

Medicine in Mesopotamia

Although healing practices in ancient Mesopotamia (roughly centered on modern-day Iraq) involved the use of magic, chants, and divination, physicians had an extensive knowledge of diagnosis, a wide list of drug treatments, and carried out basic surgery. They were also bound by a well-established, formal code of conduct.

From some 5,300 years ago, the cuneiform writing of Sumerian and the following Akkadian, Assyrian, and Babylonian cultures provide exciting snapshots of physicians and their craft.

Medical Practice in Mesopotamia

Some medical practitioners of the time, known as **ashipus**, decreed that diseases were caused by spirits and could be cured by sorcery. They would divine which particular evil sprite was responsible for the problem, and then try to drive it away by means of chants, spells, and curses.

Another class of practitioners, the **asus**, were more involved in practical treatments, such as preparing herbal potions, washing, massage, and bandaging oils onto affected parts of the body. Ashipus and asus often worked together, one helping the other, although they kept their trades distinct and carefully guarded their most precious secrets.

Mesopotamian physicians used around 250 medicinal plants, 120 minerals, and about 200 other substances. Remedies were prescribed for specific diseases: for instance, fish oil and an extract of cedar were thought to treat epilepsy.

Doctors were skilled in the treatment of wounds, applying bandages with sesame oil or honey and alcohol to prevent infection. They had a wide knowledge of the external symptoms of diseases, and were able to give accurate descriptions of afflictions, such as epilepsy and tuberculosis. They were also

aware that some diseases spread by contagion, and they practiced a form of quarantine to prevent the spread of fevers.

Doctors in Mesopotamia could also perform surgery; a set of bronze needles meant for cataract operations dating from around 2000 BCE has been found, and an account survives of a surgeon cutting open the chest of a patient to drain pus from the lungs. Knowledge of anatomy, however, was limited, since human dissections were not carried out in Mesopotamia.

Strict laws

Hammurabi was ruler of Babylon. His famous **Law Code**, written in cuneiform script on a pillar of diorite stone, included several pronouncements on medical care. These held physicians responsible both for success and failure. *Rewards and punishments depended partly on the social status of the patient.* Saving the life of a noble “with a bronze lancet” was worth ten shekels (more than a year’s pay for the average tradesperson), while saving a slave was worth two shekels. However, if a wealthy patient died under the surgeon’s knife, that surgeon could lose a hand—and a lost slave would have to be replaced.

Medicine in Ancient Egypt

The foremost figure in Egyptian medicine was **Imhotep**. Leader of a powerful cult of priest-physicians. During his lifetime, Imhotep came to be regarded as a god, believed to be the son of the goddess of healing and the creator of the universe. He may have been a practicing healer, dispensing herbs and potions to patients.

Channels of the body

Influenced by Imhotep, other Egyptian priest-physicians worked toward developing theories of disease. They drew comparisons with the irrigation waterways dug between the Nile and crop fields and conceived a system of up

to 46 channels in the body, mostly emanating from the heart. They had only a vague knowledge of anatomy and may have viewed the arteries, veins, and intestines—and, possibly, tendons and nerves—as channels of the body.

They believed that “flow” through the channels was important for good health, and that the body’s channels could become blocked by evil spirits, which would cause sickness. Their remedy was to unblock these canals by using various purges, laxatives, and emetics, and offering prayers and gifts to relevant gods to remove the root cause.

The Channel Theory was an important turning point in medicine. Although it had a metaphysical basis, it was among the first attempts to link illness with the body’s processes, and it resulted in the development of treatments that focused on the body rather than simply pacifying the spirits.

Medical papyri

Much knowledge of ancient Egyptian medicine comes from preserved papyrus documents. The longest of them is the **Ebers papyrus**, which lists hundreds of magical chants and spells against bad spirits, as well as mineral and herbal remedies. It describes a range of ailments too, including parasitic diseases, bowel disease, ulcers, urinary difficulties, female disorders, skin rashes, and eye and ear problems.

The **Edwin Smith papyrus** is much more systematic and explanatory— closer in approach to a modern medical text. It covers a total of 48 typical “case histories.” The cases generally start at the head and work down the body, and each progress in a logical manner, with a title and notes on examination, diagnosis, prognosis (prediction), and treatment.

Secrets of Mummies

The oldest Egyptian mummies date back about 5,000 years. They were preserved using a mix of sodium salts, substances containing elements such as

arsenic and mercury—to dehydrate the body and prevent decay—and aromatic oils and resin. They were then wrapped in linen strips. These mummified remains preserve anatomical details in both their hard and soft tissues.

Current technologies such as X-rays and CT scans offer a way of studying some of the medical problems that afflicted the ancient Egyptians without disturbing their remains. Parasites such as tapeworms, roundworms have been detected in mummies. Dental decay, sinus infections, malaria, and tuberculosis also appear to have been prevalent.

Dozens of mummies show atherosclerosis—the narrowing and hardening of the arteries due to the build-up of fatty deposits. Dismissing the idea that this is a modern disease resulting from a rich diet, in ancient Egypt it may have been caused by inherited factors in noble families, accompanied by long-term infection and parasites.

Early Chinese Medicine

The prime source of knowledge about early Chinese medicine is the 2,000-year-old Huangdi Neijing (Yellow Emperor's Classic of Internal Medicine). The Huangdi Neijing, an ancient Chinese medical text, takes the format of question and answer discussions between the semi-mythical Yellow Emperor, Huang-di, and his advisors.

It includes diagnostic procedures such as feeling the pulse, observing the tongue, and examining human excrement, as well as a range of treatments, including herbal and mineral mixtures, massage, special diets, bathing, meditation, and forms of physical exercise and ritualized movements.

The concept of **yin-yang** has permeated Chinese philosophy, culture, and medicine for millennia. It represents the inherent duality—opposite yet complementary—in the universe. **Yin** is described as dark, watery, cool, passive,

and feminine, while **yang** is bright, dry, hot, active, and masculine—and each cannot exist without the other. **Zang-fu** is a system of assigning body parts as either yin or yang.

Acupuncture

Also known as needling, acupuncture is a traditional Chinese medical technique that has been used for perhaps four millennia. As a method of alleviating pain, easing suffering, healing, and even curing a range of illnesses, acupuncture's origins may go back 4,000 years. Widely used across East Asia in various forms, acupuncture has been found by modern Western studies to be effective in relieving certain forms of pain and discomfort.

According to traditional Chinese beliefs, health relies on a vital force, energy stream, or life flow moving through the body. Known as qi, this force flows along routes or channels called meridians. Problems such as pain and illness arise when someone's qi is disturbed. Acupuncture aims to correct the flow and restore the qi balance by inserting very thin needles into the skin and underlying tissues at specific sites called acupuncture points.

Medicine in Ancient India

Ayurveda

A traditional system for health, well-being, healing, and medicine, Ayurveda (meaning “life knowledge”) has been prevalent in India and southern Asia for more than 2,000 years. It originated around the same time that the famed physician Hippocrates was developing the practice of medicine in ancient Greece.

In India, the Father of Medicine was **Charaka**. Some 2,300 years ago, he compiled, wrote, and refined one of the classic texts that established India's primary form of traditional medicine—Ayurveda. This was the Charaka Samhita.

Like the teachings of Hippocrates, the **Charaka Samhita** instructs physicians on how to examine a patient and make a diagnosis, and also recommends treatments. Most of the remedies emphasize lifestyle, hygiene, exercise, and diet, as well as herbal and mineral-based medicines.

Elements of Ayurveda

While various forms of Ayurveda have developed over the centuries in different regions, most systems are based on the concept of five elements. These elements are water, fire, earth, air, and ether or space. In each person the proportion of these elements varies over time and contributes to the three doshas. The three doshas are wind, bile, and phlegm. Good health and well-being occur when the doshas are well balanced. Imbalance brings unease and sickness, often related to the dominant dosha.