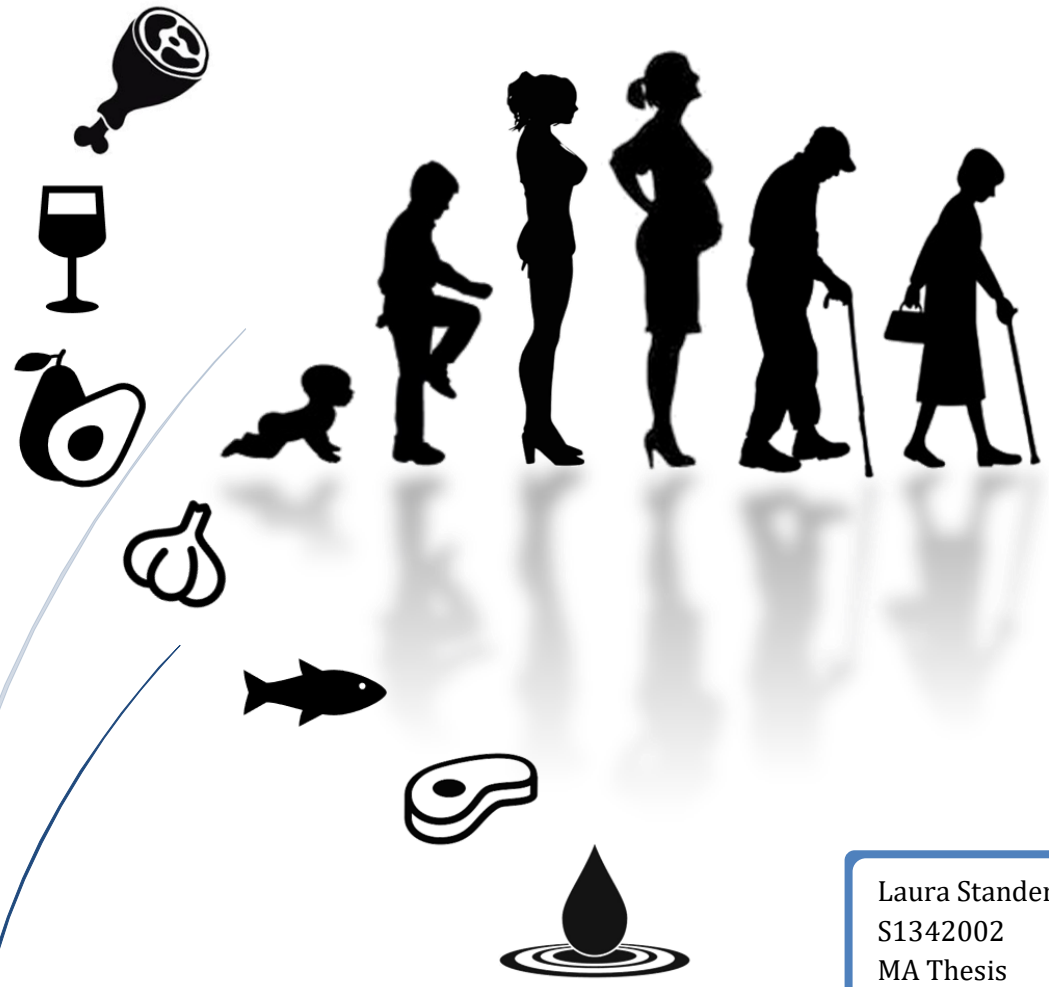
Women, elderly and children: the application of medicinal food theory

Gender and age differences in ancient dietetics.



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Introduction

A 'healthy' diet is what many people aspire to follow. Entire TV series and books have been focused on it and many studies have been done to find out what food is 'healthy'. As a result we have 'super foods', like quinoa and avocados, as well as diets focussing on low-carbohydrates and gluten- or lactose-free foodstuff that are advised by dieticians to ensure a healthy body.[1] Likewise the help of specialists was implored, in ancient times, to heal the sick by the consumption of (medicinal) foodstuffs according to a prescribed diet. These diets were intended to restore the balance in the body and to keep it healthy. The idea of a 'healthy' diet is thus ancient, but the ancient visions on health and the body were very different from our own notions. They, for example, studied the idea of fluidic balances in the body (e.g. the humoral theory) and the effects of external influences on the body (e.g. the weather, water and the seasons), taking the adult male body as standard.

How then did they think about 'different' bodies, bodies that were not young and male and deviated from the set standard? These questions led to the introduction of gender in the ancient medicine debate. Gender differences are discussed in the works of, among others, J.B. Bonnard and H. King.[2] Bonnard in his work looks at how the gender categories were fashioned in ancient times by examining theories on embryogenesis and anatomy.[3] King in her work examines the theories on the female body by looking at Hippocratic gynaecology in relation to its own cultural and social context and comparing this cross-culturally.[4] King and Bonnard both examine the female body in contrast to the male body in ancient medical texts. Gender differences and the female body are thus both topics that are starting to get more attention in the study of ancient medicine.[5] The debate however is still young and requires

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[1] Some medical works relating to diet: K. Carroll ed., *Diet, nutrition, and health* (Montreal; Quebec 1989); F.D. Romano and P.F. Russo, *Caffeine consumption and health* (New York 2012); L.M. Donini, et al., 'The Mediterranean diet: culture, health and science', *British Journal of Nutrition* 113 (Supplement 2: S1-3) (2015) (online: <https://doi.org/10.1017/S0007114515001087> 20-08-2019); M. Brown, K. Brown and W. Cypser, *Gluten-free, hassle-free a simple, sane, dietitian-approved program for eating your way back to health* (New York 2010); *Joint WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases* (Geneva, 28 January -1 February 2002); P. Guallar-Castillón, et al., 'Major dietary patterns and risk of coronary heart disease in middle-aged persons from a Mediterranean country: The EPIC-Spain cohort study', *Nutrition, Metabolism and Cardiovascular Diseases* 22:3 (March 2012) 192-99. Magazines and webpages: <https://www.goodnet.org/articles/top-10-healthiest-foods-on-earth-how-to-eat-them>(02-05-2018); <https://www.shape.com/healthy-eating/diet-tips>(22-09-2018); <https://www.womanmagazine.co.uk/diet-food>(22-09-2018).

[2] H. King, *Hippocrates' woman reading the female body in ancient Greece* (London 1998); H. King, 'Self-help, self-knowledge: in search of the patient in Hippocratic gynaecology', in: R.M. Hawley and B. Levick eds., *Women in Antiquity: New Assessments* (London; New York 1995) 135–47; H. King, 'Medical texts as a source for womens history', in: A. Powell ed., *The Greek World* (London 1995) 199–218; H. King, 'Women's health and recovery in the Hippocratic corpus', in: H. King ed., *Health in Antiquity* (London; New York 2005) 150-61; J.B. Bonnard, 'Male and female bodies according to Ancient Greek physicians', *Clio* 37 (2013) 19-37; R. Flemming, *Medicine and the making of Roman women: gender, nature, and authority from Celsus to Galen* (Oxford 2000); R. Flemming, 'Women, writing, and medicine in the classical world', *Classical Quarterly* 57:1 (2007) 257–79; L. Dean-Jones, *Women's bodies in classical Greek science* (Oxford 1994); H. Parker, 'Women doctors in Greece, Rome, and the Byzantine Empire', in: L.R. Furst ed., *Women Healers and Physicians: Climbing a Long Hill* (Kentucky; Lexington 1997) 131–50; A. Rousselle, 'Images médicales du corps: observation féminine et idéologie masculine: le corps de la femme d'après les médecins grecs', *Annales ESC.* 35 (1980) 1089–1115; M.C. Girard, 'La femme dans le corpus hippocratique', *Cahiers des Études Anciennes* 15 (1983) 69–80; D. Gourevitch, *Le Mal d'être femme: La femme et la médecine dans la Rome antique* (Paris 1984).

[3] Bonnard, 'Male and female bodies'.

[4] King, *Hippocrates' woman*.

[5] Some recent works on gender and the female body: L. Caldwell, 'Gynecology', in: G.L. Irby ed., *A Companion to Science, Technology, and Medicine in Ancient Greece and Rome* (Chichester 2016) 360-70; C.W. Marshall,

more development by linking it to other debates on ancient culture, like dietetics, philosophy and the debate on religion. King's usage of cross-cultural comparisons is an example of how employing different debates can aid the study of the female body in ancient literature. Looking at different debates and methods also helps balance the fact that the debate on ancient medicine is still mainly focused on discussing specific ancient works.

The purpose of this research then is to look at the 'different' body by linking the age and gender debate with the debate on dietetics. The dietetics debate is a good starting point as it is featured prominently in the debate on ancient medicine and is intertwined with other debates namely, the debates on ancient philosophy, religion, culture and food. Philosophy, religion and culture shaped the general ideas on what to eat, as well as the moral and religious implications of food consumption. These general ideas on food moulded its medical application in the form of dietetics and thus shaped ideas on the line between food and medicine, a topic and debate intertwined with dietetics.[6] The debate on age will be added to these debates because it is a part of the debate on the ancient body that is often not discussed in detail, even though it can give a deeper insight into gender differentiation in ancient medicine and cultural ideas on age and gender relations. The combination of the three debates, gender, dietetics and age, is yet to be studied across ancient literature in this specific fashion.

This paper will therefore try to answer the question: 'How were 'other bodies' represented in the ancient medical theories on dietetics?', with a focus on the study of bodies that differed in age and gender. This paper will thus examine whether the idea that male, female, elderly, children's and baby's bodies were different had an impact on how medicinal food theory was applied to them. First a sketch of the general ideas about the body and the theory of dietetics will be given. Then the application of dietetics to different types of bodies will be discussed. To begin, the 'standard' male body will be studied. Then the application of dietetics to the female body will be examined in three different forms, the menstruating body and the body during and after pregnancy. Subsequently the elderly body will be studied and lastly the application of dietetics to babies and children will be discussed.

'Breastfeeding in Greek Literature and Thought', *Illinois Classical Studies* 42:1 (2017) 185–201; N. Doyle, *Maternal Bodies: Redefining Motherhood in Early America* (Chapel Hill 2018).

[6] A few works that display these relations are: H. King, 'Food and blood in Hippokratic gynaecology', in: J. Wilkins, D. Harvey and M. Dobson eds., *Food in Antiquity* (Exeter 1995) 351–8; H.K. Goswami and H.K. Ram, 'Ancient Food Habits Dictate that Food Can Be Medicine but Medicine Cannot Be "Food"', *Medicines* 4:4 (2017) 82; F. Dupont, 'Food, gender and sexuality', in: J. Wilkins and R. Nadeau eds., *A companion to food in the ancient world* (Oxford 2015) 76-84; J. Wilkins, 'Medical literature, diet and health', in: J. Wilkins and R. Nadeau eds., *A companion to food in the ancient world* (Oxford 2015) 59-66; P. Scade, 'Food and ancient philosophy', in: J. Wilkins and R. Nadeau eds., *A companion to food in the ancient world* (Oxford 2015) 67-75; S. Hitch, 'Sacrifice', in: J. Wilkins and R. Nadeau eds., *A companion to food in the ancient world* (Oxford 2015) 337-47; C. Grottanelli and L. Milano eds., *Food and identity in the Ancient World* (History of the ancient Near East Studies vol. 9) (Padova 2004); L. Totelin, 'When foods become remedies in ancient Greece: The curious case of garlic and other substances', *Journal of Ethnopharmacology* 167 (2015) 30–7; W.H.S. Jones, 'Ancient Roman Folk Medicine', *Journal of the History of Medicine and Allied Sciences* 12:4 (1957) 459-72.

Methodology and source material

The period under study is around 500 BCE till 200 A.D.. This period is broad because of the limited number of sources on the subject. The starting date is based on a shift towards natural causes in the ideas on medicine and the body. The end date is based on the work of Galen, which is the youngest ancient source that will be used as it became one of the most influential sources for later periods. The region under study will be the Greco-Roman world. It is difficult to be more specific on the region as the exact origin of many literary works is unknown. The sources that will be used are ancient literary texts, especially medical texts, dealing with general theories on the body, the use of medicinal foods and the bodies of women, children and babies. As such the sources are written in a serious scientific manner for academic reasons by male writers. The sources thus represent the ideas of the male higher class and (medically) educated men on the treatment of children and women. The sources consequently have an inherent gender and age bias, which is important to keep in mind. In the medicinal texts in general there was an overrepresentation of the study of the adult male body, whilst the study of female and children's bodies was limited due to biases and moral conduct rules of the time. Of course the sources are not the only thing to be critical about. As Helen King says, it is just as important that we do not think about the ancient medical ideas as beliefs instead of knowledge when they differ from our own ideas.[7] In other words, we should not look at the ancient ideas as wrong and superstitious when they disagree with our own ideas and as right and facts when they do agree. We should thus also be critical of our own interpretation of the past and look at the past in its own context.

As for definitions, modern medical dictionaries see dietetics as: ''the science of applying nutritional principles to the planning and preparation of foods and regulation of the diet in relation to both health and disease''[8]. Besides this modern definition there is the general understanding dietetics as: 'what people eat and drink', a definition that was already recognized in antiquity. Florian Steger in his work 'Antike Diätetik: Lebensweise und Medizin' puts forward another aspect of the definition of dietetics in antiquity, namely how the ancients themselves saw dietetics as: ''something that aims at creating a healthy body through a particular lifestyle''.[9] For the sake of simplicity, in this paper the term dietetics will be seen as: 'the consumption of (prepared) foods and drinks for the purpose of healing the body or preventing disease'. Potions, solutions, lozenges and other types of medication made from foodstuff will be excluded from this study as the focus of the study is on food and drinks that were consumed as such.

[7] King, *Hippocrates' woman*, 16-20.
[8] 'dietetics', in: *Mosby's Medical Dictionary* (2009).
[9] F. Steger, 'Antike Diätetik: Lebensweise und Medizin', *NTM International Journal of History & Ethics of Natural Sciences, Technology & Medicine* 12:3 (September 2004) 146-60, there 146.

H1 The ancient body

In order to examine the 'different' body in the application of dietetics it is important to first understand the role ascribed to dietetics in medical theories and to have a general image of how the body was seen in ancient times. First relevant general ideas and theories on the body will be discussed, after which we will look at the role of regimen and specifically dietetics in ancient medical theories. Lastly the notions on 'different' bodies in the medical literature will be discussed.

1.1 General ideas about medicine and the body

Starting in the fifth and fourth century BCE medical ideas underwent an important development. The body was conceptualized and it was seen as a thing in itself with a nature of its own. This notion prompted new ideas about disease. The cause of disease was no longer sought in a demonic or divine origin. Instead disease was thought to have natural causes which could be identified and treated with a physician's medicine, that should be based on an account of the nature of the body and the disease. These new notions and ideas about health, the body and the role of the physician were a shift away from past ideas of the purpose of healers. This shift, however, did not mean that other types of medicine, like temple medicine, disappeared. Several types of medicine kept being used concurrently to the newly developing medical ideas.[10]

During the fifth and fourth century BCE treatises on the human body and other medical treatises started circulating in increased quantity. One of the most important extant treatise from this period, that reflected the new medical ideas, was the fifth century BCE treatise *On the Nature of Man*. This treatise describes the body and its anatomy using four humors: blood, yellow bile, black bile and phlegm. The body, in the treatise, is seen as a part of nature and was thusly composed of the natural elements (earth, fire, water, air) or mixtures (the humors) based upon these elements. In *On the Nature of Man* natural influences are seen as the cause for disease, as disease created an imbalance in the body by either defect, excess or isolation of one of the four humors.[11]

Besides theories like the one above on humoral balances, there were also many works that put a focus on the effects of external influences on the health of the body. Examples of such treatises from the Hippocratic Corpus are *Airs, Waters, Places* and *On Breaths*. In *Airs, Waters, Places* the author saw disease as being caused by the local surroundings, water and predominating winds around the patient. *On Breaths* placed a focus on the effects of surroundings that became internal, such as air, food and drinks.[12]

The focus on the environment is not limited to the Hippocratic works, it's also featured in the works of Alcmaeon of Croton, who saw external powers and an imbalance with the environment as causes for disease. According to him the external powers caused disease, when they created an excess of a single power among the different qualities (hot, cold, bitter, sweet, moist and dry) of the human body, disrupting its internal balance.[13]

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[10] B. Holmes, 'Medical knowledge and technology' in: D.H. Garrison ed., *A cultural history of the human body in antiquity* (Oxford 2010) 83-105, there 83-8; G.E.R. Lloyd, *In the Grip of Disease* (Oxford 2003) 40-61; Flemming, *Medicine*, 4-11, 33-6, 48, 90, 94-7.

[11] P. Macfarlane, 'Health and disease' in: D.H. Garrison ed., *A cultural history of the human body in antiquity* (Oxford 2010) 45-66, there 47-8; J. Jouanna, P. van der Eijk and N. Allies, *Greek Medicine from Hippocrates to Galen: Selected Papers Studies in Ancient Medicine volume* 40 (London 2012) 335-6; H. Bartoš, *Philosophy and dietetics in the Hippocratic On regimen: a delicate balance of health* (Leiden; Boston 2015) 43-6.

[12] Idem, 48-9; Jouanna, van der Eijk and Allies, *Greek Medicine,* 155-72; Bartoš, *Philosophy and dietetics*, 38-40; J. Wilkins, 'Introduction Part V', in: J. Wilkins, F.D. Harvey and M. Dobson eds., *Food in antiquity* (Exeter 1995) 337-42, there 338-9.

[13] J. Longrigg, *Greek Rational Medicine Philosophy and Medicine from Alcmaeon to the Alexandrians* (London; New York 1993) 48-64; King, 'Women's health and recovery', 151.

Medicine and knowledge about the body had become part of the social discourse and as such it was related to the ideas about the soul, morals and ethics. Care for the body became care for the soul. Several of the older and newer ideas about the soul and the body coalesced in the works of Aristotle. Aristotle saw the heart as the centre of the body and the place of the rational soul. This was in contrast with other philosophers, who placed the rational soul in the brain. The Aristotelian soul was biological and died with the body. Aristotle thought that residues, like *pneuma* ('breath' or 'air') communicated sensory information to the 'ruling part' of the soul. The heart (producer of heat) and the brain (producer of cold) were the most important parts in his ideas on the body. This was because Aristotle thought that, for the body to be healthy, the hot and cold aspects in the body or between the body and the environment needed to be balanced. Heat was also necessary for vital functions in the body such as digestion. All beings with a soul had to be capable of eating and thus had an innate heat.[14]

In his work *Timaeus* Plato discussed the human body. He said it was composed of the primary elements that form tissues (e.g. flesh, sinew, marrow and bone). Disease was the natural state of the body, due to the constant depletion of the fire and air elements. Plato categorized diseases into three types. The first disease type was caused by an imbalance of the primary elements, the second disease type attacked bodily tissues and the third disease type was caused by air, phlegm and bile[15]. The primary elements in Plato's works were structured specifically to harbour the immortal soul, located in the brain, and the mortal soul, located in the rest of the body. The relation between body and soul was discussed in Plato's works *Republic* and *Symposium*, in which he used body and health as metaphors for political ideas. In *Republic* Plato criticized the 'excessive care of the body' and its relation to 'care of the soul'.[16]

During the Hellenistic period, ideas on the body and medicine were influenced by the greater interest in human and animal dissection. Animal dissection influenced both Praxagoras of Cos and Herophilus of Chalcedon in their ideas about the body. Praxagoras differentiated between arteries (transporting *pneuma*) and veins (transporting nutrient-rich blood) and propagated 'sphyfmology' (study of pulse) as an index for health and disease and as a diagnostic tool. Herophilus of Chalcedon linked the brain to nerves and distinguished voluntary nerves from sensory nerves. Human dissection, which had long been a taboo, got a royal sanction in Egypt during this period. These dissections were typically performed on deceased male convicts, which created an emphasis on the male body. The human dissections had a powerful impact on the concept of the physical body. It also created a cultural tradition that equated knowing with seeing.[17]

The third century BCE also saw the further fragmentation of the medical discipline into multiple medical schools. The Empiricists school headed by Philinus of Cos focused on the physicians own experience, reading case histories and making educated guesses based on earlier similar cases to treat people. The school that opposed the Empiricists was the school that was later referred to as the Rationalist or Dogmatist school. In the first century AD, the Methodist school appeared, which held that any patient could be treated when his condition was identified as fitting into one of the three pathological categories of looseness, tightness or

[14] Macfarlane, 'Health and disease', 56-8; Holmes, 'Medical knowledge', 93; Aristotle, *On the Soul* II, 4.415a-4.416b; Lloyd, *In the Grip of Disease*, 176-19; P. Studtmann, 'Living Capacities and Vital Heat in Aristotle', *Ancient Philosophy* 24:2 (2004) 365–379; Longrigg, *Greek Rational Medicine*, 149-62.

[15] In contrast to how bile and phlegm were seen in the Hippocratic works, Plato's work considers bile and phlegm as unnatural products generated by disintegrated diseased tissue.

[16] F. Karfík, 'The Constitution of the Human Body in Plato's Timaeus', *Croatian Journal of Philosophy* Vol. XII 34 (2012), 167-81, there 170-79; E.M. Craik, 'Plato and Medical Texts: Symposium 185c–193d1', *The Classical Quarterly* 51:1 (2001) 109-14; Lloyd, *In the Grip of Disease*, 142-57.

[17] Holmes, 'Medical knowledge', 94-6; Lloyd, *In the Grip of Disease*, 203; Longrigg, *Greek Rational Medicine*, 191-206; Flemming, *Medicine*, 94-5, 98-9.

a mixture of the two. Works from these schools often looked at external influences on the body and the role of external factors in causing and treating disease. The Methodists however saw external causes as a therapeutic irrelevance. Despite the divergent methods of the schools, they all used the same therapeutic arsenal, consisting of three departments: regimen, pharmacology and surgery. In contrast to the large focus placed on external factors, by most of the schools, they put little focus on discussing the 'other' types of bodies.[18]

The medical schools reunited under Roman domination. Greek medical knowledge had been imported into Rome since at least the third century BCE. Medical treatises written for the general public and Greek medical terminology and ideas had made their way into a wide range of Latin texts. These Greek ideas influenced the Roman ideas about medicine and the body. During the first centuries AD this resulted in the Roman's fascination with 'care of the self', a strong association between moral virtues and taking care of one's body and health. This preoccupation with a health body and soul resulted in people who were fixated with bodily habits and practises, diet and corporeal phenomena. Greek medicine was overall well received in the Roman community, but Greek medical practice was not entirely accepted due to a wariness and distrust of professional physicians and dissection practices. In addition to the new Greek medical ideas the older ideas of the body as fragile, labile and composite by nature, remained familiar.[19]

Numerous medical theories and discoveries from anatomy amalgamated in the works of Galen of Pergamum. In particular Galen relied and focused on the Hippocratic corpus and the works of Aristotle and Plato. His ideas of the body reflect this, as he combined the four humors of the Hippocratic corpus with the four elements and four qualities (hot, cold, wet, dry) from Aristotle. Galen saw the humors as each being composed of the four elements and exhibiting two of the four primary qualities. The elements and qualities also combined to form the homeomerous parts of the body (e.g. blood, flesh, bones, sinew, tissues). The homeomerous parts joined together then formed the anhomeorous parts (the organs). A (healthy) body was thus based upon a balance of correctly proportioned and mixed fluids. The soul, which Galen saw as only being corporal, was what created, ordered, maintained and exercised the functions of the organs, the homeomerous parts, the elements and humors. His works show the continuation of a preoccupation with the care for the body as care for the soul. Galen also propagated making remedies more specific, by arguing that humoral imbalances could be located in specific organs, as well as in the body as a whole. This allowed doctors to make more precise diagnoses and to prescribe more specific remedies to restore the body's balance.[20]

In general it can thus be said that the body was seen as consisting of fluids (and tissues) that had to be properly balanced. Medicine was, as a result, largely focused on identifying imbalances and finding ways to get and to keep the fluids in balance. The need for a healthy body was stimulated even more by the idea that good morality and a good soul depended on the health of the body. However it must be noted that the examples and mentions of bodies and how to see and treat them were mostly based on one standard body: the adult male body in its most perfect form.

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[18] Holmes, 'Medical knowledge', 96-7; Lloyd, *In the Grip of Disease,* 204-7; G.E.R. Lloyd, *The Revolutions of Wisdom: Studies in the Claims and Practice of Ancient Greek Science* (Berkley 1987) 158-72; Flemming, *Medicine,* 17-9, 110-4, 121-2, 209, 228, 244-9.

[19] Idem, 98-9; Flemming, *Medicine,* 50-9, 65, 81-9, 123-4.

[20] Macfarlane, 'Health and disease', 60-3; M. Grant, *Galen on Food and Diet* (London 2000) 5-10, 14-61; Jouanna, van der Eijk and Allies, *Greek Medicine,* 338-40; Flemming, *Medicine,* 92-101, 112, 273-82, 289, 293-4, 302, 329, 348, 354-5; O. Powell, *Galen: On the Properties of Foodstuffs* (Cambridge 2003) 10-3.

1.2 Regimen and the body

The focus on the influence of external forces on the body was most prominent in the ancient works dealing with regimen. Regimen was a programme consisting of medical treatment, exercise and/or diet used for the promotion or restoration of health and for improving one's appearance.[21] The Hippocratic corpus consists of several texts that focused heavily on regimen, e.g. *On Regimen* and *On Regimen in Acute Diseases*. In *On Regimen* the proper management of regimen is seen as crucial for protecting the composite body against seasonal changes. *On Regimen in Acute Diseases* focuses on the symptoms of diseases and then discusses the proper regimen for treating the diseases. In both texts regimen is used to heal and maintain a healthy balanced body, to monitor the body for symptoms of disease and to nurture and protect the soul via the body.[22]

Exercise, as part of regimen and on its own, was used to shape the body into a more ideal form. A good physical appearance was thought to show good health and good moral virtues. Exercise required time, patience and discipline, all admirable moral values that had to be learned starting from a young age.[23] Common Greek sports were walking, wrestling, running, boxing, *Pankration*, *Pentathlon*, ball games, hunting, hoop rolling and equestrian sports, like chariot racing. During the Roman period common sports were hunting, horse riding, running, swimming and ball games and Greek import sports like *Pila*, discus throwing and *trochus*.[24] Women also did exercises and sports, but the sources on this are more fragmentary. There is evidence of women doing sports like wrestling, footraces, swimming, ball games and other general exercises. Overall it is likely that female exercise was more limited and less public by nature than that of their male counterparts. Exercise was similarly restricted for children and elderly.[25]

Exercise plans were given to prevent and treat diseases. These plans specified which exercises to do, which to avoid and how intense the exercise should be.[26] In the work *On Internal Affections* the following exercise plan was advised during the treatment of ruptured bronchial tubes:

> Strengthen this patient thoroughly, in order that he will become very robust; let him take walks in moderation, wrestle less than usual, and exert himself little at first, later more, but never a lot. If he does these things, he will quickly recover; however, if he becomes emaciated because of the exertion, let him give it up, eat heartily, and rest.[27]

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[21] 'regimen', in: *Macmillan dictionary* (2009); 'regimen', in: *Oxford dictionary* (2015); Holmes, 'Medical knowledge', 91; Jouanna, van der Eijk and Allies, *Greek Medicine*, 137-72; Flemming, *Medicine*, 42, 111-2.
[22] Holmes, 'Medical knowledge', 89; Jouanna, van der Eijk and Allies, *Greek Medicine*, 138; Bartoš, *Philosophy and dietetics*, 12-110.
[23] C.M. Tipton, 'The history of "Exercise Is Medicine" in ancient civilizations', *Advances in Physiology Education* 38:2 (2014) 109-117, there 113-115; S. Miller, *Ancient Greek athletics* (New Haven 2004) 17-8, 228-30, 238-40; S. Miller, *Arete: Greek sports from ancient sources* (Berkeley 2004) 16-8, 135-8, 162-3; S.C. Murray, 'Sport and Education in Ancient Greece and Rome', in: W.M. Bloomer ed., *A Companion to Ancient Education*, 430-43, there 431-6, 438, 441.
[24] Miller, *Ancient Greek athletics*, 11-2, 31-86, 166-8, 171-5, 201-3; Miller, *Arete*, 23-57, 156-7, 164; J. Thuillier, 'Athletic exercises in ancient Rome. When Julius Caesar went swimming', *European Review* 12:3 (2004) 415-26, there 416-24; Murray, 'Sport and education', 431-2, 438-9.
[25] Idem, 1, 150-9, 203; Miller, *Arete*, 105-10, 139; Thuillier, 'Athletic exercises', 422-4; Flemming, *Medicine*, 223-5.
[26] Tipton, 'The history of "Exercise Is Medicine", 113-15; Thuillier, 'Athletic exercises', 416-7; C.F. Kleisiaris, C. Sfakianakis and I.V. Papathanasiou, 'Health care practices in ancient Greece: The Hippocratic ideal', *Journal of medical ethics and history of medicine* 7:6 (2014) (online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4263393/ > 20-08-2019).
[27] Hippocrates, *On Internal Affections*, 1; Translation by: P. Potter, *Hippocrates volume VI* (Loeb Classical Library 473; Cambridge, 1988) 69-71.

In medical treatments, exercise for both male and female patients, seems to focus on walking and on keeping physical exertion lower than normal. The theoretical application we find in the sources was, however, mostly based on the male body and its accustomed exercises and physique. Exercise as treatment was always combined with other aspects of treatment, such as diet and medication. This combination of exercise and diet in treatment and in life in general was discussed by several ancient authors. Hippocrates, for example, saw exercise as necessary to balance out food consumption. He thought that only the combination of food and exercise kept a person healthy and that disease was caused by inactivity, extreme exercise and/or excessive food consumption.[28]

Sometimes ancient works put a larger focus on another aspect of regimen, dietetics. The relation between food and medicine was especially stressed in the Hippocratic work *On Ancient Medicine*. This work claims that medicine was discovered through experimentation with cooking. Cooking had been developed to remove or subdue the harmful powers in food and to make the food harmonize with people's constitution. Food thus became truly nutritious and beneficial to one's health. Medication was later derived from this research.[29]

The importance of food to the health of the body was also present in the works of Aristotle and Plato. Aristotle stressed that the heat from the heart was necessary for nutrition, as this heat caused food to be digested. All beings with a soul had to be capable of eating and thus had an innate heat. He saw digestion as a vital basic function of the body and put metabolism on his list of the five processes that together formed the soul.[30] Plato put a focus on food in his work *Timaeus*. There he argued that the body, whose elements fire and air were constantly being dissolved, needed to be continuously restored with a supply of sustenance in the form of drinks and food. Food was first transformed by an intricate apparatus inside the body and was then spread throughout the body. Plato saw the body as being in a constant state of disease. One specific type of disease was caused by the body consuming itself instead of food and producing phlegm and bile from this self-consumption. In his works *Republic* and *Symposium* he created a link between diet, a healthy body and the soul.[31]

During the late fourth century BCE regimen became increasingly precise and elaborate. The work *Regimen in Health* advises a custom diet and exercise plan for every season of the year. It recommends a diet that was opposite to the characteristics of the season and that changed gradually throughout the year. For example in winter, a wet and cold season, one had to drink as little as possible and eat bread and roasted meats, so that the body would become dry and hot. In spring one had to drink more, consume less meat (boiled now, not roasted), eat barley cake and eat more vegetables. This diet would make the body cool and soft in order to prepare it for summer.[32] The work of Diocles of Carystus even takes prescribing regimen to extreme lengths. To counteract the imbalance of elements and to target specific conditions of the body, Diocles outlined an almost hourly regimen plan for patients, that fit into a larger programme for each part of the day and each time of the year.[33]

The increase in precision of the dietetic plans was possible due to the advanced specialized knowledge on the influences of foodstuff on the male body, that had been

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[28] Tipton, 'The history of "Exercise Is Medicine", 113-15; Kleisiaris, Sfakianakis and Papathanasiou, 'Health care practices'.

[29] Bartoš, *Philosophy and dietetics*, 15-6, 41-3; Jouanna, van der Eijk and Allies, *Greek Medicine*, 146; Wilkins, 'Introduction Part V', 338; King, 'Food and blood', 352.

[30] Aris., *On the Soul* II, 4.415a-4.416b; Studtmann, 'Living Capacities and', 365–79.

[31] Karfík, 'The Constitution of', there 170-79; Craik, 'Plato and Medical Texts', 109-14; Lloyd, *In the Grip of Disease*, 142-57.

[32] Macfarlane, 'Health and disease', 49-50; Hippocrates, *On Regimen in Health*, I, II; Bartoš, *Philosophy and dietetics*, 46-7, 59-60, 69; E.M. Craik, 'Hippokratic Diata', in: J. Wilkins, F.D. Harvey and M. Dobson eds., *Food in antiquity* (Exeter 1995) 343-58, there 346.

[33] Holmes, 'Medical knowledge', 92; Macfarlane, 'Health and disease', 59.

catalogued in an increasingly precise and detailed manner since the time of the Hippocratic corpus. Specific qualities(dry, wet, moist, hot, etc.) were ascribed to preparation methods and food types, that then could be used to treat opposite typed conditions in the body. Consequently, ancient works that gave dietetic prescriptions often specified how food should be prepared and when certain foods should be eaten.[34]

The theories on regimen and its link to soul care continued being prominent throughout the Roman period. Galen's works likewise show this linkage between body, soul and morals. His works also focus on the effects of external influences on the (male) body. As a result, he saw regimen, specifically the dietetics, as a means of strengthening ones character and started formulating advanced explanations of psychic diseases in bodily terms.[35]

The Roman period also saw the development of texts on female regimen. These texts applied the theories of dietetics to the female body. Before this time, women were omitted from the general introduction to dietetics. The application of dietetics on women was only visible in reported treatment cases and theories about the application of dietetics on women were only discernible from the general ideas on the body and dietetics.[36]

Regimen, as an external influence, was thus seen as a useful tool to keep the body healthy and good looking. Dietetics and exercises were prescribed in combination with medication as part of the normal medical procedures, to treat diseases and to restore balance in the body. Linking 'care of the body' and 'care of the soul', regimen became a way to take care of one's soul and to show that one had good moral values. Overall knowledge on dietetics and other external influences on the body had become increasingly advanced and varied in composition. Strikingly these medical ideas and theories were still mostly based upon the adult male body. How 'other' bodies should be treated was rarely discussed.

1.3.1 The 'other' body

If the standard and ideal body on which medical knowledge was based was the adult male body, then what were the 'other' bodies that were discussed in ancient (medical) texts? How were they defined and how did they deviate from the standard? And why were they mentioned less frequently in the ancient works?

The focus on the male body in ancient texts was caused by a variety of factors. In the third century BCE dissection and vivisection practices that lead to medical developments were based on animals and adult male convicts. During later periods this male bias became less extreme. The bodies of female mammals were studied and writers like Herophilus and Soranus identified and studied parts of the female anatomy, like the ovaries and the uterus. A second reason for the male bias was that both the writers and most of their audience were male. Another reason was the lack of intimate interaction between male medical authors and non-male patients. Male doctors only occasionally treated children and female patients. This was likely because women, who often decided on their own treatment and the treatment of their children, leaned towards traditional medicine, wise-women and temple medicine, as they considered them to have more modesty and feminine sympathy. When male doctors did treat female patients they were generally summoned by a male relation of the patient, often in

[34] Powell, *Galen*, 2-6; I. Lonie, 'A Structural Pattern in Greek Dietetics and the Early History of Greek Medicine', *Medical History* 21:3 (1977) 235-60, there 238, 242-4; Jouanna, van der Eijk and Allies, *Greek Medicine*, 138; Wilkins, 'Introduction Part V', 338; Craik, 'Hippokratic Diata', 349; King, 'Food and blood', 353; M. Grant, 'Oribasios and medical dietetics or the three P's', in: J. Wilkins, D. Harvey and M. Dobson eds., *Food in Antiquity* (Exeter 1995) 371-79, there 373-8.
[35] Holmes, 'Medical knowledge', 98, 102; Macfarlane, 'Health and disease', 60-2; Grant, *Galen*, 5-10, 14-61; Powell, *Galen*, 13-8; Flemming, *Medicine*, 99-102, 112; King, 'Food and blood', 353.
[36] Flemming, *Medicine*, 220-4.

relation to childbirth complications. The treatments of female patients that were most often described by male authors are therefore abnormal births.[37]

All of this however, did not make the treatments of women any less trustworthy and medical texts about women any less believable. Even gynaecological texts from the fifth and fourth centuries BCE contained information from women and were directed at a female clientele. These works incorporated more elements from folk practises. They had a wider *materia medica* and made more use of ritual in diagnoses and cures. This knowledge was probably introduced to the male writers by wise-women, female doctors, mid-wives and female patients. However both the clients and wise-women, influenced by gender-role ideology, might have given and endorsed erroneous information about the female body. Nonetheless the gynaecological works must have been acceptable to its audience and have been in compliance with the view women had of their own body, otherwise the works would not have remained in use.[38]

In the discussion of the male-bias in ancient texts a distinction between male and female bodies has already become apparent. Ancient Greek medicine and biology saw the male and female body as inherently opposite, as a difference of nature, resulting from a process that began in the womb and continued throughout life. The difference in nature claimed by the ancient Greek medical texts most likely originated from the polarization of the sexes in mythology. Via mythology, it became a deeply planted cultural belief that conditioned the interpretation of empirical evidence. This interpreted evidence was used to support the biological explanation of the differences between the sexes. Once the cultural differentiation was grounded in nature, anything that deviated from the norm could be classed as an exception, rather than a challenge to reconsider what was male or female.[39]

The two body types, male and female, were biologically differentiated first by their external genitalia. Later they were also tied to other physical, mental and emotional traits and were ascribed opposing attributes such as hot and cold, fast and slow, strong and weak, right and left, and other positive and negative connotations.[40]

The adult male body was believed to have a perfect balance between hot and cold, moisture and dryness. Although, each person was thought to have their own individual balance. When sufficiently masculine, the male body was healthy, was hairy, was protected against certain diseases and automatically reabsorbed any excess moisture. Only the male body was able to produce fertile sperm and it even continually renewed its own masculinity. Some ancient scholars thought that the male body had a greater body heat than the female body, because it was less moist and spongy.[41]

The female body was always seen in a negative contrast to the male body. The male body was the norm whilst the female body was seen as abnormal and having only reproduction as its goal. The female body was characterized as being moist and having spongy skin. These two qualities of the female body were thought to be related to the higher quantity of blood in a woman's body after puberty. The moisture and sponginess soaked up

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[37] Dean-Jones, *Women's bodies*, 17, 21-2, 26, 31-6; Longrigg, *Greek Rational Medicine*, 191-206; Flemming, *Medicine*, 33-42, 129, 149, 157, 181-4, 239, 243, 285-7, 359-61; Holmes, 'Medical knowledge', 93-5, 101; Bonnard, 'Male and female bodies', 13-4.

[38] Idem, 26-31, 37-40; Flemming, *Medicine*, 33-42, 181-3; Flemming, 'Women, writing, and medicine', 257-79.

[39] Bonnard, 'Male and female bodies', 3-4, 8, 11; Dean-Jones, *Women's bodies*, 26, 41-6; M.M. Lee, *Body, Dress, and Identity in Ancient Greece* (Cambridge 2015) 33-48; Flemming, *Medicine*, 3. In Greek mythology the sexes were said to have separate origins, with men appearing first and women being moulded out of clay and given to man as a punishment by the gods.

[40] Idem, 3-4, 8, 11-2; Dean-Jones, *Women's bodies*, 26, 41-6, 57-8; Lee, *Body, Dress, and Identity*, 35-7.

[41] Idem, 10-1; Dean-Jones, *Women's bodies*, 44-6, 56-8, 85, 225; Lee, *Body, Dress, and Identity*, 36; Flemming, *Medicine*, 202, 322. Ancient scholars long debated on whether the male body was warmer or colder than the female body, but having a greater heat was most often ascribed to men.

the excess blood from the stomach, where consumed food had been converted into blood. Some scholars also believed women to be colder than men. The evidence for this they found in the fact that women lost a lot of blood during their menstruation. Of course menses itself was seen as one of the most prominent differences between men and women, and girls and women. Menstruation was even thought capable of functioning as a prophylactic system. The excess blood in the female body would in the case of pregnancy, be used to nourish the foetus in the womb and after birth it was used to produce breastmilk. When the body was pregnant and lactating the female body was thought to be more balanced. Besides the aforementioned characteristics a woman's body was distinguished by the fact that she had prominent breasts, had a uterus and that her organs were connected, from the mouth to the vagina by way of the uterus.[42]

Aristotle ascribed the fundamental difference between male and female bodies to the fact that women's bodies lacked in innate heat. This coldness, he thought, was partially due to their periodical evacuation of menstrual blood. However in contrast to the Hippocratic view of the fundamental differences between men and women, Aristotle saw women as a less perfect version of men. Gender then became more of a sliding scale, men could be more feminine and women could be more masculine, all depending on their disposition and lifestyle. Aristotle, because of this, identified parallel physical developments in male and female bodies. For example he equated the production of semen in men with that of menses in women.[43]

Aristotle's theory was later used by Galen, who interpreted the female body in light of the male body. The most perfect body was male, whilst the female body was by nature weaker, colder and formed for childbearing. This difference between the sexes was also seen in the development of the reproductive organs: those of women are identical to those of men, but simply remained inside the body due to a lack of vital heat. Galen thus saw anatomy as a reflection of a difference, by degree, between the sexes which originated in physiology.[44]

The change from the traditional Hippocratic view of a hierarchy of nature to a hierarchy of degree in the theory of the differences between the sexes by Aristotle, Galen and other scholars, formed what is now considered to be the model of the unisex body. It is likely that this theory on male and female physiology prevailed because it could more easily reflect and adapt to the changing role of women in society during the Hellenistic and Roman periods.[45]

1.3.2 Childhood, puberty and old age

Besides differentiating people based on gender, the ancient medical texts differentiated people based on their stage of life. The stages of life that were mentioned in the texts included: childhood, puberty, adulthood and old age. There were no established specific ages for the start and end of these life stages.

Although many scholars thought that sexual differentiation occurred in the early stages of conception and that the genitalia, which were already visible during childhood, were a sign of children's sex, sexual differentiation during childhood was seen as vague. In medical texts

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[42] Bonnard, 'Male and female bodies', 8-10, 12; Dean-Jones, *Women's bodies*, 26, 44-6, 49, 55-8, 85-95, 136-42, 225; Lee, *Body, Dress, and Identity*, 36; Flemming, *Medicine*, 116-7, 153, 155-60, 175-9, 214, 233, 235-6, 255, 310-1, 333-9; King, 'Women's health and recovery', 156-8; King, 'Food and blood', 353-4. Menstruation was thought to purge the whole body, as it drew off excess humours and with them all the morbid substances building up inside a diseased woman.

[43] Dean-Jones, *Women's bodies*, 46, 59-60, 85, 134, 225; Lee, *Body, Dress, and Identity*, 33-48; Flemming, *Medicine*, 117-20.

[44] Bonnard, 'Male and female bodies', 13-4; Holmes, 'Medical knowledge', 100-1; Flemming, *Medicine*, 273, 283-4, 303, 306-7, 324, 328, 333-9, 342, 347, 354-7, 361.

[45] Ibidem; Dean-Jones, *Women's bodies*, 20-1; Flemming, *Medicine*, 119-22, 152, 367-70.

the sex of children was often not mentioned, mainly because they thought that the sexual differences in children were minor and that the actual differences only became apparent with the onset of puberty and the start of residue production. Passages in children's bodies were thought to be too narrow to allow for the agitation of fluids which differentiated the sexes among adults. Childhood was thus mostly seen as a preparatory stage for adulthood. In Galen's theory on the relation between life stages, seasons and ages, infancy was related to the season of spring and the presence of blood, whilst youth was related to summer and the abundancy of yellow bile. In general the body in this period of life was thought to be moist and warm.[46]

Puberty was seen as the period during which a boy's body changed dramatically. After the onset of puberty, boys became young adults who went through an extended period of adolescence before assuming all their duties as citizens. During this period their bodies became warmer due to the development of their genitals. As a result it could now produce semen. The body also got hairier as the passages inside the body expanded and allowed for the agitation of fluids. Secondary body hair first made its appearance especially around the genital area, the chin and chest. Men became hairier than women during this period as men were able to agitate a greater volume of semen, which created the moisture that was necessary for hair to grow. Other bodily changes for men included the growth of the glands in the chest, growth of the body in length and the changing of the voice. The internal balance of a boy's body was thought to be a combination of moist and warm elements, while his blood was seen as unspoiled, fervid, abundant and movable. Due to this warm nature, young men were thought to be restless, gullible, naïve and impulsive in their desires.[47]

According to the Hippocratic works a girl's puberty was a short period, which unlike today ended with menarche. The expected age for a girl's menarche and the age at which she was thought to be capable of fulfilling the role of an adult woman in marriage and motherhood, was around 14. By then the passages had expanded, body growth had ceased and excess food had been turned into blood which had accumulated in the body. This accumulated blood drained into the womb and from there flowed out as menstrual blood if the girl had 'opened up'. If menarche was later than the socially accepted age of puberty, the accumulated blood was assumed to be sealed inside the body. This situation had to be prevented or solved by having girls in this age category married and deflowered. The Hippocratic works thus equate menarchal blood with hymenal blood and thought that intercourse could remove any impediment to menstruation. A girl's body during puberty was also thought to experience a large growth of the breast glands, bigger than that of the chest glands in a boy's body. The larger growth of the glands was ascribed to the production of milk by the glands and the women's looser and more porous body. Girls also experienced a growth in height and a lowering of the voice. The internal balance of a girl's body was probably like the internal balance of a boy's body, but moister and colder. The differences in balance between bodies of girls and boys were thus similar to the differences in balance between male and female bodies.[48]

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[46] Dean-Jones, *Women's bodies*, 45-6, 118; M.I. Finley, 'The elderly in classical antiquity', *Greece and Rome* 28 (Jan. 1981) 156-71, there 159-60; Jouanna, van der Eijk and Allies, *Greek Medicine*, 339; Craik, 'Hippokratic Diata', 346. It must be noted that the sources rarely mention treatments of infants and children and that for the treatments that do, it is difficult to unequivocally identify the patients as children. For more information on this problem see: N. Demand, *Birth, Death, and Motherhood in Classical Greece.* (Baltimore; London 1994) 141-7.
[47] Idem, 47-8, 61, 83-4; Hippocrates, *On Regimen* I, 1.33-4; Craik, 'Hippokratic Diata', 346; D. Leitao, *The 'measure of youth': Body and gender in boys' transitions in ancient Greece* (PhD dissertation, University of Michigan 1993) 4-5; C. Laes and J.H.M. Strubbe, *Youth in the Roman Empire : The Young and the Restless Years?* (Cambridge 2014) 23-8, 43, 47-8, 61-4, 68-9; Flemming, *Medicine*, 311.
[48] Idem, 47-57; Finley, 'The elderly in classical antiquity', 159-60; Laes and Strubbe, *Youth in the Roman Empire*, 62, 64, 68-9, 199-201; Flemming, *Medicine*, 197, 222, 237, 311; M. Harlow and R. Laurence, 'Viewing

In contrast to the Hippocratic works, Aristotle saw puberty as a parallel development in girls and boys, as both experienced the redirection of nourishment, previously used for growth, to the production of reproductive fluids. He thought that both sexes started their extended period of puberty around 14. Menarche in his opinion was the beginning and not the end of puberty for girls. Aristotle also argued that intercourse for both sexes should be postponed till the age of 21, as he thought that before that age semen was infertile and women often had difficult pregnancies.[49]

After puberty came the period of adulthood, which we have already discussed, and then the period of old age. To study old age in antiquity we often examine the social, economic and political ideas on old age in ancient literature. The onset of old age was sometimes based on a variety of mathematical calculations. Life stages could be based on for example seven periods of 10 years, or four stages of twenty years. These calculations put old age anywhere between 60-80 years. However, there was never a standard allotment of years to any particular stage of life based on mathematics. From the Augustan legislation (18 BCE, AD 9) on marriage ages we also have a political and legal definition of old age for both men and women. This law connects old age for women to the age of 50 and that of men to the age of 60, after which neither should be remarried. Another way of looking at old age for men is by studying military retirement. Retirement of military duty as well as the cessation of some citizen duties, such as the expense of *munera*, public banquets, giving of games and other forms of gifts, started from the age of 60 and up. Old age for men in the social, economic and political spheres, could thus be said to begin at various ages, but in general there was a gradual withdrawal from public life starting from 60 years old, that was often accompanied by increasing physical and mental weakness and dependency. Old age for women was often linked to their husbands social identity and lifestyle. Due to the common age disparity of around 10 years between husband and wife, women were likely defined as old at the relatively early age of 50. This definition of the start of old age for women roughly coincided with end of women's reproductive life and the onset of menopause, which was thought to start between the age of 40 and 50.[50]

The social, economic and political ideas about old age are important because there is an absence of serious discussion of ageing in the ancient medical literature. Most likely the elderly body, having only small deviations from its past bodily balance, was not seen as drastically different from its younger version. However, it is evident from the medical works that doctors knew that pulse rates changed with age, that age was taken in consideration in surgical cases and that doctors knew that the elderly tended to suffer more from catarrh, failing sight and deafness. The Hippocratic ideas on elderly men are best summarized in the following quote from the Hippocratic work *Aphorisms*:

> Old men have little innate heat, and for this reason they need but little fuel; much fuel puts it out. For this reason too the fevers of old men are less acute than others, for the body is cold.[51]

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the Old: Recording and Respecting the Elderly at Rome and in the Empire', in: C. Krötzl and K. Mustakallio eds., *On Old Age: Approaching Death in Antiquity and the Middle Ages* (Turnhout 2011) 3-23, there 6.

[49] Dean-Jones, *Women's bodies*, 53-5; Leitao, *The 'measure of youth'*, 4-5; Laes and Strubbe, *Youth in the Roman Empire*, 68-9.

[50] Finley, 'The elderly in classical antiquity', 156-160; T.G. Parkin, *Old Age in the Roman World: A Cultural and Social History* (Baltimore; London 2003), 15-35, 62; Harlow and Laurence, 'Viewing the Old', 3-23. Mathematical calculations were also used for ascertaining the ages for other life stages, such as childhood and puberty, for this see: B. Rawson, *Children and Childhood in Roman Italy* (Oxford 2003)136-145; Laes and Strubbe, *Youth in the Roman Empire*, 23-36, 41-2, 61.

[51] Hippocrates, *Aphorisms* 1.14; Translation by: W.H.S. Jones, *Hippocrates volume IV* (Loeb Classical Library 150; Cambridge 1931) 105.

In the Hippocratic work *On Regimen* old men are claimed to be cold and moist. The characteristic of moistness was however not associated with the elderly in most other works. Aristotle saw the old male body as colder, brittle and dry. Galen, in agreement with the Hippocratic works and Aristotle, thought that the elderly body was slowly losing its natural 'innate' heat, gradually withering and drying out. As a result the body became weaker and less efficient at maintaining itself and its internal balance. Galen saw ageing and death as inevitable consequences of conception and growth, which were ultimately determined by intrinsic innate factors. He also related old age to the season of winter and the dominance of phlegm. For women menopause was seen as an important demarcation of old age. In the Hippocratic works menopause was thought to be the result of the body becoming drier and thus having less excess blood. Old age in women was thought to increase the risk of diseases such as wandering womb and *pnix*, as the womb was empty and lighter, because of the absence of menstrual fluids. Aristotle placed menopause at an age between 45-50 and ascribed it to the loss of innate heat, which made the body colder and stopped the production of various fluid residues. Aristotle did not see menopause as something that was dangerous for a woman's health, as it merely made female bodies assimilate more to the male form. In general both male and female elderly bodies were characterized as colder, drier and weaker.[52]

The 'other' body types discussed in the ancient literature are thus differentiated by gender and age. Childhood was seen mostly as a pre-face to puberty and adulthood, with the body only being differentiated by its genitals. In puberty major gender differences appeared like menarche for girls and hair growth for boys. During adulthood the changes, that started in puberty, were enlarged. In the prime of their life men's bodies were thought to be perfectly balanced, while women's bodies were thought to be more moist and cold. Lastly, old age was characterized as a period in which the body became weaker, colder and drier.

1.4 Conclusion

In ancient medical literature the body was thought of as consisting of fluids that needed to be balanced. The purpose of medicine was to re-attain and maintain this balance. An important way to balance the body was the usage of regimen, especially dietetics. The theories on dietetics and regimen were however largely based on the male body. How then were the theories on dietetics applied to the 'other' types of bodies? And how did this application differ from that used on the standard of the male body?

[52] Hipp., *On Regimen* I, 1.33-4; Finley, 'The elderly in classical antiquity', 156-159; Parkin, *Old age*, 15-35, 62; Harlow and Laurence, 'Viewing the Old', 3-23; Dean-Jones, *Women's bodies*, 71, 103-8, 123; Jouanna, van der Eijk and Allies, *Greek Medicine*, 339; Flemming, *Medicine*, 153; C. Gilleard, 'Ageing and the Galenic Tradition: a Brief Overview', *Ageing & Society* 35:3 (2015) 489–511, there 491-2, 507.

H2 Dietetics

The general theory of dietetics will first be described on the basis of the adult male body, that was considered to be the standard body. Then there will be an extensive representation of what is said in the ancient works about the application of dietetics on the bodies of non-pregnant women, pregnant women, the elderly and children.

2.1 The adult male body

The general theories on the application of dietetics on the male body are evident from the treatment cases and advices found in the Hippocratic corpus. Overall, healthy men were well balanced and therefore did not really need to deliberate on what they should eat. Healthy men were only advised to avoid harmful foodstuffs and eat foods that countered any individual imbalances. If men were especially attentive to their health they could follow the guidelines of, for example, *On Regimen in Health* and alter their diet to counter the seasonal changes.[53]

When men became ill, the body was thought to have been brought out of balance due to disease or other environmental factors. The Hippocratic works recommended specific diets to counter this imbalance. However, before the treatment could be given, the nature of the diseased state was first to be ascertained. Galen described this process of finding the diseased state thusly:

> For if someone were to divide first according to differences of age, and next according to differences in *krasias* and capacities (*dynameis*), and the other things that relate to humans […] and to add to these the division into male and female, and those things that must be divided relating to places, seasons of the year, and the other conditions of the air surrounding us, he would come close to the specific nature of the sick person.[54]

The diet plans advised were comprised of foodstuffs and drinks, that had opposite qualities to the qualities that were thought to be unbalanced in the patient's body. This was based on the medical theory that 'opposites cure opposites'.[55]

'Opposites cure opposites' was the central and most important aspect in how food was seen in relation to medicine. One example of 'opposites cure opposites' was the treatment advice for curing a 'thick disease' from the Hippocratic work *On Internal Affections*. In this advice the author first stated that the disease was caused by putrefied phlegm, after which he explained how one could identify this state of the phlegm and what the other characteristics of the disease were. He then advised the following treatment:

> When the case is such, clean the patient's cavity downwards with hippopheos, and upwards with hellebore; clean out his head with square-berry. When he has been cleaned with the hellebore, the next day clean him downwards with boiled ass's milk, the third day with boiled goat's milk, and also the fourth and fifth; for twenty more days give raw cow's or goat's milk, adding one third part of melicrat; let him drink a chous of this milk. After the cleaning, let the patient receive the same medications as a

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[53] Hipp., *On Regimen in Health*, I, II; Hippocrats, *On Regimen* I, II; Hippocrates, *On Regimen* II, XXXIX-LX; Bartoš, *Philosophy and dietetics*, 46-7, 59-60, 69; Craik, 'Hippokratic Diata', 346; Macfarlane, 'Health and disease', 49-50; Bonnard, 'Male and female bodies', 10-1; Dean-Jones, *Women's bodies*, 44-6, 56-8, 85, 225; Lee, *Body, Dress, and Identity*, 36; Flemming, *Medicine*, 202, 322; Powell, *Galen*, 35, 41, 44, 78, 92, 96, 105.

[54] Galen, *A Method of Medicine to Glaucon*, 1.1; Translation by: I. Johnston, *On the Constitution of the Art of Medicine. The Art of Medicine. A Method of Medicine to Glaucon* (Loeb Classical Library 523; Cambridge 2016) 343.

[55] Powell, *Galen*, 2-6; Lonie, 'A Structural Pattern', 238, 242-4; Jouanna, van der Eijk and Allies, *Greek Medicine*, 138; Wilkins, 'Introduction Part V', 338; Craik, 'Hippokratic Diata', 349; King, 'Food and blood', 353; Grant, 'Oribasios and medical dietetics', 373-8.

> patient with dropsy; from then on, let him drink milk, have for dinner well-baked bread and, as main dish, scorpion fish, stargazer, piper, or a slice of angel-fish boiled in seasonings, or boiled meat of sheep or chicken; let him drink white wine, if it benefits him; if not, then a different sort of dry dark wine. Then let him go for short walks after dinner, taking care not to have a chill. If it benefits this patient, give him food, but if food does not benefit him, give barley-water or millet gruel.[56]

The treatment starts with the prescription of foodstuffs and drinks that were meant to clean the body by removing the putrefied phlegm. To do this the following foods and drinks with cleansing qualities were selected: hippopheos, hellebore, square-berry, boiled goat's milk, raw cow's or goat's milk with melicrat. Some of these cleaned the whole body, others only cleaned specific parts of the body. The cleansing foodstuffs and drinks were administered in stages, probably to prevent them from counteracting or overburdening the body.[57] Subsequently cleansing medication was prescribed, after which an increased amount of food and drinks, that were likely meant to strengthen the body, were advised.

The well-baked bread was prescribed, because it was thought to benefit people with a phlegmatic nature, in other words people with a body that was moister and/or colder than the perfectly balanced body. The selected fishes were almost all firm-fleshed fishes that were thought to be dry, to produce thick juices and to be difficult to digest. Boiling was the prescribed preparation for these fish, because boiling made them easier to digest and transferred the original qualities of the solids to the water they were cooked in. Preparing fish this way made it taste bland. To give the fish more flavour seasonings were added to the water. The fish prepared this way did not produce thick juices anymore and now had a moist quality, as everything that was boiled became moist. The sheep meat and chicken meat prescribed were also prepared by boiling, which gave them the same moist quality as the fish. Boiling also removed their other qualities and made them easier to digest. The prescription ends by advising barley-water or millet gruel if the patient was still too weak to consume more solid foods. Barley-water and millet gruel were mildly nourishing, were easy to consume and were often given to patients when they were recovering.[58]

This diet focused first on removing the putrefied phlegm, after which it prescribed moist and easy to digest foods, that balanced out the thickness and dryness which had caused the putrefied phlegm. The treatment thus shows the usage of the theory of 'opposites cure opposites'.

Another example of the dietetic principle of 'opposites cure opposites' is the treatment advised in case of a surfeit, from the Hippocratic work *On Regimen*. Like in the previous example the author first summarized the characteristics of the diseased state. The author then identified the imbalance in the body. In this case the stomach was thought to be too cold and thus unable to digest food overnight. As a result the following treatment focusing on warming the stomach was advised:

> So first one should use warm, fermented bread, crumbling it into dark wine or into pork broth. Also fish boiled in acrid brine. Use also fleshy meats, such as pig's feet well boiled and fat roast pork, but be sparing of sucking-pig, and the flesh of puppies and kids. Vegetables should be leeks and onions, boiled and raw, boiled blite and the

[56] Hippocrates, *On Internal Affections*, 49; Translation by: Potter, *Hippocrates volume VI*, 207-9.
[57] Pliny, *Natural History*, XXXV; Powell, *Galen*, 33-4, 123-6.
[58] Hipp., *On Regimen* II, XLI, XLII, XLVI, XLVII; Oribasius, *Medical Compilations*, 4.2.1, 4.7; Powell, *Galen*, 39-43, 116-7, 131-2, 142-5; A. Dalby, *Food in the ancient world from A to Z* (London 2003) 45-7. Oribasius' work wil be used in the analysis of dietetic advices and treatments, eventhough it was written after the indicated time period for this thesis, because it summarizes the opinions of many earlier works on dietetics.

> pumpkin. Drink should be undiluted, and no luncheon should be taken at first. There should be sleep after exercises, running in the double course, increased gradually, gentle wrestling with the body oiled, few baths, more anointings than usual, plenty of early-morning walks, but only short ones after dinner. Figs with food are good, and neat wine therewith.[59]

The first dish prescribed was a common breakfast dish, but here it was slightly altered to fit the condition of the patient. The bread advised was warm, light and easy to pass. It had to be crumbled into dark wine or pork broth, both liquids that were heating, warm and nourishing. This preparation made it a dish that warmed the stomach and was easy to digest. The fish prescribed was to be boiled in acrid brine, which locked in all of the juices and made it extra moist and tender. The fish and the meat recommended were easy to digest by nature or were prepared to be easy to pass. All the vegetables that were chosen had a warm quality and almost all of them had a moist quality. The figs were recommended as a supplement, as they had a moist, cleansing and thinning quality which stimulated gastric emptying and cleared out the kidneys.[60]

The diet prescribed in this treatment shows the theory of 'opposites cure opposites' as it used warming, moist and easy to digest foodstuffs and drinks to counter the coldness in the stomach, which had caused the diseased state of the patient's body.

[59] Hippocrates, *On Regimen* III, LXXXV; Translation by: Jones, *Hippocrates volume IV*, 397-9.
[60] Hipp., *On Regimen* II, XLII, XLIV, XLVI, XLVIII, LII, LIV, LVI; Orib., *Medical Compilations*, 4.2.1, 4.2.16; Powell, *Galen*, 76-7, 142-5, 149-50; R. Flacelière, *La vie quotidienne en Grèce au siècle de Périclès* (Paris 1959) 205.

2.2.1 The female body

Now the theory of the application of dietetics on the non-pregnant female body will be examined. It is important to keep in mind the characteristics of the female body that were central to the application of dietetics. The basic characteristics of the female body were: moistness, coldness, sponginess and an excess of blood due to a bad conversion of food intake.[61] As with the male body, each individual was thought to have its own specific balance, based on this rudimentary balance. In the Hippocratic work *On the Diseases of Women* II the different female balances were seen thusly:

> You must also consider women's natures, their complexions and their ages, as well as the seasons, the places, and the winds. For cold women are moist and subject to fluxes, whereas warm ones are drier and more subject to stasis; fair women are moister and more subject to fluxes, while dark ones are drier and more constricted; wine-coloured women have something of both. The ages of life have the following significance: young women are generally moister and richer in blood, while older women are drier and have less blood; those between the two have something of both, since they are of an intermediate age. A person who manages these matters correctly must distinguish on each occasion women's natures, their ages of life, the seasons, the places, and the winds.[62]

Other Hippocratic works and later scholars, like Galen, similarly examined the age of the patient, the seasons, the places, the winds, and other things like *kraseis*, *dynameis*, colours, heat and arterial motions, as well as a person's habits, occupations and the characteristics of the soul.[63] After gathering all this information doctors could advise a diet that fitted a person's specific balance.

Most medical texts, however, did not mention the specific balances of the bodies of female patients, nor did they specify much about female dietetics. We will first look at a few dietary advices in medical texts that mention women, before examining dietetic advices that had women as their main subject. Some medical texts briefly mention women when prescribing treatments and while discussing the medical uses for foodstuffs. When it came to dietetics for healthy women, only general dietetic advice based on the generic characteristics of the female body were given.[64] Oribasius, for example, briefly remarked the following when discussing the preparation of starch:

> One can use starch when mixed in concoctions in the case of empyema for the spitting up of blood and for women's periods and for corpulence and for good complexion, administered in honeyed wine and with groats.[65]

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[61] Bonnard, 'Male and female bodies', 3-4, 8-12, 14; Holmes, 'Medical knowledge', 100-1; Dean-Jones, *Women's bodies*, 26, 41-6, 49, 55-60, 85-95, 136-42, 225; Lee, *Body, Dress, and Identity*, 33-48; Flemming, *Medicine*, 116-20, 153, 155-60, 175-9, 214, 225, 233-6, 255, 273, 283-4, 303, 306-7, 310-1, 324, 328, 333-9, 342, 347, 354-7, 361; King, 'Women's health and recovery', 156-8; King, 'Food and blood', 353-4.

[62] Hippocrates, *Diseases of Women* II, 2; Translation by: P. Potter, *Hippocrates volume XI* (Loeb Classical Library 538; Cambridge 2018) 269.

[63] Hippocrates, *Nature of Women*, 1; Galen, *A Method of Medicine to Glaucon*, 1.1; Flemming, *Medicine*, 116-7, 344.

[64] Flemming, *Medicine*, 220-1.

[65] Orib., *Medical Compilations*, 4.8.3; Translation by: M. Grant, *Dieting for an Emperor: A translation of books 1 and 4 of Oribasius' Medical compilations with an introduction and commentary, Studies in ancient medicine vol. 15* (Leiden 1997) 241-3. Oribasius' work wil be used as a source for the analysis of dietetic advices, eventhough it was written after the indicated time period for this thesis, because it summarizes the opinions of many earlier works on dietetics and because it is sometimes the only extent version of earlier texts.

Starch was seen as beneficial for women's periods as it was thick-juiced, not heating and devoid of purgative qualities, which made it an emollient for harsh things that was suitable for any body type. The starch was possibly thought to aid in thickening the menstrual blood which could help reduce menstrual pain and could make the blood easier to expel.[66]

An example of a brief reference to women in a prescription can be found in *On Diseases* II where women were mentioned in a treatment for a phlegmatic disease. The characteristic of a phlegmatic disease was its excess of moist and cold phlegm. Women were thought to be ailed by this disease more often than men, because of their cold and moist nature. First the symptoms of the disease, among other things a mild fever and vomiting of bile and saliva, were summarized, after which the following advice was given:

> Have this patient drink a medication, and whey and ass's milk; if he is to drink whey, have him first drink medications that act downwards for several days; if he stops drinking whey, let him then drink ass's milk. As long as the patient is drinking, have him abstain from foods, but drink very sweet wine once he is no longer being cleaned. When he stops drinking, let him breakfast on millet, and towards evening have a very small amount of very soft food; let him avoid fat, sweet and oily foods. From time to time, especially in winter, have the patient vomit by employing a decoction of lentils after eating vegetables.[67]

The treatment starts with the consumption of whey and ass' milk in combination with medication that cleanses downwards to remove the excess phlegm from the body. Whey and ass' milk were chosen for this as they both had a laxative quality. Whey was given first as it had a stronger laxative quality than milk. Ass' milk was preferred over other types of milk because it was more laxative and had the least amount of oiliness. This was important as the treatment advised to avoid oily foods. After a period of fasting and drinking only sweet wine the patient was to eat millet for breakfast. Sweet wine was hotter than other wines and was easier to digest and assimilate. Millet was probably advised to help against the fever and to bind and dry the saliva, bile and any of the left over phlegm as it had cooling, drying, binding and nourishing qualities. For later in the day the treatment advised soft foods, probably because the body was still recovering and needed something easy to digest. Sweet food had to be avoided as it was thought to produce phlegm. The treatment also advised to avoid eating fat, sweet and oily foods, as these would upset the stomach. The dietetic advice concluded by prescribing the consumption of vegetables, which were cold and soft, before consuming a heating decoction of lentils which promoted vomiting. This example used the theory of 'opposites cure opposites' to treat the problems caused by the excess of phlegm, by prescribing cleansing, laxative, binding and drying foodstuffs.[68]

This treatment was prescribed to both male and female patients. In the ancient medical works it is rare to find prescriptions that explicitly state that a disease and its treatment were identical for both men and women. In this specific case women were only mentioned in the treatment as they were more susceptible to the disease. Although the disease would have increased the inherent cold and moist qualities in their bodies, no adjustments were given when the treatment was to be applied to women. I believe this shows that when treating

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[66] Orib., *Medical Compilations*, 1.6(n); Grant, *Dieting for an Emperor*, 115-6.

[67] Hippocrates, *On Diseases* II, 70; Translation by: P. Potter, *Hippocrates volume V* (Loeb Classical Library 472; Cambridge 1988) 285.

[68] Hipp., *On Regimen in Health*, I; Hipp., *On Regimen* II, XLI, XLV; Orib., *Medical Compilations*, 1.15.1, 4.7.15, 4.7.17, 4.10; Grant, *Dieting for an Emperor*, 132-3, 298; Powell, *Galen*, 164-5; Grant, *Galen*, 188-9; J. Wilkins, 'Food and Health in Problemata 21–22: Cooking (pepsis) in the Kitchen and "Cooking" (pepsis) in the Body', in: R. Mayhew, *The Aristotelian Problemata Physica: Philosophical and Scientific Investigations*, *Philosophia Antiqua* 139 (Leiden 2015) 255-71, there 266.

diseases with dietetics, countering the diseased state was more important than countering the inherent bodily balance of the patient.

Both examples above did not have women as their main subject when they discussed the usage of dietetics. A dietetic advice given specifically to healthy women can be found in Rufus of Ephesus' work *On Women's Regimen*:

> The bodies of women are wetter and colder, as everyone would agree. So it is appropriate for them to be given a hotter regimen, in order that the regimen might balance the excesses of their *krasis*.[69]

This hotter regimen involved a diet with moderate portions that avoided cold and wet foods (such as fish) in favour of hot and dry foods (such as honey). Rufus believed that women could correct their inherent cold and wet balance via regimen, but he thought that they could never completely overcome their inherent bodily problems.[70]

The Hippocratic work *On Regimen in Health* also mentions a dietetic advice specifically for healthy women:

> Women should use a regimen of a rather dry character, for food that is dry is more adapted to the softness of their flesh, and less diluted drinks are better for the womb and for pregnancy.[71]

The focus was clearly put on counteracting the moist and spongy characteristics of the female body by using a drying diet. The stronger drinks were advised because strong wine was thought to be nourishing, strengthening, heating and drying in character. The womb was seen as the most vital part of the female body. Less diluted drinks were advised as they were thought to be beneficial to the womb and helped women to conceive. This dietetic advice therefore illustrates both the usage of the theory of 'opposites cure opposites' and the general focus of dietetics for women on propagation.[72]

The gynaecological texts that focused on childbirth and pregnancy, were an exception to the limited attention paid to the female body and its treatment in medical texts. The gynaecological works placed a strong emphasis on the uterus in their treatments. The texts employed a range of different treatments including pessaries, fomentations, diets, potions and drinks, for which they gave many recipes. The gynaecological works had an especially large number of dietary prescriptions. This was likely because of the Hippocratic theories about the link between food and blood. Many female health problems were ascribed to the excess of blood in the female body and such problems were thus thought to be particularly amenable to treatment with dietetic prescriptions.[73]

Like in the general dietetic advice for women, there was a focus on diets with a drying character in the gynaecological dietetic prescriptions. In the Hippocratic work *Diseases of*

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[69] Rufus, *On* Diet, Ruf. ap. Orib. Coll. Med. Lib. Inc. 20. 1-2 (CMG VI. 2.2. 109. 26-8); Translation by: Flemming, *Medicine*, 223.

[70] Flemming, *Medicine*, 223-7, 317; H. Parker, 'Women and Medicine', in: S.L. James and S. Dillon eds., *A Companion to Women in the Ancient World* (New Jersey 2012) 107-24, there 111, 120-2. Unlike Rufus, Galen was against trying to change a women's bodily balance to that of a man's body.

[71] Hipp., *On Regimen in Health*, VI; Translation by: Jones, *Hippocrates volume IV*, 53.

[72] Flemming, *Medicine*, 317, 333; King, 'Women's health and recovery', 159; Grant, *Galen*, 188-9; Dalby, *Food in the ancient world*, 350-4, 360-1; Jouanna, van der Eijk and Allies, *Greek Medicine*, 173-93; Parker, 'Women and Medicine', 107-24. Galen also put a large focus on the womb. He saw a correlation between a woman's health and her reproductive functioning. Soranus however did not advise wine to women who wished to conceive.

[73] Idem, 116-7, 160; Parker, 'Women and Medicine', 120-2; King, 'Food and blood', 353-4.

Women I the following two treatments make an explicit reference to the drying character of the diet prescribed. The first treatment discusses different ways of cleaning the uterus and the vagina after menses. In case of a phlegmatic menses, that was moist and cold in character, it advised the following:

> These women must be fomented over their whole body, vomit repeatedly after both eating and fasting, soften the lower cavity by using very light medications that draw the least bile, take one meal a day, exercise frequently, and employ a diet with very dry food and the minimum of drink taken quite undiluted.[74]

If after this drying diet the menses was clean, pure and turned sanguine, and there was the probability that the woman had conceived, she had to take the following diet for six to seven days: ''she should refrain from eating and bathing, but take barley meal without salt in water two or three times daily.''[75] The treatment ended by advising this diet for another thirty days:

> As grains have her eat bread and, if she wishes, barley cake, of meats the ringdove and others like that, of sea foods whichever make the cavity firm; avoid irritating vegetables. She should employ dark wine, roasted meats in preference to boiled ones, and those both domesticated and wild.[76]

The treatment thus starts with a drying and heating diet to counter and remove the phlegm. It does not specify what types of drying foods were to be consumed, but we see the usage of strong, heating and drying wine that was also mentioned in the previous quote from *On Regimen in Health*. After the phlegm was removed the patient had to abstain from solid foods and drink only unsalted barley water. This barley water would hydrate and nourish the body and would not upset the empty stomach. The foodstuffs advised at the end of the treatment were wheat bread and barley cake, which were nourishing and drying in character. The barley cake also had a cooling quality. This made it less beneficial for the body as the phlegm was also cooling in character. The wheat bread and the barley cake were mostly advised to strengthen the body after the period of fasting. The meat type advised was bird meat, which was drying. Ringdove was the bird with the most drying quality and by roasting it the bird meat would become even more drying. The drying character of the meat, the bread and the cake were meant to balance out the excess moisture that had caused the diseased state. The type of sea food that was advised was one that settled the stomach. This variety was chosen to balance out the fact that fasting and vomiting had been upsetting the stomach. Irritating vegetables were forbidden, as they would counter the effect of the sea food and upset the stomach.[77]

The second treatment that mentioned a drying diet was a treatment against ulcers in the uterus. This diseased state was characterised as being wet and to cure it the following diet was prescribed:

> After the medication apply a regimen to make the woman very dry: [...] After the vomiting and fomentations, have her follow a regimen with no bathing and few drinks, but with wheaten bread; there should be no prepared dishes, but rather undiluted, dark wine and no vegetables. When you are preparing the emetic, at the same time fill

[74] Hippocrates, *Diseases of Women* I, 11; Translation by: Potter, *Hippocrates volume XI*, 43-9.
[75] Ibid.
[76] Ibid.
[77] Orib., *Medical Compilations*, 4.2.1; Hipp., *On Regimen* II, XL, XLII, XLVII, XLVIII; King, 'Food and blood', 354-6.

> patients with many sharp vegetables, much bread, and whichever prepared dishes they desire, as well as with generous dilute wine, and have them bathe after the fomentations in plenty of hot water.[78]

The treatment started by cleaning the body with medication. Then the stomach was filled with a lot of diluted wine and drying and sharp foods, like bread and vegetables, or anything the patient felt like eating. Subsequently the emetic medication caused the patient to vomit. After that a drying diet was prescribed consisting of nourishing and drying wheat bread and drying and heating undiluted dark wine. Vegetables were now to be avoided as they could upset the stomach.[79] These two examples employed the theory of 'opposites cure opposites' by using a drying diet to counter diseased states caused by an excess of moisture in the female body.

Something especially noteworthy about the dietetic advices found in the gynaecological works was the frequent usage of garlic, both cooked and raw. The usage of garlic is interesting, because garlic was at times seen as an ingredient best to be avoided, as it was thought to be a windy plant that caused flatulence. In *On Regimen* II its characteristics are described thusly:

> Garlic warms, passes well by stool and by urine, and is good for the body though bad for the eyes. For making a considerable purgation of the body it dulls the sight. It promotes stools and urine because of the purgative qualities it possesses. When boiled it is weaker than when raw. It causes flatulence because it causes stoppage of wind.[80]

However not all of these claims about the effects of garlic were generally accepted.[81] An example of garlic being advised by a gynaecological work as part of a dietetic prescription was the treatment for a shifted uterus. First the uterus had to be purged and realigned to its normal position. The patient was given the following diet: ''Have the patient employ mild foods, and eat garlic both raw and boiled.''[82] In this diet it is clear that the garlic was the main ingredient. Mild foods were chosen to accompany it because they would not counteract the purgative quality of the garlic. This purging quality was used to continue the cleansing of the body of any leftover ulcers and bad fluids.[83]

Garlic was also employed in this treatment that stimulated menses: ''If the menses fail to appear, and you wish to force them down: boil wheat groats and garlic cloves, pour on olive oil, and then give to eat.''[84] In this prescription the garlic was boiled and was used for its characteristics of thinning thick juices, cutting through viscous juices and creating wind in the womb. Boiling the garlic facilitated the mixing of the garlic with the other ingredients, made the garlic's qualities less strong and also made the overall dish have a moist quality. The garlic was combined with wheat groats that were nourishing and contained viscous juices. These viscous juices were countered by the characteristics of the garlic. The dish was seasoned in a standard way with olive oil, which was astringent and antiseptic. The treatment thus used the theory of 'opposites cure opposites' to remove obstructions and make the

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[78] Hipp., *Diseases of Women* I, 66; Translation by: Potter, *Hippocrates volume XI*, 141-7.
[79] Orib., *Medical Compilations*, 4.2.1; Hipp., *On Regimen* II, XL, XLII, XLVII, XLVIII, LIV, LIV, LVI, LIX; King, 'Food and blood', 354-6; O. Temkin, *Soranus' gynecology* (Baltimore 1991) 47, 52-3.
[80] Hipp., *On Regimen* II, LIV; Translation by: Jones, *Hippocrates volume IV*, 329.
[81] Totelin, 'When foods become remedies', 30-7. Other mentions of garlic in female dietetic advice include: Hippocrates, *Barrenness*, 26; Hipp., *Nature of Women*, 2, 6, 8-9; Hipp., *Diseases of Women* I, 13, 37, 45, 66; Hipp., *Diseases of Women* II, 24-6, 31, 78.
[82] Hipp., *Nature of Women*, 40; Translation by: P. Potter, *Hippocrates volume X* (Loeb Classical Library 520; Cambridge 2012) 273-5.
[83] Hipp., *On Regimen* II, LIV; Grant, *Galen*, 152.
[84] Hipp., *Nature of Women*, 77; Translation by: Potter, *Hippocrates volume X*, 295.

menses flow easier, by employing the thinning, cutting and wind creating qualities of the garlic.[85]

Garlic was often used in combination with other ingredients, such as cabbage, mercury herb and octopus, that had beneficial qualities and were frequently used in the dietetic advices of gynaecological works. These other ingredients were also often advised in combination with each other.[86] The following prescription from *Diseases of Women* I combined garlic, mercury herb and octopus:

> Also have her eat a great amount of mercury herb and garlic both raw and boiled; she should employ mild foods, and also octopus and other mollusks—sea foods more than meats. If she gives birth, she will recover.[87]

This dietetic advice was given for the treatment of dropsy in the uterus. The symptoms of the disease were, among other things, problems with menses, swelling of the belly, problems with lactation, chills, fever and a dry feeling of the mouth of the uterus. These characteristics made the diseased state look like a pregnancy, but it was actually an abortion or a supressed menses. After a variety of non-dietetic treatments the belly became soft again, the fever remitted and the menses passed normally. The patient then had to sleep with her husband and consume a potion whilst fasting. After fasting the dietetic advice was given. The diet prescribed consuming a lot of mercury herb, which was purging and helped with conceiving, as well as garlic, raw and boiled, which was purging, heating, cutting, thinning and windy in the uterus. Octopus was advised because it settled the stomach, moistened the bowel and was seen as an aphrodisiac. Fish was preferred over meat, as meat was drying, whilst fish and molluscs were moistening. Mild foods were given as they would not interfere with the qualities of the other foodstuffs. The diet used the theory of 'opposites cure opposites' by prescribing purging, heating and moistening foodstuffs, to get rid of the watery residue of dropsy and to rehydrate the body. The treatment clearly focused on getting the woman pregnant to cure her.[88]

Another example of a prescription that focused on getting the female patient pregnant to cure her and employed a combination of the frequently used ingredients, was this dietetic advice from *Diseases of Women* II:

> As long as the cleaning is taking place, have her boil mercury herb in water, and when it is boiled knead garlic, cumin, salt, and olive oil, stir these up together, pour a little of the mercury decoction over this, and boil again: this she should eat before taking food, and consume as much boiled and baked garlic as she can. If the mercury herb is not especially tender, have her boil cabbage with it, season it, and prepare it mild. If the woman becomes pregnant, she will recover if everything goes as it should with her.[89]

In this example the patient was suffering from a closed uterus. The treatment thus first focused on opening up the uterus and getting the menses to return, after which the focus

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[85] Dalby, *Food in the ancient world,* 239-40; Grant, *Galen,* 84-5, 152; Totelin, 'When foods become remedies', 30-7; G. Bartolini and R. Petruccelli, *Classification, Origin, Diffusion and History of the Olive* (Rome 2002) 39-40. The thinning, cutting and wind creating qualities of garlic also made it effective as an ingredient in diets used for abortions. Hipp., *On Regimen* II, LIV claimed that garlic stops wind, but it seems that this did not mean that wind was stopped from entering the womb, see Hipp., *Barrenness,* 26.

[86] Hipp., *Barrenness,* 5; Hipp., *Nature of Women,* 2, 8-9, 36, 45; Hipp., *Diseases of Women* I, 13, 37, 45, 66, 78 (3); Hipp., *Diseases of Women* II, 24, 26-7, 46, 60.

[87] Hipp., *Diseases of women* I, 59; Translation by: Potter, *Hippocrates volume XI,* 121-3.

[88] Hipp., *On Regimen* II, XLVIII, XLIX, LIV; Hipp., *Barrenness,* 26; Hippocrates, *Affections,* 22; Dalby, *Food in the ancient world,* 213, 216; Grant, *Galen,* 152; Totelin, 'When foods become remedies', 30-7.

[89] Hipp., *Diseases of Women* II, 53; Translation by: Potter, *Hippocrates volume XI,* 377-81.

shifted to getting the patient pregnant. To clean the body the diet prescribed the juice of mercury herb, that was purging, evacuating and helped ensure offspring and cabbage juice, which was purging, evacuating and warming. These juices were combined with garlic, which was warming, diuretic, purgative, thinning and cutting, cumin, which was heating, settled the stomach and gave flavour, and olive oil, which was astringent and antiseptic. Salt was added for further seasoning. The advice thus used the theory of 'opposites cure opposites', by employing a diet that was purging, cleansing and heating, to ensure that the womb remained open and clean, so the woman could more easily conceive.[90]

To promote pregnancy, the Hippocratic gynaecological works also advised a special variation using pennyroyal, of the common dish barley (meal) *kykeon*. This dish can be found in *Diseases of Women* I:

> An agent to promote pregnancy: […] Then have her sleep with her husband: beforehand she should take some pennyroyal in boiled meal, and drink tender pennyroyal in wine.[91]

In this treatment a healthy woman was prescribed pennyroyal in combination with barley meal porridge and wine, to promote pregnancy. Boiled barley meal was cooling, moist and nourishing. The pennyroyal was heating and the wine was heating and drying. The advice used the theory of 'opposites cure opposites' to help the patient conceive, by countering the inherent coldness of the female body, with a diet that was slightly heating. The advised diet also had a more hidden beneficial quality. The addition of pennyroyal to barley porridge can only be found in the gynaecological works, where it was used both as a means to promote conception and as an abortive. The modern scholar Laurence Totelin thinks that pennyroyal was only used in the gynaecological works because it had sexual connotations. Pennyroyal was linked to pubic hair and pennyroyal in porridge was related to the goddess Demeter and thus linked to fertility. These religious and cultural connotations made pennyroyal even more suitable to be used in prescriptions that promoted pregnancy.[92]

In general, in the Hippocratic gynaecological works, a woman was healthy when she was or became pregnant. Becoming pregnant through sexual intercourse was thus considered the most effective way to cure gynaecological diseases. Foodstuffs that had sexual connotations could have been prescribed to substitute or enhance the beneficial health results from sexual intercourse.[93]

In addition to the dietetic advices from the Hippocratic gynaecological works, there were also dietetic advices from the gynaecological work of Soranus, for example this dietetic advice for the treatment of chronic menstrual pains:

> The latter must be preceded by a day of complete fasting, but if the patient cannot endure this, one must keep her on water and limited food. Then it is necessary to

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[90] Hipp., *On Regimen* II, LIV; Cato, *On Agriculture*, CLVI; Dalby, *Food in the ancient world*, 108-9, 216, 239-40, 290-1; Grant, *Galen*, 140-1, 152; Totelin, 'When foods become remedies', 30-7; Bartolini and Petruccelli, *Classification, Origin, Diffusion*, 39-40.

[91] Hipp., *Diseases of Women* I, 75 (7); Translation by: Potter, *Hippocrates volume XI*, 174-5.

[92] Hipp., *On Regimen* II, XL, XLI, XLII, LII; A.E. Hanson, 'Talking recipes in the gynaecological texts of the Hippocratic Corpus', in: M. Wyke ed., *Parchments of Gender: Deciphering the Bodies of Antiquity* (Oxford 1998) 71–94, there 77-8; L. Totelin, 'Seks and Vegetables in the Hippocratic Gynaecological Treatises', *Studies in History and Philosophy of Biological and Biomedical Sciences* 38 (2007) 531-40, there 535-9; Dalby, *Food in the ancient world*, 254; Parker, 'Women and Medicine', 120-2; Flemming, *Medicine*, 116-7, 160; King, 'Food and blood', 353-4.

[93] Hanson, 'Talking recipes', 7-8; Totelin, 'Seks and Vegetables', 535-9; Dalby, *Food in the ancient world*, 254; Parker, 'Women and Medicine', 120-2; Flemming, *Medicine*, 116-7, 160; King, 'Food and blood', 353-4. Slimming diets were sometimes advised to overweight women as being overweight was thought to obstruct pregnancy, see: Hipp., *Barrenness*, 5; Hipp., *Diseases of Women* II, 17.

> divide the loaf of bread into portions of such size as may be most easily digested. One must divide it into two parts: one half should be cut into three equal portions, while the other half should be given together with a little preserved meat or fish and pungent additional dishes for two, three, or four days, starting on the day after the fast. Then one should switch to bland foods like vegetables, delicate fish, and brain; next, for an equal length of time one should change <to> fowl, and for an equal number of days <to> fresh pork. And with every change from one diet to the other, one should also take one of the three portions of the half loaf; furthermore, on the first day of each change, one should omit wine and the bath, but should have both on the next day.[94]

In this treatment, after a day of fasting, the patient was given half a loaf of bread, which was nourishing, drying and thought to be good for people with a moist and cold nature, with preserved meat or fish, which was drying, nourishing and attenuating, and some pungent dishes. The diet was then first switched to bland foods like vegetables that produced some blood, delicate fish that was light and drying and brain that had a harshness, produced mucus and thick humours, was nauseating, drying and nourishing. After that the diet switched to fowl, which was easy to digest and drying. Then the diet changed again to fresh pork, which was nourishing, gave strength, was slightly drying and produced excellent blood. All the while, small pieces of bread were consumed with the other foodstuff. The diet thus switched between pungent and bland dishes. Overall the diet focused on pungency, whilst being nourishing and drying. The diet was part of the metasyncritic cure of the treatment, the part that focused on drastic local altering of the bodily condition to cure the diseased state. In this case the drying, nourishing aspects of the diet were used to counter the menstrual pains and to help bring down the menses.[95]

Another example of a dietetic advice from Soranus is this treatment of a haemorrhage of the uterus:

> One should also give food after first sponging the face with cold water; and the food should consist of rice prepared in cold water or diluted vinegar, or spelt or bread and a soft boiled egg in vinegar. Then after some days she should also have endive or plantain in vinegar and a little freshly ground sumach; and after oil from freshly ground olives has been well boiled she should have this too; and apples and baked quinces or boiled pears, and a bit of meat from the breast of a ringdove boiled in diluted vinegar or stuffed with myrtle berries, or of a partridge or a francolin or anything similar to these. If the time for sympathetic reactions has passed, one should also give a little wine, and when the patient has become completely firm, a bath too.[96]

The diet starts by advising the consumption of rice prepared in cold water or diluted vinegar. This dish checked the stomach and was cooling and slightly moist when prepared with the water and refreshing and drying when made with vinegar. The rice could be replaced by spelt, which was light and laxative, or by bread, which was nourishing, drying and thought to be good for people with a moist and cold nature. A soft boiled egg in vinegar, which was strong, nourishing and windy completed the dish. Later the prescription advised the consumption of endive or plantain in vinegar with sumac, which was cooling, produced blood, was slightly astringent and helped against sores. Some fresh olive oil, which was astringent and anti-sceptic and apples, baked quinces or boiled pears, which were watery, astringent, and strengthened the stomach were also advised. The treatment prescribed the meat of dry birds

[94] Soranus, *Gynecology*, 3.1.15; Translation by: Temkin, *Soranus' gynecology*, 141-2.
[95] Hipp., *On Regimen* II, XLII, XLVI, XLVII, XLVIII, XLIX, LVI; Powell, *Galen*, 39-43, 99-101, 115, 121-2.
[96] Sor., *Gynecology*, 3.10.41; Translation by: Temkin, *Soranus' gynecology*, 161-5.

prepared by boiling the meat in diluted vinegar, or by stuffing the meat with myrtle berries, which gave the dish a drying quality. When the dish was prepared using myrtle berries it could also reduce pain and fever. The advised diet thus used the theory of 'opposites cure opposites' to treat the patient, by using cooling, drying and astringent qualities to clean the uterus and to counter the inflammation caused by the diseased state.[97]

In short, the dietetic advices given to healthy menstruating women employed foodstuffs and drinks with opposite qualities to the inherent qualities of the female body, to make the bodily balance resemble the perfect balance of the adult male body. Both healthy and diseased menstruating women were advised diets that promoted pregnancy, as pregnancy was thought to cure diseases and the pregnant female body was considered to be healthier and more balanced. The dietic prescriptions that were given to sick menstruating women were based on the theory of 'opposites cure opposites'. In contrast to the prescriptions given to healthy women, there is no evidence that suggests that dietetic prescriptions given to sick menstruating women tried to compensate for the inherent imbalance of the female body. In other words, countering the diseased state took precedence over rebalancing the body.

[97] Hipp., *On Regimen* II, XLII, XLIII, XLVII, L, LII, LIV, LV; Pliny, *Natural History*, 25.103, 25.109; Cato, *On Agriculture*, CXXV; Grant, *Dieting for an Emperor*, 81-3, 176-8; Grant, *Galen*, 96, 126, 138-9, 173; Powell, *Galen*, 39-43; Dalby, *Food in the ancient world*, 315; Bartolini and Petruccelli, *Classification, Origin, Diffusion*, 39-40.

2.2.2 The body during and after pregnancy

Next, the theory of application of dietetics on the pregnant body and the body after childbirth will be discussed. The female body, during pregnancy and lactation, was thought of as being more balanced than normal, as the excess blood of menstruation was used to nourish the foetus and to produce milk. The pregnant and lactating body was thus still seen as moist, cold and soft, but in a much lesser extent than its non-pregnant counterpart.[98]

The diet advised, by Soranus, to healthy pregnant women during the initial period of their pregnancy was the following:

> […] and she ought to partake of foods of neutral character, such as fish which are not greasy, meats which are not very fat, and vegetables which are not pungent. But she should avoid everything pungent, such as garlic, onions, leeks, preserved meat or fish, and very moist foods; for the latter are apt to disintegrate, while pungent substances cause flatulence and besides are solvent and attenuating, and hence we approve of them in chronic patients for the removal of callosities for instance. But it is absolutely illogical not to realize that things which irritate, attenuate, and wear down the whole physique, and which dissolve callosities, that all these things, apportioned by distribution to the various parts of the uterus, will soften the seed much more, which is like mucus as long as it is not yet held together by coagulation.[99]

The diet focused on neutral foods, such as fish, which was light, easy to digest and slightly drying, meat, which was drying, and vegetables, which were soft. Greasy, fat, bitter, solvent, attenuating, irritating, flatulent and pungent foods, like garlic, which was purgative and warming, leek, which was purgative and moistening, and preserved meat and fish, which were very dry and pungent, were to be avoided as their qualities were seen as harmful to the foetus. The quantity of food advised also increased, as the women now had to eat enough food for two people, and eating too little was thought to result in an abortion. Wine consumption during this initial period of pregnancy was condemned, as its violent diffusion in the body would disturb the seed.[100]

After the initial period of pregnancy came the period of *pica* (*kissa*). In this period a healthy pregnant women could be affected by a variety of ailments such as: an upset stomach, nausea, strange appetites, no appetite, slow digestion, rapid digestion and vomiting. To alleviate some of these ailments the following diet was advised, after a day of fasting[101]:

> On the next day, one ought to give a rubdown with ointment, but should give little and easily digested food, like a soft boiled egg or a porridge, and some not very fat fowl, as well as water to drink, not much, but if customary cold, so that the abundance of fluids in the stomach may be checked. […] And in addition to bread she should eat any of those dry substances which are apt to strengthen the stomach.[102]

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[98] Bonnard, 'Male and female bodies', 3-4, 8-14; Holmes, 'Medical knowledge', 100-1; Dean-Jones, *Women's bodies*, 26, 41-6, 49, 55-60, 85-95, 136-42, 225; Lee, *Body, Dress, and Identity*, 33-48; Flemming, *Medicine*, 116-20, 153-60, 175-9, 214, 225, 233-6, 255, 273, 283-4, 303, 306-7, 310-1, 324, 328, 333-9, 342, 347, 354-7, 361; King, 'Women's health and recovery', 156-8; King, 'Food and blood', 353-4.
[99] Sor., *Gynecology*, 1.14.46; Translation by: Temkin, *Soranus' gynecology*, 47.
[100] Hipp., *On Regimen* II, XLVI, XLVIII, LIV, LVI; Hipp., *On Regimen in Health*, I; Hipp., *Diseases of Women* I, 25; Temkin, *Soranus'* gynecology, 41-2, 45-8, 66; Powell, *Galen*, 114.
[101] Temkin, *Soranus' gynecology*, 49-50.
[102] Sor., *Gynecology*, 1.15.49; Translation by: Temkin, *Soranus' gynecology*, 50-1.

The foodstuffs and drinks advised during *pica* were all easy to digest. The soft boiled egg and the porridge were soft and nourishing, the fowl was drying and easy to chew and the cold water was cooling and moist. The food was also selected for its neutral taste and smell, as a strong taste or smell could upset the stomach or lead to nausea and vomiting. After following this diet for one day more foods, such as bread and foods that were dry and that strengthened the stomach, were included. Later in Soranus' work a more detailed list of appropriate foodstuffs to give to pregnant women with an upset stomach was given. All the foods and drinks listed there had the same aforementioned qualities. The diet advised during *pica* was similar to the diet that was advised during the initial period of pregnancy, as it avoided wine and greasy, fat, bitter, solvent, attenuating, irritating and pungent foods. After the period of *pica*, Soranus slowly reintroduced wine into the diet, as he thought that a prolonged abstinence from wine could harm the body.[103]

If the pregnant woman became diseased the usage of diet as medicine was often preferred over other types of medication, as these could be strong and pungent and thus be dangerous to the foetus.[104] An example of a dietetic prescription given to a diseased pregnant woman is:

> If bile is distressing a pregnant woman, give her barley gruel over which you have sprinkled red sumac or mulberry fruit, to be taken cold: the condition will settle down.[105]

Here the advised diet consisted of barley gruel, which was purging, cold, moist and drying, with red sumac, which was astringent and cooling, or mulberries, which were astringent, warm, moist, passed easily and were especially beneficial when the stomach was dry and hot. The dish was served cold, which made it cooling. This dietetic advice thus used the theory of 'opposites cure opposites' by using a cold and moist diet to counter the dry and warm qualities of the bilious disease.[106]

Though to a lesser extent, the preference for food as medicine over other types of medication also applied to the female body after childbirth. When after childbirth a woman, for example, suffered from a pain in the uterus that was accompanied by a burning hot feeling inside, she was prescribed the following diet:

> As a soup mix juice of the vinous pomegranate with water, sprinkle lentil flour over this, boil with lentils, cumin, salt, olive oil and vinegar, and give this cold; also give acidic lentil soup, and after that a fragrant dark Pramnian wine. Other foods must be avoided as long as the fever persists. […] When the fever remits, administer light foods that do not provoke evacuations.[107]

This diet was meant to cool the warm body. The soup given was made from vinous pomegranate, which strengthened the stomach, was flatulent and was a symbol for fertility, water, which was cooling and moist, lentil flour and boiled lentils, which were heating, purging and settled the stomach, cumin, which was heating, drying and settled the stomach, olive oil, which was astringent and anti-sceptic and vinegar, which was refreshing, sharp and

[103] Sor., *Gynecology*, 1.15.51; Hipp., *On Regimen* II, XLI, XLII, XLVII, L, LII; Orib., *Medical Compilations*, 4.7; Powell, *Galen*, 39-43, 134; Dalby, *Food in the ancient world*, 126-7; Temkin, *Soranus' gynecology*, 45-57; Jouanna, van der Eijk and Allies, *Greek Medicine*, 173-193.
[104] Hipp., *On Nature of Women*, 12; Hipp., *Diseases of Women* I, 25.
[105] Hipp., *Diseases of Women* I, 31; Translation by: Potter, *Hippocrates volume XI*, 77-9.
[106] Hipp., *On Regimen* II, XL, XLI, LV; Powell, *Galen*, 37, 47-8, 81-3; Dalby, *Food in the ancient world*, 315.
[107] Hipp., *Diseases of Women* I, 52; Translation by: Potter, *Hippocrates volume XI*, 115-7.

binding, and seasoned with salt. This soup thus consisted of many heating ingredients, but it was still considered as cooling as it was given cold. The prescription further advised the consumption of acidic lentil soup, which was heating and purging, and fragrant dark Pramnian wine, which was moist, heating, flatulent and nourishing. Later in the treatment, light foods that did not provoke evacuations were prescribed. The diet advised, was thus mostly focused on purging the body and settling and strengthening the stomach. By cooling the body and removing the irritations and obstructions, the pain and burning feelings in the uterus were resolved. The prescription thus used 'opposites cure opposites' to treat the disease.[108]

Another troubling diseased state that could affect the female body after childbirth, was the cessation of the breastmilk production. To cure this diseased state the following diet was advised:

> If a woman's milk dries up, crush leeks, dissolve them in water, and give to drink; also have her bathe in warm water, eat leeks and cabbage, and boil tree medick leaves and drink the juice. Give a potion of fennel seed and its roots, winnowed barley (sc. flour), and the butter plant: boil all this together, cool and give to drink. Also good are horse fennel, alexanders, and tree medick; all these together produce much milk, and ... goats, especially cheese. It is also good for a woman to boil salvia, or, decanting juice from common or Phoenician juniper berries, to add wine and drink; also have her pour olive oil into what is left over, and eat this. She should avoid foods that are bitter, salty, or sour, as well as all raw vegetables. Cress drunk in wine is good, for this too cleans the milk. Also have the patient bathe in warm water, and afterward take a drink. Also give chaste tree fruit in wine to drink, and beet juice too produces much milk. Also pour unwashed sesame and three-month barley into a mortar, crush it completely, and make it into juice by straining it through a fine linen cloth; mix in honey or medlars, and then give in dark wine to drink.[109]

The diet was composed of foodstuffs such as: leeks and cabbage, that were warming, purging and diuretic, fennel and alexanders, that were diuretic, cheese, which was strong, heating, nourishing and binding, common or Phoenician juniper berries, that were bitter, pungent and warming, and could dilute thick humours, olive oil, which was astringent and anti-sceptic, cress, which was astringent, pungent and heating, and could congeal phlegm, chaste fruit, which was drying and cooling, beet juice, which was astringent, purging and diuretic and wine, which was heating, drying and purging. The diet also prescribed a drink made of unwashed sesame, which was drying, heating, fat and greasy, three-month barley, which was cold, moist, drying and purgative, honey, which was warming and drying, or medlars, which were binding and astringent and some dark wine, which was heating, drying and purging. The patient was advised to avoid foods that were bitter, salty, or sour, as well as all raw vegetables, as these foods were binding and could cause indigestion. The diet mostly consisted of purging, diuretic and heating foodstuffs and drinks. The purging and diuretic qualities of the food cleaned the milk and cleared the vessels that were passageways for milk in the body. The heating quality of the prescribed diet helped convert food into blood and milk. The diet thus used the theory of 'opposites cure opposites' to treat the diseased state.[110]

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[108] Hipp., *On Regimen* II, LII, LIV, LV; King, 'Food and blood', 354-6; Dalby, *Food in the ancient world*, 108-9, 239-40, 290-1; Powell, *Galen*, 90-1, 117, 149-50; Bartolini and Petruccelli, *Classification, Origin, Diffusion*, 39-40.

[109] Hipp., *Diseases of Women* I, 44; Translation by: Potter, *Hippocrates volume XI*, 107.

[110] Hipp., *On Regimen* II, XL, XLV, LI,LII, LIII, LIV, LV, LVI; Hippocrates, *Nature of the Child*, 10; Powell, *Galen*, 36-7, 47-8, 67-8, 84, 91, 101-2, 105-6, 114, 123-131, 148-50; Dalby, *Food in the ancient world*, 51, 239-

The following prescription is another example of a cleansing diet, advised to women who suffered from an excess of bile or phlegm after giving birth:

> During the cleaning, the patient should take food; it also helps to boil mercury herb, mix it with leeks, garlic, cabbage and pomegranate seeds, and have her drink this juice. Otherwise, she should employ seafoods in preference to meats, and abstain from sweet and oily foods.[111]

The diet advised consisted of mercury herb, which was evacuating and purging, leek, which was warming, purging and diuretic, cabbage, which was warming, drying, purging and diuretic, garlic, which was warming, diuretic, flatulent, purging and especially good for removing obstructions, pomegranate, which was flatulent, diuretic and a symbol for fertility. The prescription also advised the consumption of seafood instead of meat as seafood was thought to be lighter, easier to digest, less drying and less heating than meat. Some seafood also had evacuating or diuretic qualities. The diet advised to avoid sweet and oily foods that could upset the stomach. Sweet foods were also avoided, because they were thought to produce a lot of phlegm. The diet advised thus focused on cleansing, purging, heating and diuretic foods that were easy to digest and countered the excess of either bile or phlegm in the body.[112]

The cleansing diets advised to women right after pregnancy contained the same cleansing and purgative ingredients (garlic, cabbage and mercury herb) as were used in the cleansing dietetic advices given to menstruating women. Another similarity between the prescribed diets of menstruating women and women right after pregnancy, was that they were advised foodstuffs and drinks that were meant to help women conceive. Naturally the diets advised to pregnant women did not feature these pregnancy promoting foodstuffs, nor did their diets contain cleansing and purgative foodstuffs, as these were thought to be dangerous for the foetus.[113]

In conclusion, the discussed dietetic advices reflect the idea that the pregnant body and the lactating body were seen as more balanced and healthy than the menstruating body. When one was pregnant or lactating the inherent excess of blood in the female body was thought to be resolved. Therefore pregnant and lactating women were not advised diets that were meant to change their intrinsic bodily balance. Healthy pregnant women were advised to consume stomach strengthening foods and foods that were easy to digest to keep the body nourished. To protect the growing foetus pungent foods were to be avoided. When curing diseased pregnant women the usage of diets, following the theory of 'opposites cure opposites', was preferred over the usage of pungent medication. After giving birth, the inherent imbalance of the female body was thought to gradually return. Healthy lactating women were advised to resume the eating pattern they had before they became pregnant. The dietetic advices given to diseased lactating women, also resembled those given to menstruating women. These prescriptions followed the theory of 'opposites cure opposites' and employed diets that contained cleansing and pregnancy promoting foods and drinks.

40; Bartolini and Petruccelli, *Classification, Origin, Diffusion*, 39-40; Grant, *Dieting for an Emperor*, 298; Bonnard, 'Male and female bodies', 11.

[111] Hipp., *Diseases of Women* I, 37; Translation by: Potter, *Hippocrates volume XI*, 93-7.

[112] Hipp., *On Regimen* II, XLVI, XLVIII, LIV, LV; Powell, *Galen*, 90-1, 102-3, 114; King, 'Food and blood', 354-6; Dalby, *Food in the ancient world*, 216; Totelin, 'When foods become remedies', 30-7; Wilkins, 'Food and Health in Problemata 21–2', 266.

[113] Hipp., *Diseases of Women* I, 78; Hipp., *Diseases of Women* II, 53.

2.3 The elderly body

Subsequently the theory of the application of dietetics on the elderly body will be studied. The elderly body was considered to be drier, colder and weaker in nature than the standard male and female body. The old female body was however still seen as wetter than the body of an elderly man. Men were considered old around the age of 60, while women were thought to be old around the age of 50. For women menopause was seen as a distinctive physical indicator of old age. In the Hippocratic works menopause was thought to be caused by the body becoming drier and thus producing less blood, whilst Aristotle thought menopause was caused by a loss of innate heat.[114]

As mentioned before, in the ancient medical literature ageing was not extensively discussed. When discussing dietetics or prescribing dietetic treatments the elderly body was also scarcely mentioned. This was probably because the elderly body was not considered to be drastically different from its younger version. From the Hippocratic work *Aphorisms* we know that a healthy old man was thought to need less food and to be less affected by fevers due to his loss of innate heat.[115] Another Hippocratic work *On Regimen in Health* prescribes the following diet for healthy elderly people:

> Older people should have a drier kind of diet for the greater part of the time, for bodies at this age are moist and soft and cold. So in fixing regimen pay attention to age, season, habit, land, and physique, and counteract the prevailing heat or cold. For in this way will the best health be enjoyed.[116]

In this dietetic advice healthy elderly people were prescribed a diet that countered the inherent balance of the elderly body. A diet with an opposite quality to the qualities of the elderly body was probably advised in order to regain the balance of the younger, healthier body. This may have been done because people thought that this would lengthen their lifespan.

Mentions of foodstuffs that were seen as appropriate for healthy elderly people to consume can be found in Galen's work *On the Powers of Foods* and Rufus' work *On Diet*. Galen advised the following foodstuff:

> So among breads too, while one that has not been very well baked nor has much leaven is suitable for an athlete, and one that has been very well baked in the oven and has much leaven is suitable for an ordinary individual or an old person, one which is absolutely unleavened is not fit for anybody.[117]

While Rufus instructed the following:

> Meats are suitable for elderly people, if the meats are chopped up finely before boiling, and marinated in water for a short time with salt and with thyme or goats' marjoram.[118]

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[114] Hipp., *Nature of Women*, 1; Hipp., *On Regimen* I, 1.33-4; Dean-Jones, *Women's bodies*, 71, 103-8, 123; Harlow and Laurence, 'Viewing the Old', 3-23; Flemming, *Medicine*, 153; Temkin, *Soranus' gynecology*, 17; Finley, 'The elderly in classical antiquity', 156-159; Parkin, *Old age*, 15-35, 62; Jouanna, van der Eijk and Allies, *Greek Medicine*, 339; Gilleard, 'Ageing and the Galenic Tradition', 491-2, 507.
[115] Hipp., *Aphorisms* 1.14; Finley, 'The elderly in classical antiquity', 158.
[116] Hipp., *On Regimen in Health*, II; Translation by: Jones, *Hippocrates volume IV*, 47-9.
[117] Galen, *On the Powers of Foods*, 485-7;Translation by: Powell, *Galen*, 41.
[118] Orib., *Medical Compilations*, 4.2.15; Translation by: Grant, *Dieting for an* Emperor, 219.

The leavened well baked bread, that Galen advised, was seen as appropriate, as it was nourishing and easy to digest, and was good for people with a moister and colder bodily balance. Rufus recommended that elderly people consumed meat that was prepared in a way that made it more suitable for them. The meat was chopped into smaller pieces and boiled, which made it moist, soft and easy to chew. The meat was marinated in water, which was moist, salt, for flavour, thyme, which was hot, drying and evacuating, and passed easily or goats' marjoram, which was warming, gave a nice flavour and could evacuate bilious matter. When prepared this way the meat had moist, heating and cleaning qualities and was easy to consume and to pass. The foodstuffs that were thought to be appropriate for healthy elderly people were nourishing, easy to consume and easy to digest, and had characteristics that were generally considered beneficial. The heating quality of the advised foods and the moist quality of the meat countered the inherent cold and dry qualities of the elderly body.[119]

Elderly people were thought to be more susceptible to certain diseases. When elderly people became diseased they were given the same treatment as younger people. The following example is a disease that elderly people were prone to get:

> Another disease: pain suddenly seizes the head in a healthy person, and he at once becomes speechless, breathes stertorously, and gapes with his mouth; if anyone calls to him or moves him, he moans; he comprehends nothing; he passes copious urine, but is not aware of it when he does. Unless fever occurs in this patient, he dies in seven days; if it does, he usually recovers. The disease is more frequent in older persons than in younger ones.
> When the case is such, wash the patient with copious hot water, and warm him as much as possible; heat melicrat and instil it into his mouth. If he regains his senses and escapes from the disease, restore him with foods; when you think he is strong, introduce a medication into his nostrils, wait for a few days, and then give him a medication to drink that acts downwards; for if you do not clean the patient out, there is a danger that the disease will return. Not many survive the first bout.[120]

To cure this disease elderly patients were advised the same treatment as younger patients. The treatment prescribed a diet that restored strength to the body.

The gynaecological works also mention that the elderly female body was more susceptible to certain diseases. They ascribe this to the absence of menstrual fluids in the elderly body and to the fact that the elderly body was drier, colder and weaker.[121] A disease to which older women were more susceptible, was a phlegmatic flux with an excess production of bile. This disease was treated with the following diet:

> The disease befalls older women more than younger ones. […] After the medications, give boiled whey with a little salt to drink for many days. Have the patient eat some mint, and toward evening abstain from food but take a little gruel, and after that drink sweet wine, if it is needed: if wine is not available, let it be whey; also boil off ass's milk, and give this for four days. […] She should employ emollient foods that are neither salty nor pungent: meat is better than fish—either fowl or hare. She should bathe in hot water, but not much. If the flux fails to abate, but continues, and the

[119] Hipp., *On Regimen* II, XLII, XLVI, XLVII, LIV, LVI; Orib., *Medical Compilations*, 4.2.1; Powell, *Galen*, 39-43, 114-7; Dalby, *Food in the ancient world*, 45-7, 290-1; Grant, *Dieting for an Emperor*, 152-4.
[120] Hipp., *On Diseases* II, 21; Translation by: Potter, *Hippocrates volume V*, 204-5.
[121] Dean-Jones, *Women's bodies*, 71, 103-8, 123; Harlow and Laurence, 'Viewing the Old', 3-23; Flemming, *Medicine*, 153. Likewise, some diseases were thought to befall younger women more, e.g.: Hipp., *Diseases* II, 48; Hipp., *Diseases of Women* II, 1.

> patient's uterus becomes moist, fumigate it with pomegranate peel, and then have her go to her husband. If she becomes pregnant, she recovers. Older women cannot recover, but tend to succumb due to their weakness.[122]

First the patient was advised to take purgative or emetic medications to remove the excess of phlegm and bile. Then the consumption of boiled whey, which was diuretic, mint, which was warming and laxative, gruel, which was laxative and easy to digest, sweet wine, which was diuretic, warm, moist and attenuating and boiled ass' milk, which was laxative and not very fatty, was advised. The whey and the milk were boiled, which gave them a moist quality. The prescription later advised a diet of fowl, which was drying and was easy to digest or hare, which was somewhat diuretic, dry and constipating and other emollient foods. The patient had to avoid salty and pungent foods, as these were binding and irritating to the stomach and could cause indigestion. The diet thus employed foods and drinks that had diuretic and laxative qualities to get rid of the excess phlegm and bile in the body. It also advised foodstuffs with warming and moistening qualities to counter the dry nature of the bile and the cold nature of the bile and the phlegm. To counter the moist quality of the phlegm the treatment prescribed meat with a drying quality. The diet thus used the theory of 'opposites cure opposites', to heal the (elderly) female patient.[123]

In the treatment above elderly women were given the same advice as younger patients. However the treatment did have a different result when given to elderly patients. Other gynaecological advices also mention a different treatment result for elderly women, for example this advice for the treatment of a flux, that was caused by blood that became bilious and was not expelled[124]:

> If whey is available, after the medication boil some off and give it to drink daily; toward evening employ gruels and sweet white wine. If whey is not available, have the patient drink boiled ass's milk for four days, and in the evening do the same things. After that she should drink warm cow's milk for forty days, and during the day eat nothing, so to speak. This is the best regimen, since with it she will be cleaned and well nourished, and her disease will be blunted. Toward evening have her sup on a little roasted fowl and a small loaf of bread baked in ashes, and after that drink some aged, dark, vinous, wine up to the time when she takes her milk, if her flux is copious and irritating because of its acridity. If after doing these things the woman becomes pregnant, she recovers. In women that are older, the disease sometimes relapses and they die; in young women it is not mortal, but it is chronic.[125]

In this treatment medication, foodstuffs and drinks were used to purge the body of excess bile and phlegm. When the earlier cleaning proved to be insufficient, the patient was cleansed again. For four days, she was given a diet of boiled whey or boiled ass' milk, which were laxative and moist, with gruel, which was nourishing, easy to consume and to digest and sweet white wine, which was attenuating, moistening and passed easily. Then the patient had to drink warm cow's milk for forty days, which was warming, thick and fatty. If the flux was copious and irritating she should have roasted fowl, which was drying, hot and easy to digest, bread baked in ashes, which was nourishing and drying and aged dark vinous wine, which

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[122] Hipp., *Diseases of Women* II, 10; Translation by: Potter, *Hippocrates volume XI*, 289-93.
[123] Hipp., *On Regimen* II, XL, XLI, XLII, XLVII, LII, LIII, LIV, LVI; Orib., *Medical Compilations*, 4.2.1, 4.7; Powell, *Galen*, 116, 123-7, 131-2, 150; Dalby, *Food in the ancient world*, 217-20, 290-1.
[124] Other prescriptions that mention a different treatment outcome for elderly women are for example: Hipp., *Diseases of Women* I, 63 and Hipp., *Diseases of Women* II, 9.
[125] Hipp., *Diseases of Women* II, 12; Translation by: Potter, *Hippocrates volume XI*, 293-7.

was nourishing, hot and dry, in the evening. The diet prescribed thus employed nourishing, cleansing and moist foodstuffs and drinks to clean the body and it advised the consumption of drying and heating foodstuffs and drinks to counteract the acridity of the flux. The disease was chronic and in older patients the disease could relapse and lead to death.[126]

In short, healthy elderly people were advised a diet that contained foods that were soft and easy to digest and that counteracted the inherent cold and dry nature of the elderly body. A warm and moist diet was possibly recommended to make the elderly bodily balance similar to the balance of the body of a healthy adult, as this may have been thought to lengthen the lifespan. Healthy elderly women were advised the same diet as healthy elderly men, because the balance in the bodies of elderly women was comparable to that of elderly men. If elderly persons became ill they were prescribed a diet that was based on the theory of 'opposites cure opposites' to treat their diseased state. The treatment that elderly patients received was the same as what was given to younger patients of the same gender, but the result of the treatment could be different. Whether elderly diseased women were given the same dietetic advice as diseased elderly men is unclear, but based on the fact that diseased adult women received the same treatment as diseased adult men, it is likely that the treatments that were given to elderly female patients were identical to those given to elderly male patients.

[126] Hipp., *On Regimen* II, XL, XLI, XLII, XLVII, LII; Orib., *Medical Compilations*, 4.2.1; Powell, *Galen*, 43, 46, 123-7, 131-2, 149-50; Dalby, *Food in the ancient world*, 217-20.

2.4 Infants and children

Now the theory of application of dietetics on infants and children will be examined, in relation to their bodily balance. To do this we will look at cases in which it was obvious that children were the subjects. Doctors recognized children as a distinct category of patients and even subdivided childhood into a number of stages such as infancy, teething, older than teething and approaching puberty. Infant's and children's bodies were seen as moist and warm, but not as warm as an adult body. During infancy the body was thought to have an abundance of blood, whilst the period of youth saw a shift towards an abundance of yellow bile. The onset of puberty was considered a very important and dangerous period as it saw the start of residue production and gender division. Male doctors were more often involved in the care of older pubescent, generally male children and were mostly called when there had been an accident or trauma. As it was a woman's responsibility to take care of the health of the children most infant and child care was done by wise-women, female doctors and mothers.[127]

During the initial 6 months of infancy the child was only being nursed. If the infant became ill a diet to counter the diseased state was prescribed to the wet nurse, while the infant was treated with plasters, poultices or compresses.[128] After the initial period of infancy, infants were to be weaned. This example from Soranus' *Gynecology* discusses when to wean infants and what to feed them:

> For this reason, when the body has already become firm and ready to receive more solid food, which it will scarcely do successfully before the age of six months, it is proper to feed the child also with cereal food: with crumbs of bread softened with hydromel or milk, sweet wine, or honey wine. Later one should also give soup made from spelt, a very moist porridge, and an egg that can be sipped. But one should be beware of giving milk to drink during the meal, for the food becomes difficult to digest since it floats on top of the fluid milk; moreover, the thirst is not quenched. Sometimes, therefore, when the infant is very thirsty after the meal one should give it water or a little watery wine through artificial nipples, for out of these it draws the fluid little by little as from the breasts without being harmed. Sometimes, however, one should offer a soft piece of bread dipped in diluted wine, for the morsels which the wet nurse has formed by munching are harmful because of being combined with phlegm. However, one should reject bread flavoured with poppy or sesame and everything spicy, for any of these is even difficult for adults to digest.[129]

The food that Soranus advised to wean healthy infants was soft, required little chewing and was easy to swallow. The bread crumbs were small and were softened with sweet liquids that had a moist quality. The spelt porridge soup was also moist and soft and required no chewing. Spelt was used as it was lighter than wheat and thus easier on the stomach. The additional still runny egg made the porridge even softer and easier to swallow. The egg was also given because it was very nourishing. The usage of saliva to moisten the crumbs was discouraged by Soranus because it added phlegm, which was moist and cold, not moist and warm like the infant's body. Soranus also advised to refrain from giving the infant anything spicy and bread

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[127] Dean-Jones, *Women's bodies*, 33-5, 45-6, 118; Finley, 'The elderly in classical antiquity', 159-60; Jouanna, van der Eijk and Allies, *Greek Medicine*, 339; Craik, 'Hippokratic Diata', 346; Flemming, *Medicine*, 33-42; Demand, *Birth, Death, and Motherhood*, 141-5; J. Bertier, 'Enfants malades et maladies des enfants dans le Corpus Hippocratoque', in: P. Potter, G. Maloney and J. Desautels eds., *La Maladie et Maladies dans la Collection Hippocratique* (Quebec 1990) 209-220; I.G. Wickes, 'A history of infant feeding: part 1, Primitive peoples; ancient works; Renaissance writers.', *Arch Dis Child.* 138 (1953) 151-8.

[128] Sor., *Gynecology*, 2.28(48).57(126); Bertier, 'Enfants malades', 212, 215, 219.

[129] Idem, 2.21(41).46(115); Translation by: Temkin, *Soranus' gynecology*, 117-8.

flavoured with poppy or sesame, as they were difficult to digest. The poppy and sesame seeds were to be avoided as they had qualities opposite of the infant's body. Poppy seeds were cooling and sesame seeds were heating and drying. Spices could radically adjust the humoral balance and were considered too strong for infants to consume. In this treatment foodstuffs with opposite qualities were not desired. Apparently when an infant was not sick he required a sameness of qualities in food and body. This was probably because the imbalance of the infants body was not seen as dangerous or bad and because the infant was thought to naturally grow out of its imbalance.[130]

While weaning, a healthy infant was advised a diet with a sameness of qualities. What diet was then prescribed if the child became ill during this period? This example from Soranus' *Gynecology* discusses a treatment for children suffering from (excessive) wheezing or coughing, due to an accumulation of moist and cold phlegm:

> When the child wheezes because of the accumulation of much phlegm, some people prescribe lozenges of cardamom, cumin, nettle seed, and pepper. We, however, eschew these on account of their pungency, since irritating things provoke a flux and become the cause of more inflammation. Instead, we continually give drops of honey water and if the child, not yet able to spit, swallows the phlegm, we press its tongue and then thus vomiting takes place, the swallowed matter is easily evacuated. When the infant coughs, we make use of lozenges prepared with small pine cones, roasted almonds, linseed, the juice of licorice, pine seed, tragacanth, and honey – and again we avoid pungent substances (for they aggravate the cough which is as yet new) and we omit the bath too.[131]

In this quote the child had an imbalace in the body due to an accumulation of phlegm. As a treatment for wheezing, Soranus advised honey water, which had a sweet, moist and binding quality. For the coughing he advised a lozenges that had cleansing, attenuating, moist, binding, astringent and demulcent qualities. The treatment thus focused on being moist and getting rid of the phlegm by expectorating it. In the quote Soranus further discouraged the use of pungent substances for children, like he did in the previous quote when he discouraged the usage of poppy seeds, sesame seeds and spices. Other ancient medical writers also thought that children required weaker *pharmaka* as well as a milder diet.[132] In the first quote from Soranus we see that the diet prescribed in case of health was based on a sameness of qualities between body and diet. In case of disease, foodstuffs of opposite quality to the disease and foodstuff of beneficial nature was advised, while the focus on moist and mild foods persisted.

Besides Soranus' diet advice for infants there is little additional information on dietetic advice for healthy or sick children. This was most likely due to the fact that childcare was the mother's responsibility. The information we do have focused on starting healthy infants on a diet of animal milk and eggs, followed by fruit and vegetables, while meat had to be avoided

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[130] Hipp., *On Regimen* II, XLIII, XLV, L, LII, LIII; Dalby, *Food in the ancient world*, 126-7, 180, 268, 309-10; Powell, *Galen*, 67, 134; Bertier, 'Enfants malades', 212, 215, 219; R. Sallares, *The Ecology of the Ancient Greek World* (London 1991) 139. The food advised by Soranus for weaning had much of the same qualities as the foods that are advised for weaning infants today.

[131] Sor., *Gynecology*, 2.26.(46).54(123); Translation by: Temkin, *Soranus' gynecology*, 124.

[132] Hipp., *On Regimen* II, XLV, LII, LIII, LV; Dalby, *Food in the ancient world*, 6, 179-80, 196-7, 261; Powell, *Galen*, 93-4; Bertier, 'Enfants malades', 212, 215, 219; Flemming, *Medicine*, 350; N. Everett, *The Alphabet of Galen: Pharmacy From Antiquity to the Middle Ages* (Toronto 2012) 239; <https://www.drugs.com/npp/tragacanth.html > (25-04-2019).

as it created phlegm. After infancy a similar diet, with food that was moist and had an appropriate heat intensity, was advised.[133]

The advised diet changed when children started to reach puberty. Rufus of Ephesus' treatise *On Girls Regimen* gave dietary advise for pubescent girls. The pubescent girl's body was considered to be in danger, as it was going through several changes that lead up to menarche. During this period the girl's body was thought to have an excess of moisture and an excessive heat. In his work Rufus advised that when the time was right, healthy girls reaching puberty should have dietary restrictions imposed on them. These limitations were as follows:

> Their consumption of food should be regulated and measured, and they should not touch any sort of meat or other very rich foods. […] While still young, girls may as well have wine as part of their diet, but when maturity approaches, order them to drink water or take even a rather small amount of diluted wine, so that their own nature, which is boiling on its own, does not become allied to the heat from the wine.[134]

The first regulation contained restrictions for pubescent girls on both the types of food and the amount eaten. It limited the overall food intake and the intake of meat and other rich foods. An abundance of food and consumption of meat and rich foods, were thought to cause bloating, hasten the onset of menarche and incite sexual intercourse. Sexual intercourse during puberty had to be avoided as childbirth at an early age was dangerous. Meat and rich foods were also harmful for the pubescent girls body as they were often heating, a characteristic that would be damaging for the already too warm body. Modern studies have also demonstrated that the amount of body fat is closely related to the onset of menstruation. By altering the diet in the way prescribed by Rufus, the amount of body fat would be reduced and the diet would thus accomplish the goal of delaying menarche. Rufus' advice was also thought to be an alternative for the use of harsher drugs, in curbing an inherent problem of a pubescent girl's body, namely an excess of moisture. As an abundance of food was thought to cause more moisture in the body, restricting intake would counter this problem.[135]

The second regulation on drinking wine versus drinking water was a more controversial one. The consumption of (too much) wine by girls was generally discouraged, as it was thought that wine, which was warming, exacerbated the heat of a girl's maturing body and caused sexual urges. Water, which was cooling and moist, was thought more appropriate as it would counteract this heat, stabilize the body and encourage a girl's self-control. The moist character of the water did not seem to be a problem, even though the girl's body had an excess of moistness. Apparently the inherent moistness of female bodies was seen as less dangerous than the temporary heat in the maturing pubescent girl's body. The controversial part of the second regulation was that Rufus advised prepubescent children to drink wine. Rufus allowed children to consume wine, because he thought that their constitution was not warm enough to get a detrimental effect from the heat of wine. Hippocrates and Soranus also advised the consumption of wine by children. The wine prescribed was always diluted by water, to make it more appropriate for consumption by children. Plato and Aristotle however, were strongly against any consumption of wine by

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[133] P. Stuart-Macadam and K.A. Dettwyler, *Breastfeeding: Bicultural Perspectives* (New York 1995) 117; Wickes, 'A history of infant feeding', 154-5; Bertier, 'Enfants malades', 212, 215, 219.

[134] Ruf. ap. Orib. Coll. Med. lib. inc. 18.10, 18.16 (CMG 6.2.2, 4.107 Raeder); Translation by: L. Caldwell, *Roman Girlhood and the Fashioning of Femininity* (Cambridge 2015) 89.

[135] Hipp., *On Regimen* II, XLVI, XLVII, LVI; Ruf. ap. Orib. Coll. Med. lib. inc. 18.9 (CMG 6.2.2, 4.107 Raeder); Flemming, *Medicine*, 221-2; Dalby, *Food in the ancient world*, 213-4; H.L. Haak, *Rufus Ephesius: medicus gratiosus* (Doctoral Thesis, Leiden University 2013) 177-80; Caldwell, *Roman Girlhood*, 87-94.

children. Wine consumption by children was disputed, because ancient authors differed in opinion on how much heat a child's body had or should have and on the effect of wine on the balance in a child's body.[136]

The diet advised for infants and children when they were healthy, was thus based on a sameness to their moist and mildly warm bodily balance. When the body became imbalanced because of disease the dietetic theory of 'opposites cure opposites', with an additional focus on mildness and an appropriate moistness and heat, was employed to rebalance the body. In Rufus' work we also see the usage of 'opposites cure opposites'. To delay menarche he advised the reduction of food intake and especially prohibited the intake of foodstuff and drinks that would cause an increase in heat and moisture in the body. Rufus' work *On Girls Regimen* recommended a diet that not only remedied the physiological problems that arose at puberty, but also helped solve the social and ethical concerns that accompanied them.

[136] Hipp., *On Regimen* II, LII; Ruf. ap. Orib. Coll. Med. lib. inc. 18.9 (CMG 6.2.2, 4.107 Raeder); Flemming, *Medicine*, 221-2; Dalby, *Food in the ancient world*, 350-2; Caldwell, *Roman Girlhood*, 87-94; Haak, *Rufus Ephesius*, 177-180; Wickes, 'A history of infant feeding', 154-5; Sallares, *The Ecology of*, 139.

Conclusion

In conclusion, the theory of the application of dietetics on healthy people differed depending on their inherent bodily balance. Healthy adult men, who were considered to have a perfectly balanced body, could consume anything they wanted and were only advised to avoid harmful and damaging foods and drinks. Pregnant and lactating bodies were seen as the most healthy and most balanced female bodies. Therefore the diets for these women did not contain foodstuffs that were meant to change their bodily balance. Instead healthy pregnant women were recommended to take foods that were easy to digest and did not upset the stomach. Healthy lactating women were advised to gradually change their diet back to a diet for healthy menstruating women, because their bodily balance was thought to slowly transition into the balance of the non-pregnant body. Healthy menstruating women were thought to have an inherently cold and moist nature. To rebalance their body they were recommended a diet that consisted of foodstuffs and drinks with opposite qualities. They were also given diets that promoted pregnancy, as the pregnant body was considered to be more balanced. The diets that were advised to healthy elderly contained foodstuffs that were soft and easy to digest and had warm and moist qualities that counteracted the inherent cold and dry nature of the healthy elderly body. In contrast to the diets advised to healthy elderly and healthy menstruating women, healthy infants and most healthy children were recommended a diet that was similar to their bodily balance, which was moist and mildly warm. Only healthy pre-pubescent girls were given a diet that was opposite to their nature, in order to delay menarche. Dietetic advices given to healthy people thus had similar qualities to the body when the body was well balanced (adult men, infants, children and pregnant women), but when the body was less well balanced the diets employed the theory of 'opposites cure opposites' (menstruating, elderly, pre-pubescent girls).

The theory of the application of dietetics on diseased people differed little depending on inherent bodily balances. When the body became imbalanced because of disease the theory of 'opposites cure opposites' was applied to treat the patient. Diseased menstruating and lactating women were also recommended diets that promoted pregnancy, because pregnancy was thought to cure diseases. The diets that were advised to pediatric and pregnant patients followed the theory of 'opposites cure opposites', but they did have additional requirements. Diseased infants and children were given a diet that was mild and had an appropriate moistness and warmth, whilst pregnant patients had to avoid pungent foodstuffs.

Having examined the theory of the application of dietetics on 'other' bodies, we can conclude that the idea that the 'other' bodies had inherently different balances did influence dietetic advices. This influence was bigger when the theory of dietetics was applied to healthy bodies than when it was used to cure patients. Thus 'other' bodies were represented as different from the male standard in the ancient medical theories on dietetics.

Gender and age differentiation can be found in the application of the theories on dietetics. The dietetic advices given to infants and children were the same for boys and girls. Gender differentiation was first seen in the dietetic recommendations given to pre-pubescent children and continued in the advices given to adults. Healthy adult women were advised different diets than adult men. However, when adult men and women suffered from the same disease, the focus of the dietetic advice was on curing the disease, which resulted in the same dietetic treatment for both genders. It is unusual to find the same dietetic treatment being prescribed for both genders in the ancient medical texts, as dietetic advices for adult women were rarely mentioned in non-gynaecological works. The dietetic treatments given to diseased elderly were identical to the advices given to adult patients and were thus the same for both genders. There was also no gender differentiation in the dietetic recommendations given to healthy elderly men and women, but these advices were different from the advices given to healthy adults.

The application of the theory of dietetics can also give an insight into the position of the 'other' bodies in society. It is clear that adult men had the most important position in society as they were the main subject of most ancient works on dietetics. The role of women in ancient society was focused on reproduction and child-bearing. This is evidenced by the fact that, while healthy menstruating women were thought to have unbalanced bodies, dietetic advices aimed specifically at these women were sparse. In fact, most of the advices for women came from the gynaecological works that focused on childbearing and actively encouraged pregnancy. This shows that the male elites who wrote these advices were mainly focused on women as child-bearers and that they likely saw childbearing as the primary task of women in society. Infants and children possibly had a minor place in the public sphere of society, as the dietetic advices in the ancient medical works seldomly mentioned them and because their mothers were responsible for their healthcare. Elderly people were also rarely mentioned in ancient medical works, but considering that dietetic treatments given to adults were not altered when they were given to elderly people and that the elderly body was not seen as very dissimilar from the adult body, their position in society was probably not that different from the position they had as adults.

In order to further our understanding of the 'other' body in ancient dietetics, it is important to learn more about the various cultural and religious associations of foodstuffs, since these associations affected the dietetic advices that were given to different gender and age groups.

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