

Ancient Egyptian Medicine

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Abstract

The concepts of celestial medicine in Ancient Egypt are explored with special emphasis on the ritualistic relationship between the signatures of body constitution, ailments and remedies and planetary agreement (law of similars). Medical alchemy, celestial anatomy, planetary constitution of Egyptian medicine, the medical papyri, pathology, diseases and disorders and herbal and other remedies are discussed. Notes on medical practice, specialties and training of physicians are also included. The relationship between medicine and allied disciplines of Life as experienced in the Mystical School of Life (House of Life) (per ankh) is also explored.

Introduction

Ancient Egyptian medicine, like other aspects of Ancient Egyptian civilization, was a product of the intimate relationship between the heavens and earth. The Biogeometry of Life in its various manifestation was only a reflection of the heavens as observed astronomically. Medicine, like architecture, engineering, religion, calendars and agriculture, etc. was a system reflecting patterns and cycles of higher order in our solar system, and beyond.

For instance the Nile was only a reflection of the heavenly river, the Milky Way. The rituals of religion were centered in the concept of the holy triad which appeared in Ancient Egyptian history on three separate occasions millenniums before Christianity appeared. The idea of the virgin birth, crucifixion and resurrection was first documented over 5500 years ago with the most famous triad of Osiris, Isis and Horus. It is estimated that the evolution of the concept took about an equal amount of time before the first written documentation became known. After having been assassinated and dismembered by his satanic brother Seth then resurrected, Osiris became the concept of rebirth (see plate 1). The Orion constellation was his heavenly counterpart as it also dipped below the horizon then reborn again with the beginning of each new day. Orion then represented the most cardinal of all religious rituals of immortality as manifest in the perpetual birth and rebirth cycles. The

relative size, distance and angle between the three great pyramids of Giza are identical to the scale of the three major stars of the Orion constellation; a mirror image in heavens (see plate 2).

In the following text I will explore how the elements of Ancient Egyptian medicine were derived from the geometry of the heavens.

History of Celestial Medicine in Ancient Egypt

The history of Egyptian medicine began with Thoth (the Ibis God), Master of Writing, Numbers, Measurements and Time (see plate A). He was later identified as Hermes, the Greek God founder of alchemy, astrology, universal principals of nature and orders of celestial beings, of medicine, and of related sciences (see plate 3). He was also known as Idris (in Arabic). At Hermopolis, he identified the primordial eight as four couples having a single entity: the initial waters and inertia (Naun and Naunet), the spatial infinity (Heh and Henet), the darkness (Kek and Keket), and that which is hidden (Amun and Amunet) or occasionally the void (Niah and Niaut). The qualities of the primordial state have often been compared with the shadowy waters of Biblical Genesis. The lotus, which has its roots in the mud, its stem in the water and its leaves and flowers in the air, receiving celestial light and dew, has always been the symbol of the four elements (see plate 4).

The body of Ancient Egyptian medicine has Imhotep at its center. Imhotep, the Royal Chamberlain of the third dynasty King Djoser and the architect of the step pyramid at Saqqara (see plate 5). He was deified as the "son of Ptah". In the Ptolemaic Period, the Greeks identified him as Asklepios, their god of medicine because of his unique pioneering medical skills. In the second century BC, Ptolemy VIII (Euergetes II) built a shrine to Imhotep at the great temple of Hatshepsut in Deir el Bahari, which became a place of pilgrimage by the sick.

Sources of information about Ancient Egyptian medicine can be found in the various medical papyri (see following), religious texts and texts of philosophy, sciences, arts, astrology, allopathy, homeopathy and herbology (see following).

The Tree of Medical Alchemy

There are four roots of medical alchemy in Ancient Egypt. 1) Hygiea which deals with hygiene, 2) Panacea which deals with Meteria Medica and therapeutics, 3) Philosophia which deals with practices involving such concepts as placebo effects, and 4) Praxis which involves the developments of various skills comparable to Yoga and Kung Fu.

The system of medical alchemy includes eight branches: 1) Alchemic pharmacy, 2) Internal medicine, 3) Therapeutic diet, 4) Medical astrology, 5) Physical medicine, 6) Surgery, 7) Public hygiene, and 8) Internal alchemy.

The Philosophy of Celestial Medicine

The ancient doctrines of celestial medicine encompass the disciplines of 1) Alchemy of Life, 2) Growth and metamorphosis, 3) Health, death and rebirth, 4) Matt-Harmonica (*harmonious balance*), 5) Neters-Entias (*lower and higher energies*), 6) Correspondences (including the homeopathic law of similars), 7) Signatures (*by assignment to the seven celestial signs*), and 8) Sympathies and antipathies. The philosophical principles involved employ the concepts of the seven planets, the five elements, praxis (*practice*) and paradoxes.

The Celestial Anatomy and Physiology

This ancient medical school deals with the higher consciousness of the structural-functional relationships of the physical body and the essence of its vital function. It includes nine disciplines. 1) “Ba-Phoenix-Soul-Sulphur- Body” addresses the spiritual or psychic force of the being (*a bird form with human heal*) that outlasts death in the context of male action of iron and gold, Mars and the Sun. “O you who cause the perfected souls to draw to the House of Osiris, may you cause the excellent soul of the deceased to draw near with you to the House of Osiris” (*see plate 6*), 2) “Ka-Celestial-Spirit-Mercury-Body” addresses the life force of the other self (*the double*) embodying intellectual and spiritual power representing the potency of the copper and mercury of Venus and Mercury, 3) “Knat-Elemental-Physical-Salt-Body,” 4) “Ankham-Archeus-Vitality” from Ankham meaning Life; a flower garland that gave the dead the divine life force, 5) “Maat-Harmonia” or the force of harmonious balance, 6) “Neters-Entias-Pathology” refers to disease resulting from blockage or conflict between higher and lower energies, 7) “Planetary Constitution” and individual constitution as well as the constitution of remedies at the celestial level; agreement of similars or disagreement spell health or disease, 8) “Diagnosis, Case Taking, Prognosis,” and 9) “Therapeutics and Case Management” (*see medical papyri following*).

Alchemic Materia Medica

In the context of Egyptian celestial medicine, the alchemic Materia Medica included seven concepts. 1) Home remedies and magic medicines, 2) Spagyric,

herbal remedies, 3) Symathic, homeopathic remedies, 4) Universal remedies, 5) Quintessences, 6) Celestial medicines, and 7) Spiritual medicines.

Internal Alchemy

One of the most interesting and intriguing concepts of celestial medicine in Ancient Egypt are those internal alchemy that deal with the various levels of body consciousness to attain harmony and balance. The seven jewels of internal alchemy are 1) Maat life style which is associated with Saturn, 2) Maat arts-Venus, 3) Maat diet-Jupiter, 4) Maat medicines-Mercury, 5) Maat exercises-Mars, 6) Maat dreaming-Moon, and 7) Maat meditation-Sun.

Constitutions of Egyptian Medicine

The seven constitutions of Egyptian medicine are those reflecting the essence of the seven planets, the Moon (*Monday*), Mercury (*Wednesday*), Venus (*Friday*), Sun (*Sunday*), Mars (*Tuesday*), Jupiter (*Thursday*), and Saturn (*Saturday*). Within the constitution of each of the planets lies the similar constitutions of the physical and spiritual body, imbalances and diseases, and remedies (law of similars) at the various levels of consciousness. For example, the constitution of the sun (*gold*) includes aurum, aspiration, heart, circulatory system, plasma, blood, pituitary, eyes, vision, calmness, pride, ego, psora, meditation, yang, Leo, fire, and sulphur.

The seven planets are divided into 24 hour day. A planetary hour = 3 hours and 26 minutes. The first planetary hour begins at 3:26 am to 6:52 am each day, and is named after the ruling planet of that day, e.g., on Sunday, the Sun rules the first planetary hour of the day.

The Medical Papyri

Of the many medical papyri known to date, about a dozen appear to be most important. They are listed below in order of their significance:

1. The Edwin Smith surgical (*mainly trauma*) papyrus; approximate date of copy 1550 BC; now in New York (*see plate 7*).
2. The Ebers general medical papyrus; copy in 1500 BC; in Leipzig.
3. The Kahum gynecological papyrus; copy in 1820 BC; in University College, London.
4. The Hearst general medical papyrus; copy in 1450 BC; in California (*not translated in English*).
5. The Chester Beatty VI papyrus on rectal diseases; copy in 1200 BC; in the British Museum.
6. The Berlin general medical papyrus; copy in 1200 BC; in Berlin (*not translated in English*).
7. The London magical papyrus; copy in 1300 BC, in the British Museum. (*not translated in English*).
8. The Carlsberg VIII gynecological papyrus; copy in 1300 BC, in Copenhagen.

9. The Ramesseum III, IV, V gynecological, ophthalmic and pediatric papyrus; copy in 1700 BC; in Oxford.
10. The London and Leiden general medical and magical papyrus; copy in AD 520, in the British Museum and Leiden.
11. The Crocodilopolis general medical papyrus; copy in AD 150, in Vienna.
12. The Brooklyn snake bite papyrus; copy in 300 BC, in Brooklyn.

Contents of a General Medical Papyrus

An introductory general section deals with medication for fever, prescription book for the uses of the dgm-plant, drugs to drink after taking any medication and sayings to accompany above activities. This general section is followed by sections dealing with:

Injuries and wounds (*Diagnosis of the Wound book, recipes for broken bones, impact wounds, burns and bites*).

Growths, swellings and itching (*diagnoses, prescriptions and treatments*).

Ailments of the head (*prescriptions for eye ailments, headaches, earaches, nose, mouth, tongue and teeth*).

Diseases of the internal organs (*prescriptions to stimulate appetite and digestion, diagnoses and prescriptions for ailments of the stomach, heart, lungs, liver, anus and bladder*).

Respiratory illnesses (*diagnoses and prescriptions for cough and rheumatism*).

Women's ailments (*prescriptions for the female breast, pregnancies of birth and related issues*).

Beauty treatments and prescriptions for hair care.

Household products and prevention of pests.

Drawings of doctors and of surgical tools. A set of instruments found in a doctor's emergency bag would include rush (*used as a knife for cutting treatments*), a fire drill (*to burn growths*), A knife/chisel (*to open the mouth*), cupping glass, curcubitulae, thorn (*to burst a burn blister*), hnw (*instrument to pack a growth and its contents*), hmm (*instrument to burn a growth*), heated broken glass (*for eye treatment*), swabs, tampons, linen material, normal knives, salve spoons and mortars, etc.

The diagnoses in the papyri have no rigid scheme but are usually developed along five points: 1) The title; 2) The examination (*inspection*) which involves questioning, probing with the hands and fingers (*palpation*) and smelling; 3) naming the type of illness; 4) The treatment and instructions of a prescription, e.g., details about a bandage are described; 5) The text of the papyrus now describes details of the case, diagnostic and treatment procedures employed, conclusions reached and a prognosis is given.

The papyri also describe the use of honey and beer as means of administering medicine. In this, the physicians were ahead of their time as they recommended the "sediment" as a drug against intestinal and skin diseases. Now we know that yeast is rich in vitamin B and contains antibiotics useful against abscesses, sores and boils. Moldy bread was considered best remedy against blisters, intestinal diseases and suppurating wounds; they knew the anti-infectious properties of molds over 4000 years ago.

The Body

The Ebers and the Berlin papyri contain a description of practically all the major metu (*blood vessels*) in the Wound Book. The mapping of the vessels was also accompanied by their function and contents in health and disease. The anatomical structures of adults and fetuses were also well known and described. Few of the descriptive terms are unique and some have no counterpart in English. The internal organs and skeletal system were especially well detailed. The anatomical location of injuries and lesions considered in the 48 paragraphs of the Edwin Smith papyrus were delineated in detail (*see plate 8*). Many of these were in the skeletal system e.g., backbone (48), sternum (43), humerus (43), ribs (44), clavicles (35), neck (33) but fewer occurred elsewhere, e.g., forehead (10), nose (12), lips (26), chin (27), throat (28), etc. The remarkably consistent structure of the individual case descriptions is matched by a highly systematic progression through different parts of the body starting with injuries to the top of the head then working down to the feet as the various body parts are placed under the protection of the associated gods in Spell 42 in the *Book of the Dead*.

Fractures reported from the excavations of the cemeteries at Aswan in 1970 demonstrated highest incidence in the forearm (*radius and ulna*) (31%), collar bone (*clavicle*) (14%), thigh (*femur*) (12%), leg (*tibia and fibula*) (10%), skull (7%), upper arm (*humerus*) (6%), face (4%), ribs (4%), pelvis (4%), hand (3%), foot (1%), shoulder blade (*scapula*) (1%), breast bone (*sternum*) (1%), spine (*nil*) and kneecap (*nil*). There were 6000 bones of which 200 had united fractures. The dates ranged from 4000 BC to AD 500.

The cardiac glosses of the Ebers papyrus included four categories:

1. The failing heart which included such conditions as weakness of old age (*wegeg n wiauyk*) and kneeling (*maset*) when the heart is constricted.
2. Possible congestive heart failure when the heart is flooded (*igep or bah*).
3. Displacement or enlargement of the heart (*deher or rut*) when the heart sinks below its place or moves away from left breast.
4. Miscellaneous conditions such as drying up (*wesher*) when the blood coagulates in the heart (*haty*).

The possible sources of anatomical knowledge included

battle casualties, industrial accidents and embalming. During mummification, the internal organs are placed into four canopic jars. One canopic jar included the liver (*protected by Isis*), the second included the lungs (*protected by Nephthys*), the third included the stomach (*protected by Neith*) and the fourth included the intestines (*protected by Serget*).

Concepts of Pathology

It was apparently easier to understand the causation of the more readily observable traumas than those related to internal medical disorders such as heart disease or tumors. Traumas, especially those related to industrial accidents, warfare and animal bites were well documented in the Edwin Smith papyrus, at least 1000 years before the Hippocratic time of medicine. There is a rich vocabulary to describe injuries with precise definitions of their meaning. The soft tissue (*flesh*) wounds (*webenu or kefet*) and fractures (*heseb*) are only known in the Edwin Smith papyrus. Injuries to the joints include dislocations (*wenekh*) and sprains (*nerut*). Snake bite and scorpion sting are especially contained in the Metternich Stela. Egyptians undoubtedly recognized the toxic substance (*metut*) injected by the animal as the cause of associated pain and breathing difficulties.

Diseases and Disorders

Two major categories are recognized. Parasitic and infectious diseases are separated from internal and constitutional disorders. Parasitic diseases have had a major public health impact in Ancient Egypt. Worm parasites are recognized by recovering their calcified eggs from mummies, especially when unembalmed. Measures of avoidance are often repeated in ancient text. The more common parasitic and infectious diseases documented include schistosomiasis, drucunculiasis, filariasis, strongyloidiasis, ascariasis, taeniasis, malaria, tuberculosis, leprosy, tetanus, and plague. Sepsis and abscesses, osteomyelitis, poliomyelitis and smallpox have also been reported. Pain (*wekhedu*) (*to suffer*) has also been repeatedly addressed. *Wekhedu* was said to afflict many organs, including the belly, skin, mouth, chest, back, heart, head, eyes, and teeth. Many remedies were to drive out or to ward off *wkhedu*. The *wkhedu* can “pull through” (*hebbheb*) or pass from one part of the body to another. Each month for three successive days Egyptians purged themselves, for their health sake, with emetics and enemas, in the belief that diseases came from the food one eats. The *aaa*-disease (*the discharging of the phallus*) refers to blood in the urine which is caused by schistosomiasis (*the hereret worm*).

Diseases and disorders of the internal organs included heart diseases (*see The Body above*), atherosclerosis and calcification of large arteries. There's also a possible reference to ischaemic heart disease in *Ebers* p. 191. Lung disorders such as pneumoconiosis, pulmonary fibrosis and pneumonia were also diagnosed. Remedies to drive out cough (*seryt*) from the lungs (*wefa and sema*) are found in *Ebers* p. 321 and *Berlin* pp. 29-38. Gastro-intestinal

illnesses are commonly cited especially in the *Book of the Stomach*. Eleven paragraphs mention “obstruction” in the title. Fecal impaction was not uncommon. Herodotus mentioned that the Egyptians were obsessed with their bowels. *Ebers* p. 203 states “you should then make for him a powerful remedy of oil in order that it comes down.” *Ebers* p. 207 also refers to food poisoning. All medication for constipation were taken orally. A common remedy was to “purge the intestine by a drink: sweet beer left overnight with notched sycamore fig which has dried” (*Ebers* p. 207). The urinary tract has special sections in *Ebers* (pp. 261-283), *Berlin* and *Hearst* papyri. Remedies were noted to eliminate such conditions as blood in the urine, polyuria (*related to diabetes?*), cystitis, irritable bladder and “hurrying” (*as*) of urine. References to the nervous system were largely related to the description of neurological consequences of injuries. Facial nerve paralysis (*Bell's palsy*) has also been diagnosed. Hernias and hydroceles, pains and aches, migraines, disorders of the ear, nose and skin as well as aging have been documented. The Ancient Egyptians were quite conscious of the aging process. Upon his return to Egypt as an older man, *Sinuhe* the physician said “So shall my limbs grow young again, for now old age has fallen on me: weakness has overtaken me, my eyes are heavy, and my arms weak; my legs fail to follow, and my heart is weary; I am near to death. May they conduct me to the cities of eternity”. Remedies to be applied for transforming an old man into a youth have been noted in the Edwin Smith papyrus.

The Remedies

“Another remedy to drive out the hefat-worm (*Ascaris*): *afa* (*wild lettuce*) wormwood/ absinthe (*sam*), vegetable mucus (*hesa*); mix as one thing and eat. He will then evacuate (*wesesh*) all worms (*djedfet*) which are in his belly.” (*Ebers* p. 64). “Another remedy to kill the pened- worm (*Taenia*): *khet*-part of the *kesbet*-tree, 5 ro, strong beer, 20 ro; cooked, strained and drunk immediately.” (*Ebers* p. 72). Remedies for other parasites included acacia leaves, juniper berries, cumin, garlic, dates, pine oil, roots of pomegranate as well as honey, white oil, natron salt, beer, milk and wine. Some remedies taken internally for disorders of the urinary system include honey, cyprus grass, beer, grapes, juniper berries, ochre and fresh dates (*Ebers*). Moringa oil, honey, salt of lower Egypt and sweet beer were recommended to eliminate heat in the bladder when suffering from retention of urine occurs (*Ebers*).

Some drugs used for treatment of coughing (*seryt*) included alum, fat, acacia gum, acacia leaves, cumin, pounded dates, figs, honey, milk, salt of lower Egypt, water of yeast wheat, wine, wormwood and other named but unidentifiable products.

The following is a brief accounting of major herbs and their uses in Ancient Egypt:

Abies cilicia (*fir oil*): antiseptic, expels worms, promotes hair growth, a vaginal suppository.

Acacia nilotica (*Acacia*): kills worms, tanning, wound healing, as enema, skin diseases, swollen legs.

Allium cepa (*Onion*): ear treatment, snake repellent, stops menstruating.

Allium kurrat (*Leek*): eye treatment, night blindness, for warts on genitals.

Allium sativum (*Garlic*): anti-bacterial, for toothache and skin diseases, aphrodisiac.

Aloe vera (*Aloe*): for eye and skin diseases, digestive disorders, swellings.

Anethum graveolens (*Dill*): headache, mouth rinse.

Apium graveolens (*Celery*): teeth and tongue treatment, cooling uterus, contraceptive, for burns, swollen limbs and stomachache.

Apium petroselinum (*Parsley*): stomachache.

Artemisia absinthium (*Wormwood*): expels worms, for pain in arms, skin inflammation and cough.

Cannabis sativa (*Hemp*): Glaucoma and eye treatment, as enema.

Carthamus tinctorius (*Safflower*): as Kohl, for bandages, poisonous stings.

Ceratonia siliqua (*Carob tree*) *pod*: carob beer, vermifuge, for digestive disorders, inflamed red-eyes, wound healing and decaying teeth, stops odors, anus treatment.

Cicer arietinum (*Chick-pea*): stimulates milk production.

Cichorium intybus (*Chicory*): diuretic and laxative, treatment of jaundice, headache, liver, bladder and swollen glands.

Cinnamomum zeylanicum (*Cinnamon*): stimulant, digestive, antiseptic, in perfume, in suppository to cool anus, fumigant.

Citrullus lanatus (*Water melon*): constipation, trembling fingers, in pregnancy testing.

Cordia myxa (*Egyptian plum*): laxative, for pulmonary ailments, coughs and tumors.

Coriandrum sativum (*Coriander*): for rheumatism, coughs, diseased testes, intestinal parasites, stomach ailments and burns, expels fever, antidote for poison.

Cucumis melo (*Melon*): for heart, stomach and anus ailments, and inflamed legs.

Cucumis melo sativus (*Cucumber*): for milk production, rabies and bladder ailments.

Cumin cyminum (*Cumin*): for indigestion and colic, bellyaches, cough, chest, tooth and ear pain, headache, as post-enema treatment.

Ensete ventricosum (*Wild banana*): as enema, aphrodisiac.

Ficus carica (*Fig*): for constipation, belly, lung and heart disease, hemorrhoids and skin inflammation.

Ficus sycamorus (*Sycamore fig*): for constipation, toothache, stiff limbs, painful tumor, skin ailments and swellings, in cooling bandage, expels worms.

Foeniculum vulgare (*Fennel*): for eye ailments, digestive enhancer.

Glycyrrhiza glabra (*Liquorice*) *root*: as a laxative, anti-inflammatory, for coughs, bronchitis, asthma, gastric ulcers, wounds, eye lotion and vomiting.

Hordeum vulgare (*Barley*): with emmer for birth prognosis.

Juniperus phoenicea (*Juniper*): fumigant, antiseptic, diuretic, stimulant and carminative, laxative, tapeworm and small pox treatment, for asthma and headache, as vaginal suppository to induce childbirth, body massage.

Lactuca sativa (*Lettuce*): eye poultice, for bellyache, worms, hair growth and cough, vermifuge.

Lepidium sativum (*Cress*): for runny eyes, laxative, expels fever.

Malus sylvestris (*Apple*): venereal disease treatment.

Melilotus officinalis (*Yellow sweet clover*): anti-thrombotic and antibiotic, digestive help, pain, fever and testicle treatment.

Mentha piperita (*Peppermint*): digestive and antiseptic, for toothache, cold and fever, essential oil contains menthol, as tea.

Moringa pterygosperma (*Moringa*): cosmetics, for cramps, wounds, pain in stomach and anus, sore gums, as eye drops, enema.

Myrtus communis (*Myrtle*): for urinary disorders, removes mucus, pain and swelling treatment, for stiffness in limbs, cough, as hair ointment and edema, essential oil.

Nigella sativa (*Black cumin*): enhance lactation, improves breasts, for itching skin, vermifuge for children.

Ocimum basilicum (*Basil*): tonic, antiseptic, digestive aid, for headache and nausea, aphrodisiac, as snuff.

Olea europaea (*Olive*) *oil*: vehicle for various remedies.

Origanum marjorana (*Sweet marjoram*): ease headache, toothache, earache and rheumatism, "worming" herb.

Papaver somniferum (Common poppy): Aphrodisiac, for inflamed or bruised skin, sedative for colic, cough and crying child, as morphine.

Phoenix dactylifera (Date palm): beverage, for swelling of limbs, cough and sneezing, laxative, vermifuge.

Pimpinella anisum (Aniseed): Carminative and digestive, for cough, headache, toothache and stomachache, milk stimulant, weakly diuretic.

Piper nigrum (Black pepper): stomachache, carminative, antibacterial, insecticide, diaphoretic, stimulant, induces abortion.

Prunus dulcis (Almond): oil, as laxative, for massage.

Punica granatum (Pomegranate): for fertility, expelling worms, dysentery, diarrhea, stomachache, eye, skin, ear ailments, as enema.

Raphanus sativas (Radish) oil: for skin diseases.

Ricinus communis (Castor) oil: purgative and emollient, for limb and gland ailments.

Rosemarinus officinalis (Rosemary): digestive and antiseptic, for tired limbs, headache, hair and skin care.

Salix suberrata (Willow): appetite stimulant, antiseptic, cooling bandage for inflammation, burning/aching blisters and skin diseases.

Sesamum indicum (Sesame): nutritive, laxative, emollient, haemorrhoid treatment, lactation stimulant.

Sinapis alba (White mustard): for swelling, cough, jaundice, stomach ailments, toothache, flatulence and aching temples, as enema.

Thymus sp. (Thyme): antiseptic, antispasmodic, carminative, for headache, intestinal, lung and stomach ailments.

Trigonella foenumgraecum (Fenugreek): for rejuvenation, lactation and childbirth, stimulant in vaginal suppository, anti-inflammatory, fever treatment.

Vigna sinensis (Bean): for constipation, aphrodisiac, as enema.

Vitis vinifera (Grape): vine for appetite, cough and fever, laxative, wine, vermifuge, as breast lotion.

Remedies of mineral origin included alum, calamine, copper, malachite, gypsum, natron salt, Nile mud, ochre, red lead and salt of Lower Egypt. Remedies of animal origin included honey (*bit*), milk (*irtet*), excrement (*hes*), blood (*senef*), urine (*mwyt*), placenta (*mut-remeti*), bile (*weded-benef*), animal fat (*adj*, *merhet*), meat (*iuf*), liver (*miset*) and other internal organs. Space limitations do not allow detailing the uses of these products.

The Physician

Doctors have had the education and training in medicine as well as in other disciplines of life such as the arts, religion, architecture, administration and warfare in **The Mystical School of Life**; a medical school (*per ankh*), in part. The great masters, e.g., Imhotep, have transcended time and geography to become world recognized deities and gods. The training of doctors usually ran in the family under the special instructions of father-physicians as countless references seem to indicate. The medical papyri fulfilled the same roll as medical texts today. It is likely that master copies would be preserved and privileged doctors would have their own copies. The Mystical School of Life (*also called The House of Life, per ankh*) was apparently a part medical school in the modern sense. An inscription on the statue of Wedja-hor-resnet reads "His Majesty King Darius commanded me to return to Egypt... in order to restore the department(s) of the Houses(s) of Life (dealing with medicine) after (*they had fallen*) into decay.... This his majesty did because he knew the virtue of this art to revive all that are sick..."

Paramedical staff included pharmacists, nurses, midwives, physiotherapists and bandagers.

In the healing arts, doctors, priests and magicians were involved. The Ebers papyrus (854a) contains the following passage. "There are vessels in him to all his limbs. As to these: if any doctor (*swnw*), any priest (*wab*) of Sekmet or any magician (*sau*) places his two hands or his fingers on the head, on the back of the head, on the hands, on the place of the heart, on the two arms or on each of the two legs, he measures (*examines*) the heart because of its vessels to all his limbs, it speaks from the vessels of all his limbs." The relationship between the heartbeat and peripheral pulse was clearly understood by doctors, priests and magicians alike. It is equally clear that monolithic control of medical practice is only a recent phenomenon. Many *swnw* (doctors) carried priestly titles. Certain *swnw* in the new kingdom were appointed to work in the temple estates of gods. Similarly, certain doctors had titles indicating their status as professional magicians.

The three-phase protocol for patient case management were: 1) Listening to and observing the patient's symptoms then perform an examination using eyes and hands; 2) Reach a diagnosis which is formally stated along with a recapitulation of important clinical findings; 3) Declare and undertake a well structured and clearly described treatment.

Doctors were specialized as gastro-entologists, ophthalmologists, proctologists, dentists/doctors, dentists only and inspectors of the liquids in the netnetet. The hierarchical titles of known doctors, administrator of doctors, overseer of doctors, inspector of doctors, overseer of the two sides of the boat of doctors of the palace and foreign doctor. Inscribed on the false door of Ir-en-akhety (*1st intermediate period*) were his titles depicting his medical specialties, mainly practiced in the great

house (*the palace*): Doctor of the Royal Palace (*mentioned in 5 places*), Inspector of Doctors of the Royal Palace (*once*), Ophthalmologist of the Royal Palace (*once*), Proctologist (*once*) and gastroenterologist of the Royal Palace (*once*). The multiple specialties of such doctors as Ir-en-akhty usually carried the designation *neru pehuyt* which literally means “the guardian” of the royal anus” pointing to the fact that the gut is at the center of all diseases.

In addition to Imhotep, other legendary doctors included Djer who himself was a pharaoh of the First Dynasty buried at Abydos approximately 3000 BC according to the account of the Egyptian priest Manetho. Amenhotep-son-of-Hapu was also a royal scribe of great distinction under Amenhotep III (*Eighteenth Dynasty*) who honored him for “his perfect character;” he was deified by the time of the Twenty-sixth Dynasty. Netjer-hotep is the author of the Berlin papyrus. Other greatly honored doctors include Hesy-ra (*Old Kingdom, Third Dynasty*), Pesesher (*Old Kingdom, Fifth to Sixth Dynasty*), Mereruka (*Old Kingdom, Sixth Dynasty*), Ankh (*Old Kingdom, Sixth Dynasty*), Ir-en-akhty (*First Intermediate Period*), Gua and Seni (*brothers*) (*Middle Kingdom, Eleventh/Twelfth Dynasty*), Renef-seneb (*Middle Kingdom, Twelfth Dynasty*), Hery-shef-nakht (*Middle Kingdom, Twelfth Dynasty*), Wedja-hor-resnet (*Late Period, Twenty-Seventh Dynasty*) and my favorite physician, Sinuhe (*New Kingdom, Eighteenth Dynasty?*) who authored his own papyrus.

Epilogue: From the Book of the Dead

I would like to conclude by quoting a passage from **The Egyptian Book of the Dead** (*the correct name is actually The Book of Coming Unto the Day*). “*Thou art the lord of heaven, the lord of earth, the creator of those who dwell in the heights (6) and those who dwell in the depths. Thou art the One god who came into (7) being in the beginning of time. Thou (12) art crowned with a heavenly form, the Only one... O thou*

mighty youth, thou everlasting son, self-begotten, who didst give thyself birth, (13) O thou mighty One, of myriad forms and aspects, king of the world, Prince of Annu, lord of eternity and ruler of the everlasting... Thou art unknown and canst be searched out...; thou art (16) the Only one...”

The text of this book is in the papyrus of Ani, one of the largest, most perfect and best preserved and illustrated papyri known. It was acquired by the Trustees of the British Museum in 1888. It dates to the second half of the Eighteenth Dynasty, 1500 to 1400 years before Christ. It proclaims the resurrection of a spiritual body and the immortality of the soul as already been established by earlier ancestors. ♦

Recommended Reading

- Amin, O.M. 2003. *Medicine in Ancient Egypt and the Arab civilization*. Meeting of the National Arab American Medical Association (NAAMA), Scottsdale, AZ May 10.
- Budge, E. A. W. 1967. *The Egyptian Book of the Dead*. Dover Publ., Inc., N. Y. 377 pp. (*Originally published in 1895 by order of the Trustees of the British Museum.*)
- Hayek, M. 1992. *Encyclopedia of Medicinal Plants*. Librairie Du Liban, Beirut, 255 pp. (In Arabic with English, French, German and Latin terms.)
- Manniche, L. 1993. *An Ancient Egyptian Herbal*. Univ. Texas Press, Austin, 176 pp.
- Murphy, R. 1994. *Egyptian medicine, the celestial medicine of the ancients*. Workshop papers, Phoenix, AZ.
- Nunn, J. F. 1996. *Ancient Egyptian Medicine*. Univ. Oklahoma Press, Norman, 240 pp.
- Stetter, C. 1993. *The Secret Medicine of the Pharaohs, Ancient Egyptian Healing*. Edition Q, Quintess. Publ. Co., Inc., Carol Stream, Illinois, 182 pp.



1. ABOVE LEFT: From the New Kingdom onward, Egypt's two greatest goddesses were often portrayed virtually identically, to the extent that they could almost be regarded as manifestations of a single goddess, Isis-Hathor. This representation of the goddess in her Hathor aspect comes from the beautifully carved and painted tomb of King Horemheb.



BELOW LEFT: In another detail of the tomb, the picture of Osiris, portrayed here with his body wrapped in a winding sheet, his hand and face colored green to symbolize reborn vegetation. The god is holding a pastoral crossed with a whip, a symbol of royal power. On his head he is wearing an atef, or crown formed by intertwined rushes that ends with the solar disk flanked by two feathers. On both sides of Osiris, two idols of Anubis represented by two animal hides hung from a stick.



ABOVE RIGHT: The majestic black granite statue of the falcon god Horus, wearing the double crown of Upper and Lower Egypt, in the temple of Edfu, Upper Egypt.



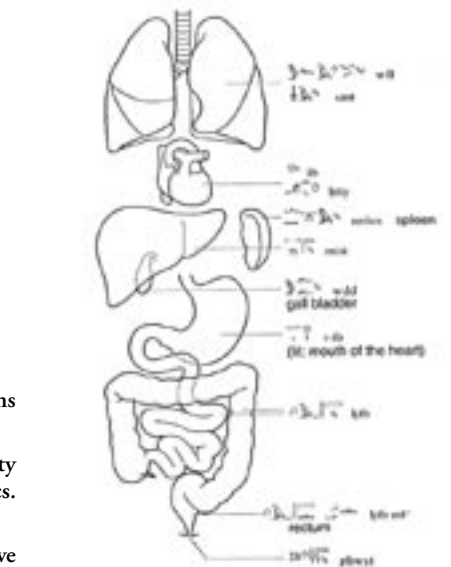
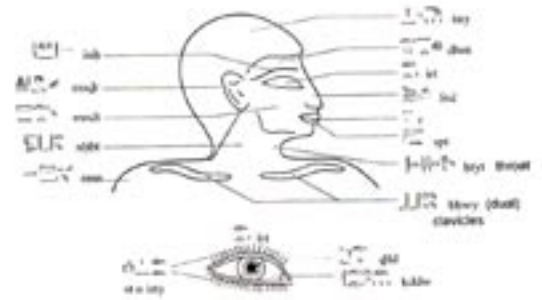
2. LOWER LEFT AND ABOVE: The three pyramids of Giza were built on the same proportional scale and geometry as their celestial counterpart; the three major stars of the Orion constellation.

3. RIGHT: Nakht. Tomb of the "Scribe and astronomer of Amon" in the time of Thutmose IV, in Qurnah. Beautiful scenes (from which the name of Amon was scraped away during the Atonian "heresy"), above all those of the cultivation of grain, the grape harvest, hunting and fishing. The kneeling offering bearer: in his right hand he holds a bunch of flowers, in his left a branch with bunches of grapes and a tray with sweets, vegetables and fruits.





- A. ABOVE LEFT: The god Thoth is portrayed embracing Sety I (ca. 1290-1279 BCE) in this painted relief from the king's Theban tomb. Thoth is shown in human form with an ibis' head beneath a stylized wig. Sety wears the royal *nemes* headcloth.
4. ABOVE CENTER: Painted wood figure from Tutankhamun's tomb. It illustrates one of the most picturesque ancient Egyptian accounts of the initial creation: it represents the infant sun god at the moment of birth, emerging from a blue lotus that grew in a pool left by the receding waters of the primordial ocean. By having this model in his tomb, Tutankhamun, through the process of imitative magic, would have an instrument that would enable him to be reborn as the sun god every day.



5. ABOVE RIGHT: General view of the step-pyramid of Djoser.
6. BELOW LEFT: The mystical Ka, the immortal spirit said to dwell in every man, is depicted here with arms upraised and a goddess standing on its head.
7. CENTER RIGHT: Part of the all-encompassing medical text of the Papyrus Ebers. The papyrus is twenty meters long, was found in 1862, and had been written in 1536 BC, in hieratic—a short form of hieroglyphics. *Facsimile; German Medicine Historical Museum, Ingolstadt.*
8. LOWER RIGHT: Some examples of Egyptian anatomical terms. Few of the writings are unique, and I have tended to show the more complete forms, including the head and neck, and some of the internal organs.