

Latin Club Discussions: Illness and Medicine

I. The four humors

- A. The theory of humors, which dominated medical thinking from the time of the Greek physician Hippocrates (about 460-370 BCE – possibly pictured [here](#)) through Bartholomew's time and beyond, regarded the body as governed by a balance of four “humors”: black bile, yellow bile, phlegm, and blood. These humors, like the four elements, each represented a mixture of the four basic qualities:
- black bile (melancholy) is cold and dry,
 - yellow bile (choleric) is hot and dry,
 - phlegm (phlegmatic) is cold and wet, and
 - blood (sanguine) is hot and wet.
- B. The medieval nun Hildegard linked the elements the world was made of with human bodily systems: “For God created the world with four elements, and indeed none can be separated from another, because the world would not be able to stand, if one could be separated from another. But rather they are inseparably held to each other. Fire, for instance, tends upward and rules and burns the air and is stronger than it. Air, in turn, is nearest to fire, and like a cloth-fuller makes it burn and also settles it down, because the fire is like a body for the air and also air is like the organs and also like the wings and feathers of fire. And just as the body cannot exist without its organs, so too fire cannot exist without air, because air is the agitator of fire, since fire would neither blaze nor burn, if it did not have air.”
- C. Each person has their own healthy balance of these humors, which can be affected by lifestyle and diet. An imbalance causes sickness; for example, Bartholomew tells us that all kinds of leprosy begin with a problem of black bile, so it is a “cold and dry” affliction. Like people, medicinal plants and foods all had their own humors (pepper, for example, is hot and dry). Humor-based medicine would try to apply remedies that could bring the humors back into balance. Medieval physicians might also perform operations to bring the patient's humors back into balance, such as bloodletting.
- i. [A doctor performing a bloodletting on a patient](#)
 - ii. [A doctor performing a bloodletting on a poisoned man](#)
- D. Discussion: Does modern medicine have anything in common with this idea of humors? Even though we no longer make medical diagnoses on the basis of these humoral ideas, some of the theory remains. Today we still associate health with balance, seeking out everything from a “balanced diet” to “New Balance” running shoes. Our everyday speech still contains references to the idea that people are made up of different qualities or humors - “hot-headed,” “melancholy,” and “sanguine” are all reflections of this heritage.

II. Diseases in the medieval world

- A. Leprosy: Did you know that the leprosy as described in the Bible -- remember Uzziah? -- was a different disease from disease we call Hansen's disease today? Leprosy as described in the Bible was just a skin condition. The word that described it, *sāra`ath*, referred to a rash. The name of the disease which we now call Hansen’s disease, was based on a Greek word, *lepra*. This more serious disease emerged in the first and second centuries and was first described by Rufus of Ephesus in 117 CE. In its later stages Rufus thought its victims resembled satyrs or lions. In the final stages he compared their skins to the rough hides of elephants.

Much confusion surrounds leprosy. Ancient authors distinguished between Greek elephantiasis (by which they meant leprosy) and Arabic elephantiasis, which is a parasitic disease spread by mosquitoes. Today we distinguish not just stages of the disease but also among different kinds of leprosy. Most basically we distinguish tuberculoid leprosy, in which the immune system resists the disease, from another type (*lepromatous*) to which the immune system has little resistance. It is the latter disease that is responsible for a leonine appearance and the more serious symptoms. In its early stage, which can last a decade, people do not know what type of leprosy they have.

- i. You can often recognize lepers in pictures by the fact that they carry a clapper, used to alert people that they were coming: [A picture of a leper in a 14th-century French manuscript](#)
- ii. [The leper Lazarus](#) and the bad rich man

B. Plague: Probably the best-known illness from medieval times was the Black Death which decimated the population in Europe in the 14th century. Traditionally, people have believed this disease was the bubonic plague, but some recent epidemiologists (e.g. Samuel. K Cohn, "The Black Death: End of a Paradigm," *The American Historical Review* 107 (2002): 703-738) believe that the recorded symptoms and progress of the disease do not match those of bubonic and other plagues, and have suggested alternative identities for the Black Death including influenza and anthrax. Whatever the real nature of the disease, it was devastating to the population in Europe.

- i. [Benediction being given to animals suffering from plague](#) (14th century, French)

C. Madness: One important thing to recognize about medieval humoral medicine is that it does not make the same distinctions as modern medicine between physical and mental illness. Since everything from your complexion to your temper is explained in terms of humors, medieval medical theorists would find it natural to assign a humoral cause to mental illnesses. Bartholomew discusses two of these, which he calls *mania* and *melancholia*.

III. Medieval medical practice

A. The practice of medicine in medieval times resembled modern practice in some ways, and differed in others. There were not many hospitals of any kind, and none of the type we are now familiar with – huge centers full of all kinds of specialists where people can go to be treated for a wide variety of maladies. Medieval hospitals were run by religious orders and staffed by members of those orders, rather than by the professional medical practitioners we expect in today's hospitals. The thirteenth century saw a sizable increase in the number of hospitals in Europe, notably in Italy, France, and England. The 12th-century English monk Eadmer wrote about one such hospital in Canterbury:

“But I must not conclude my work by omitting what he did for the poor outside the walls of the city Canterbury. In brief, he constructed a decent and ample house of stone...for different needs and conveniences. He divided the main building into two, appointing one part for men oppressed by various kinds of infirmities and the other for women in a bad state of health. He also made arrangements for their clothing and daily food, appointing ministers and guardians to take all measures so that nothing should be lacking for them.” (Orme, Nicholas (1995). *The English Hospital: 1070-1570*. New Haven: Yale Univ. Press, 21-22.)

- B. The practitioners themselves were different from modern ones in some ways too. Modern medicine is practiced by professional doctors and nurses, but in medieval times you might find other types of people practicing medicine, including herbalists. The pharmacists we go to today to dispense medicine were much like medieval apothecaries, but those apothecaries did not need prescriptions from doctors like they do today. Childbirth was generally supervised by midwives, who were generally female – today, some people are returning to this traditional approach to childbirth.
- i. Doctors and patients:
 - a) [A doctor and patients \(from Bartholomew's De Proprietatibus Rerum, 14th century\)](#)
 - b) [A doctor checking a woman's pulse](#) (13th century, Germany)
 - c) [A doctor at a patient's bedside](#) (14th century, France)
 - ii. [An apothecary's shop \(early 14th century French text\)](#)
 - iii. [An apothecary \(15th century\)](#). Note the mortar and pestle for mixing remedies.
 - iv. A [midwife](#) present at the birth of Jesus
 - v. [A midwife](#) present at the birth of John the Baptist
- C. Discussion: How many types of modern medical practitioners can you think of? What jobs do they do that these medieval practitioners could handle? What medical procedures can you think of that could not be performed back then? How do you think people managed?
- D. Medieval medicine offered some surgical and bone-setting cures as well:
 - i. [A picture of a man on crutches in a picture of St. Elizabeth](#)
 - ii. [A doctor with patients leaning on a variety of crutches](#)
- E. Discussion: What kinds of cures have you seen in these pictures and texts? How do they compare to modern cures? Have you ever broken your leg or arm – how does modern medical equipment designed to treat this problem compare to the equipment you see in the pictures above?

IV. Cures

- A. In the days before modern specialized medicines, physicians and other medical practitioners used plants and other foods for medical applications as well. For example, many cultures determined that pepper can be used not just as a spice but also as a medicine. As Bartholomew notes, it is *calidum et siccum in quarto gradu* (hot and dry to the fourth degree). Galenic medicine worked out the system of degrees: just as there were four elements (fire, air, earth, and water), four qualities (hot, cold, dry, and moist), and four seasons, there were four humors. Things people ate shared in the elements and qualities. There were therefore four degrees, with the first being the weakest and the fourth having the strongest effect - for good or bad. Physicians needed to know the properties of patients' ailments and the properties of foods or medicines to treat patients correctly. Even before that, patients needed to keep their four humors in proper balance, partly by eating the right foods for their personal humoral status.
- B. Bartholomew on the Spider: what to do to cure a spider bite? "A remedy, moreover, for the bites of all spiders is the brain of a chicken with a little bit of pepper drunk with sweet wine. Similarly, the curdled milk of a lamb drunk with wine cures the bites of spiders. The ashes of a ram's hoof with honey also does this. In addition, ground-up flies placed above the bite draw out the venom and soothe the pain." Yuck! Let's never complain about the bad taste of modern medicines again.

C. We know now that it is very dangerous to ingest mercury – in fact, the expression “mad as a hatter” has its origins in this problem, since hatters used mercury in their craft and the exposure to it over time could cause dangerous physical and psychological effects. In Bartholomew on Quicksilver, Bartholomew answers (in a very different way from doctors today!) the question of what to do about mercury (quicksilver) poisoning: “Quicksilver is easily evaporated and dispersed into smoke, and its smoke is harmful to those standing near, for it induces paralysis and tremors by loosening and weakening the sinews. When taken orally or put in the ear, it kills by digging into the limbs. Against this danger goat's milk is the most effective [remedy], when drunk in extremely great quantities, while the patient is kept constantly moving.”

D. The *Canon*, Avicenna's eleventh-century medical work, contains a systematic explanation for the physical symptoms that accompany various conditions of the humors or qualities (Lutz, Peter L. (2002), *The Rise of Experimental Biology: An Illustrated History*, [Humana Press](#), p. 60). Some of these symptoms are listed below under the prevailing qualities that cause them:

hot	cold	moist	dry
high heart rate	rheumatism	low energy	insomnia
great thirst	no thirst	salivation	rough skin
fevers	low energy	swollen eyelids	low energy

Now look at the following table of medicinal effects of herbs and other foods:

calefacient (heating) / desiccant (drying)	infrigidant (cooling) / humectant (moistening)	warming / moistening	cooling / drying
pepper	lettuce	sugar	acorns
saffron	cucumber	wheat	mandragora
dill	melon	turnips	millet
fennel	cheese	almond oil	barley
sage	spinach	olive oil	roses

- E. Activity: You have set yourself up in business as a medieval herbalist. Using the tables above, describe a medicine you might concoct for a patient suffering from the following problems. Remember, you want to **counteract** the qualities pertaining to the illness to bring your patient's humors back into balance.
- i. fast pulse and insomnia
 - ii. low energy and great thirst
 - iii. low energy and no thirst
 - iv. rheumatism and insomnia
 - v. fast pulse, low energy and rough skin
 - vi. swollen eyelids and rheumatism