English for Careers

The Language of Medicine in English

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Medicine: Its History and Folklore

People have always been concerned with their health. Everyone, at some time, knows the frustration, inconvenience, fear, and pain that comes with illness. Many years ago, injury and disease were attributed to possession by an evil spirit, a disturbance in the natural balance of physical and chemical forces, or the anger of the gods. Throughout history, there have been countless techniques to prevent and cure illness and preserve health. Magic and prayer, heating and cooling, cutting and burning, potions and foods have all been used. All of these, as well as modern science, comprise the field of *medicine.*

The legendary father of medicine, a man named Hippocrates, was born in Greece in 460 B.C. His medical observations became well-known in the Western world and *physicians* are still required to take the Hippocratic Oath and practice their profession according to its principles.

Courtesy of the National Library of Medicine

Hippocrates was not the first to make medical discoveries worth noting and remembering, however. The tombs of the Egyptians contain drawings of *surgical* operations performed in Egypt as early as 3000 B.C. The Babylonian Code of Hammurabi, dated 2040 B.C., contain statements on *doctor-patient* relationships and medical ethics. Early medical documents and prescription lists have been discovered. In China, *acupuncture* was developed centuries ago to treat a wide variety of ailments.

Despite these early discoveries, society relied on folk beliefs to provide a rationale for medical treatment. For instance, people believed that wearing a dirty sock around the neck offered protection against the common cold or that putting one's shoes upside down under the bed helped prevent cramps in the legs. Tobacco juice in the ear was reputed to help an earache, while black pepper and lard were supposed to cure asthma. Pregnant women were not supposed to hang clothes on a clothesline for fear they might produce knots in the umbilical cord. Amulets and incantations were trusted medical devices.

Courtesy of the National Library of Medicine

This 1805 Japanese woodcut by Kuwatsu shows common acupuncture points and meridians illustrated with Japanese characters.

In the Middle Ages, an *epidemic* of bubonic plague, often called the "Black Death," ravaged Europe. Similar experiences provided the impetus for scientists to work more determinedly on solutions for medical problems. This marked the beginning of the scientific approach to medicine.

In 1515 the first public dissection of a human cadaver, or dead body, was performed. Dissection enabled physicians to identify and study the human body's *skeleton*, the heart and its circulatory system, the major nerves, the stomach and other digestive organs, and so on. Without a thorough knowledge of *anatomy*, little medical progress could have been made.

Squibb Collection, National Museum of American History, Smithsonian Institution

In 1545, the first *pharmacy* was opened in London. Prescription medicines had been administered prior to this time, but establishment of this shop indicated that medication was becoming an accepted means of treating *disease*. Today many thousands of *drugs* are used to treat illness; those that are potentially dangerous or addictive must be prescribed by a physician. Among these are the *antibiotics* and the narcotic drugs such as morphine. Drugs not considered harmful, like aspirin and vitamins, are sold without a prescription.

The microscope was invented in 1590. This tool has since become indispensable in the *diagnosis* of disease. Laboratory technicians use it regularly to analyze specimens of blood, urine, and tissue; their reports provide physicians with valuable information which could not otherwise be known.

The history of medicine is full of major turning points. The first blood transfusion was performed in 1667. In 1699 a law to control *communicable diseases* was enacted in the American colony of Massachusetts. In 1769 New York City made the first attempt to regulate the practice of medicine. In 1895 Roentgen discovered the X-ray to detect abnormalities inside the body where the eye cannot see.

In the twentieth century major advances have been made in nearly every area of medicine. Open-heart surgery has been developed. Organ transplants are sometimes successful. The Salk and Sabin vaccines have virtually eliminated the threat of poliomyelitis. The electrocardiogram and electroencephalogram help physicians detect heart and brain malfunctions, respectively. There have been advances in the diagnosis and treatment of cancer. Health care for old people has gained respect.

Courtesy of the National Library of Medicine

Wilhelm Konrad Roentgen

These developments have increased the need for trained personnel in health-related careers. The general practitioner (G.P.) is no longer the only qualified individual in the medical field. There remain the ancient divisions of surgery, internal medicine, pediatrics, and obstetrics and gynecology. But within each are specialists, who have taken residency training and fellowship training as part of the house staff of teaching hospitals affiliated with medical schools. For example, within internal medicine is cardiology (heart), pulmonary medicine (lungs), rheumatology (diseases of bone and joints), dermatology (skin), and many others. Surgeons may specialize in cardio-thoracic (heart and lungs), vascular (blood vessels) or plastic (precise remodeling of superficial or surface anatomy) surgery. Newer specialties reflect new technologies (nuclear medicine). There is even a specialty of general practice—now called *family practice*.

Scientific developments are of no benefit if they are not shared. The cost of medical training, machinery, institutions, and treatment is so high that only the rich can pay for it. But increasing numbers of people have access to adequate health care through public health

programs, *health insurance*, socialized medicine, and various kinds of *hospitals*. The United Nations has improved health facilities through its subsidiaries, the World Health Organization (WHO) and the United Nations International Children's Educational Foundation (UNICEF). In the United States, medical societies and legislation set and maintain standards and disseminate information.

Medicine is a highly technical and complex science. But the basic principles of medical care and good health should not be the prerogative of medical professionals alone. Each individual should assume the primary responsibility for his or her own health and should be familiar with the first aid procedures necessary in an emergency situation when medical assistance is not available. Everyone should known the basic principles of medical science.

Discussion

1. What are some of the methods used in the past to prevent illness and restore health?

2. Who is called the "Father of Medicine?" Discuss the oath that is named after him.

3. What is acupuncture? Who developed it?

4. Give an example of a folk belief related to health.

5. What was the "Black Death?"

6. When did medical science begin to make real progress in Europe?

7. Why is the study of human anatomy important for work in a medical career?

8. What was significant about the establishment of the first pharmacy in London in 1545?

9. Certain drugs are available by prescription only. Why? Name some of them.

10. How do laboratory technicians use the microscope? What other tools help doctors diagnose disease?

11. Name some of the major medical advances made in this century.

12. Recent medical developments have increased the need for health personnel. Name some of these new positions.

13. What does a dermatologist do? A pediatrician?

14. What is WHO? What does it do?

15. Why is it important to be familiar with first aid?

Review

A. Complete the following sentences with the appropriate words.

1. Physician is another name for _____.

2. Someone who is under a doctor's care is called a _____.

3. A prescription drug can be purchased only in a _____.

4. A disease which spreads from one person to another is a _____.

5. Laboratory technicians use a _____ to examine blood specimens.

6. The Salk and Sabin _____ have greatly reduced the threat of polio.

7. In 1895 Roentgen discovered the _____ which makes it possible to diagnose problems in the skeleton and internal organs.

8. A doctor who specializes in heart problems is a _____.

9. The cost of health care is so high that _____ is necessary for most people.

10. The study of the human body, called _____, was greatly advanced when dissection was first used in 1515.