

## The History of Medicine

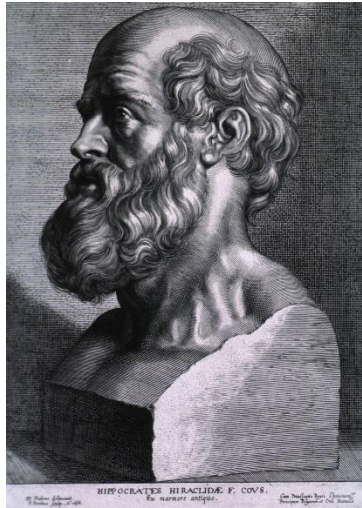
Medicine has evolved immensely throughout the years. Since antiquity societies have been striving to find ways to remain healthy, treat illness and disease, and increase the quality of life. Human beliefs about the causes of disease have followed a logical progression from supernatural causes, such as the wrath of the Gods, to natural causes, involving imbalances within the human body. Treatment and therapy of ailments included spells, plant-based medications, bloodletting, trepanation, acupuncture, and surgical procedures performed by using opium and scopolamine to relieve pain and acid vinegar to clean wounds.

An interesting surgical intervention of the time is trepanation in which a hole was made in the skull by drilling or scraping to remove what people believed were evil spirits. It was also used as an emergency method to heal a head injury or treat epilepsy. The contemporary use of this surgical intervention can be found in corneal transplant surgery, and subungual haematoma using a surgical tool called a trephine.



In Babylonian times, physicians often relied on exorcism to cleanse the patient from any curses or used fumigation to heal illnesses like depression, epilepsy, or haemorrhoids. Egyptian treatments consisted of ointments made from animal, vegetable or fruit substances, or minerals. Ayurveda, meaning the "complete knowledge for long life" is rooted in India dating from about 600 BC onwards. Sushruta, an ancient Indian physician and surgeon invented and developed surgical procedures. His work on the subject, the *Sushruta Samhita* is considered the oldest text in the world on plastic surgery. Traditional Chinese medicine, based on the use of herbal medicine, acupuncture, and massage, has been practiced in China for thousands of years.

Hippocrates, a towering figure in the history of medicine, is considered to be 'the Father of Medicine'. He and his followers were the first to describe many diseases and medical conditions and believed that illness can be explained by an imbalance of blood, phlegm, black bile, and yellow bile (*humourism*). The *Hippocratic Oath*, attributed to Hippocrates, is the earliest expression of medical ethics in the Western world. Physicians swear by this oath, to uphold specific ethical standards.



### Hippocrates-The Father of Medicine

Galen, a Greek physician, surgeon, and philosopher in the Roman Empire, strongly believed that medical dissection was one of the essential procedures in truly understanding medicine. His medical work was regarded as authoritative until well into the Middle Ages.

The Roman army physician Dioscorides (c. 40–90 BC), a Greek botanist and pharmacologist, wrote the encyclopaedia *De Materia Medica* describing over 600 herbal cures. This work formed an influential pharmacopoeia which was used extensively for the following 1,500 years.

Islamic physicians in the post-classical era played an invaluable role in the development of the modern hospital system creating the foundations on which more contemporary medical professionals would build models of public health systems in Europe and elsewhere. The hospital was a place to treat patients, but it also served as a medical school to educate and train students. The Bagdad hospital, built in 805 AD, housed a medical school and a library.

During the Renaissance there were revolutionary developments in medical science. These include the invention of the microscope, the discovery of microorganisms, the development of immunization against disease, the transfusion of blood, the introduction of anaesthesia with the use of ether and nitrous oxide, the introduction of antisepsis, the establishment of the germ theory, the discovery of x-rays, etc.

The 20<sup>th</sup> century brought the development of antibiotics, the creation of vitamin supplements, the advancement of cancer therapy, the first heart and kidney transplants, the discovery of DNA's double-helix structure, and cloning, to mention but a few.

These advancements, along with developments in chemistry, genetics, and radiography led to modern medicine resulting in a better quality of life and greater life expectancy. The history of medicine indicates how societies from antiquity to the present day have evolved in the way they approach illness and disease.

**Exercise:** Scan the text above for words that have the following meaning.

1. .... mild physical or mental disorders
2. .... drugs or remedies
3. .... the therapeutic removal of blood
4. .... a surgical procedure in which a hole is drilled into the skull
5. .... a therapeutic procedure using needles
6. .... the use of smoke or fumes to exterminate pests or disinfect
7. .... fatty or oily medicated formulations applied to the skin to heal or protect
8. .... inorganic elements, (calcium, iron), that are essential to the functioning of the human body and are obtained from foods
9. .... a bitter, alkaline, greenish-yellow fluid that is secreted by the liver
10. .... an ancient theory in which the humours (water, air, earth, fire) were believed to have an influence on the production of disease
11. .... cutting for the purpose of separating into pieces
12. .... an authoritative book containing a list of medicinal drugs with their uses, preparation, dosages, formulas, etc
13. .... the process of administering a vaccine for prevention against infectious disease
14. .... the transfer of blood from one person to another
15. .... the process of destroying microorganisms that cause infection
16. .... pharmaceutical products added to supplement a diet or to make up for a dietary deficiency
17. .... tissues or organs transferred from one part of the body to another or from one person to another
18. .... the process of making an identical copy of an organism