

### Physicians, Then and Now

Suppose you woke up one morning with a very sore throat and a fever. When you saw the doctor, you would expect a strep test and possibly a prescription for antibiotics. What would you think if, instead, your doctor stuck a blood-sucking leech on you and made small cuts in your skin to drain some of your blood? You would be shocked, right? If you were growing up in the Middle Ages instead of now, leeches and cuts might very well have been your treatment.

Medicine in the Middle Ages was more a matter of faith and astrology than science. Although many doctors did study at universities to obtain their degrees, there were few books that were infrequently updated and there was almost no emphasis on experimentation and research. Today, doctors have to go through four years of college and then another four years of medical school. After medical school, they work as interns and residents, focusing on a specific area of medicine, such as pediatrics or dermatology. Today, we have very specific areas of specialization in medicine. In the Middle Ages, however, there were just two fields: medicine and surgery.

### Theories and Treatments

In the Middle Ages, illnesses were seen as imbalances in body fluids. When a person was sick, the doctor studied the patient's urine to see where the imbalance was in the body. Doctors today also look at urine to determine some causes of sickness. However, today they also do other tests to find the reasons why a person is sick. Blood tests are, of course, one method we use to diagnose illnesses.

Doctors of the Middle Ages drew blood from patients, but they did it to *treat* diseases. Doctors would stick a leech, a type of blood-sucking worm, onto the skin. They might also make small cuts to allow blood to flow out of the body, a process called bloodletting. Doctors assumed that the disease would flow out of the body with the blood. Of course, we know now that in most cases bloodletting would make a sick person weaker rather than healthier. Because there were no antibiotics or prescription medications at that time, doctors treated patients with



A physician in a plague outfit. The long nose separated the doctor from the smell of plague, which was believed to be a method of spreading the disease. A sweet-smelling bouquet was placed in the bird's beak to protect the doctor from the smell of infection and death.

herbs and other natural remedies such as worms and beetles. Whereas today people may take vitamins and herbal supplements to improve their health, long ago herbs were the *only* medicine that patients had.

### Surgeons and Barbers

Becoming a surgeon during the Middle Ages was different from the process we use today. Surgeons today go through extensive training after they complete medical school. They must also pass a test to become board certified in a specific type of surgery. Despite the difference in training time, surgeons of the Middle Ages were similarly trained—except that they did not go to medical school! Barbers who wanted to be surgeons, or barber-surgeons, were trained through mentorships in which they learned by working alongside a practicing surgeon. They were able to observe the correct means of treatment.

Surgery in the Middle Ages was much different from having an operation today. Today, your surgery would take place in a sterile environment, free of germs. If you needed surgery in the Middle Ages, you went to see a barber! They were not the same as barbers today, although the white and red striped pole outside many barbershops today is left over from the surgeon-barbers of the Middle Ages. The red represented blood, and the white was for the bandages to stop the blood. Barbers were trained in surgery. Some surgeons would use bloodletting if a doctor had not already used leeches. They also cauterized, or burned, wounds to stop the bleeding by applying a hot poker or another piece of hot metal to the infected area. Their other specialty was tooth extraction. A barber might pull a rotten tooth and try to bleed the flu out of you in one sitting—all without the benefit of anesthesia, of course.



The barber-surgeon could be called on to bleed diseases from patients, remove teeth, and operate on war wounds.

Today, many people go to the doctor with life-threatening illnesses that cannot be diagnosed by a simple physical exam. To diagnose cancer, for example, a doctor today would also use blood tests and perhaps a biopsy, in which pieces of body tissue are sent to labs to be tested for abnormal cells. However, during the Middle Ages, if you were sick with an illness that had no visible symptoms, you might

have been sent on a pilgrimage to a holy site to pray. The general thought was that sickness was caused by sin. Unfortunately, these pilgrimages helped to spread contagious diseases.

### **Terrifying Epidemics**

Pilgrimages caused many people to travel through cities. General hygiene in cities was very poor, made far worse by overcrowding. Travelers only added to the dirt and filth. Cities had high disease rates because nobody had indoor plumbing. Garbage and sewage was thrown into the street. It was only a matter of time before sickness took hold. Typhoid and leprosy were the diseases people feared most before the bubonic plague—also known as the Black Death—took hold of Europe between 1348 and 1350. The bubonic plague was spread by fleas that were carried by rats. This plague took the lives of about one-third of the people in Europe.

In addition to the belief that sin caused disease, another myth of medieval medicine was that disease was spread by bad smells. It is easy to see why people thought this. Infected sores on a body can smell pretty bad. Sickness was more common in poorer areas of cities, which had the worst sanitation and thus the worst smells. Today, we know that bacteria and viruses, not smells, cause infections.

Medicine has made great progress since the Middle Ages. Doctors and surgeons learned from those who came before them and adapted techniques that sometimes worked. Although medical knowledge at that time was primitive compared with what we know today, doctors built a foundation for future medical scholars.

After reading the passage, answer the following questions:

- 1.** Why did doctors and surgeons use leeches to treat illnesses in the Middle Ages?
  - A.** They knew that leeches contain natural antibiotics.
  - B.** They believed that leeches would stimulate the appetite.
  - C.** They believed that diseases would leave the body with the blood.
  - D.** They used leeches to punish people for their sins, which caused illnesses.
  
- 2.** Why did doctors think that diseases were spread by smells?
  - A.** They associated good smells with healthy people.
  - B.** Isolated places that had no people smelled the best.
  - C.** They noticed that infected cuts smelled bad and thought the smell caused the sickness.
  - D.** Doctors never noticed smells on rich people, and rich people were always healthy.
  
- 3.** Why were people less afraid of typhoid and leprosy once the bubonic plague hit Europe?
  - A.** Colonies were founded to hide the patients.
  - B.** They were both cured by the time plague came along.
  - C.** The king of France had leprosy, making it fashionable.
  - D.** The plague was more devastating to the whole population.
  
- 4.** How is medicine today similar to, and different from, medicine in the Middle Ages? Provide evidence from the passage to support your answer.