

# Imhotep and the Origins of Ancient Egyptian Military Medicine

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*Imhotep, the first figure of a physician to stand clearly from the mists of antiquity.*

Sir William Osler<sup>1</sup>

## Introduction

Early in the Egyptian Old Kingdom, dated by 19<sup>th</sup> century historians as commencing in c. 2686 BCE<sup>1</sup> lived perhaps one of the world's most astonishing ancients, Imhotep. He was perhaps the first physician, engineer and architect in history known by name. Imhotep has been favourably compared with Leonardo da Vinci<sup>2</sup>. Although Jamieson B Hurry lists thirty variants in the English spelling of his name<sup>3</sup>, the name *Imhotep* is the most common variant and will be used in this biography.

The pre-eminent American Egyptologist, James Henry Breasted, wrote of Imhotep,

“In priestly wisdom, in magic, in the formulation of wise proverbs, in medicine and architecture, this remarkable figure of the Pharaoh Zoser’s (sic) reign left so notable a reputation that his name was never forgotten, and 2,500 years after his death he had become a God of Medicine, in whom the Greeks, who called him *Imouthes*, recognised their own Asclepius”<sup>4</sup>.

One of the most famous Egyptian rulers, Djoser or Zoser lived from 2667 to 2648 BCE<sup>6</sup>. He is credited with by initiating the construction of the first successfully completed largest stone building in the world, the Step Pyramid at Saqqara (Sakkarah). However it was Imhotep the courtier who is now better known. For unlike Djoser, Imhotep became the object of a popular cult<sup>8</sup>.

## Who was Imhotep?

In 1928, a statue-base was found during clearance work at the Step Pyramid bearing Imhotep’s name, and translates in ancient Egyptian to ‘the one that comes in peace’<sup>9</sup>. This identity would seem appropriate today for a man of healing bringing solace to the anxious patient. How he rose as a commoner to the highest post open to an Egyptian official is unknown. He may have been descended from a distinguished architect named *Konofer* and from a mother named *Khreduonkh* and he may have married *Ronfrenofert*. He appears to have received a liberal education and became a truly gifted polymath, a sort of Aristotelian genius<sup>10</sup>.

## Why was he so enlightened?

Pharaoh Djoser appointed Imhotep as the high priest of the sun god Re at Heliopolis the religious capital of Egypt<sup>11</sup>. He also became the chief lector (reader priest) or *kheri-heb* – a position of high esteem as he was considered by the populace as the mediator between the king and the unseen powers of the universe. The duty of the lector priest was to recite from holy books which contained religious texts possessed with magical powers. In this role as a magician he was supposed to influence the final destinies of the dead<sup>12</sup>. Imhotep was also one of Egypt’s great sages, a notable scribe and his literary skills led him to be recognised as the ‘patron of scribes’.

It was, however, through his talents as a physician and as the chief architect that he achieved long-lasting historical significance. He was the court physician to King Djoser in addition to his appointment as vizier. The Edwin Smith Papyrus, c 16<sup>th</sup> century BCE, (a treatise on Egyptian medicine and surgery written in hieratic script) claims Imhotep to be the founder of Egyptian medicine. According to one examination of the Edwin Smith papyrus, it covers the treatment of over 200 diseases, including 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. More recent analysis of the papyrus suggests that it was written and edited by at least three different authors and some consider it may be a copy of texts written a thousand years previously.<sup>13</sup>

The Art of Medicine evolved early in Egyptian history and developed to an unparalleled level of sophistication. Several ‘medical’ papyri have provided Egyptologists with detailed information as to the spectrum of Egyptian medicine. The

two oldest ‘medical’ papyri are the Edwin Smith Papyrus (c 1600 BCE) and the Ebers Papyrus (c 1550 BCE). The latter, of over 20 meters in length, consists of a list of 876 prescriptions and remedies for such ailments as wounds, stomach complaints, cardiac diseases, gynaecological problems and skin irritations<sup>14</sup>. The ‘London Medical Papyrus’ best describes the Egyptian approach to holistic healing. The tripartite strategy consists of magic spells, rituals and practical prescriptions. Pharmacological prescriptions by themselves were uncommon because many illnesses were regarded as the result of a malign spirit or god who had entered the body.<sup>15</sup> The most common cure for maladies was probably the *amulet*, or the magic spell; magic was the ‘mother’ of medicine and never ceased to influence its ‘offspring’. The Egyptian physician-priest-magician was skilled in suitable incantations, performed necromancy (divination through magical communication with the dead) and was skilful in making amulets adapted to the occasion.<sup>16</sup> Whether a physician chose rational methods of treatment or white magic (‘theurgical’ treatment) such as invoking beneficent spirits was a matter of personal preference. Many faith-cures took place at famous shrines and temples<sup>17</sup>.

The practice of alchemy arose in Egypt, whose ancient name was *khami*. Egyptians studied metals including the ‘transmutation’ of copper and tin into the alloy bronze. The body of knowledge, which included these chemical reactions between metallic compounds, came to be known as *al chemi*, the art of Egypt. From the study of alchemy came the therapeutic use of copper salts, especially for ophthalmic use.

Botanical studies of medicinal plants such as opium poppy, castor oil plants, squills (*scillae*) and lupins etc, enabled an extensive pharmacopoeia to be developed. Fuller’s earth, a form of clay, was also used topically on skin conditions. Splanchnology, which involved the scrutiny of animal entrails, especially the liver, was performed by priests in the temples. It was used as a means of divining the underlying meaning of events and foretelling the future. It involved the sacrifice of animals and their subsequent partial dissection and inspection.<sup>19</sup>

Hygiene was widely practiced with sanitation existing in many Egyptian towns and dwellings. Priests performed personal cleanliness by frequent ablutions (cold water washings twice a day and twice a night) and by the purity of their clothing<sup>20</sup>. Nonetheless, Egyptian medicine whilst quite advanced was never a science.

## The Origins of Egyptian Military Medicine

The empirical physician and surgeon were a lower caste of doctors called *swmw* (pronounced “soo-noo”) and were state employees appointed to building sites, at burial grounds or with the army. Egyptian sources indicate the development of military medicine in the Egyptian army with frequent descriptions of the treatment of battle wounds. They seem to have been the first to perfect the use of the splint for fractured bones, often stiffened by impregnated linen wrappings. These were introduced as early as 2600 BCE. A century later they developed techniques for treating depressed skull fractures. Egyptian physicians developed protocols for the treatment of wounds. This included the washing and debridement of the wound and removal of foreign bodies. Wound closure was introduced using string sutures or adhesive bandages consisting

of linen cloth held together with resin from the gum of the acacia tree. Haemostasis was achieved using hot knife cautery. Wounds were then protected by wound dressings impregnated with a mild bacteriostatic agent, wild honey<sup>18</sup>. Honey was used in up to one third of all Egyptian treatments.

## Imhotep the Engineer-Architect

Whilst his healing and literary talents were well known, Imhotep also had great engineering and architectural skills. He put these to good use when he designed the first stone pyramid complex. Prior to Imhotep’s time, from c. 3,100 to 2686 BCE, Egyptian royal funerary monuments had taken the form of a mud-brick flat-topped buildings known as a *mastaba*. Imhotep’s complex consisted of a true pyramid with mortuary and attendant valley temples. The word pyramid is derived from the Greek word *pyramis*, meaning ‘wheat-cake’: they presumably resembled them in shape. The ancient Egyptian term for these burial monuments was *mer*<sup>21</sup>. At Saqqara (Sakkarah), the principal necropolis of ancient Memphis, Imhotep built a series of five progressively smaller *mastaba* on top of the original large limestone chamber to a height of 60 meters. The six-stepped pyramid, with its contained halls and corridors lined with blue and green glazed tiles bearing the king’s name and titles, became the tomb of his King Djoser<sup>22</sup>. It was at the time the largest stone structure in the known world. The subsequent use of steps in pyramids, which continued to be constructed until the Intermediate Period of 1650-1550 BCE, was retained, and simply improved by the application of a smooth outer casing<sup>23</sup>.

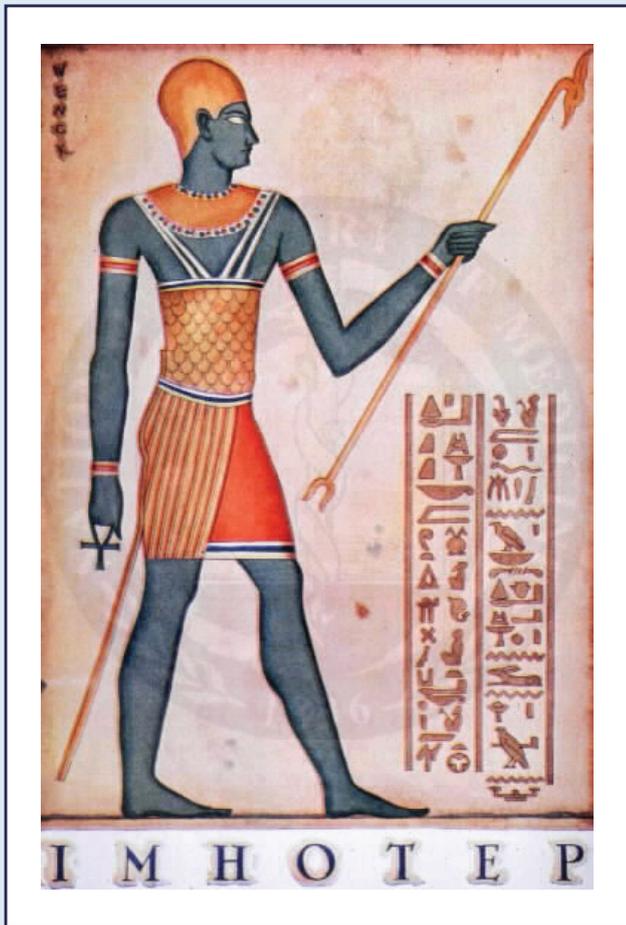
## The Apotheosis of Imhotep, the God of Healing

Imhotep lived to an old age probably dying during the reign of King Huni, c 2637 to 2613 BCE, the last of the Third Dynasty rulers. The tomb of Imhotep has still not been discovered, although some have argued that it may be the large uninscribed mastaba 3518 at Saqqara<sup>24</sup>. Two thousand years later, Imhotep was deified and in the Turin Canon he became known as the son of Ptah, the creator-god of Memphis. As a god of wisdom, writing and medicine he became linked with the cults of the gods Thoth and Ptah. The Greeks identified him with their god of medicine, Asclepius (*Latin*: Aesculapius). Even before then the Oxyrhynchus Papyri, written in Greek in the second century AD, suggests that Imhotep was ranked as a demigod during the time of the New Kingdom, c 1580 BCE<sup>25</sup>. Admission of non-royal individuals to the Egyptian pantheon was exceptional and only two commoner-high officials are known to have earned cult status. Imhotep together with Amenhotep, the son of Hapu and another great architect responsible to King Amenhotep III, c 1390 to 1352 BC, also regarded as a god of healing, ultimately received their apotheoses<sup>26</sup>. The worship of Imhotep lasted perhaps a thousand years.

## Relics of Imhotep

Numerous statues and statuettes of Imhotep have survived some showing him as an ordinary man dressed in plain attire. Others show him as a sage seated on a chair with a roll of papyrus on his knees<sup>27</sup>, as a demigod<sup>28</sup> and with a god-like beard standing and holding the *ankh*, an hieroglyphic sign denoting ‘life’ depicted as a cross surmounted by a loop, and a sceptre<sup>29</sup>.

Whilst later Western medical writers conferred the title, 'Father of Medicine', on Hippocrates, the Greek physician of the island of Cos (c 460 to 366 BCE), Imhotep preceded him. Arguably such an appellation should be reserved for the person, about whom the ancient Egyptian texts describe as, 'Imhotep the great, son of Ptah, the great god'.



Source: [historiadelamedicina.org](http://historiadelamedicina.org)

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