

## **Ancient Egypt: Ancient Egyptian Medicine**

The people of Ancient Egypt made several major medical discoveries and began treating diseases in a physical manner alongside older spiritual cures. Though much of the advancement in medical knowledge and practice was a side effect of religious ceremonies the effect on public health and knowledge of the human body was tremendous. Fueled by a desire to enter the afterlife Egyptian knowledge of the workings of the body encompassed new areas of medicine ranging from a basic understanding of anatomy to the introduction of some surgical skills.

### **Ancient Egyptian Medicine: Egyptian Physicians**

Modern medicine owes much to the Ancient Egyptians. Most famous of the Egyptian physicians is Imhotep, who is also renowned for his role as a Pyramid designer. Physicians such as Imhotep used a variety of methods to heal patients but based much of their practice upon religious belief: physicians in Ancient Egypt were also priests. It was common for different priests to act as physicians for different parts of the body, in much the same way that doctors specialise now, as they believed that different gods governed different sectors of the human body.

Much of what we now know of Egyptian medicine and the work of the physicians comes from a variety of medical documents written by these physician-priests. These documents, known as 'papyrus' are the first known records of medical practice: a significant, if rather obvious, development on prehistoric practices. The various papyrus documents that have been recovered and translated show us that the Egyptians had developed an understanding of medicine: they inform us of cures to some illnesses and that they performed surgical operations to remove cysts and tumors. The evidence provided by these early medical training manuals is quite remarkable. They show quite clearly that the Egyptians had identified and developed cures for a wide range of diseases, many of which cures are still in use today (Direct pressure on cuts to stop bleeding for example). Such was the extent of Egyptian knowledge that there are records of over 800 medical procedures and remedies making use of over 600 drugs and a vast array of surgical tools.

### **Alexandria**

The city of Alexandria is a lasting tribute to Alexander the Great. It plays an important role in the development of medicine in both the Greek and Roman eras.

Alexander the Great not only had a talent on the battlefield (he created a huge empire between 334 and 326 BC) but was also a man who appreciated science and philosophy. A lasting tribute to this is the City of Alexandria, in the modern day Egypt. This city was unique in ancient times as it provided physicians and doctors with opportunities that had hitherto been denied.

In Alexandria was built a massive library that contained the works of all of the greatest philosophers of the day, such as Aristotle and Plato. These men argued that the soul of a person left the body upon death and that, therefore, dissection of the body was permissible. The influence of these philosophers in Alexandria was such that dissection was, for the first time, allowed to happen in Alexandria. This allowed doctors to see the workings of the body and must have led to a greater understanding of physiology. (For a short period of time the dissection of LIVE people, criminals who were condemned to death, was allowed to happen in Alexandria).

These practices led to the development of theories of a nervous system (Herophilus) which were later developed and tested by doctors such as Erasistratus.

### **Religion in Ancient Egypt.**

Egyptian culture was based upon religious belief and many of their greatest monuments and festivals were a result of a desire to please Gods. In ancient Egypt there were many different Gods. They did not have one god as most modern religions do. Each god would need to be pacified in order to ensure good health and prosperity.

Religion played a major role in the development of Egyptian medicine. The believe in the afterlife meant that bodies were cut open and parts removed. This would have improved anatomical knowledge (the extent to which physicians benefited from the embalming process is debatable as it is more than likely that specialist embalmers existed who would not act as physicians). These religious beliefs also prevented the further dissection of the body: it had to remain intact to get to the afterlife. In this way it can be argued that Religion both aided medical development and prevented it.

### **Mummification in Ancient Egypt**

Mummies and the process of mummification had a great impact on the amount of knowledge that Egyptians had of the body. The ancient Egyptians believed that after the end of their life on earth that there lay before them a journey to an afterlife. In order to arrive safely in the afterlife the body of the deceased had to be in a fit condition to house the soul of the person: to Egyptians the soul was not detachable from the body as is perceived by many modern religions. In order to enable this journey the Egyptians had to ensure that the bodies of the dead were treated with the utmost respect and kept as close to the original as possible. Anatomical knowledge must surely have been acquired through this process as the internal working of the body were understood to the extent that the Egyptians realised that the internal, vital, organs would rot prior to the external parts of the body. This resulted in a process being developed to preserve the body that was extraordinarily lengthy and complex.

The body HAD to be preserved to reach the afterlife. Such was the strength of this belief that much time and energy was put into experimentation with preservation techniques. Religious belief was at the centre of the whole process, it was never the intention of the Egyptians to use the bodies to advance their knowledge of the human body; Embalming and mummification were intended solely to ensure a safe journey to the afterlife. A result of this dedication to ensuring safe passage to the afterlife is that it is impossible to describe a 'typical' mummification or embalming procedure as it changed gradually over the years but in general the following would form part of the process:

The body would be cut open and the heart, lungs, liver and spleen removed. These would be placed in canopic jars close to the coffin (sarcophagus). The brain would be removed from the head by inserting a hook through the nostril and pulling it out through the nose. The brain was then thrown away (some Egyptian physicians believed that the brain was responsible for pumping blood and that the heart was the organ responsible for thought and emotion, hence it being discarded).

The space in which there had once been the vital organs would be stuffed and the body sewn back up.

The body would be left to dry and then coated in a substance called Natron which acts as a preservative (Sodium based chemical, not dissimilar from Salt in some respects). After a period of drying out of approximately 60 days the body would then be wrapped in cloth; This final procedure being the 'mummification' process. Each stage of the process was carefully managed and prescribed to the priests who undertook the tasks. (These priests often being employed solely to embalm).

Bodies of the rich and wealthy would then be taken to a pre-prepared tomb such as those in the Valley of the Kings/ Queens.