs should come to light, reconsider the situation and endeavor to change them individually. But if only the recollection of the fatigue sensation exists, while all the other good signs remain, we correct the fatigue with apotherapeutic measures. On the other hand, if the signs are disordered and, as it were, mixed, although the fatigue is not present, keep the person at rest for a longer time. But if both should

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τῆς αὐτῆς ἐπιμελείας ἄγειν, ἢ χρώμενος ἔμπροσθεν εἰς τοσοῦτον προσήγαγες ὠφελείας αὐτόν, ὡς τολμησαί τι καὶ περὶ γυμνασίων. οὕτω μὲν οὖν ἐπανορθοῦσθαι προσήκει τὴν εἰρημένην διάθεσιν.

5. Εἰ δὲ τᾶλλα μὲν εἴη ταῦτὰ κατὰ τὸν εἰρημένον ἄνθρωπον, ὑπάρχοι δ' ἐν τῷ κοπῶδει σώματι τὸ μὲν χρηστὸν αἷμα ὀλίγον, οἱ δ' ὠμοὶ χυμοὶ πάμπολλοι, μήτε φλεβοτομεῖν μήτε καθαίρειν μήτε γυμνάζειν, ἀλλὰ μηδὲ κινεῖν ὅλως μηδὲ λούειν. αἱ μὲν γὰρ φλεβοτομῖαι τὸ μὲν χρηστὸν αἷμα κενούσι, τὸ δὲ μοχθηρόν, ὅπερ ἐν ταῖς πρώταις μάλιστα φλεβὶ ταῖς καθ' ἡπάρ τε καὶ μεσάραιον ἀθροίζεται, πρὸς ὅλον ἐπισπῶνται τὸ σῶμα. κάθαρσις δὲ ἐπὶ τῶν τοιούτων στρόφους τε καὶ δῆξεις ἐργάζεται καὶ λειποψυχίας σὺν τῷ μηδὲ κενοῦν ἀξιολόγως· οἱ γὰρ ὠμοὶ χυμοὶ πάντες ἀργοὶ καὶ δυσκίνητοι διὰ τὸ πάχος εἰσὶ καὶ τὴν ψυχρότητα. προσεμφράττουσι γοῦν ἀπάσας τὰς στενὰς ὁδοὺς, δι' ὧν χρῆ τὸ κενούμενον ἐν ταῖς καθάρσεσιν ἐπὶ τὴν γαστέρα παραγίνεσθαι, καὶ διὰ ταύτην τὴν αἰτίαν οὗτ' αὐτοὶ κενοῦνται καὶ τοὺς ἄλλους ἐμποδίζουσι. τοῦτο μὲν οὖν καὶ ὑφ' Ἰπποκράτους διὰ βραχυτάτων παρήνηται ῥημάτων εἰπόντος· “πέπονα φαρμακεύειν καὶ κινεῖν,²⁵ μὴ ὠμά.”

²⁵ καὶ κινεῖν add. Ko

¹⁴ LSJ lists, as the second of two groups of meanings of στρόφος, “twisting of the bowels, colic” referring to Hippocrates,

come together, act with the same care and using what you previously used to bring him to such a degree of benefit, you may be bold as regards exercise. This, then, is how it is appropriate to correct the condition spoken of.

5. If all the other things are the same in the aforementioned person, but also in the fatigued body, the useful blood is small in amount, while the unconcocted humors are large in amount, do not carry out phlebotomy, purge or exercise; allow no movement at all and do not bathe. For phlebotomies evacuate the useful blood, while what is bad is collected particularly in the primary veins—that is, those in relation to the liver and mesentery—and is drawn toward the whole body. Evacuation in such cases produces twisting of the bowels (colic),¹⁴ gnawings and fainting (*lypopsychia*) without any worthwhile evacuation. For all the unconcocted humors are sluggish and difficult to move due to their thickness and coldness. Therefore, they contribute to the blockage of all the narrow channels through which what is being evacuated in the purgings must reach the stomach. And for that very reason, they themselves are not evacuated and they block the others. This, then, was recommended by Hippocrates in his very terse statement when he said: “medicate and move what has been concocted—not what is unconcocted.”¹⁵

Aphorisms 4.11, and *Ancient Medicine* X, where Jones in both instances translates it as “colic” (LCL 150 and 147, respectively), and to the present passage. Presumably, Galen is attributing colicky abdominal pain to twisting of the bowel—it is highly improbable that the actual condition of volvulus was recognized!

¹⁵ Hippocrates, *Aphorisms* 1.22, *Hippocrates* IV, LCL 150, 72–75.

265K διὰ δὲ τὴν αὐτὴν αἰτίαν οὐδὲ γυμνάζειν οὐδὲ κινεῖν
 ὅλως ἀλλ' οὐδὲ λούειν προσήκει τοὺς ἐν ταῖς πρώταις
 φλεψὶ τὸ πλῆθος τῶν ὠμῶν χυμῶν ἔχοντας. ἅπασαι
 γὰρ αἱ τοιαῦται κινήσεις εἰς ὅλον τὸ σῶμα ποδη-
 γοῦσι τοὺς χυμούς. φυλακτέον οὖν αὐτοὺς ἐν ἡσυχίᾳ
 πάσῃ καὶ δοτέον ἐδέσματα τε καὶ ποτὰ καὶ φάρμακα
 λεπτύνοντά τε καὶ τέμνοντα καὶ κατεργαζόμενα τὸ
 πάχος τῶν χυμῶν, ἄνευ τοῦ θερμαίνειν ἐπιφανῶς· οἱ
 γὰρ θερμανθέντες ἰσχυρότερον χυμοὶ πανταχόσε τοῦ
 σώματος ἴασιν. διαιτᾶν οὖν αὐτοὺς ἐπ' ὀξύμελιτι
 μάλιστα βραχὺ τι καὶ πτισάνης ἐνίοτε καὶ μελι-
 κράτου διδόντα. καὶ γὰρ φέρουσι τὴν λεπτὴν δίαιταν,
 εἴπερ τινὲς ἄλλοι, καταχρώμενοι τῷ πλήθει τῶν ὠμῶν
 χυμῶν εἰς τροφήν τοῦ σώματος ἐν τῷ κατὰ βραχὺ
 πέττειν αὐτούς. ἐπεὶ δὲ καὶ τὸ ὑποχόνδριον ἅπασιν τοῖς
 265K τοιούτοις ἐπῆρται τε καὶ διαπεφύσηται καὶ ῥαδίως, ὅ
 τι περ ἂν προσάρωνται, πνευματοῦται, βέλτιον ἂν εἴη
 διδόναι σὺν τῇ τροφῇ πεπέρεως μακροῦ. καὶ γὰρ δια-
 λύει τοῦτο παχύτητα φυσώδους πνεύματος, ἀπωθείται
 δὲ καὶ πρὸς τὴν κάτω γαστέρα τὰ καθ' ὑποχόνδριον
 ἀργῶς συνεστῶτα καὶ τῇ πέψει τῶν ληφθέντων συν-
 αίρεται κατὰ τὸν αὐτὸν²⁶ λόγον ἀπάντων πεπέρεων. εἰ
 δὲ μὴ παρέιη τοῦτο, τῷ λευκῷ χρηστότεον· ἔστι γὰρ
 στομάχου τονικώτερον ἀμφοῖν τοῖν ἄλλοις πεπερέοις.
 εἰ δὲ μηδὲ τοῦτο παρέιη, χρῆσθαι τῷ καλλίστῳ μέ-
 λανι· τοῦτο δὲ τὸ βαρύσταθμον.

²⁶ post αὐτὸν: κοινὸν (Ku) om.

For this same reason, it is not appropriate for those
 who have an excess of unconcocted humors in the primary
 veins to exercise or move at all, or even bathe. All such
 movements lead the humors to the whole body. Therefore,
 one must keep those affected at complete rest, give them
 foods, drinks and medications that are thinning, and cut
 and prevail over the thickness of the humors without man-
 ifestly heating. For humors that are strongly heated go
 everywhere in the body. Therefore, feed these patients
 chiefly with oxymel, also giving a little ptisane and some-
 times melikraton. Also, they tolerate the thin diet, even
 though there are certain others who use up the excess of
 unconcocted humors for the nourishment of the body in
 which they gradually concoct them. And since the hypo-
 chondrium in all such patients is raised and distended
 265K easily, and what is administered turns into gas, it would be
 better to give the long pepper¹⁶ with the food, for this
 disperses the thickness of the flatulent *pneuma* and urges
 on toward the lower abdomen what is sluggishly arrested
 in the hypochondrium, and it combines in the concoction
 of what has been taken in the manner common to all the
 peppers. If this is not available, you must use white pep-
 per, as it is more contracting for the stomach than both the
 other peppers. If this not available, use the best black
 pepper; this weighs heavily.

¹⁶ LSJ lists two kinds of pepper: *Piper nigrum* and *Piper officinarum*. See Theophrastus, *History of Plants* 9.20, and Dioscorides 2.189.

266K ἄμεινον δὲ καὶ τῷ Διοσπολιτικῷ προσαγορευομένῳ
 χρῆσθαι φαρμάκῳ. συντίθεται δὲ διττῶς, ἐνίοτε μὲν
 ἐξ ἀπάντων ἴσων, κυμίνου τε καὶ πεπέρεως καὶ πηγά-
 νου καὶ νίτρου, καὶ ἔστιν οὕτω μᾶλλον ὑπακτικώτερον
 γαστρός· ἐνίοτε δὲ τῶν μὲν ἄλλων ἴσον ἐκάστου
 μίγνυται, τοῦ νίτρου δ' ἥμισυ. κάλλιον δὲ κύμινον μὲν
 ἐμβάλλεσθαι τὸ καλούμενον Αἰθιοπικόν, πεπέρεως δὲ
 ἤτοι τὸ μακρὸν ἢ τὸ λευκόν. ἐμβρέχεσθαι δὲ τὸ κύμι-
 νον ὄξει δριμυτάτῳ· κάπειτ' εὐθέως τριβέσθω ἢ πρό-
 τερον φρυγέσθω μετρίως ἐν ἀγγείῳ κεραμέῳ, τελέως
 ὠπτημένῳ κατὰ τὴν κάμινον. ὅσα γὰρ ἐνδεῶς ἐξη-
 ράνθη, πηλώδη μᾶλλον ἔστιν ἢ κεράμεα καὶ τοῖς
 φαρμάκοις τι προστρίβεται τῆς ἑαυτῶν ποιότητος.
 ἔστω δὲ καὶ τὰ τοῦ πηγάνου φύλλα προανεξηραμμένα
 συμμέτρως. εἰ μὲν γὰρ ἐπὶ πλεον ξηρανθείη, δριμέα
 τε γίνεται καὶ πικρὰ καὶ περαιότερον τοῦ προσήκοντος
 θερμά, μηδ' ὅλως δὲ προξηραθέντα περιέχει τινὰ
 περιττωματικὴν ὑγρότητα μηδέπω κατειργασμένην
 ἀκριβῶς, δι' ἣν οὐ γίνεται παντάπασιν ἄφυσα.

τούτοις τοῖς τέσσαρσιν ἐνίοτε μὲν ἀναμίγνυται
 μέλι προαπηφρισμένον, ἐνίοτε δ' οὐδέν, ἀλλὰ μόνα
 χωρὶς τοῦ μέλιτος ἀποτεθέντα πτισάνης ἐμβάλλεται
 χυλῷ καὶ ὄτῳ περ ἂν ἄλλῳ τῶν ἐδεσμάτων μάλιστα
 πρέπειν δοκῆ. λαμβάνεται δὲ καὶ καθ' ἑαυτὸ τὸ φάρ-
 μακον τοῦτο πρὸ τροφῆς τε καὶ μετὰ τροφήν. καὶ ἔστι
 κάλλιστον ἐπὶ τῇ τοιαύτῃ χρήσει τὸ τῷ μέλιτι μιγνύ-

It is better to use the so-called Diospoliticum¹⁷ medi-
 cation which is compounded in two ways. Sometimes, it is
 mixed from equal parts of cumin, pepper, rue and niter,
 and in this way is more aperient for the stomach. Some-
 times it is mixed from equal parts of the first three but only
 half the amount of niter. It is better, however, to put in the
 so-called Ethiopian cumin while the pepper should be
 either long or white. Soak the cumin in very sharp vinegar
 and then immediately rub it or first roast it moderately in
 a ceramic vessel that has been completely baked in the
 oven. Vessels that are insufficiently dried out are more
 clay-like than the ceramic and something of their own
 quality is imparted to the medications. The leaves of rue
 should have been dried moderately beforehand. If they
 are dried up still more, they become acrid and bitter, and
 hot beyond what is appropriate, whereas, if they have not
 been previously dried at all, they contain a certain excre-
 mentitious moisture which is not yet completely over-
 come; due to this, they are not altogether free of gas. 266K

Sometimes despumated honey is mixed with these four
 [ingredients] and sometimes nothing, but they are kept
 separate without the honey and are thrown into the juice
 of ptisane and into whatever other of the foods seems to
 be particularly suitable. This medication is taken by itself
 before food and also after food. And it is best in such a use

¹⁷ Diospoliticum presumably refers to a city of that name,
 probably in Egypt (there were several cities so named). According
 to Ackermann's index to Galen's *Opera Omnia*, there are five
 references to this medication, all in the *Hygiene* (265, 283, 413ff,
 430 and 431K). The compound medication is clearly described
 here.

267K μενον, ἀκριβῶς προαπηφρισμένῳ· τοῦτο γὰρ ἀφυσώ-
 τατον.²⁷ ἔστω δὲ δηλονότι καὶ αὐτὸ τὸ μέλι κάλλι-
 στον, εἴπερ ἀφυσώτατόν τε καὶ τμητικώτατον ἔσεσθαι
 μέλλει τὸ φάρμακον.

ἐπιτήδειον δὲ τοῖς οὕτω διακειμένοις ἐστὶ καὶ τὸ
 διὰ τριῶν πεπέρεων, ὅταν μὴ πάνυ φαρμακῶδες καὶ
 ποικίλον κατασκευασθῆ καθάπερ οἱ πολλοὶ τῶν ἰα-
 τρῶν συντιθέασιν αὐτό, δίκην καρυκείας τινὸς ἢ συὸς
 ἀγρίου πρὸς δὴ τούτων τῶν θαυμασίων ὀψοποιῶν
 ἐσκευασμένον. ὥστ' ἔργον οὐ σμικρὸν τοῖς ἰατροῖς
 ἐστὶν ἢ τοῖς προσαραμένοις αὐτὸ τὰ ἐπεμβαλλόμενα
 φάρμακα ἀποπέψαι, τὸ ἄμμι καὶ τὸ σέσελι καὶ τὸ
 λιβυστικὸν ὅσα τ' ἄλλα τοιαῦτα· διαγινώσκεται γοῦν
 λαμβανόντων ὡμὰ καὶ ἀμετάβλητα μέχρι πλείστου
 κατὰ τὴν γαστέρα μένοντα. ταῦτά τε οὖν ἀφελεῖν χρῆ
 τοῦ φαρμάκου καὶ προσέτι τὸ ἐλένιον τε καὶ τὸν τῆς
 νάρδου στάχυν, ὡς δὲ ἔνιοι συντιθέασιν, καὶ τὴν κα-
 σίαν. ἔχειν δ' ἐσκευασμένον ἔτοιμον διττόν, ὡς ἡμεῖς
 εἰώθαμεν· ἀπλοῦν μὲν τὸ ἕτερον, ὅπερ ἐπὶ τε τῶν
 ἠπεπτηκότων χρῆ διδόναι καὶ τῶν πρόσφατον ψύξιν
 ἐχόντων κατὰ τὴν γαστέρα καὶ φλεγματώδη χυμόν·
 ἕτερον δὲ φαρμακῶδες, ᾧ μάλιστα ἐπὶ τῶν ἀπὸ τῆς
 268K κεφαλῆς εἰς τὸν θώρακα ῥευμάτων χρώμεθα. ἀλλὰ
 τοῦτο μὲν ὅπως χρῆ σκευάζειν, αὐθις εἰρήσεται.

τὸ δ' ἀπλοῦν, ᾧ καὶ πρὸς τὸ πλῆθος τῶν κατὰ τὰς
 πρώτας φλέβας ὡμῶν χρώμεθα, τοιόνδ' ἐστίν· εἰς
 πεντήκοντα δραχμὰς ἐκάστου τῶν τριῶν πεπέρεων
 ἀρκεῖ μιγνύειν ἀνίσου τε καὶ θύμου καὶ ζιγγιβέρεως

that it be mixed with honey that is entirely despumated,
 as this is most free of gas. Obviously the honey itself must
 also be the best, if the medication is going to be most free
 of gas and most cutting. 267K

Suitable also for those in this state is the mixture of
 three peppers, whenever it is not unduly medicinal and is
 variably prepared, as many doctors compound it, after the
 manner of rich cooking or of wild pig prepared by those
 wondrous cooks. As a result, it is no small task for doctors
 or their assistants to concoct these same compound med-
 ications with anise, hartwort, libustikon and other such
 things added in. Anyway, it is recognized that, when taken,
 these things remain unconcocted and unchanged by con-
 coction in the stomach for a long time. Therefore, it is
 necessary to keep these away from the medication, and
 besides these, the catmint and spikenard, and as some
 compound it, also the cassia. Have a double preparation
 ready, as I am accustomed to do—one simple one which
 should be given to those who are partially digesting and
 have a recent chill involving the stomach and phlegmatous
 humor, and another which is medicinal, and which we use
 particularly in the case of the fluxes from the head to the
 chest. I shall speak again about how this ought to be pre-
 pared. 268K

The simple preparation which we also use for the ex-
 cess of unconcocted humors in the primary veins, is as
 follows: it is enough to mix 8 drachms each of anise, thyme
 and ginger into 50 drachms of each of the three peppers.

²⁷ post ἀφυσώτατον: add. ἐστὶν (Ku)

269K *ἐκάστου δραχμὰς ὀκτώ. τὸ μὲν ἀπλούστατον τοῦτο, καὶ τούτου μᾶλλον ἔτι τὸ χωρὶς ζιγγιβέρεως. ἕτερον δὲ τὸ διὰ τῶν αὐτῶν συγκείμενον, ἀλλ' εἰς τὰς πεντήκοντα δραχμὰς ἐκάστου τῶν τριῶν πεπέρεων ἑκατάδεκα δραχμῶν ἐμβαλλομένων ἐκάστου τῶν τριῶν, ἀνίσου καὶ θύμου καὶ ζιγγιβέρεως, ᾧ καὶ μάλιστα χρώμεθα πρὸς τὰ παρόντα. χρῆ δ', εἴπερ οἶόν τ' εἴη, τὸ μὲν ἄνισον εἶναι Κρητικόν, Ἀττικὰ δὲ τὰ θύμα ἢ πάντως γε ἐκ χωρίων ὑψηλῶν τε καὶ ξηρῶν. ἐμβάλ- λειν δ' αὐτῶν τὴν κόμην ἅμα τοῖς ἄνθεσιν, ἀποκρί- νοντα τὸ ξυλῶδες. ἔστω δὲ καὶ τὸ πέπερι τὸ μὲν μα- κρὸν ἄτρητόν τε καὶ ὑγιές, ὥσπερ οὖν καὶ τὸ ζιγγίβερι τάχιστα γὰρ ἀμφότερα τιτράται. καὶ πρὸς τῷ μὴ τε- τρηῆσθαι τὸ ἀληθινὸν δηλονότι αὐτὸ τὸ πέπερι τὸ ἀπὸ τῆς βαρβάρου κομιζόμενον ἔστω. διττῶς γὰρ ἐνταῦθα πανουργεῖται, σκευαζόμενον μὲν τὸ ἕτερον ἐπὶ τῆς Ἀλεξανδρείας μάλιστα, βοτάνης δέ τινος ἐκβλά- στημα θάτερον ὑπάρχει.*

ὡς δ' ἂν τις μάλιστα γνωρίζοι τὸ πεπανουργημέ- νον, ἐγὼ διηγῆσομαι, τοσοῦτον πρότερον εἰπὼν ὑπὲρ τοῦ μὴ θαυμάζειν τινὰ μηδὲ ζητεῖν τὴν αἰτίαν, δι' ἣν εἴτε συνθέσεις φαρμάκων ἢ δοκιμασίας ἐπήλθέ μοι γράφειν ἐνταῦθα, μὴ πάνυ τι πράττειν τοῦτο εἰθι- σμένῳ κατὰ τὴν θεραπευτικὴν πραγματείαν. ἐν ἐκείνῃ μὲν γὰρ αὐτοῖς μόνοις διαλέγομαι τοῖς ἰατροῖς, ἐνταν- θοῖ δὲ καὶ τοῖς ἄλλοις ἅπασιν, οὓς ὀνόματι κοινῶ προσαγορεύουσιν ἔνιοι φιλιάρχους, ἐν τοῖς πρώτοις δηλονότι μαθήμασι γεγονότας, ὡς γεγυμνάσθαι τὴν

This is the simplest and is more simple still without the ginger. The other preparation is compounded of the same things, but to the 50 drachms of each of the three peppers put in 16 drachms of each of the three ingredients—*anise, thyme and ginger.* This is what we particularly use in pres- ent circumstances. And if possible, the anise should be Cretan and the thyme Attic, or at all events, from high and dry regions. Put in the foliage of these along with the flow- ers, separating that which is woody. Also let the pepper be long, intact and without holes, just as the ginger should be, as both are perforated very quickly. And in addition to being intact, let it clearly be genuine pepper brought from abroad, for here it is adulterated in two ways: the one is prepared particularly at Alexandria and the other is the new shoots of some herb. 269K

How you might especially recognize what is adulter- ated, I shall explain after first saying this: no one should wonder about or seek the reason why it came to me to write here of the compounding of medications or their assay—I who am not particularly accustomed to do this in relation to a therapeutic matter. For in that case I am conversing only with doctors themselves, whereas here the discussion is also with all those others whom some call by the general name “friends of medicine”—people who have obviously been involved in the primary teachings, so

διάνοιαν. οὐκ οὐκ ἀναγκαῖόν ἐστι τοῖς τοιούτοις οὐτ' ἐν τῇ περὶ τῶν ἀπλῶν φαρμάκων οὐτ' ἐν τῇ περὶ συνθέσεως αὐτῶν γεγυμνάσθαι πραγματεία, πολὺ δὲ δὴ μᾶλλον²⁸ οὐθ' ὡς σκευάζειν ἐπίστασθαι οὐθ' ὡς χρῆ δοκιμάζειν ἕκαστον. τούτοις οὖν ἄμεινόν ἐστι γράφειν τὰ τοιαῦτα πάντ' ἀκριβῶς, ὥσπερ ἀρτίως τὰ περὶ τοῦ μακροῦ πεπέρεως ἐπεχείρησα διηγεῖσθαι. 270K
 χρῆ γὰρ ἀπογεύεσθαι μὲν αὐτοῦ πρῶτον, ἀκριβῶς ἐπισκοπούμενον, εἰ πεπέρεως ἀποσώζει ποιότητα, μετὰ δὲ τοῦτ' ἐμβαλεῖν ὕδατι. τὸ γὰρ ἐσκευασμένον, εἰ βραχείῃ δι' ὅλης τῆς ἡμέρας, αὐτίκα διαλύεται τηκόμενον. εἴπερ οὖν ἢ τε ποιότης ἀκριβῶς αὐτῷ πεπέρεως ὑπάρχει καὶ μὴ διαλύεται βρεχόμενον, εἴθ', ὡς εἴρηται, καὶ ἄτρητον εἴη, ἐπιτήδειον νόμιζε τὸ τοιοῦτον μακρὸν πέπερι. τὸ δὲ γε μέλαν μῆτε μικρὸν ἔστω μῆτε ῥυσσὸν μῆτε παχύφλοιον, ἀλλ' ἐκ τοῦ βαρυστάθμου καλουμένου τὸ μέγιστόν τε ἅμα καὶ εὐτραφέστατον ἐκλεγέσθω. καὶ τοῦ λευκοῦ δ' ὁμοίως ἐκλεγέσθω τὸ μέγιστόν τε καὶ εὐτραφέστατον. εἶτα πάντων ἅμα κοπέων καὶ λεπτῶ κοσκίνῳ διαττηθέντων ἀπηφρισμένον ἐπιμελῶς μιγνύσθω μέλι τὸ κάλλιστον, εὐώδες δήπου τοῦτο καὶ ξανθὸν ὑπάρχον γλυκύτατόν τε ἅμα καὶ δριμύτατον καὶ τῇ συστάσει μῆτε παχὺ μῆθ' ὑγρόν, ὡς ἀποσπᾶσθαι τῆς συνεχείας,²⁹ ἀλλ' ὥστε καθέντα τὸν δάκτυλον εἰς αὐτό, κάπειτα καταστήσαντα μετέωρον, ἀπορρέον ὁρᾶν αὐτοῦ τὸ μέλι μέχρι πλείστου συνεχῆς ἑαυτοῦ. 271K
 ἄμεινον δ' ἐπ' ἀνθράκων ἐψεῖν ἢ ξύλων ἀκριβῶς

as to have become practiced in the concept. But it is not necessary for such people to be practiced either in the matter of simple medications or in the compounding of these; much more so, it is not necessary to know how each is prepared or how each must be assayed. For them, then, it is better to write all such things precisely, as I did just now, in attempting to explain about the long pepper. 270K
 It is necessary to taste this first, considering accurately whether it preserves the quality of pepper, and after this, to throw it into water. For what is prepared, if it soaks for a whole day, immediately dissolves and is liquefied. If the quality of pepper is entirely in this and it doesn't dissolve when soaked, or, as was said, it is also unperforated, regard such long pepper as suitable. However, the so-called black pepper should not be small or wrinkled, or have thick bark; choose from the so-called heavy pepper the biggest and most well-grown. And of the white pepper, similarly choose the biggest and most well-grown. Then, when all have been pounded together at the same time and sifted through a fine sieve, carefully mix the best despumated honey. This, of course, should be fragrant and yellow and at the same time very sweet and very acrid, but neither thick in consistency nor liquid so as to take away its continuity. Rather, it should be such that, if you put a finger into it and then raise the finger to a height, you see the honey flow for the most part in continuity with itself. 271K

It is better to cook [the mixture] over charcoal or wood

²⁸ post μᾶλλον: οὐθ' ὡς σκευάζειν ἐπίστασθαι οὐθ' ὡς χρῆ δοκιμάζειν ἕκαστον. Κο; οὐδ' ὡς χρῆ δοκιμάζειν ἕκαστον ἐπίστασθαι. Κυ

²⁹ τῆς συνεχείας Κο; αὐτοῦ τὸ συνεχῆς Κυ

ξηρῶν, ἃ δὴ καὶ καλοῦσιν ἄκαπνα. τοῦτό τε οὖν δι-
 δόσαι χρὴ τὸ φάρμακον οὐχ ἅπαξ μόνον ἢ δῖς, ἀλλὰ
 καὶ πλεονάκις ἐκάστης ἡμέρας· καὶ γὰρ ἔωθεν καὶ
 πρὸ τροφῆς καὶ μετὰ τροφήν καὶ καθυπνοῦν μελλόν-
 των ἐπιτήδειον ὑπάρχει· τὸ δὲ πλῆθος ἐκάστης δό-
 σεως ἔστω κοχλιάριον μεστόν, μικρὸν μὲν ἐπὶ τῶν
 μικρῶν σωμάτων, μέγιστον δὲ ἐπὶ τῶν μεγίστων, ἀνά-
 λόγον δ' ἐπὶ τῶν μεταξύ. καὶ μέντοι καὶ τὸ ζιγγίβερι,
 τὸ κομιζόμενον ἐκ τῆς βαρβάρου, διάβροχον ὄξει,
 συμφέροι λαμβάνειν. ἔστι δὲ τοῦτο ρίζα χλωρᾶς τῆς
 πόας ἐμβαλλομένη τῷ ὄξει μετὰ τὴν ἀναίρεσιν εὐ-
 θέως. κατασβέννυται γὰρ ἢ τῶν τοιούτων φαρμάκων
 θερμότης αὐτόθι που περὶ τὰς πρώτας φλέβας, οὐκέτ'
 ἀναφερομένη πρὸς ὅλον τὸ σῶμα, καθάπερ ἐτέρων
 τινῶν, οἷον καὶ τὸ διὰ τῆς καλαμίνθης, ὑπὲρ οὗ μετ'
 ὀλίγον ἐπὶ πλέον εἰρήσεται.

272K 6. Ταῦτ' ἄρα καὶ ὀξύμελι χρησιμώτατον αὐτοῖς
 ἔστιν, ὡς καὶ πρότερον εἴρηται. σκευάζειν δὲ καὶ
 τοῦτο προσήκει κατὰ τάδε. μέλι τὸ κάλλιστον ἐπ' ἀν-
 θράκων ἀπαφρίσαντας ἐπεμβάλλειν αὐτῷ τοσοῦτον
 ὄξους, ὡς γενομένῳ μήτ' ἄγαν ὄξυν φαίνεσθαι μήτε
 γλυκύν· καὶ τότε αὐθις ἐψεῖν ἐπ' ἀνθράκων, ὡς ἐνωθῆ-
 ναί τε τὰς ποιότητας αὐτῶν ἀκριβῶς καὶ μὴ φαίνε-
 σθαι γενομένοις ὡμὸν τὸ ὄξος· εἴτ' ἀποθεμένους
 τούτῳ μιγνύειν ὕδωρ ἐπὶ τῆς χρήσεως, οὕτω κεραυνύ-
 ντας ὡς οἶνον. εἰ μὲν οὖν ὁ πίνων αὐτὸ μήθ' ὡς ὄξυν
 μήθ' ὡς γλυκύν μέμφοιτο, χρηστέον ἄχρι παντός· εἰ
 δὲ μή, τὸ λείπον³⁰ ἐπεμβάλλοντας ἀφεψεῖν αὐθις. οὐ

that is completely dry, which they also call smokeless. It is
 then necessary to give this medication not once only, or
 twice, but several times each day. At dawn, before food,
 after food, and when about to go to sleep are suitable
 times. Let the amount of each dose be a full spoonful—a
 small spoon for small bodies, a large spoon for large bod-
 ies, and in proportion for those bodies in between. Of
 course, the ginger brought from abroad and soaked in
 vinegar is beneficial to take. This root of the fresh herb is
 thrown into the vinegar immediately after picking it, for
 the heat of such medications is quenched on the spot in
 the primary veins, and not carried to the whole body, like
 that of some others—for example, that made with catmint,
 which I shall say more about shortly.

6. In this way, then, oxymel also is most useful for such
 patients, as I said previously. It is appropriate to prepare
 this as follows: when you have skimmed the best honey
 over charcoal, put into it as much vinegar as to make the
 taste neither obviously very acidic nor sweet, and at that
 time, again boil it over charcoal so as its qualities are en-
 tirely mixed into one and the vinegar does not obviously
 seem raw to those tasting it. Then, laying it aside, mix
 water with it according to the use, mixing it in this way like
 wine. If, then, the one drinking it finds no fault with it,
 either as acidic or as sweet, it must be used assiduously. If
 not, put in what is lacking and boil it again. I do not ap-

272K

³⁰ ante τὸ λείπον: τότε (Ku) om.

γὰρ ἐπαινῶ τοὺς κατὰ μίαν συμμετρίαν σκευάζοντας αὐτό· παραπλήσιον γάρ τί μοι δοκοῦσιν οἱ τοιοῦτοι ποιεῖν τοῖς ἀξιοῦσιν ἅπαντας τοὺς πίνοντας ὡσαύτως κεραυνῦναι τὸν οἶνον τῷ ὕδατι, μὴ γινώσκοντες, ὡς ἔνιοι μὲν ὑδαρέστερον εἰθισμένοι πίνειν εὐθέως πλήττονται τὴν κεφαλὴν, εἰ καὶ βραχὺ τις αὐτοῖς ἀκρατέστερον κεράσειεν, ἔνιοι δ' ἀκρατεστέρῳ χαίροντες ἀνατρέπονται τὸν στόμαχον ὑδαρέστερον πίνοντες.

273K ὁπότ' οὖν ἐπὶ οἴνου ταῦτα συμπίπτει, συνήθους οὕτω ποτοῦ, πολὺ δὴ μᾶλλον ἐπ' ὀξύμελιτος, ὅσῳ καὶ ἀηθέστερον οἴνου καὶ ἰσχυρότερόν ἐστιν, εἰκὸς ἀκολουθήσειν αὐτά. βέλτιον οὖν ἐστιν ταῖς τῶν λαμβανόντων αἰσθήσεσι κρίνειν τὸ σύμμετρον, οὐ ταῖς ἡμετέραις,³¹ οἰκειότατον μὲν εἶναι νομίζοντας τῇ φύσει τοῦ λαμβάνοντος τὸ ἡδιστον ὀξύμελι καὶ διὰ τοῦτο καὶ ὠφέλιμον, ἐναντιώτατον δὲ τὸ ἀηδέστατον. αὐτὴν δὲ τὴν πρώτην κρᾶσιν αὐτοῦ, ὡς ἂν μάλιστα τοῖς πλείστοις ἀρμόσειε, κατὰ τάδε χρῆ ποιεῖσθαι ὄξους ἐνὶ μέρει διπλάσιον μιγνύσθω τοῦ τὸν ἀφρὸν ἀφηρημένου μέλιτος, εἴθ' οὕτως ἐπὶ μαλακοῦ πυρὸς ἐψείσθω, μέχρις ἂν ἐνωθῶσιν αὐτῶν αἱ ποιότητες· οὕτω γὰρ ἂν οὐδὲ τὸ ὄξος ὠμὸν ἔτι φαίνοιτο. δι' ὕδατος δ' εὐθέως ἐξ ἀρχῆς ὧδε σκευάζειν ὀξύμελι. τῷ μέλιτι μιγνύσθω τετραπλάσιον ὕδατος καλλίστου κᾶπειθ' ἐψείσθω μετρίως, μέχρις ἂν ὁ ἀφρὸς ἐφιστῆται.

³¹ post σύμμετρον: οὐ ταῖς ἡμετέραις Ko; αὐταῖς, ἢ ἡμετέραις, Ku

prove of those who prepare it according to one single set of proportions. Such people seem to me to be acting like those who think it right for all who drink wine to mix it with water in the same way, not realizing that some who are accustomed to drinking a more watery wine are immediately overpowered,¹⁸ if someone has mixed it a little too neat for them. However, some who enjoy more neat wine are upset in the stomach, if they drink wine that is too watery.

Therefore, when these things happen in the case of wine, so customary a drink, how much more are they likely to follow in the case of oxymel, which is less customary than wine and stronger. It is better then to judge the proportion by the perceptions of those taking [the oxymel] rather than by our own, knowing that the most pleasant oxymel is most suited to the nature of the person taking it, and because of this is beneficial, while the very opposite applies to that which is most unpleasant. However, the actual primary mixture of this, so it would be most suitable for most people, must be made as follows: Mix a double quantity of despumated honey with one part of vinegar, then boil over a gentle flame until their qualities are combined into one, for in this way the vinegar does not still seem to be raw. Oxymel may be prepared with water in this way right from the start. Mix with the honey four times as much of the best water and then boil moderately until

¹⁸ Literally, "struck in the head"—see also Galen, *HVA*, XV.672K, and *Hipp. Fract.*, XVIII(2).568K.

τὸ μὲν οὖν φαῦλον μέλι πάμπολυν ἐξερεύγεται³² τὸν ἀφρόν, ὥστε καὶ ἡ ἔψησις αὐτοῦ πολυχρονιωτέρα γίνεται· τὸ δὲ ἄριστον ἐλαχιστοτέρῳ χρόνῳ καὶ βραχύτατον ἀφήσιν, ὥστ' οὐδὲ ἴσης αὐτῷ δεῖ τῆς ἐψήσεως. ἡ δ' οὖν πλείστη τὸ τέταρτον ἀπολείπει μέρος
 274K τοῦ κραθέντος ἐξ ἀρχῆς. μίξαντας δ' ὄξους ἡμισυ τοῦ μέλιτος³³ πάλιν ἐψητέον ἄχρι τοῦ τὰς ποιότητας αὐτῶν ἀκριβῶς ἐνωθῆναι καὶ μηκέτ' ὠμὸν φαίνεσθαι τὸ ὄξος. σκευάζεται δὲ καὶ κατ' ἀρχὰς εὐθέως τῶν τριῶν μιχθέντων. ἔστω δὲ ἐν μὲν ὄξους μέρος, δύο δὲ μέλιτος, ὕδατος δὲ τέτταρα· καὶ ταῦθ' ἐψείσθω μέχρι τοῦ τρίτου μέρους ἢ τετάρτου, τὸν ἀφρόν ἀφαιρούντων ἡμῶν. εἰ δὲ ἰσχυρότερον αὐτὸ ποιῆσαι βούλοιο, τοσοῦτον ἐμβαλεῖς ὄξους, ὅσον καὶ μέλιτος.

ἀπόμελι δὲ κάλλιστον ἐν ὕδατι σκευάζεται, καὶ πίνουσι αὐτὸ δι' ὅλου τοῦ θέρους, ὡς ἐμφύχον ποτόν.³⁴ ἔνεστι δὲ τῷ βουλομένῳ καὶ πρὸς τὴν ὑποκειμένην ἐν τῷ παρόντι λόγῳ διάθεσιν ὠφελίμως χρῆσθαι, καὶ μάλισθ' ὅταν ὀξυνθῇ· πάσχει δὲ πλειστάκις τοῦτο, τὸ μὲν μᾶλλον, τὸ δὲ ἥττον, ὡς ἂν δι' ὕδατος σκευαζόμενον, οὐ τοῦ ὀμβρίου, καθάπερ τὸ ὑδρόμελι, ἀλλὰ τοῦ ἐπιτυχόντος. ἔνεστι δ', εἰ βούλοιο τις, καὶ δι' ὀμβρίου συντιθέναι. καὶ ἔγωγ' ἂν οὕτω ποιεῖν συνβούλευον, εἰ ἐπήνουν τὸ ὀμβριον· ἀλλὰ γὰρ οὔτε τοῦτο ἐπαινῶ καὶ οὐδὲν χεῖρον ὀξυνόμενον ἀποτελείται καὶ μάλιστα εἰς τὰ παρόντα. καὶ γὰρ οὖν καὶ
 275K μετρίως ὀξύνεται τό γε μὴ παντάπασιν ἀμελῶς ἐσκευασμένον. ἡ δ' ἐπιμέλεια τῆς σκευασίας ἐστὶν ἐν

the foam is removed. Poor quality honey spews forth a large amount of foam, so the boiling of this also takes a much longer time, whereas the best honey gets rid of the foam, which is very little, in less time. Consequently, it doesn't need to be boiled for an equal time. At the most, a quarter of the initial mixture leaves. When you mix in
 274K half as much vinegar as honey, you must boil it again until their qualities are perfectly combined into one and the vinegar no longer seems raw. Oxymel is also prepared by mixing the three ingredients right from the start. Let there be one part of vinegar, two of honey, and four of water. Boil these down to a third or a quarter and remove the foam. If you wish to make this stronger, put in as much vinegar as there is honey.

Apomel is best prepared in water; people drink this throughout the summer as a cooling drink. For someone who wishes to do so, it is also possible to use it beneficially for the condition assumed in the present discussion, in particular when it is made acidic. And it is affected in this way frequently to a greater or lesser degree, being prepared with water, not rain water like hydromel, but any water. On the other hand, it is possible, if someone so wishes, to compound it with rain water. And I myself would do this, if I approved of rain water, but I do not recommend this; there is nothing worse than making it acidic, particularly for present purposes. And in consequence, it is also moderately acidic, if it is not altogether
 275K carelessly prepared. The care of the preparation is in the

³² ἐξερεύγεται Ko; ἐξεργάζεται Ku

³³ τοῦ μέλιτος add. Ko

³⁴ ποτόν add. Ko

τῷ τὸ κηρίον εἶναι μὴ πάνυ φαῦλον ἐψείσθαι τ' ἐπὶ πλέον ἐν ὕδατι πηγαίῳ, καθαρῷ τε καὶ ἡδέϊ. χρὴ γὰρ ἐκπιέσαντα τῶν κηρίων τὸ μέλι μέχρι τοσοῦτου καθεψείν ἐν ὕδατι, ἄχρις ἂν μηκέτι μηδεὶς ἀφρὸς ἐπανιστήται. τούτῳ τε οὖν χρῆσθαι ποτῷ καὶ τῶν οἴνων τοῖς ὠξυσμένοις ἀτρέμα καὶ τῶν ἐδεσμάτων τοῖς λεπτόνουσιν ἄνευ τοῦ θερμαίνειν, οἷάπερ ἐστὶ καὶ ἡ κάππαρις, εἰ δι' ὄξυμέλιτος ἢ δι' ὄξειλαίου λαμβάνοιτο.

μέχρι μὲν δὴ δυοῖν ἢ τριῶν ἡμερῶν, ὡς εἴρηται, διαιτᾶν· εἰ δ' ἐλπίζοις ἱκανῶς ἤδη λελεπτύσθαι τοὺς ὠμοὺς χυμούς, οἶνον προσφέρειν, λεπτόν μὲν τῇ συστάσει, κίρρον δὲ ἢ λευκὸν τῇ χροιά· ὁ μὲν γὰρ εἰς εὐχυμίαν τε καὶ πέψιν, ὁ δ' εἰς οὖρησιν ἀγαθός. εἰσὶ δ' ἐπὶ μὲν τῆς Ἰταλίας ὁ τε Φαλερινός καὶ ὁ Σουρεντίνος ἐκ τοῦ προτέρου γένους, ὡσπερ οὖν ἐκ τοῦ δευτέρου ὁ Σαβίνος τε καὶ ὁ Ἀλβανός καὶ Ἀδριανός, ἐπὶ δὲ τῆς Ἀσίας ἐκ μὲν τοῦ προτέρου Λέσβιος τε καὶ Ἀριούσιος, ἐκ δὲ τοῦ δευτέρου Τιτακαζηνός τε καὶ Ἀρσυηνός. οὗτοι μὲν οὖν ὡς παραδείγματα εἴρηνται τοῦ λόγου. πολλοὶ δὲ καὶ ἄλλοι κατὰ τὴν Ἰταλίαν εἰσὶ καὶ τὴν Ἀσίαν, οὐχ ἡκιστα δὲ καὶ τοῖς ἄλλοις ἔθνεσιν, ὅμοιοι τοῖς εἰρημένοις, οὓς αὐτὸν ἕκαστον ἐκλέγεσθαι χρὴ πρὸς τοὺς εἰρημένους ἀποβλέποντα σκοπούς, τὴν τε χροίαν καὶ τὴν σύστασιν, ἀποδοκιμάζειν τε τοὺς τε παχεῖς καὶ τοὺς μέλανας, ὡς κακοχύμους τε καὶ βραδυπόρους.

εἰ δ' ἐπὶ τοῖσδε βελτίων ὁ ἄνθρωπος γίνοιτο, καὶ

honeycomb not being of very poor quality, and boiling it more in spring water, which is pure and sweet. It is necessary to squeeze the honey of the honeycombs and boil this in water until no foam rises up any more. Use this drink, then, and the mildly acidic of the wines, and foods that are thinning without being heating, like capers are, if someone takes them with oxymel or a sauce of vinegar and oil.

Follow this diet for two or three days, as I said. If, however, you have reason to believe the unconcocted humors are already sufficiently thinned, give wine which is thin in consistency and tawny or white in color; the one is good for *euchymia* and concoction and the other as a diuretic. Of the Italian, the Falernian and Sorrentian are of the first class, and the Sabine, Albanian and Adrianian are of the second class. Of the Asian wines, the Lesbian and Ariusian are of the first class and the Titacazine and Arsynian of the second class.¹⁹ I mention these as examples in the discussion. And there are many others, both in Italy and in Asia, and no less even in other nations, like those mentioned which you must choose yourself in each case, looking toward the stated objectives in respect of color and consistency, and rejecting those that are thick and black as being *kakochymous* and slow in passing.

If, after these [measures], the person should become

¹⁹ On the various wines, see Galen's *MM*, X.829-37K and elsewhere. For further information in modern works, see C. Sellman, *Wines in the Ancient World* (1957), and McGovern, *Ancient Wines*.

λούειν ἤδη προσήκει καὶ ἀλείφειν καὶ ἀνατρίβειν μαλακῶς, κἀπειδὰν πρῶτον ὑπόστασιν ἰσχυρὰ τὰ οὖρα, τὰς τε τρίψεις αὐξήσαι καὶ πρὸς τὰ συνήθη γυμνάσια κατ' ὀλίγον ἐπανάγειν. ἐν τούτῳ δὲ τῷ καιρῷ καὶ τοῖς διαφορητικοῖς ἀλείμμασι χρηστέον, ὧν καὶ πρόσθεν μὲν ἐμνημόνευσα, καὶ αὖθις δ' ὑπὲρ αὐτῶν ἐρῶ. οὐ μὴν ἐμέτοις χρῆσθαι συμβουλεύω κατὰ τὰς τοιαύτας διαθέσεις, ὥσπερ ἐνίοις ἔδοξεν ἰατροῖς τε καὶ γυμνασταῖς, ἔξαπατηθείσιν, οἶμαι, πρὸς τῶν ὑπὸ Φιλοτίμου τε καὶ Πραξαγόρου γεγραμμένων ἐπὶ ταῖς τῶν τοιούτων χυμῶν θεραπείαις. οὐ γάρ, ὅταν ἅμα κοπῶδεις διαθέσεις πλεονάζωσιν, ἀλλ' ἐπειδὰν μόνοι λυπῶσιν, ἐμέτοις αὐτοὺς ἐκκενοῦσιν· οὐδεὶς γὰρ κίνδυνος ἀντισπασθῆναι τῆνικαῦτα βιαιότερον ἔσω τι τῶν κατὰ τὰς σάρκας περιττωμάτων, ὥσπερ ὅταν ἅμφω πλεονάζῃ, τὰ μὲν ὡμὰ κατὰ τὰς πρώτας φλέβας, ἐν δὲ τοῖς στερεοῖς τὰ δακνώδη. φυλάττεσθαι γὰρ τῶν τοιούτων ἄμεινόν ἐστιν ἑκατέρας τὰς ἀντισπάσεις, ἔξω μὲν τῆν τῶν ὡμῶν, ἔσωθεν δὲ τῆν τῶν δακνωδῶν.

ὥσπερ οὖν ἐφυλαξάμεθα κατὰ τὸν ἔμπροσθεν λόγον ἔξω τοὺς ὡμοὺς ἐπισπᾶσθαι χυμούς, οὕτω χρῆ φυλάττεσθαι τοὺς δακνώδεις ἀντισπᾶν εἴσω. κεφάλαια δὲ τῆς μὲν ἔξω φορᾶς αὐτῶν εἰσι γυμνάσια καὶ τρίψεις καὶ λουτρὰ καὶ θάλπος ἀλείμματά τε θερμαί-

²⁰ Philotimus (330–270 BC) was a Greek doctor and pupil of Praxagoras, with whom he is usually linked in terms of his views.

better, it is now appropriate to bathe, anoint and massage gently, and when the urine first has a sediment, increase the massages and return him gradually to his customary exercises. At this time, you must also use the diaphoretic ointments which I mentioned previously: I shall speak about these again. I do not advise the use of emetics in such conditions, as seemed good to some doctors and gymnastic trainers, deceived, in my opinion, by the writings of Philotimus and Paraxagoras,²⁰ for the treatments of such humors. For it is not, when fatigue conditions become more severe, but when they alone cause distress, that [doctors] evacuate them with emetics. For there is no danger under these circumstances of an overly forceful revulsion inward of the superfluities in the flesh, as there is when both increase—that is, both the unconcocted humors in the primary veins and those that are biting in the solid parts. It is better to guard against each of the revulsions of such humors—outward in the case of those that are unconcocted and inward in the case of those that are biting.

Therefore, just as in the previous discussion, we were on guard against drawing the unconcocted humors outwardly, so too is it necessary to guard against revulsing the biting humors inwardly. The chief agents of the outward passage of these are exercises, massages, baths, warm un-

He is regarded as a Dogmatic. Praxagoras of Cos (325–275 BC) is one of the most renowned of ancient doctors and was the teacher of Herophilus as well as Philotimus and others. He is credited with many writings, all lost. Fragments of the writings of both men (and others of the school) are collected in the work by Steckerl, *The Fragments of Praxagoras*.

277K

278K νοντα, καὶ τῶν ψυχικῶν παθῶν ἢ ὀξύθυμία καὶ ἀπλῶς εἰπεῖν ἅπανθ' ὅσα τοὺς ἐν τῷ βάθει τοῦ ζώου χυμοὺς εἰς τὴν πανταχόθεν κίνησιν ἐξορμᾷ, τῆς δ' εἴσω τὰ ἀποτρέποντα τῆς ἔξω φορᾶς. ἔστι δὲ δήπου ταῦτα τῶν ὀμιλούντων τῷ δέρματι τὰ τε ψυχρὰ καὶ τὰ στύφοντα καὶ ὅσα πρὸς τούτοις ἐπισπᾶται τοὺς χυμοὺς ἢ ἄλλως ὅπως οὖν ἐπεγείρει τὴν ἔσω κίνησιν αὐτῶν, ἐξ ὧν ἔστι λύπη καὶ φρίκη καθ' ἡντινοῦν αἰτίαν γινομένη· καὶ γὰρ καὶ διὰ ψυχρὸν αἴτιον καὶ διὰ³⁵ θερμὸν ἐδείχθη φρίκη τε καὶ ῥίγος γινόμενον καὶ διὰ τῶν ἐκπληττόντων τε καὶ φοβούντων τὴν ψυχὴν ἤτοι ἀκουσμάτων ἢ θεαμάτων. ἅπαντ' οὖν τὰ τοιαῦτα φυλακτέον ἐστίν, ἐπειδὴν ἅμα τε κοπώδης ὁ αὐτὸς ἄνθρωπος ἢ καὶ τὰς φλέβας ἔχη μεστὰς ἀπέπτων χυμῶν. οὔτε γὰρ τοὺς ἔξω χυμοὺς ἀντισπᾶν ἔσω καλὸν οὔτε τοὺς ἔνδον ἔξω, ἀλλὰ τοὺς μὲν ἔξω διαφορεῖν ἀτρέμα (τὰ γὰρ ἰσχυρότερον τοῦτο δρῶντα καὶ τῶν ἔνδον ἐπισπᾶταί τι), τοὺς δ' ἔνδον λεπτύνειν τε καὶ συμπέττειν. εἰ δ' ἤτοι δι' ἐμέτων ἢ διὰ γαστρὸς ὑπαγωγῆς ἐπιχειρήσειας αὐτοὺς ἐκκενῶσαι σφοδρότερον, ἐπισπᾶση τινὰς ἐκ τῶν ἔξωθεν εἴσω.

279K τοὺς δὲ περὶ τὸν Φιλότιμον οὐ χρὴ μέμφεσθαι τῇ τοιαύτῃ κενώσει χρωμένους, ὅταν ἐν ταῖς πρώταις φλεβὶ πλῆθος ὠμῶν χυμῶν³⁶ περικέηται χωρὶς ἐτέρας διαθέσεως, ἀλλὰ μᾶλλον ἡμᾶς αὐτοὺς ἐθιστέον ἀκριβέστερον ἔπεσθαι παλαιοῖς γράμμασιν. εἰς αὐτὸ μὲν οὖν τὸ μελίκρατον ὕσωπον ἐναφεισοῦντες, οὐκ εὐθέως μὲν οὐδ' ἐν τῇ πρώτῃ τῶν ἡμερῶν, ἐν δὲ ταῖς ἐχομέ-

278K guents and heating agents. And of the psychical affections, an unstable temper, and in short, all those things that stir up the movement in the humors in the depths of the organism in all directions, turn away the things within from their outward passage. These are, of course, the things which, when in contact with the skin, are cold and astringent, and those things that draw the humors toward them, or otherwise, in any way whatsoever, stir up their movement inward; among these are grief and shivering arising from any cause at all. For truly, it was shown that, through both cold and heat as a cause, shivering and rigors occur, and through the things that shock and terrify the soul, whether heard or seen. Therefore, one must guard against all such things when, at the same time, the patient himself is fatigued and has unconcocted humors filling the veins. For it is not good to revulse the outer humors inward or the inner humors outward, but to gently disperse those that are outer (for the things which do this more strongly are also those which draw something inward), and to thin and help concoct those within. If, however, you attempt to evacuate these more strongly, either by vomiting or by a downward purging through the abdomen, you will draw some of those that are external inward.

279K You must not blame the followers of Philotimus for using such an evacuation, whenever an excess of unconcocted humors is enclosed within the primary veins apart from another condition. Rather, we must particularly accustom them to follow the ancient writings more accurately. To this end then, when we boil up melikraton and hyssop, we should not give this immediately, nor on the

³⁵ διὰ add. Ko³⁶ χυμῶν add. Ko

ναις δώσομεν, ἐφ' ὧν ἅμα τε τὸ πλήθος ἐστὶ τῶν ὠμῶν χυμῶν ἔνδον ἢ τε κοπώδης αἰσθησις ἔξω. τοὺς δ' ἐμέτους παραιτησόμεθα δεδιότες, ὡς εἴρηται, τῶν ἔξωθεν τι περιττωμάτων εἴσω παλινδρομηῆσαι. Πραξαγόρας δὲ καὶ Φιλότιμος εὐλόγως ἔμετον ἐπὶ τοιούτῳ μελικράτῳ παραλαμβάνουσιν, ὠμοὺς χυμοὺς θεραπεύοντες ἄνευ κοπώδους διαθέσεως.

7. Ἄλλ' ἐπειδὴ καὶ περὶ τούτων αὐτάρκως εἴρηται, καιρὸς ἂν εἴη τῆς ὑπολοίπου διαθέσεως ὑπάρξασθαι, καθ' ἣν³⁷ αἱ μὲν φλέβες αἷμα χρηστὸν περιέχουσι σύμμετρον τῇ ποσότητι, τὸ δὲ τῶν ὠμῶν πλήθος εἰς τὴν ἔξω ἀνελήφθη. γίνεται δὲ ταῦτα κατ' ἐκείνας μάλιστα τὰς περιστάσεις τῶν πραγμάτων, ἐν αἷς ἦτοι θάλπος ἢ γυμνάσιον ἄμετρον ἐκ τῶν φλεβῶν ἀναρπάξει τοὺς ὠμοὺς χυμοὺς εἰς τὰς σάρκας οὐδεμίαν ἐν τῷ παρόντι πρόσφατον ἀπεψίαν ἠπεπτηκότων, ὡς, εἴ γε καὶ τοῦτο συνέλθοι, σύμπαν οὕτως ἐμπλησθήσεται τῶν ὠμῶν χυμῶν τὸ σῶμα. καὶ λεχθήσεται μὲν ὀλίγον ὕστερον, ὡς χρὴ τὴν τοιαύτην ἐπανορθοῦσθαι διάθεσιν. ἀλλ' ἐπεὶ τὸ σύνθετον ὕστερόν τέ ἐστὶ καὶ δεύτερον τῶν ἀπλῶν, ἄμεινον ἂν εἴη περὶ τῆς ὑπολοίπου διαθέσεως ἀπλῆς διελθόντας ἐπὶ τὰς συνθέτους αὐθις ἰέναι. καίτοι γε οὐδὲ ταύτην ἀκριβῶς ἀπλῆν χρὴ νομίζειν, ἀλλ' ὡς ἐν αὐτομάτοις κόποις ἀπλῆν. ὑποκειμένης γὰρ τῆς τὸν κόπον ἐργαζομένης διαθέσεως, ἐπιμίγνυμεν αὐτῇ τὰς ἄλλας. ἀλλ' ὅτι καὶ κατὰ

first day, but on the days following, in the case of those in whom there is an excess of unconcocted humors within or a fatigue sensation without. However, we shall reject the use of vomiting, fearing, as I said, lest some of the superfluities that are external run back inward. Paraxagoras and Philotimus reasonably employed vomiting caused by such a melikraton preparation, when treating unconcocted humors apart from a fatigue condition.

7. But since enough has been said about these matters, it would be an appropriate time to make a start on the remaining condition, in which the veins contain useful blood in a moderate amount, while the excess of unconcocted humors has been taken into the system. This arises particularly in those states of affairs in which either heat or excessive exercise carries off the unconcocted humors from the veins to the flesh and there is, at the time, no new failure of concoction (*apepsia*) of those humors that are semiconcocted, as, if this should also occur together, the whole body would be filled with unconcocted humors in this way. I shall speak a little later about how such a condition must be corrected. But since the combination is later and secondary to the simple components, it would be better to go over the remaining condition that is simple and come in turn to the compound ones. And yet this condition must not be thought of as simple in an absolute sense, but as simple among the spontaneous fatigues. For the underlying condition creating the fatigue has other [conditions] mixed with itself. But because in the mixing also,

³⁷ post καθ' ἣν: αἱ μὲν φλέβες αἷμα χρηστὸν περιέχουσι σύμμετρον τῇ ποσότητι, τὸ δὲ Κο; ἅμα τῇ ἐλκώδει διαθέσει καὶ τὸ Κu

τὴν μίξιν ἐνίοτε μὲν ἀπλῆ καὶ μία μίγνυται διάθεσις, ἐνίοτε δὲ σύνθετος, οὕτως ὠνομάσαμεν ἀπλῆν, ὑπὲρ ἧς ὁ λόγος ἐνέστηκεν.

ἔστω δὲ τὸ πλῆθος τῶν ὠμῶν χυμῶν ἐν τοῖς στερεοῖς τοῦ ζώου μέρεσιν, οὐκ ἐν ταῖς φλεβίσι, ἅμα τῷ καὶ τὴν ἐλκώδη τοῦ κόπου διάθεσιν ἐν τοῖς αὐτοῖς ὑπάρχειν· ἢ γὰρ ἐξ ἀρχῆς ὑπόθεσις τοῦ λόγου τοιαύτη τις ἦν. ὡς οὖν ἐφ' οἷς κατὰ τὰς φλέβας ἦν, καὶ μάλιστα τὰς πρώτας, τὸ πλῆθος τῶν ὠμῶν ἐφυλαττόμεθα τὰ θερμαίνοντα, δεδιότες εἰς τὴν ἕξιν ἀναληφθῆναι τοὺς τοιούτους χυμούς, οὕτω νῦν οὐδὲν χρὴ δεδιέναι. δοτέον οὖν αὐτοῖς, ὅσα μέχρι τοῦ δέρματος ἐκτείνει τὴν θερμότητα, καὶ ἀνατριπτέον ἐπὶ πλεονελαίῳ χαλαστικῷ, καὶ μάλιστα μετὰ τὸν ὕπνον ἕωθεν ἐξαναστάντας· ἢ γὰρ τοιαύτη τρίψις ἅμα τε πέττει τοὺς ὠμούς χυμούς καὶ τρέφει τὸν ὄγκον τοῦ σώματος.³⁸ χρὴ δ' ἡσυχάσαι μετὰ ταῦτ' ἄχρι πλείονος, εἰ μέλλοι καλῶς γενήσεσθαι ταῦτα.

πολὺ δ' ἂν ἐνεργέστερον ἀνύσειεν, οὗ χάριν γίνεται, βραχέα τε σιτία προσεινηγεμένου κατὰ τὴν προτεραίαν τοῦ ἀνθρώπου καὶ μηδὲν ἐπὶ τῷ δείπνῳ πίνειν πλὴν οἴνου κίρρου καὶ λεπτοῦ. καὶ γυμνάζεσθαι δ' οὐ συμφέρει³⁹ συνεχῶς καὶ σφοδρῶς αὐτίκα, μὴ πη λάθωμεν ἀπέπτων ἔτι χυμῶν ἀναγκάζοντες τρέφεσθαι τὸ σῶμα. βέλτιον οὖν ἕωθεν ἐπὶ πλεονελαίῳ τε καὶ μετὰ ταῦτα ἡσυχάσαι περιπατῆσαί τε τὰ μέτρια καὶ αὐθις χρήσασθαι τρίψει πολλῇ καὶ λουτρῷ συμ-

sometimes a simple and single condition is mixed and sometimes a compound one, the discussion is set up in this way about what we called simple.

Let there be an excess of unconcocted humors in the solid parts of the organism, and not in the veins; together with this the wound-like condition of fatigue also exists in these parts. For the initial hypothesis of the discussion was just this. Therefore, as the excess of unconcocted humors was in addition to those in the veins, and particularly the primary veins, we avoided heating agents, fearing lest such humors would be taken up again into the system, now there is no necessity to be fearful. Therefore, we must give them those things that extend the heat even as far as the skin, and we must massage more with oil that is relaxing, particularly in the early morning when they rise after sleep. Such massage simultaneously concocts the unconcocted humors and nourishes the mass of the body. After this, they ought to rest for a long time, if these things are going to turn out well.

However, it would accomplish this much more effectively and would be for the patient's sake, if he were to be offered little in the way of food on the previous day and to drink nothing after dinner apart from tawny, thin wine. It would be of benefit not to exercise him continuously and violently straightway, lest we unwittingly force the body to be nourished by still unconcocted humors. Therefore, it would be better to massage him more early in the morning, and after this, for him to rest and walk around moderately, and again to use a lot of massage and a moderately

³⁸ τοῦ σώματος Κο; τοῦ ζώου Κυ
καὶ γυμνάζεσθαι δ' οὐ συμφέρει Κο; μὴ γυμνάζεσθαι Κυ

³⁹ ante συνεχῶς:

μέτρως θερμῶ καὶ τροφαῖς εὐχύμοις τε ἅμα καὶ μὴ γλίσχροις. εἴρηται δ' ἔμπροσθεν αὐτῶν ἡ ὕλη, πιτάνην ἐπαινούτων ἡμῶν εἰς τὰ τοιαῦτα καὶ τοὺς πετραίους ἰχθύας καὶ τῶν ὀρνίθων τοὺς ὀρείους. ἐπιτήδεια δὲ καὶ τὰ λεπτόνοντα τῶν ἐδεσμάτων, ὑπὲρ ὧν ἐν ἰδίᾳ γέγραπται βιβλίον.

282K εὐλαβεῖσθαι δὲ χρὴ μηδέν, εἰ καὶ θερμαῖνοι σφοδρῶς, ἀλλὰ καὶ τὸ διὰ τῆς καλαμίνθης φάρμακον ἀδεῶς λαμβάνειν. ἔστι δὲ ἡ σύνθεσις αὐτοῦ τοιαύτη. καλαμίνθης καὶ γλήχωνος καὶ πετροσελίνου καὶ σεσέλεως ἐκάστου δραχμὰς δώδεκα, σελίνου σπέρματος, κορύμβων θύμου ἀνὰ δραχμὰς τέτταρας ἐκάτερον, καὶ πρὸς τούτοις ἔτι λιβυστικοῦ μὲν δραχμὰς ἑκκαίδεκα, πεπέρεως δὲ ὀκτὼ καὶ τετταράκοντα. πεπέρεως μὲν οὖν ἔστω τὸ βαρύσταθμον ὀνομαζόμενον, σέσελι δὲ τὸ Μασσαλεωτικόν, πετροσέλινον δὲ τὸ Μακεδονικόν, καὶ τούτου μάλιστα τὸ Ἀστρεωτικόν, καλαμίνθη δὲ καὶ γλήχων μάλιστα μὲν ἐκ Κρήτης, εἰ δὲ μή, ἐκ χωρίων ὑψηλῶν τε καὶ ξηρῶν, ὡσαύτως δὲ καὶ τὰ θύμα. τὰ μὲν οὖν σκληρὰ καὶ ξυλώδη τῶν βοτανῶν ἀπορρίπτειν, λαμβάνειν δ' εἰς τὸ φάρμακον τὰ φύλλα, καὶ τούτων μάλιστα τὰ λεπτότατά τε καὶ εὐθαλέστατα καὶ ἐπ' ἄκραις ταῖς βοτάναις, καὶ πρὸς αὐτοῖς ἄνθη τε καὶ τὰ σὺν αὐτοῖς λεπτότατα κάρφη. κόπτειν δ' ἅμα σύμπαντα καὶ διαττᾶν χρὴ διὰ λεπτότατου κοσκίνου· μάλιστα γὰρ εἰς ὅλην τοῦ ζώου τὴν ἔξιν τὰ τοιαῦτα τῶν φαρμάκων ἀναδίδονται, καθάπερ γε τὰ παχύτατα κατὰ τὴν γαστέρα μένει, τοῖς στενοῖς

hot bath along with *euchymous* nutriments that are at the same time not viscous. We spoke of the material of these before, when we recommended for such purposes ptisane, fish that live among the rocks, and birds from the mountains. Thinning foods are also suitable—I have written one book about these specifically.²¹

There is no need to be cautious, even if something heats strongly; the medication made from catmint can also be taken without fear. The composition of this is as follows: Twelve drachms each of catmint, pennyroyal, parsley and hartwort; four drachms each of the seed of parsley and the fruit of thyme; and in addition to these, sixteen drachms of libustikon and forty-eight drachms of pepper. Let the pepper be what is called heavy pepper, the hartwort, Massaleotic, the parsley, Macedonian, and of this especially the Astreotic, and the catmint and pennyroyal particularly from Crete, but if not, from high and dry places, and likewise with the thyme. Throw away the hard and woody parts of the herbs, taking for the medication the leaves, and of these, particularly the thinnest and most thriving, and from the tips of the plants; in addition to those, take the flowers, and with these the thinnest twigs. It is necessary to pound and sieve all these at the same time through a very fine sieve, for such medications particularly are distributed into the whole system of the organism, just as the thickest remain in fact in the stomach,

²¹ *Vict. Att.*, CMG V.4.2 (English trans., Singer, *Galen: Selected Works*).

283K στόμασι τῶν φλεβῶν ἐναρμοσθῆναι μὴ δυνάμενα. διὰ τοῦτο καὶ τὸ Διοσπολιτικὸν ὀνομαζόμενον φάρμακον, οὗ κατὰ τὸν ἐνεστῶτα λόγον ἔμπροσθεν ἐμνημονεύσαμεν, παχυμερέστερον εἰώθαμεν σκευάζειν, ἐπειδὴν ὑπαχθῆναι τὴν γαστέρα διὰ τούτου δεήσῃ. καί τις οὐκ εἰδὼς τοῦτο, λεπτότατόν τε καὶ χροωδέστατον ἐργασάμενος αὐτό, τὴν μὲν ὑποχώρησιν οὐδέν τι προὔτρεψεν, οὐρα δ' ἐκίνησεν οὐκ ὀλίγα· καὶ ἡμῖν ἐκοινοῦτο θαυμάζων τε ἅμα καὶ ζητῶν τοῦ γεγονότος τὴν ἀληθινὴν αἰτίαν. αὐτὸς μὲν γὰρ ἔφη νομίζειν ἰδιοσυγκρισίαν τινὰ τοῦ ἀνθρώπου καὶ γὰρ ἐκάλεσεν οὕτως αἰτίαν εἶναι τοῦ συμβεβηκότος. ὡς δ' ἔμαθεν, ὅτι τὸ τῆς συνθέσεως εἶδος αἴτιον ἴδιον ὑπῆρχεν, αὐθις ἐτέρως σκευάσας ἔτυχεν τοῦ σκοποῦ. τούτου μὲν οὖν τοῦ παραγγέλματος ἐπὶ πάσης συνθέσεως φαρμάκων ἄμεινον μεμνήσθαι. τὸ δὲ προκείμενον ἐν τῷ παρόντι λόγῳ φάρμακον ἀκριβῶς ἅπαντα λεπτὰ λαμβανέτω χάριν τοῦ ῥαδίως ἀναδίδοσθαί τε καὶ φέρεσθαι πάντη. μιγνύσθω δὲ τοῖς οὕτω παρεσκευασμένοις μέλι τὸ κάλλιστον, ἀκριβῶς ἀπηφρισμένον. ἢ δὲ 284K χρήσις αὐτοῦ γινέσθω μετὰ τὴν ἐωθινὴν ἀνάτριψιν πρὸ τῶν γυμνασίων τε καὶ λουτρῶν.

ἔξεστι δὲ καὶ χωρὶς τοῦ μίξαι τὸ μέλι ξηρὸν τὸ φάρμακον φυλάξαντα χρῆσθαι παραπλησίως ἀλσι τοῖς εἰς τὰ ὄψα παρεσκευασμένοις. ἔξεστι δὲ καὶ εἰς πτισάνην ἐμβάλλειν ἢ ὄξος ἢ τι τοιοῦτον ἀντὶ πέπεως. οὐ μόνον δὲ τὸ ξηρὸν ἀλῶν δίκην ἐστὶ πολὺχρηστον, ἀλλὰ καὶ τὸ σὺν τῷ μέλιτι. καὶ γὰρ καὶ

since they cannot be adapted to the narrow openings of the veins. And because of this too, I am accustomed to prepare the thicker-particled form of the medication called Diospoliticum, which I mentioned earlier in the present discussion, whenever there is need for the bowels to be opened by it. Someone who didn't know this made it very thin and like very fine powder, so it didn't stimulate defecation, although it did promote urination to no small extent. He imparted this to me, since he was amazed and was seeking the real cause of this occurring. He himself said he thought it was some idiosyncrasy of the patient, and this is what he called it, taking this to be cause of what had happened. However, when he learned that the specific cause was the manner of compounding, he prepared it again in a different way and gained his objective. It is better to keep this particular example in mind in the case of every compounding of medications. Let the medication proposed in the present discussion consist of all the things in a very fine state for the sake of easy distribution and being carried everywhere. Mix with the things prepared in this way, the best honey entirely despumated. The use of this medication should be after the early morning massage and before exercises and bathing. 284K

It is also possible, without mixing the honey to keep the medication dry and use it like salts prepared for cooked meats. It is also possible to put it into ptisane or vinegar, or some such thing instead of pepper. It is much used—and not only that which is dry after the manner of salts, but also that with honey. For truly, this can be mixed with

τοῦτο δυνατὸν ἀναμιγνύντα τοῖς ἐδέσμασιν ἀποπει-
 ρᾶσθαι⁴⁰ μετὰ τινος ἐξ αὐτῶν, ὡς ἡδὺ τῷ χρωμένῳ
 φαίνεσθαι. μετὰ μέντοι τὴν τροφήν μηδέποτε λαμβά-
 νειν μήτε τοῦτο μήτ' ἄλλο τι φάρμακον ἀνάδοσιν
 ἰσχυροτέραν ἐργαζόμενον. οὐ γὰρ ἀναδίδοσθαι τηρι-
 καῦτα βέλτιον, ἀλλὰ πέττεσθαι τοῖς ληφθείσιν. ἄμει-
 νον οὖν ἐστὶ τοῖς ἐπικουρίας τινὸς ἕξωθεν εἰς πέψιν
 δεομένοις ἐν τούτῳ τῷ καιρῷ δίδοσθαι φάρμακον, οὗ
 τὴν σύνθεσιν ἔμπροσθεν ἐδήλωσα. λέγω δὲ τὸ διὰ
 τριῶν πεπέρεων ἀπλοῦν. καὶ αὐτὸ δὲ τὸ πέπερι μόνον
 ἐπιπαττόμενον τῷ ποτῷ χρηστὸν εἰς τὰ παρόντα, καὶ
 285K εἶπερ ἄρα μείζων τις εἴη χρεία, καὶ τὸ διὰ χυλοῦ τῶν
 κυδωνίων μήλων, οὗ τὴν σύνθεσιν ἅπασαν ἐρῶ καὶ
 τὴν δύναμιν ἀκριβῶς ἐξηγήσομαι κατὰ τὸν ἐξῆς λό-
 γον. εἰς δὲ τὸ παρακείμενον νῦν ἀπάντων ἄριστον
 φάρμακον ὧν ἐγὼ γινώσκω τὸ διὰ τῆς καλαμίνθης
 ἐστί. καὶ γὰρ λεπτύνει τὰ παχέα καὶ γλίσχρα καὶ
 διαφορεῖ καὶ οὕρησιν κινεῖ καὶ καταμήνια γυναιξίν.
 ἔστι δὲ καὶ ἡδιστον ἐν τῇ χρήσει, καὶ μάλισθ' ὅταν
 λάβη πλείονος τοῦ μέλιτος. ἐψείσθαι δ' ἐπὶ πλέον
 αὐτὸ χρὴ τηρικαῦτα.

τοῖς δ' ἀπεστραμμένοις τὰ γλυκέα καὶ φεύγουσι τὸ
 μέλι καὶ γὰρ καὶ τοιαῦταί τινες εὐρίσκονται φύσεις
 ὀλίγον ἐν τῇ συνθέσει τὸ μέλι μιγνύσθω. βέλτιον δὲ
 καὶ μᾶλλον ἐψείσθαι τούτοις· καὶ γὰρ ἦττον οὕτως
 ἐστὶ γλυκὺ καὶ ἦττον ἀνατρέπει τὸν στόμαχον ἐπὶ
 τῶν ἀπεστραμμένων φύσει τὸ μέλι. τὰ μὲν δὴ τοιαῦτα
 πάντα καὶ αὐτὸς τις ἐπινοεῖτω πρὸ τῆς ἡμετέρας

foods, trying it out with one of these that seems sweet to
 the person using it. But never take it after food—neither
 this nor any other medication which brings about a stron-
 ger distribution. Under these circumstances, it is better
 for the things taken not to be distributed but to be con-
 cocted. Therefore, it is better for those needing some ex-
 ternal assistance toward concoction to give at this time a
 medication, the compounding of which I showed previ-
 ously. I speak of the simple medication made with three
 peppers. Also, pepper itself alone dispersed in a drink is
 useful in the present circumstances, and if there were to
 be greater use of it, that made with the juice of quinces. I
 shall speak about the whole composition of this and ex-
 plain the potency precisely in the discussion that follows.²²
 However, for those matters now under consideration, the
 best medication of all those I know is that made with
 catmint, for it thins those things that are thick and viscous,
 disperses, and sets in motion the urine and the menstrual
 flow in women. It is also very pleasant to use, and espe-
 cially when it contains more honey. Under these circum-
 stances it is necessary to boil it more.

However, for those who are averse to sweet things and
 avoid honey—for such natures are found—mix only a little
 honey in the compounding. For them, it is also better to
 boil it more. In this way it is less sweet and upsets the
 esophagus less in those who are by nature averse to honey.
 Someone might think of all such things for himself, prior

²² This is in fact deferred to the final chapter of the treatise—
 Book 6, chap. 13.

⁴⁰ ἀποπειρᾶσθαι Κο; ἀποχεῖσθαι Κυ

286K συμβουλήs, ἓνα κοινὸν ἐν ἅπασι διαφυλάττων τὸν σκοπὸν, ἡδιστον γενέσθαι τὸ φάρμακον, εἰς ὅσον ἐγχωρεῖ, φυλαττομένηs αὐτοῦ τῆs εἰς τὴν ὠφέλειαν δυνάμεωs· οὐ γὰρ δὴ ταύτην γ' ἐκλῦσαι κελεύω τῆs ἡδονῆs στοχασάμενον. ὅταν οὖν ἐπὶ δύο πού τὰs πρώταs ἡμέραs ἢ τρεῖs οὕτωs ἢ παρεσκευασμένος ὁ ἄνθρωποs, οὐδὲν ἂν εἴη χεῖρον αὐτὸν καὶ γυμνάσασθαι διὰ τῶν συνήθων αὐτῶ, ἀποπειρώμενον εὐχροίασ τε καὶ τῶν ἄλλων σημείων, ἃ κατὰ τὸν ἔμπροσθεν εἴρηται λόγον· εἰ μὲν γὰρ ἅπαντά σοι χρηστὰ φαίνοιτο, τελέωs γυμνάζειν αὐτόν· εἰ δὲ μή, προκαταπαύειν τε τοῦ συμμέτρου καὶ τοῖs προειρημένοιs διαιτήμασί τε καὶ φαρμάκοιs φυλάξαντα κατ' ἐκείνην τὴν ἡμέραν αὐθιs ἐπιχειρεῖν τῶ γυμνασίῳ κατὰ τὴν ὑστεραίαν ἐπὶ τοῖs αὐτοῖs σημείοιs τε καὶ σκοποῖs, ἵν', ὅταν ἤδη πάντα ἄμεμπτα φαίνηται, πρὸς τὴν αὐτὴν δίαιταν ἐπανάγηs αὐτόν, ἢ καὶ πρὶν ἀλῶναι τῶ κοπῶδει συμπτώματι συνήθηs ἦν.

287K 8. Ἐπεὶ δὲ καὶ τῶ διὰ τῆs ἐλάτης ἀκόπῳ φαρμάκῳ χρῆσθαι συμφέρει τοῖs κατὰ τὴν σάρκα τε καὶ τὸν ὄγκον ἅπαντα τοῦ ζώου χυμοὺs ἡθροικόσιν, ἧτοι πεφθῆναι δεομένους ἢ διαφορηθῆναι, οὐδὲν ἂν εἴη χεῖρον εἰπεῖν τι καὶ περὶ τῆs ἐκείνου συνθέσεωs. ἔστι μὲν οὖν ὠραιότατον αὐτῆs τὸ σπέρμα περὶ τὴν ἐπιτολήν τοῦ ἀρκτούρου, ὅστις καιρὸs ἐν Ῥώμῃ μὲν ὁ καλούμενοs μῆν ἐστι Σεπτέμβριοs, ἐν Περγάμῳ δὲ παρ' ἡμῖν Ὑπερβερεταῖοs, Ἀθήνησι δὲ μυστήρια. ἐλαίῳ δ' ἐμβάλλειν αὐτὸ χρή, καθ' ἣν ἂν ἐθέληs ὥραν

to my advising him, preserving one common objective in all of them—the medication should be as pleasant as possible while preserving its capacity to benefit. Certainly, I do not enjoin the losing of this in striving for pleasantness. 286K Therefore, whenever the person is prepared in this way for the first two or three days, it would now be no bad thing to also exercise him in the ways customary to him, being guided by a good complexion and the other signs which were described in the earlier discussion. If all these things seem good to you, exercise him fully. If not, get him to stop short of a moderate amount and keep him on the stated foods and medications on that day and try the exercise again on the following day, according to the same signs and objectives, so that whenever all things already seem to be without fault, you may return him to the same regimen which was customary before he was seized with the fatigue symptom.

8. Since it also helps to use the refreshing medication made from silver fir for those who have collected humors in the flesh and the whole mass of the organism, which need to be either concocted or dispersed, it would be no bad thing to speak about the compounding of that medication. Its seed is most fully ripe around the rising of Arcturus. In Rome, this time is called September; in Pergamum, it is called Hyperberetaeus, and in Athens, Mysteria.²³ You must put this seed into oil, at whatever

²³ Hyperberetaeus was the twelfth month in the Macedonian calendar.

τοῦ ἔτους· οὐδεμία γὰρ ὅσον ἐπὶ τούτῳ διαφορά. βέλ-
τιον δέ, εἰ καὶ θλάσας ἐμβάλλοις αὐτό· θάπτου γὰρ
ἂν οὕτω τὸ ἔλαιον ἐμπλήσει τῆς οἰκείας ποιότητος
καὶ δυνάμεως. εἴη δ' ἂν ὁ χρόνος οὗτος ἐλάχιστος
ἡμερῶν τετταράκοντα· πολλάκις δ' ἡμεῖς τρεῖς καὶ
τέτταρας καὶ πολὺ πλείους μῆνας ἐπετρέψαμεν ἐμβρα-
χῆναι, κάπειθ' οὕτως⁴¹ λαβόντες, εἶτα τὴν ὑγρότητα
τοῦ σπέρματος ἐκθλίψαντες αὐτὸ μὲν ἀπερρίψαμεν τὸ
σπέρμα, τὸ δ' ὑγρὸν ὀθονίῳ διηθήσαμεν. ἔστω δὲ τὸ
μὲν ἔλαιον ἓν τι τῶν χαλαστικῶν, οἷόνπερ ἐν Ἰταλία
τὸ Σαβίνον, ἐμβαλλέσθω δ' εἰς τὰς εἴκοσι καὶ πέντε
κοτύλας αὐτοῦ μόδιος Ἰταλικὸς τοῦ σπέρματος τῆς
ἐλάτης, οὐσῶν δὲ καὶ τῶν κοτυλῶν Ἰταλικῶν, ἃς δὴ
καὶ λίτρας ὀνομάζουσι. βραχέντος δ' ἐν αὐτῷ τοῦ
σπέρματος, πολλῶ δηλονότι μείον γίνεται. σύμμε-
τρον δ' οὖν ἐστὶ τῷ καταλειφθέντι κηροῦ μὲν λίτρας
288K ἐμβαλεῖν τέσσαρας, ῥητίνης δὲ ἐλατίνης τὸ τρίτον
τῆς λίτρας μέρος, αἴπερ εἰσὶν ὀλκῆς δραχμαὶ δύο καὶ
τριάκοντα. τὸ δ' ἴσον ἐμβαλλέσθω καὶ τῆς στροβι-
λίνης ῥητίνης. εἰ δ' αὐταὶ μὴ παρέιεν, ἀντ' αὐτῶν τῆ
τερμινθίνῃ χρῆσθαι. ἐψεῖν δ' ἄμεινον ἐπ' ἀγγείου δι-
πλοῦ ἢ πάντως γ' ἐπὶ πυρὸς ἀσθενοῦς, οἷόν ἐστι τὸ
τῶν ἀνθράκων· ἔστωσαν δὲ μηδ' οὗτοι πολλοί. τοῦτο
τὸ φάρμακον ἐπιτηδειότατόν ἐστιν εἰς ἅπαντας κό-
πους αὐτομάτους τε καὶ οὐκ αὐτομάτους.

ἀγαθὸν δὲ καὶ τὸ διὰ τῆς αἰγείρου τῶν ἀνθῶν συν-
τιθέμενον. ἔστι δὲ καὶ τοῦτο τοιόνδε. τῶν ἀνθῶν τῆς
αἰγείρου μεμυκῶτων ἔτι μόδιος Ἰταλικὸς ἐμβάλλεται

season of the year you wish, for it makes no difference in
regard to this. It is better if you put this in after crushing
it, for in this way you will fill the oil quicker with the spe-
cific quality and potency. This time [in the oil] should be
at least forty days; often I shall let it soak for three, or four,
or many more months, and then, having treated it in this
way, after squeezing the moisture from the seed, I next
discard the seed itself and filter the fluid through fine
linen. The oil should be one of those that are relaxing, like
the Sabine in Italy. Into twenty-five kotyles of this, put in
an Italian *modius* of the seed of the silver fir, these being
the Italian kotyles which they also call liters.²⁴ When the
seed is soaked in this, it obviously becomes much less. It
is then commensurate to put into what is left remaining
four liters of wax and a third part of a liter of the pine resin. 288K
These amount to thirty-two drachms. Put in also an equal
amount of the pine resin. If these are not available, use
terebinth instead of them. It is better to boil in a double
vessel, or at all events in a weak fire, like one consisting of
charcoals, but these should not be many. This medication
is very suitable for all fatigues, whether spontaneous or
nonspontaneous.

Good also is the medication compounded from the
blossoms of the black poplar. This is prepared as follows:
Add an Italian *modius* of the still-closed blossoms of the

²⁴ As a liquid measure a *kotyle* was 0.475 pint or 270 millili-
ters. A *modius* was equivalent to a peck or approximately 9 liters.

⁴¹ *post κάπειθ' οὕτως: add. λαβόντες, εἶτα τὴν ὑγρότητα
τοῦ σπέρματος ἐκθλίψαντες αὐτὸ μὲν Κο*

λίτραις ἐλαίου Σαβίνου πεντεκαίδεκα ἢ εἴκοσι. μὴ παρόντος δὲ τοῦ Σαβίνου, τῶν ὁμοίων τι παρασκευαστέον ἐλαίων. εἴρηται δ' ἐν τοῖς ἔμπροσθεν, ὡς ὅμοια πάντ' ἐστὶ τὰ λεπτομερῆ θ' ἅμα καὶ μὴ στύφοντα. κάλλιον δ', εἰ καὶ μετρίως θλασθὲν ἐμβληθείη τῷ ἐλαίῳ τὸ ἄνθος. εἰ δὲ καθ' ἐκάστην ἡμέραν⁴² διακινούτο, καὶ μάλισθ' ὅταν ἥλιος ἦ θερμός, ἐν οἰκῆματί τε θερμῷ τὴν ἀπόθεσιν ἴσχοι, θάπτόν τε ἂν οὕτω καὶ μᾶλλον ἢ τῆς αἰγείρου ποιότης τε καὶ δύναμις εἰς τοῦλαιον μετέλθοι, ὥστε σε μετὰ δύο πού καὶ τρεῖς μῆνας δύνασθαι ἐκθλίψαντα τὸ ἄνθος αὐτὸ μὲν ἀπορῶσαι, τὸ δ' ἐλαιον ἔχει ἀδήκτως διαφορητικόν, οὐδέν τι μείον τοῦ ἐλατίνου. καὶ μέντοι καὶ κηρὸν καὶ ῥητίνην ἔξεστιν ἐμβάλλειν αὐτῷ τοσοῦτον, ὅσον ἀρτίως ἐν τῇ συνθέσει τοῦ διὰ τῆς ἐλάτης εἴρηται φαρμάκου. παχύτερον δ' εἴ ποτε⁴³ γένοιτο τὸ ἐκθλιβέν ὑγρὸν, ἱκανὸν οὐ μόνον τὸ τέταρτον μέρος, ἀλλὰ καὶ τὸ πέμπτον μίγνυσθαι κηροῦ. ἐγὼ δ' οἶδά ποτε καὶ τὸ ἔκτον ἐμβάλων, παχυτέρου τε τοῦ ἐλαίου γινομένου καὶ τοῦ μέλλοντος αὐτῷ χρῆσθαι χαίροντος ὑγροτέρῳ φαρμάκῳ.

τινὲς δ', οὐκ ἀναμένοντες ἐν χρόνῳ πλείονι διαβρέχεσθαι τὰ τε ἄνθη καὶ τὰ σπέρματα, τοῦτο μὲν ἐψείν αὐτὰ δέονται, τοῦτο δ' ὕδωρ ἐμβάλλειν, ὅσοι γε προμηθέστεροι, χάριν τοῦ μήτε φρυγῆναι τὰ ἐμβληθέντα μήτε κνισῶδες γενέσθαι τοῦλαιον. ὅσοι δ' ἔτι τούτων ἐπιμελέστεροι, τὴν ἔψησιν ἐν ἀγγείοις διπλοῖς ποιούνται· καλεῖται δ' οὕτως, ἐπειδὴν προῦποκειμένου λέβη-

black poplar into the fifteen or twenty liters of Sabine oil. If the Sabine is not available, you must prepare one of the similar oils. I said in what has gone before that similar oils are all those that are fine-particled and at the same time not astringent. It is better if the blossom is moderately crushed and soaked in the oil. If you also stir it thoroughly every day, and particularly whenever the sun is hot, and keep it stored in a house that is hot, the quality and potency of the black poplar transfers into the oil quicker and to a greater extent, so that after perhaps two or three months, having squeezed out the blossom itself, discard it, having the oil as a nonbiting diaphoretic no less than the pine. And indeed, it is possible to throw wax and resin into it, to an amount I stated just now in the composition of the medication made from the silver fir. If ever the squeezed-out fluid should become thicker, it is sufficient to mix in not only a fourth part but also a fifth part of wax. And I know also on one occasion, I put in a sixth part, when the oil became too thick and the person going to use it was pleased with a more liquid medication.

Some people, who do not remember to soak the blossoms and seeds for a long time, need on the one hand to boil them and on the other hand to put in water, while those who take more care in regard to this, neither roast the things put in nor let the oil become greasy. Some who are even more careful than they are, do the boiling in double vessels—it is described in this way when a pan

⁴² add. ἡμέραν Κο

⁴³ ante γένοιτο: παχύτερον δ' εἴ ποτε Κο; παχύ τι δ' εἶποτε

τος ὕδωρ ἔχοντος ζέον ἐνιστῆταιί τι τούτῳ μικρότερον⁴⁴ ἀγγεῖον, εἰς ὃ μέλλει τὸ ἔλαιον ἐγχεῖσθαι. τοῦτο μὲν γε καὶ ἡμεῖς ποιούμεν, ἀλλ' οὐκ εἰς τὴν τῶν σπερμάτων ἢ ἀνθῶν ἔψησιν οὐδὲν γὰρ ταύτης δεόμεθα πολυχρονίως αὐτὰ ἀποβρέχοντες, ἀλλ' ὅποταν διατήκειν ἐν τῷ λίπει⁴⁵ τὰς τε ῥητίνας καὶ τὸν κηρὸν ἐπιχειρῶμεν ἐν τῇ τοῦ φαρμάκου σκευασίᾳ. καταναγκαζόμενος δέ τις ἐν τάχει σκευάζειν αὐτὰ δεήσεταιί τε προαφεψεῖν, ὡς εἴρηται, καὶ ὕδατος ἐγχεῖν ἢ οἴνου χάριν τοῦ μὴ φρύγεσθαι. τὸ μὲν οὖν ὕδωρ εἰς τὰ παρόντα χρησιμώτερον, ὃ δ' οἶνος εἰς τε τὰς ποδαγρικὰς διαθέσεις καὶ ὅλως ἀρθρίτιδας. ἀρκεῖ δὲ μιγνύναι τοσοῦτον ὕδατος, ὡς ἐψώντων ἐκδαπανηθῆναι τὸ πᾶν. εἴη δ' ἂν οὕτως ὀλίγον, ὡς τετραπλάσιον ἢ πενταπλάσιον αὐτοῦ τὸ ἔλαιον ὑπάρχειν.

291K ταῦτά τε οὖν τὰ φάρμακα διαφορεῖ τοὺς κατὰ τὰς σάρκας τε καὶ τὸ δέρμα μὴ πάνυ παχεῖς μηδὲ γλίσχρους χυμούς, καὶ πρὸς τούτοις ἔτι τὸ ἐκ τοῦ χαμαιμήλου ἔλαιον, αὐτό τε καθ' ἑαυτὸ μόνον, ἐμβληθέντων τε κηροῦ καὶ ῥητίνης αὐτῷ. ἱκανὸν δὲ κἀνταῦθα τοῦ μὲν κηροῦ τὸ τέταρτον μέρος, τῆς δὲ ῥητίνης τὸ δωδέκατον. εἰ δὲ μηδενὸς τῶν εἰρημένων ἐλαίων εὐποροίης, ἀνήθινον ἔλαιον ποιήσασθαί σοι ῥᾶστον. ἔστι δὲ καὶ τοῦτο διαφορητικὸν φάρμακον, εἴτε καταμόνας τις εἴτε σὺν κηρῷ τε καὶ ῥητίνῃ χρῶτο. πειρᾶσθαι δ' ἐπ' ἀγγεῖου διπλοῦ τὸ ἀνήθινον ἐψεῖν. ἄμεινον δὲ καὶ χλωρὸν εἶναι τὸ ἀνήθινον. ὅταν δὲ ἢ τοῦτο, καθ' ὃν χρήζεις καιρόν, ὠραῖον ὑπάρχει.⁴⁶ τὸ σαμψύχινον δ'

containing boiling water is placed beforehand under a smaller vessel, into which the oil is going to be poured. In fact, I also do this, but not for the boiling of the seeds or blossoms, for we do not need this when they are soaked for a long time, but when we attempt to soften in the pan the resin and the wax in the preparation of the medication. If someone is forced to prepare these quickly, he will need to boil them beforehand, as I said, and pour in either water or wine, so as not to roast them. Water is more useful for the present purposes, whereas wine is more useful for the gouty conditions and for the arthritidies generally. It is sufficient to mix in as much water as will be altogether consumed in the boiling. And the water should be so small in amount that the oil is four or five times more than it.

These medications, then, disperse the humors that are not very thick or viscous in the flesh and skin, as does the oil made from chamomile in addition to these—either the oil itself alone or when wax and resin are put into it. And even here a fourth part of wax and a twelfth part of resin are sufficient. If you do not have a plentiful supply of any of the oils mentioned, dill oil is very easy for you to make. This is also a dispersing (diaphoretic) medication, either by itself alone or used with wax and resin. Attempt to boil the dill in a double vessel. It is also better for the dill to be green. Whenever it is, it should be seasonable at the

⁴⁴ ante ἀγγεῖον: ἐνιστῆταιί τι τούτῳ μικρότερον Ko; ἔνεστι τέ τι τούτῳ μικρὸν Ku
⁴⁵ λίπει Ko; λέβητι Ku
⁴⁶ ὑπάρχει Ko; ὑπαρχέτω Ku

ἔλαιον ἐπιτήδειον ἐν ὥρᾳ χειμερινῇ καὶ χωρίῳ ψυχρῷ καὶ καταστάσει παραπλησίᾳ. λαμβανέτω δὲ καὶ τοῦτο κηροῦ τε καὶ ῥητίνης, εἰ παραμένειν αὐτό γε βούλοιο τοῖς ἀλειφομένοις ὑπ' αὐτοῦ σώμασιν.

ὁμοίως δὲ καὶ τὴν λιβανωτίδα πόαν ἐναφεψεῖν ἐλαίῳ. καὶ εἰ μηδὲ ταύτην ἔχεις, ῥίζα τεύτλου λευκοῦ καὶ ἡ τοῦ σικύου δὲ τοῦ ἀγρίου ῥίζα καὶ ἡ τῆς ἀλθαίας καὶ ἡ τῆς βρυωνίας ἰκανῶς διαφοροῦσιν ἐναποτιθέμεναι καὶ αὗται τὴν ἑαυτῶν ποιότητά τε καὶ δύναμιν ἐλαίῳ τινὶ τῶν διαφορητικῶν. ἐς ὃ τι δ' ἂν ἐθέλης ἔλαιον οὕτω παρασκευασθὲν ἐμβάλλειν ἤτοι κηρὸν μόνον ἢ καὶ ῥητίνην τινὰ σὺν αὐτῷ, καλλίστην τε καὶ παραμόνιμον ἀλοιφήν κατασκευάσεις. ἀρκεῖ δὲ τοῦπίπαν ἐμβάλλειν τοῦ μὲν κηροῦ τὸ τέταρτον μέρος, τῆς δὲ ῥητίνης τὸ δωδέκατον. εἰ δὲ καὶ δύο ῥητίνας ἐμβάλλοις ἐλατίνην τε ἅμα καὶ στροβιλίνην ἢ καὶ τρίτην ἐπ' αὐταῖς τὴν τερμινθίνην ἢ καὶ μὴ παρουσῶν τούτων τὴν ὑγρὰν πιτυῖνην, ἔσται σοι καὶ οὕτω διαφορητικὸν τὸ φάρμακον. ἀπορῶν δὲ καὶ ταύτης ἤτοι τὴν ἐκ τῶν κεραμείων μιγνύναι πιτυῖνην ἢ τὴν φρυκτὴν ὀνομαζομένην, εἰδῶς⁴⁷ μὲν, ὡς ἀποδέουσιν αὗται τῶν προειρημένων, οὐ μὴν παντάπασιν εἰσιν ἀπόβλητοι.

9. Λοιπῆς δ' οὔσης κοπῶδους διαθέσεως, ἐν ἣ ἢ πρὸς τῷ τῆς αἰσθήσεως ἐλκῶδει πλῆθος ὠμῶν χυμῶν ἐν ὅλῳ τῷ σώματι περιέχεται, λεκτέον ἂν εἶη καὶ περὶ τῆσδε. χαλεπὸν δ' οὐκέτ' οὐδὲν ἐξευρεῖν αὐτῆς τὴν ἐπανόρθωσιν, ἀπὸ τῶν εἰρημένων ὀρμώμενον. εἰ γάρ,

time of use. And marjoram oil is suitable in the winter, in a cold place and in similar climatic conditions. Let this also contain wax and resin, if you wish it to remain a longer time on the bodies being anointed with it.

Similarly also, boil the frankincense herb in oil. And if you do not have this, the root of white beet, or wild cucumber, or marshmallow, or bryony disperse adequately when they produce their own quality and potency in one of the diaphoretic oils. And whatever oil, prepared in this way, you wish to put them into—whether wax alone or with some resin in it—you will prepare a very good and very reliable unguent. In general, it is enough to put in a fourth part of wax and a twelfth part of resin. If also you put in two resins (fir and pine) or a third in addition to these (terebinth) and also the liquid pine resin, you will also have a medication capable of dispersing. If these are not available, mix in either the pine resin from potters' workshops or even the so called *phrykte*.²⁵ I know these are inferior to those previously mentioned, but they are not altogether worthless.

9. There is a remaining fatigue condition, in which, in addition to the wound-like sensation, an excess of raw (unconcocted) humors is contained in the whole body. I must also speak about this. It is not difficult to discover its correction, starting from the things spoken of. When the

²⁵ Φρυκτὴ is described in LSJ as "a kind of resin"—see also Galen, *Comp. Med. Gen.*, Book 3, chap. 3, XIII.589.

⁴⁷ εἰδῶς Ko; οἶδα Ku

293K ὁπότε μὲν ἐν ταῖς πρώταις φλεψὶ τὸ πλῆθος τῶν ὤμων
 ἔστι, τέμνειν αὐτὰ καὶ πέττειν ἔφαμεν χρῆναι, φυλατ-
 τομένους τὴν εἰς τὸν ὄγκον ἀνάδοσιν, ὁπότε δ' ἐν ταῖς
 ἐσχάταις φλεψὶ καὶ κατὰ τὴν ἕξιν τοῦ ζώου, πέττειν
 τε ἄμα καὶ διαφορεῖν, ἄμφω μικτέον ἐστίν, ἐφ' ὧν καὶ
 ἄμφω συμβέβηκεν· εἰ μὲν ἰσοσθενῶς σοι δόξειεν ἐν-
 οχλεῖν, ὁμοτίμως ἀμφοτέρων στοχαζόμενον, εἰ δὲ εἴη
 θάτερον ἐπικρατέστερον, εἰς ἐκεῖνο μὲν ἀναφέρειν τῆς
 ὅλης θεραπείας τὸ κῦρος, ἀμελεῖν δὲ μηδὲ θατέρου
 τοῦ μικροτέρου. μιχθήσεται μὲν οὖν ἢ πρὸς ἀμφοτέρα
 θεραπεία κατὰ τόνδε τὸν τρόπον· οὐδὲν γὰρ χεῖρον
 ἐπὶ παραδειγμάτων ὀλίγον εἰπεῖν τι καὶ περὶ τοῦδε.

τῷ διὰ τῶν τριῶν πεπέρεων ἀπλῶ φαρμάκῳ χρῆ-
 σθαι συνεβούλευον, ἐφ' ὧν ὤμων χυμῶν πλῆθος ἐν
 ταῖς φλεψὶν ἔστι, καὶ μάλιστα ταῖς πρώταις. εἰ τοίνυν
 μὴ μόνον ἐν αὐταῖς, ἀλλ' ἐν πάσαις ταῖς φλεψὶν εἴη,
 ἤδη δὲ καὶ κατὰ τὰς σάρκας, ἐν ἀρχῇ μὲν τῆς ἐπι-
 μελείας τῷ διὰ τριῶν πεπέρεων φαρμάκῳ χρηστέον,
 ἔχοντι καὶ πετροσελίνου τοσοῦτον, ὅποσον ἂν εἶχεν
 ἀνίσου καὶ θύμου καὶ ζιγγιβέρεως· μετὰ δὲ τὴν πρῶ-
 τὴν ἡμέραν καὶ μᾶλλον ἔτι τὴν δευτέραν ἐπιμιγνύναι
 αὐτῷ τοῦ διὰ τῆς καλαμίνθης· εἴθ' ἐξῆς ἴσα μικτέον·
 294K εἴτ' ἐπὶ προήκοντι τῷ χρόνῳ πλεον τοῦ διὰ τῆς κα-
 λαμίνθης· εἴτ' ἐπὶ τελευτῇ καὶ μόνον. κατὰ δὲ τὸν
 αὐτὸν τρόπον ἐπὶ τῆς ἄλλης ἀπάσης διαίτης, ὅταν
 ἰσοκρατεῖς αἱ διαθέσεις ὑπάρχωσι, μιγνύναι μὲν αὐ-
 τῶν τῆς ἐπανορθώσεως τοὺς σκοπούς. ἀλλ' ἐν ἀρχῇ
 μὲν ἐπικρατεῖτω τὰ τῶν ἐν ταῖς πρώταις φλεψὶν

293K excess of unconcocted humors is in the primary veins, I
 said it is necessary to cut these and concoct them, guard-
 ing against the distribution to the mass of the body. When
 they are in the terminal veins and the system of the organ-
 ism, it is necessary to concoct and at the same time dis-
 perse them. Both must be mixed in those in whom both
 have occurred. If the disturbance seems to you equal in
 force, endeavor to determine if both are of equal rank. If
 either is more dominating, the main focus of the whole
 treatment is directed at that, while not neglecting the
 other lesser condition. Therefore, the treatment will be
 combined in regard to both in the following manner—for
 it is not a bad idea to say a little about this by way of an
 example.

I am in the habit of advising the use of a simple medi-
 cation made from the three peppers in the case of those
 in whom there is an excess of unconcocted humors in the
 veins, and particularly in the primary veins. However, if it
 is not only in these, but in all the veins, and already in the
 flesh, in the beginning of the care, you must use the medi-
 cation made from the three peppers, having as much
 parsley as it has anise, thyme and ginger. After the first day,
 and even more after the second day, mix with it the medi-
 cation made from catmint. Then, next in order, you must
 mix equal amounts, and then, as time goes on, more of the
 medication made with catmint, and then finally this alone.
 294K And the same method applies in the case of every other
 regimen. Whenever the conditions are of equal strength,
 combine the objectives of their correction. But in the be-
 ginning, let the remedies of humors in the primary veins

ιάματα, κατὰ δὲ τὴν τελευταίαν τὰ τῶν ἐν σαρκί, μεσοῦντος δὲ τοῦ χρόνου, μιγνύσθω κατ' ἴσον ἀμφοτέρω. ταῦτά τε οὖν εἴρηται μοι καὶ ἤδη δῆλον, ὅπως ἐπανορθοῦσθαι χρὴ τὰ κατὰ τοὺς χυμοὺς ἀμαρτήματα, πρὶν νοσήσαι τὸν ἄνθρωπον. ἐξ ὧν γὰρ ἐπὶ τῆς ἐλκώδους διαθέσεως εἴπομεν, ὅταν ἐπιμίγνυται τινὶ κακοχυμία, πάρεστι συλλογίσασθαι καὶ περὶ τῶν ἄλλων ἐκάστης, ἐπειδὴν μόνη ποτὲ συνιστῆται.

10. Περὶ μὲν οὖν τοῦ τε πρώτου γένους τῶν κόπων, ἐφ' ὧν νυγματώδης ἐστὶ κατὰ πάντα τοῦ ζώου τὸν ὄγκον⁴⁸ αἰσθησις, ὅσαι τ' ἄλλαι μοχθηρῶν χυμῶν ἐν τῷ σώματι γίνονται πλεονεξίαι, καθ' ἑαυτάς τε καὶ σὺν κόποις, σχεδὸν ἤδη λέλεκται πάντα. περὶ δὲ τοῦ τουώδους ὑφ' ἡμῶν κληθέντος κόπου λέγω ἐφεξῆς. ὅτι μὲν οὖν ὁ τοιοῦτος κόπος, ὅταν ἄνευ γυμνασίων συνιστῆται, πλήθος ἐνδείκνυται διατείνον τὰ στερεὰ μόρια τοῦ ζώου, καὶ ἄλλοις μὲν τισὶ τῶν εὐδοκίμων ἰατρῶν ἔδοξεν, οὐχ ἠκιστα δὲ καὶ τοῖς περὶ τὸν Ἐρασιστράτον. ὅτι δ', ὅταν αἵματος ἦ πλήθος, ἄριστον ἦτοι φλέβα τέμνειν ἢ ἀποσχάζειν τὰ σφυρά, λέλεκται μὲν πού καὶ πρόσθεν, ἀναληπτέον δ' ἔτι καὶ νῦν τὸν λόγον Ἐρασιστράτου χάριν, ὅς οὐτ' ἐπ' ἄλλης ὅλως οὐδεμιᾶς οὐδὲ ἐπὶ τῆσδε τῆς διαθέσεως ἐχρήσατο φλεβοτομία. ὅτι μὲν οὖν ἐπὶ τῆς ὑγιεινοτάτης φύσεως, ὑπὲρ ἧς ὁ λόγος ἐνέστηκεν, ἐγχωρεῖ καὶ κατ' ἄλλον τρόπον ἐκκενοῦν τὸ τοιοῦτον πλήθος, ἔμπροσθεν εἴρηται. κατὰ μὲν γὰρ τὰς μοχθηρὰς φύ-

prevail, and at the end, the remedies of those in the flesh. In the intervening time mix both equally. These things being said, it is, to me, already clear how one must correct the faults in the humors before the person becomes diseased. For from the things I said in the case of the wound-like condition, when it is mixed with some *kakochymia*, it is possible to also draw inferences about each of the others, when at anytime it exists alone.

10. I have already said almost everything about the first class of the fatigues in which there is a pricking sensation in the whole mass of the organism, and the many other excesses of bad humors that arise in the body, by themselves and with fatigues. I speak next about the tensive fatigue, as I call it. That there is such a fatigue, when it exists apart from exercise, indicates an excess stretching of the solid parts of the organism, and this seemed so to certain other, famous doctors, not least the followers of Erasistratus. On the other hand, that whenever there is an excess of blood, it is best to open veins or scarify the ankles, has also been said before somewhere. What must still be taken up now is the argument with regard to Erasistratus,²⁶ who did not use phlebotomy in any other condition at all or in this condition. Therefore, in the case of the healthiest nature, which is what the discussion is about, it is also possible to evacuate such an excess in another way, as I said before. For in relation to the bad na-

²⁶ Only fragments of Erasistratus' writings remain—see Garofalo, *Erasistrati Fragmenta*. The fragments on hygiene are 115–67. For this particular issue, see *Venae Sect.*, XI.281K ff.

⁴⁸ τὸν ὄγκον *add.* Ko

296K σεις,⁴⁹ ἐφ' ὧν τὸ περιττὸν κατὰ τὸν ἐγκέφαλον ἢ τὰ τῆς ἀναπνοῆς ὄργανα φέρεται, πηλίκον ἐστὶ κακὸν ἐτέρῳ τρόπῳ κενώσεως χρῆσθαι, παραλιπόντα φλεβοτομίαν, εἰρήσεται μὲν πού καὶ διὰ τῶν ἐξῆς ὑπομνημάτων, ὅταν ὑπὲρ τῶν μοχθηρῶν κατασκευῶν ὁ λόγος περαίνεται, λέλεκται δ' ἤδη καὶ τῷ Περὶ φλεβοτομίας πρὸς Ἐρασίστρατον.

ὅθεν οὐδὲν ἔτι⁵⁰ μηκύνειν δεῖ περὶ αὐτῶν, ἀλλ' ἐπὶ τὸν λοιπὸν καὶ τρίτον κόπον, ὅταν αὐτομάτως συνιστῆται, τὸν λόγον ἄγειν, ὃν ἐν τοῖς ἔμπροσθεν ἐκάλεσαμεν φλεγμονώδη διὰ τε τὸ τῆς ὀδύνης μέγεθος καὶ ὅτι μετὰ θερμότητος ἐπιφανοῦς συνίσταται συνέξαιρων εἰς ὄγκον τοὺς μῦς. οὗτος ὁ κόπος οὐδ' ὠρῶν ὀλίγων, μή τί γε δυοῖν ἢ τριῶν ἀνέχεται ἡμερῶν⁵¹ τῆς Ἐρασιστράτου βραδυτήτος, ἀλλ' αὐτίκα πυρετὸν ἐπιφέρει σφοδρότατον, ἣν μή τις φθάσας ἀποχέη τοῦ αἵματος. καὶ γὰρ οὖν θερμότατόν ἐστι τὸ τῶν τοιούτων κόπων αἷμα, καὶ πλείστης αὐτοῦ δέονται τῆς κενώσεως ἅπαντες σχεδὸν οἱ καταληφθέντες τῷ κόπῳ. καὶ οἱ πολλοὶ γ' αὐτῶν πυρέττουσι, καὶ ἀποχέης τοῦ αἵματος. ὅθεν οὔτε βλακεύειν οὔτε ὀλίγον ἀφαιρεῖν προσῆκεν, ἀλλὰ καὶ διὰ ταχέων ἐκκενοῦν καὶ μέχρι λειποθυμίας ἄγειν, εἰ μηδὲν ἕτερον κωλύει. κάλλιον δέ, εἰ ἐγχωρεῖ, δις ἀφελεῖν ἐν ἡμέρᾳ μιᾷ, τὸ μὲν πρότερον οὕτω κενοῦντας, ὡς μὴ λειποθυμήσαι τὸν

⁴⁹ φύσεις add. Κο ⁵⁰ ἔτι Κο; ἔστι Κυ

⁵¹ post ἡμερῶν: ἴσον ὄγκον (Κυ) om.

296K tures, in which the superfluity is carried to the brain or the organs of respiration, how great an evil it is to use another form of evacuation, leaving aside venesection, will be spoken of in the books to follow, when the discussion about bad constitutions is completed. However, I have already spoken of this in the work *On Phlebotomy, against Erasistratus*.²⁷

For which reason, nothing need still delay us about these things but to take the discussion to the remaining and third fatigue, whenever it exists spontaneously—the one which, in what has gone before, we called inflammation-like due to the magnitude of the pain and because it exists with evident heat while swelling the muscles into a mass. This fatigue is not of a few hours' duration, nor let me tell you, does it maintain the slow course over two or three day, as *per* Erasistratus, but immediately brings a very severe fever, unless someone anticipates this with a withdrawal of blood. For truly, the blood of such fatigues is very hot, and almost all of those seized by this fatigue need the evacuation of the greatest part of this. And many of them are febrile, even if you drain off the blood. For this reason, it is not appropriate to be tardy about this or to take a small amount, but to evacuate quickly and to bring them to the point of swooning (*leipothumia*), if there is nothing to contraindicate this. However, it is better if possible to remove blood twice in one day, on the first occasion evacuating in such a way as not to cause the patient

²⁷ *Venae Sect.*, XI.147–86K.

297K ἄνθρωπον, τὸ δὲ δεύτερον οὐδὲ τὴν λειποθυμίαν φοβείσθαι προσήκει. τῇ μὲν γὰρ προτέρα κενώσει καταλυθεὶς οὐκ ἂν ὑπομείναι τὴν δευτέραν· ἐν ταύτῃ δ' εἴ τι πάθοι τοιοῦτον, εὐανακόμιστος γίνεται. μὴ φλεβοτομηθέντες δὲ οἱ οὕτω διακείμενοι τύχης ἀγαθῆς εἰς τὸ σωθῆναι δέονται, καὶ οὐδὲ σώζονται, εἰ μὴ καθ' ἕτερόν τινα τρόπον, ἢ αἰμορραγήσαντες ἐκ ῥινῶν ἢ λάβρων ἰδρώτων αὐτοῖς ἐκχυθέντων.

ἐπισκοπεῖσθαι δὲ χρὴ μάλιστα μέλλοντας φλέβα τέμνειν, πότερον κατὰ θώρακα καὶ νῶτα καὶ ὀσφῦν ἐρείδουσιν αἱ τάσεις τε καὶ αἱ νυγματώδεις ὀδύνηαι ἢ κατὰ κεφαλὴν καὶ τράχηλον μᾶλλον. οὕτω μὲν γὰρ οὖν τὴν ὠμιαίαν διαιρήσεις, καὶ μᾶλλον εἰ πλήρους αἰσθάνονται καὶ θερμῆς τῆς κεφαλῆς, ἐκείνων δὲ τὴν ἔνδον· εἰ δ' ὅλον ὀμαλῶς ὑπὸ τοῦ κόπου τὸ σῶμα κατέχοιτο, τὴν μέσην ἀμφοῖν. εἰ μὲν οὖν ἐπὶ τῇ φλεβοτομίᾳ πυρέσσιν ἄρξαιντο, τῆς θεραπευτικῆς ἔργον ἤδη μεθόδου προνοήσασθαι τούτων· εἰ δ' ἀπύρετοι διαμένοιν, ἐν μὲν τῇ πρώτῃ τῶν ἡμερῶν ἐπὶ τῇ φλεβοτομίᾳ πτισάνης χυλὸν ἢ ἐκ χόνδρου ῥόφημα
298K διδόναι μόνον, ἐν δὲ τῇ δευτέρᾳ καὶ λούειν ἂν ἤδη δύναιο σὺν ἐλαίῳ δασιλεῖ, διαιτᾶν δέ, κἂν λούσης, μετριώτατα θριδακίνης, εἰ βούλοιο, διδόντα καὶ κολοκύνθης, εἰ παρείη, καὶ πτισάνης. ἀγαθὸς δὲ καὶ ὁ χόνδρος, εἴθ' ὡς πτισάνην τις αὐτὸν ἠδύνας ὄξει σκευάσειεν εἴτε χωρὶς ὄξους. εἰ δὲ μὴ παρείη κολοκύνθη, μαλάχῃ καὶ τεύτλῳ καὶ λαπάθῳ καὶ ἀνδραφάξυϊ χρῆσθαι. εἰ δὲ καὶ σαρκῶν γεύσασθαι βού-

to swoon, whereas on the second occasion, it is fitting not to be afraid of swooning. For if the person is brought down by the first evacuation, he would not endure the second, whereas if he suffers some such thing in this, recovery occurs. However, those in such a state who are not phlebotomized need good fortune to be saved; and they are not saved unless in some other way, either from nose bleeds or fierce sweats pouring forth from them. 297K

It is particularly necessary for those who are going to cut veins to consider whether the tensions and pricking pains are fixed in the chest, back or loins or more in the head and neck. For in the latter you will cut the humerocephalic vein, especially if they feel fullness and heat in the head. In the former you will cut the internal (basilic) vein, whereas if the whole body is equally afflicted by the fatigue, cut the vein in between both. If, then, they begin to be febrile after phlebotomy, the task is now to give forethought to the method of their treatment. If, however, they remain afebrile, on the first day after the phlebotomy give only the juice of ptisane or thick gruel. On the second day, you are already able to bathe with abundant oil, and even if you bathe, feed them very moderately, giving some lettuce, if you wish, or colocynth, if it is available, and ptisane. Best is gruel, either making it pleasant like ptisane with vinegar or without vinegar. If colocynth is not available, use mallow, beet, monk's rhubarb and orach. If the person wishes to taste flesh, give that of rock fish or

λοιτο, τῶν πετραίων ἰχθύων ἢ ὀνίσκων ἐν λευκῷ ζωμῷ καλῶς ἐψήσαντα διδόναι. προσαγορεύω δὲ λευκὸν ζωμόν, ὅταν ἄνευ γάρου τε καὶ πολὺ δὴ μᾶλλον ἔτι τῆς ἄλλης καρυκείας σκευασθῆ, ἀνήθου τε καὶ ἀλῶν ἐμβληθέντων εἰς ὕδωρ σὺν ἐλαίῳ καὶ πράσῳ βραχεῖ.

299K κάλλιον δέ, εἰ καὶ τῇ δευτέρᾳ τῶν ἡμερῶν οἴνου φείσαιο. τῇ τρίτῃ δέ, εἰ μὲν εὐπέπτως φέρει τὴν ὑδροποσίαν, εἴργειν οἴνου καὶ τότε μὴ φέροντος δέ, μάλιστα μὲν ἀπόμελι δοτέον· καὶ γὰρ ἐμφύχει πως ἡρέμα τοῦτο τὸ ποτόν, οὗ καὶ αὐτοῦ χρήζουσιν οἱ φλεγμονώδεις κόποι· μὴ παρόντος δὲ τούτου, λευκὸν καὶ λεπτὸν οἴνον διδόναι καὶ τᾶλλα κατὰ λόγον ἀνακομίζειν εὐχύμῳ τε καὶ μηδαμῶς θερμαινούσῃ διαίτῃ χρώμενον. εὐλαβεῖσθαι δὲ μάλιστα πάντων ἀθρόως ἀνατρέφειν. ὅσοι γὰρ ἐπὶ τοιαύταις κενώσεσιν εἰς τὴν ἐξ ἀρχῆς διαίταν εὐθέως ἐπανῆλθον, ἐμπίπλαται τούτοις ἢ ἕξις ἀπέπτων χυμῶν, οὓς ἀναρπάζει, πρὶν πεφθῆναι καλῶς ἐν τε τῇ γαστρὶ καὶ κατὰ τὰς φλέβας, ὁ τοῦ σώματος ὄγκος. αὕτη μὲν ἢ ἀρίστη πρόνοια τοῦ φλεγμονώδους κόπου.

διὰ τί δὲ ἐπαφαιρεῖν κελεύομεν αἵματος ἐπ' αὐτῷ καὶ μὴ πληροῦν ἀθρόως, ἀρκεῖ μὲν δήπου καὶ τὴν ἐμπειρικὴν αἰτίαν εἰπεῖν, ὅτι καὶ μᾶλλον ὀνίανται κενωθέντες οὕτω καὶ ὑγιαίνουσιν εἰς μακρόν, ὡς εἴρηται, διαιτώμενοι.⁵² προσθεῖναι δ' οὐδὲν χεῖρον ἂν εἴη καὶ τὴν ἀπὸ τῆς φύσεως τῶν πραγμάτων ἐνδειξιν.

birds well boiled in white juice. I call it white juice whenever it is prepared without *garos*²⁸ and much more the other rich sauce, dill and salt having been put into the water with oil and a little leek.

It is better, however, if also on the second day the person refrains from drinking wine. On the third day, if he tolerates drinking water with good digestion, he should also avoid wine at that time. If, however, he doesn't tolerate it, you must give him *apomel* especially, for this beverage somehow cools gently, which is what the inflammation-like fatigues have need of. If this is not available, give a thin white wine and restore the other things according to principle, using a diet that is *euchymous* and not at all heating. Be particularly careful about feeding everything all at once. For in those who, after such evacuations, return immediately to their original regimen, the system is filled with unconcocted humors which the mass of the body snatches up before they have been concocted properly in the stomach and veins. This is the best care for the inflammation-like fatigue.

On why I recommend removal of blood for this and not filling with food all at once, it is sufficient to mention the empirical reason, which is that those evacuated in this way are helped more and remain healthy for a long time, as I said. It would be no bad thing to add also the indication from the nature of the matters. Moreover, since in the

²⁸ Γάρος is described in LSJ as "a kind of sauce or paste made of brine and small fish." It is described in detail by Pliny, 31.7.43 no. 93.

⁵² διαιτώμενοι Κο; διαγόμενοι Κυ

300K ἐπεὶ τοίνυν ἐν τῷ φλεγμονώδει κόπῳ πλήθος αἵματος ἠθροισμένον θερμοῦ κατὰ τὸν ὄγκον ἐστίν, ἢ φλεβοτομία δὲ τοὺς ἐν τοῖς ἀγγείοις ἐκκενοῖ χυμούς, ἄμεινον ἐπὶ τῇ προτέρᾳ κενώσει τοσοῦτον χρόνον διαλιπεῖν, ὡς μεταληφθῆναί τι καὶ εἰς τὰς φλέβας ἐκ τῶν κατὰ τὸ σῶμα. τοῦτο δ' οὐκ ἐπιτρεπτόν ἐν αὐταῖς ὑπομένειν, ἡμιμόχθηρον ὑπάρχον, ἀλλ' ἐκκενωτέον αὐτοῦ τὸ πλείστον. ταῦτά τοι καὶ κατὰ τὴν δευτέραν ἡμέραν ἐπαφαιρούμεν αἵματος, ἐνίοτε δὲ καὶ κατὰ τὴν τρίτην, ἐπειδὴν ἀντισπᾶν τε καὶ μετάγειν ἐξ ἐτέρων εἰς ἕτερα συμφέρειν δόξη. λέγεται δὲ καὶ περὶ τῶν τοιούτων ἀπάντων διορισμῶν ἀκριβέστερον ἐν τοῖς Περὶ φλεβοτομίας, ὧν οὐκ ἐγχωρεῖ μεμνήσθαι τὰ νῦν διὰ τὸ τῆς θεραπευτικῆς πραγματείας ἰδιωτέρους ὑπάρχειν αὐτοὺς καὶ μέλλειν πού καὶ αὐθις ἴσως ἡμᾶς ἐν τῇδε τῇ πραγματεία περὶ φλεβοτομίας ἐπιμελέστερον διέρχεσθαι.

301K 11. Λοιπὸν οὖν ὅτι ταχέως οὐ χρὴ πληροῦν ἐπὶ φλεβοτομίαις εἰπόντες, ἐνταῦθα καταπαύσομεν τὸν λόγον. ἔξει δὲ καὶ οὗτος εἰς πίστιν ὑπόθεσιν τινα τῶν ἤδη προαποδεδειγμένων ἐν τῇ Περὶ τῶν φυσικῶν δυνάμεων πραγματεία· δέδεικται γὰρ ἐν ἐκείνῳ τῷ λόγῳ πᾶσι τοῖς ὑπὸ φύσεως διοικουμένοις ὑπάρχουσα δύναμις ἔμφυτος ἐλκτική τῶν οἰκείων χυμῶν, ὑφ' ὧν τρέφεσθαι μέλλει, δέδεικται δὲ καὶ ὡς, ἐπειδὴν ἀπορῆ

300K inflammation-like fatigue an excess of blood that is hot is collected in the mass [of the body], while phlebotomy evacuates the humors in the vessels, it is better to leave an interval after the first evacuation, such that these humors are transferred from the body into the veins. But this must not be allowed to remain in them, being partially bad; most of it must be evacuated. It is for these reasons, surely, that we remove blood during the second day, and sometimes also during the third day, whenever it might seem advantageous to revulse and transfer the humors from some places to others. I have also spoken more precisely about all such distinctions in the work, *On Phlebotomy*.²⁹ It is not possible to make mention of these now because they more properly belong to the work on therapeutics,³⁰ and I am perhaps going to go over phlebotomy again more carefully in this work.

11. What remains then, after saying that you must not fill people quickly with food after phlebotomies, is that I shall bring the discussion to a close here. And this will be a reliable foundation for those things I have already demonstrated in the work *On the Natural Faculties*.³¹ For in that work it was shown for all those [organisms] controlled by Nature, there is an innate power (capacity) attractive of the suitable humors by which they are going to be nour-

²⁹ Of the three short works on phlebotomy included in Kühn, *Cur. Rat. Ven. Sect.* (XI.250–316K) is presumably the one referred to here.

³⁰ This is presumably Galen's *magnum opus* on treatment—*MM*, X.1–1021K (English trans., Johnston and Horsley, *Galen: Method of Medicine*; French trans., J. Boulogne [2009]).

³¹ *Nat. Fac.*, I.1–204K (English trans., Brock, *On the Natural Faculties*).

μὲν οἰκείας τε ἅμα καὶ χρηστῆς τροφῆς, ἐπείγεται καὶ τῶν οὐ χρηστῶν τι συναρπάξαι. τοιοῦτον δ' ἐστὶ που καὶ τὸ μήπω πεφθὲν ἐν κοιλίᾳ τε καὶ φλεψίν.

ἀναγκαῖον οὖν, ἐπειδὴν πλείω λαμβάνη σιτία κατὰ τὸν καιρὸν τοῦτον ὁ ἄνθρωπος, ἀναρπάζεσθαι πλείστον ὠμὸν χυμὸν εἰς τὸν ὄγκον τοῦ ζώου διὰ πολλὰς αἰτίας· ὅτι τε φαυλότερον ἐν τῇ γαστρὶ καὶ ταῖς φλεψὶ πέττεται,⁵³ ὅτι τε πλεόν εἰς τὸν ὄγκον ἀνέλκεται⁵⁴ διὰ τὸ πλεόν ὑπάρχειν, ὅτι τε πρωϊαίτερον ἢ χρῆ διὰ τὸ συγχωρεῖν μὲν τὴν γαστέρα ταῖς φλεψί, τὰς φλέβας δὲ ἅπασιν τοῖς ἄλλοις τοῦ ζώου μορίοις ἐπισπᾶσθαι τὸ μήπω κατειργασμένον, ὅπερ οὐκ ἂν συνεχώρησαν ὁμοίως, εἴπερ ὀλίγον ἦν. ἐπιδέδεικται γάρ, ὡς αὐτὰ πρότερον ἀπολαύει τὰ μόρια τῆς οἰκείας τροφῆς, εἴθ' οὕτως ἑτέροις ἐπιπέμπει. τὸ δὲ δὴ τελευταῖον καὶ μέγιστον αἷτιον τῆς βλάβης τοῖς οὕτω διακειμένοις ἐστὶ τὸ πολλὴν καὶ ἡμίπεπτον ἐπισπασάμενα τροφήν τὰ καθ' ὅλον τὸν ὄγκον τοῦ ζώου μόρια πλήθος οὐκ ὀλίγον ἐξ αὐτῆς ἀπογεννᾶν περιττωμάτων. οὐδὲ γὰρ πέττειν αὐτὴν ἅπασαν ὁμοίως τῇ χρηστῇ δυνατὸν αὐτοῖς οὔτε προσφύειν οὔθ' ὁμοιοῦν, ἀλλ' ἀτυχεῖν ἐν ἐκάστῳ τῶν οἰκείων ἔργων ἐπὶ τῇ μοχθηρᾷ τε ἅμα καὶ πολλῇ τροφῇ. ὅμοιον γάρ τι συμβαίνειν αὐτοῖς ἀναγκαῖον, οἷόν τι καὶ αὐτῇ τῇ γαστρὶ προσενεγκαμένη σιτία πολλὰ κακῶς παρεσκευασμένα.

⁵³ post πέττεται: τὸ πλεόν (Ku) om.

⁵⁴ ἀνέλκεται Ko; ἀνέρχεται Ku

ished. It was also shown that, whenever there is a lack of nutriment that is at once suitable and useful, there is also an urge to seize upon some of those that are not useful. This is sometimes the sort of thing that has not yet been concocted in the stomach and veins.

It is inevitable, then, that when the person takes too much food during this time, most unconcocted humor will be carried away to the mass of the organism for many reasons. This is because the greater part³² is more poorly concocted in the stomach and veins, and also, because there is an excess, more is drawn back to the mass [of the body]. It is also because it is necessary for the stomach to release [material] earlier to the veins than it should, and the veins permit all the other parts of the organism to draw what has not yet been worked up for use. They would not similarly permit this, if it were less. For it has been shown that the parts themselves first enjoy the benefits of their proper nutriment, and then in this way send it to other parts. Certainly, the ultimate and greatest cause of harm to those in this state is the great amount of semiconcocted nutriment drawn to the parts in the whole mass of the organism, from which a significant amount of superfluties is generated. For it is not possible for the parts to concoct all this nutriment like they do that which is useful, nor to retain or assimilate it. Rather, they fail in each of these proper actions due to the bad and excessive nutriment. Of necessity, the same thing happens to them as also happens to the stomach itself, if it is presented with a large amount of food badly prepared.

³² The translation here follows the Kühn text.

λέγω δὲ παρεσκευάσθαι κακῶς, ὅσα δεόμενά τινος ἐψήσεως ἢ ὀπτήσεως οὐκ ἀπήλαυσε τελέως αὐτῆς. ἄρτον οὖν ἐλλιπῶς ὀπτημένον ἢ κρέας ἢ ὄσπριον ἀτελῶς ἠψημένον ἀδύνατόν ἐστι πεφθῆναι χρηστῶς ἐν τῇ γαστρὶ. τὸν αὐτὸν δὲ λόγον ἔχει τὰ κατὰ τὴν γαστέρα μοχθηρῶς κατεργασθέντα πρὸς τὴν δευτέραν τὴν ἐν φλεβῶν πέψιν, ὃν ἐξ ἀρχῆς⁵⁵ τὰ φαῦλα παρασκευασθέντα σιτία πρὸς τὴν ἐν τῇ γαστρὶ. καὶ μέντοι τὰ κατὰ τὰς φλέβας οὐκ ὀρθῶς πεφθέντα τὸν αὐτὸν ἔχει λόγον ὡς πρὸς τὴν ἐν τῇ σαρκὶ πέψιν, ὃν εἶχεν τὰ μὲν σιτία πρὸς τὴν ἐν τῇ γαστρὶ, τὰ δ' ἐκ ταύτης ἀναδιδόμενα πρὸς τὴν ἐν ταῖς φλεβῶν. οὗτ' οὖν ἡ γαστήρ ἀκριβῶς πέττει τὰ ἔξωθεν οὗθ' αἱ φλέβες τὰ ἐκ τῆς γαστρὸς οὗθ' αἱ σάρκες τὰ ἐκ τῶν φλεβῶν, ὅταν μὴ καλῶς ἢ προκατειργασμένα· κὰν τούτῳ πλήθος ἀναγκαῖόν ἐστιν ἐν τῷ σώματι γεννᾶσθαι περιττωμάτων.

303K

ἐμοὶ μὲν οὖν εἴρηται τὸ σύμπαν, ὡς ἐν βραχυτάτῳ διελθεῖν· εἰ δέ τις ἐκάστου τῶν εἰρημένων εἰς τὴν ἀπόδειξιν ἐπιστήμην ἀκριβῆ λαβεῖν βούλεται, τούτῳ τὰ Περὶ τῶν φυσικῶν δυνάμεων ἀναγνωστέον ἐστίν, ἐν οἷς ἀποδέδεικται πρῶτον μὲν, ὡς ἡ γαστήρ ἑαυτῆς ἕνεκα λαμβάνει τὴν τροφήν, ἵνα ἀπολαύσῃ τε καὶ ἀναπληρώσῃ τὸ ἐλλείπον ἑαυτῆς, καὶ διὰ τοῦτο περιπτύσσεται πανταχόθεν αὐτῇ καὶ κατέχει σύμπασαν, ἄχριπερ ἂν ἰκανῶς κορεσθῇ· δεύτερον δὲ ὡς, ἐπειδὴν

⁵⁵ ἐξ ἀρχῆς add. Ko

I call badly prepared that which requires some boiling or roasting but does not enjoy the benefit of this completely. Thus, bread deficiently baked, or meat or vegetables incompletely boiled cannot be properly concocted in the stomach. The same argument holds for those things badly worked up in the stomach for the second concoction in the veins, as with foods inadequately prepared from the beginning for concoction in the stomach. Furthermore, the same argument holds regarding those things not properly concocted in the veins as regards concoction in the flesh as that which holds for the foods regarding concoction in the stomach and their distribution from this toward the concoction in the veins. Thus, if the stomach does not completely concoct those things from without, the veins do not completely concoct those things from the stomach, and the flesh does not concoct those things from the veins whenever they are not well worked up beforehand. And due to this, an excess is inevitably a generator of superfluities in the body.

303K

Therefore, I have said everything, going through it in the briefest possible way. If someone wishes to take each of the things said to the exactitude of scientific demonstration, he must read the book *On the Natural Faculties*³³ in which it has been shown first, that the stomach takes the nutriment for its own sake, so that it enjoys the benefit of it and fills up what is deficient in itself, and because of this enfolds it on all sides and holds it all until it is sufficiently satisfied. Second it is shown that, when it no longer needs

³³ See note 31 above.

μηκέτι δέηται τοῦ τρέφεσθαι, τότε ἀνοίγνυσι μὲν τὸν
 πυλωρόν, ἐκθλίβει δὲ καὶ ὠθεῖ κάτω τὰ περιττὰ τῶν
 σιτίων, οἷον ἄχθος ἀλλότριον· εἶθ' ὡς ἐν τῇ διὰ τῶν
 ἐντέρων ὁδῷ, καὶ μάλιστα τῶν λεπτῶν, ἀναρπάζουσιν
 αἱ καθήκουσαι φλέβες τὴν τροφήν, ἐκ τῆς πρὸς τὴν
 κοιλίαν ὀμιλίας ἡλλοιωμένην τε καὶ συμφυλοτέραν
 304K τῷ ζῳῷ γενομένην· εἶτα καὶ κατὰ τὰς φλέβας ἐξ ἄλ-
 λης εἰς ἄλλην διαδίδεται τὸν ὅμοιον τρόπον, ὃν ἐκ
 τῆς γαστρὸς εἰς τὰς φλέβας· ἐντεῦθεν δ' ἤδη κατειρ-
 γασμένη τέλειον εἰς ἕκαστον ἔλκεται τῶν τοῦ ζῳοῦ
 μορίων, ἵνα πέττεται τὴν τρίτην πέψιν ὁμοιοῦταί τε
 τῷ τρεφομένῳ. ταῦτ' οὖν ὅστις ἐξ ἐκείνων ἀναλέξεται
 τῶν γραμμάτων, οὐκέτ' ἀπορήσει τὴν αἰτίαν, δι' ἣν
 πολλοὶ κενωθέντες τὴν ἕξιν, εἰ μὴ μετρίως ἀνατρέ-
 φοιντο, πολλὰ περιττώματα καθ' ὅλην αὐτὴν ἀθροί-
 ζουσι καὶ νοσοῦσιν ἐξ αὐτῶν οὐκ εἰς μακράν.

to be nourished, at that time the stomach opens the pylo-
 rus, and compresses and thrusts downward the residues of
 the foods like some alien load. Then, in the passage
 through the intestines, and particularly the small intes-
 tines, the appropriate veins carry off the nutriment, which
 has changed from the association in the stomach and be-
 come more suitable for the organism. And then, in the
 veins, it is distributed from one to the other in the same 304K
 way as it was from the stomach to the veins. From there,
 already completely worked upon, it is drawn to each of
 the parts of the organism, so that it is concocted in respect
 of the third concoction and assimilated by what is being
 nourished. Therefore, whoever has picked up these mat-
 ters from those writings, will no longer be at a loss about
 the cause, due to which many, if they are not moderately
 renourished when the system is evacuated, collect many
 superfluities in the whole system, and from these become
 diseased before long.