

# CHRONICLES OF MEDICAL HISTORY IN AFRICA

## Imhotep: Father of Medicine

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### ABSTRACT

*Imhotep was born at Akhhtowe, a small town in Egypt around 2655 BC. He was a contemporary of Abraham, the Father of the Hebrews who lived about 5000 years ago. He is reputed as the inventor of the pyramid, the first physician, architect, and engineer. William Osler called him the true “father of medicine”. The Greeks revered him; Hippocrates learnt from him, expounded some of his works, and laid the foundations of the profession of medicine as we know it today.*

The early history of man is mired in mythology, imaginative tales, and fables. The early history of medicine is no exception. Where there are no facts imaginations have often filled in the gaps. It is difficult separating fact from fiction when discussing events of antiquity; the early history of medicine suffers a similar fate. Medicine emerged from a period of superstitions, myths, magic, and ritualistic beliefs. Almost 6000 years ago medicine was completely devoid of any systematic or logical approach to diagnosis. The Greeks became famous for numerous contributions to medicine, science, art, religion, sociology, and poetry. The Greeks studied everything; their passion for knowledge was as unquenchable as it was unequalled in history. This passion has been passed on through the Romans to the Indo-Europeans and Americans. The Greeks may be credited as founders of modern civilization as we know it today but we should not forget other people, like the Chinese, who developed art, culture, science, religion, and huge dynasties almost in complete ‘isolation’ until relatively recently.

The Greeks had amongst them heroes who undertook exploits and made discoveries that transformed the World; philosophies that have directed the destinies of people and nations, civilizations and eons. It seems

certain, from historical achievements, that whatever a people can believe they can attain, whatever they set their hearts to they eventually achieve. There seems to be no limit to the potentials of the human brain and body; no obstacle is insurmountable with faith and focus. The human brain has continually probed the Universe and answers have led to more questions demanding stronger and better brains. The Greeks showed us that man is equal to the challenge the Universe poses. This summarizes the history of humanity in a rapidly changing World.

#### *The Greeks and the study of medicine*

The Ancient Greek world included parts of modern-day Greece, Turkey, Egypt, and Italy. Many foundations of modern Western medicine lie in Classical Greece, from about 800 BCE to about 200 CE. During this period, Greek medicine departed from the divine and mystical and moved toward observation and logical reasoning. These ideas spread throughout the Mediterranean world and as Far East as India, and their influence has remained strong in the West to this day.

*This article, a compilation of many online publications, returns the origin of medicine to its true home – Africa.*

700 B.C.E: Homer writes of Apollo, the bringer and reliever of plagues in <i>The Iliad</i>	150 C.E: Artemidorus writes <i>Oneirocritica</i>
600 B.C.E: The rise of Greek science and philosophy: Thales begins inquiries about nature and physics	476 C.E: As the Western Roman Empire falls, Western physicians begin to lose contact with Greek scholars and texts in the East
580 B.C.E: Pythagoras born at Samos; later founds a scientific and philosophical cult	632-1200 C.E: Islam grows, eventually taking over Egypt and much of the Hellenized Middle East; Arab medical scholars take an intense interest in the Greek physicians; texts are copied in Greek and translated into Arabic
480 B.C.E: Empedocles born; noted philosopher and physician	1200-1350 C.E: News from Crusaders and texts found during their raids renew Western scholars' interest in Greek medicine; the Greek language is mostly unknown, however
460 B.C.E: The most noted "Hippocrates" born; the Hippocratic <i>Corpus</i> begins its formation	1450-1598 C.E: With the fall of Constantinople in 1453, many Byzantine scholars emigrate to Italy, bringing Greek texts and teaching the language; Greek medical texts are printed with vigor and studied dogmatically
384 B.C.E: Aristotle born; noted philosopher and scientist	1540-1800 C.E: Western scholars begin to question the data in Greek medical texts, but take up their methods of scientific enquiry and experimentation, developing modern Western medicine
334-325 B.C.E: Alexander the Great conquers Egypt, the Middle East and Western India, bringing Greek culture and learning	1800 C.E: Greek medical texts become the focus of modern Classical scholars and historians of medicine
330 B.C.E.-100 C.E: Alexandria serves as a center for Greek scholarship, including medicine	
146 B.C.E: Greece becomes a Roman protectorate	
50-70 C.E: Dioscorides writes <i>Peri ulthV iatrikhhV</i> , known in Latin as <i>De materia medica</i>	
129 C.E: Galen born; noted physician	

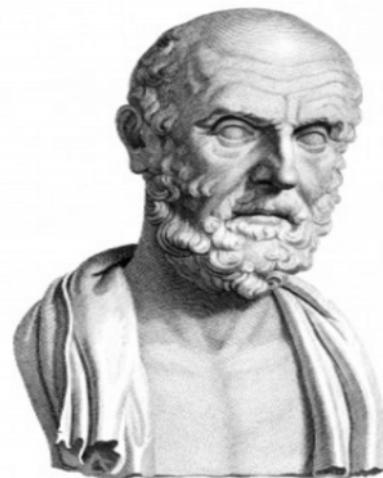
Table: Greek history timeline

### Hippocrates

The most important figure in ancient Greek medicine is the physician Hippocrates, known as the "Father of Medicine", who established his own medical school at Cos. Hippocrates and his students documented many conditions in the Hippocratic Corpus, and developed the Hippocratic Oath for physicians, still in use today. The Greek Galen was one of the greatest surgeons of the ancient world and performed many surgeries including brain and eye surgeries that were not questioned for almost two millennia. The writings of Hippocrates, Galen, and others had a lasting influence on Medieval European medicine and Islamic medicine, until many of their findings eventually became obsolete from the 14th century onwards.

It is well known that the Greeks had a very significant influence in the development of modern medicine, but were they the first documented physicians? Did the documented history of medicine start with the Greeks? Is Hippocrates the "Father of medicine"? As

it has been shown in many instances, Africa may hold the answers that we seek. Let us visit Egypt.



Hippocrates (ca. 460 BC – ca. 370 BC)



Egypt is one of the countries of the middle-eastern region where Arabic is spoken. Egypt is home to the pharaohs, great pyramids, and the Nile River. Her pyramids have perplexed scholars for many millennia; her ancient writings hold the origins of the sciences, art, and religion. Egypt is a land of dreams for the scholar, the haven of mysteries, and the home of nature in all ramifications. Egypt is the cradle of human civilization; her music, dances, traditions, poetry, and palm trees have continued to enthrall tourists from all nations. Buried in her sands are monuments that will continue to feed our curiosities for hundreds of years to come. Egypt is famous for its ancient civilization and some of the world's most famous monuments, including the Giza pyramid complex and its Great Sphinx. Its ancient ruins, such as those of Memphis, Thebes, Karnak and the Valley of the Kings, are a significant focus of archaeological study, and artifacts from these sites are now displayed in major museums around the world. Egypt's capital city, Cairo, is Africa's largest city and has been renowned for centuries as a center of learning, culture and commerce. The Royal Library of Alexandria, or Ancient Library of Alexandria, in Alexandria, Egypt, seems to have been the largest and most significant great library of the ancient world. Egypt has the highest number of Nobel Laureates in Africa and the Arab World. Egypt is a country located in Africa but truly belongs to the World. Egyptian culture has six thousand years of recorded history. The documented history of medicine began with the birth of Imhotep at Ankhtowe, a suburb of Memphis, Egypt.

Imhotep (2655-2600 BC), “the one who comes in peace”, was an Egyptian polymath who served under the Third Dynasty king Djoser as chancellor to the pharaoh and high priest of the sun god Ra at Heliopolis. He is considered to be the first architect, engineer, and

physician in early history; though two other physicians, Hesy-Ra and Merit-Ptah lived around the same time.



*Imhotep*

Imhotep was an ancient Egyptian genius who achieved great success in a wide variety of fields. He invented the pyramid, was author of ancient wisdom, architect, high priest, physician, astronomer, and writer. Imhotep's father, Kanofer, was later known to be the first of a long line of master builders who contributed to Egyptian works through the reign of King Darius the First (522–486 BCE). His mother, Khreduonkh, is known today for having been deified alongside her son, an Egyptian custom. The Step Pyramid at Sakkara is the only of Imhotep's achievements that can still be seen and appreciated today. Its reputation is largely based on Imhotep's accomplishments as the pyramid's inventor and builder. This pyramid was the first structure ever built of cut stone, and is by far the oldest of the Seven Wonders of the World, the seven structures of the ancient world that were astonishing

accomplishments for their time. It took twenty years to complete—the period of development where metals, particularly bronze, were used for the first time. Imhotep was also the author of an encyclopedia of architecture that was used as a reference tool by Egyptian builders for thousands of years. When the Egyptians crossed the Mediterranean, becoming the foundation of the Greek culture, Imhotep's teachings were absorbed there. Yet, as the Greeks were determined to assert that they were the originators of everything, Imhotep was forgotten for thousands of years and Hippocrates, who came 2000 years after him, became known as the Father of Medicine.

#### *Imhotep and Medicine*

Imhotep is credited with being the founder of medicine and with being the author of a medical treatise remarkable for being devoid of magical thinking; the so-called Edwin Smith papyrus containing anatomical observations, ailments, and cures. The surviving papyrus was probably written around 1700 BC but may be a copy of texts a thousand years older. This attribution of authorship is speculative, however. As a physician, Imhotep was beloved as a curer of everyday problems as one who could "provide remedies for all diseases," and "give sons to the childless". Imhotep catalogued the diseases and remedies that worked during his time. He practiced medicine in a manner far ahead of his time. He was the first to consider the aetiopathogenesis of disease as due to natural causes in addition to widespread belief in supernatural causes. Imhotep diagnosed and treated over 200 diseases, 15 diseases of the abdomen, 11 of the bladder, 10 of the rectum, 29 of the eyes, and 18 of the skin, hair, nails, and tongue. Imhotep treated tuberculosis, gallstones, appendicitis, gout and arthritis. He also performed surgery and practiced some dentistry. Imhotep extracted medicine from plants. He also knew the positions and functions of the vital organs and circulation of the blood system.

Imhotep was logical in his approach and systematic in his practice. He probably had visions of advancements in medicine that were so far ahead of his time that he was considered a great magician. As it was in those days physicians doubled as magicians. As a magician he had a command of magic and the healing rituals. Members of the cult of Imhotep in the Twenty-sixth and Twenty-seventh Dynasties (between 525 BCE and 550 CE) would pay tribute to the god at his temple just outside Memphis. The temple also contained halls devoted to the teaching of medical methods, and to the preservation of the *materia medica*, which details the entirety of Egyptian medical knowledge which may actually have originated with Imhotep. His name was often grouped with such powerful deities as

Thoth, god of wisdom, Isis, the wonder-worker, and Ptah, a healer and the ancient god of Memphis. Although other humans were deified by the Egyptians, Imhotep is unique for being known by his own name as a god inferior in power only to Ra (chief sun-god). The Encyclopedia Britannica says, "The evidence afforded by Egyptian and Greek texts support the view that Imhotep's reputation was much respected in early times... His prestige increased with the lapse of centuries and his temples in Greek times were the centers of medical teachings."

Imhotep was a modern physician in an ancient world of superstition, magic, and rituals. Almost two thousand years after his death his writings were discovered by the Greeks and some of it expanded. However, a lot of the ancient practices were discarded but those that were true advances in medicine formed the building blocks of Greek medicine. It is Imhotep, says Sir William Osler, who was the real "Father of Medicine", "the first figure of a physician to stand out clearly from the midst of antiquity." The Greeks had great respect for Egyptian medicine and imported Egyptian substances into their pharmacopoeia; the influence becomes more pronounced after the establishment of a school of Greek medicine in Alexandria, Egypt. Imhotep's contributions to medicine deserves to be remembered by us. Every discipline is a product of past achievements. Newton is widely quoted as having said "If I have seen further than others, it is by standing upon the shoulders of giants."

Hippocrates built on the discoveries and practices of those before him and he founded the profession of medicine. The Hippocratic School bequeathed to us written documents of classifications of diseases, diagnostic procedures, classic syndromes, and an attempt at pathophysiologic explanations. Medicine indeed has a very long history. A very abridged history of medicine will flow along these lines; Asclepius (the legendary god of medicine) - Imhotep - middle-eastern physicians of antiquity - Greek physicians of antiquity - Hippocrates - ancient physicians of the Hippocratic order (the true medical doctors) - Galen - Sydenham - Heberden - Charcot - Osler. Back here in Nigeria we had Benjamin Osuntokun. It gladdens my heart immensely that Africa played significantly in the history of medicine. There are no lesser or greater humans; only in their beliefs, dreams and visions do they differ. Finally, Africa should rapidly stem the tide of ethnic, political, and religious violence that has stolen almost every potential for greatness in this beautiful and mother continent of the Earth.

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