

أبريل ٢٠١٧

دورية علمية محكمة - كلية الآداب - جامعة أسوان

**NUTRITIONAL, ENDOCRINE AND METABOLIC  
DISORDERS  
IN ANCIENT EGYPT  
( DIABETES - OBESITY- THYROID)**

**BY**

**PROF. DR. AMER EL - AHRAF**

Professor of Health Sciences and Vice President Emeritus  
California State University, Dominguez Hills

Past President, Association of Egyptian Scholars (AEAS)

[aelahraf@csudh.edu](mailto:aelahraf@csudh.edu)

[elahraf@aol.com](mailto:elahraf@aol.com)

**&**

**PROF. DR. SHOKRY EL KANTIRY**  
**PROFESSOR OF EGYPTOLOGY**  
**FACULTY OF ARTS ASWAN UNIVERSITY**

[Shokryhussin2000@hotmail.com](mailto:Shokryhussin2000@hotmail.com)

## MUMMIES DISEASES



The environmental conditions in Egypt have ensured the preservation of a wealth of evidence from antiquity that provides information about disease and medical treatment. These sources include monuments (tombs and temples), written records, and human remains, by macroscopic examination, supplemented by radiography and by histological examination using light, polarizing, and electron microscopes. By extract DNA by molecular cloning, to analyses trace elements in teeth by atomic absorption

spectrometry, to measure metal levels in bone by X-ray fluorescence and to computerize. Tomb wall scenes occasionally depict human deformities and medical procedures; at certain temples, medical practitioners were trained and the sick received specialized treatments.



The ancient Egyptians may have portrayed themselves beautiful on the outside, but the inside story was not pretty, Scholars who examined bone and lung tissues from a 3000- year old male mummy from other findings, showed that ancient Egyptians suffered from many diseases. The ancient Egyptians should have had abundant health. But they didn't. In fact, they suffered pretty miserable health. Many had heart disease, high blood pressure, diabetes, obesity, and thyroid.

The Egyptian statues are usually slim; it is very rare that you find a fat one. It is said that certain mummies were very fat.

### **NUTRITION**

The ancient Egyptians loved to eat and drink and were the consummate omnivores, enjoying an abundance of fruits and vegetables, duck, goose, quail and other fowl, beef, pork, goat, lamb, wild game such as deer, ibex, antelope and cattle, in addition to countless variety of fish, breads, eggs and cheese. Common seasonings included rosemary, cumin, coriander (Cilantro), garlic, mint, dill, sesame and honey. They drank all kinds of beer and the nobility enjoyed both white and red wine



## OBESITY

Was Obesity Prevalent in Ancient Egypt?

Obesity is difficult to detect after the processes of mummification, the most important evidence is in statue, stelae, reliefs and paintings.

Pharaohs are not usually shown in a state of obesity, Many tomb owner, are shown displaying rolls of fat and often pendulous breast which raise the question of gynaecomastia. With a different pattern of obesity in representations of servants and labourers. The later tend to show relatively normal limbs and a paunchy belly, sometimes embellished with an umbilical hernia



Obesity and its sequelae have long figured in the medical traditions of many diverse cultures. Ancient Egyptian stone reliefs show occasional obese people, such as a cook in Ankh-ma-Hor's tomb (sixth Dynasty: 2340-2180 B.C), and a fat man enjoying food presented to him by his lean servant, in Mereruka's tomb. Studies of the reconstructed skin folds of royal mummies suggest that some were fat, including Queen Ahmose-Inhapi, Hatshepsut and king Rameses III.

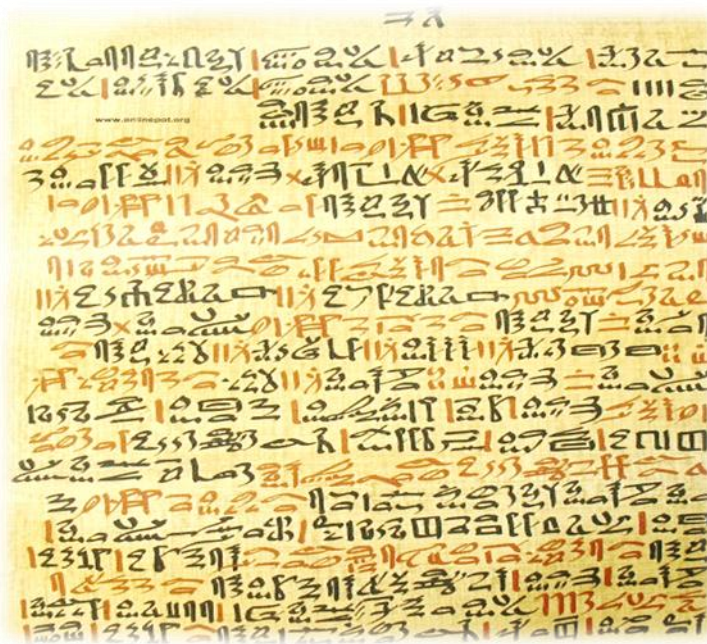
### DIABETES

It has been called a pandemic and a silent killer: Diabetes is a growing specter for public health agencies across the world.

Diabetes is not a new disease, being first documented in 1550 BC in Egypt. Back then diabetes, or what the historians believe was diabetes, was described as a rare disease. An Egyptian manuscript mentions "the passing of too much urine" which historians take as the first reference to diabetes



### DIABETES and the ebers papyrus



Ebers papyrus(1550BC) is the first known medical reference to diabetes mellitus. Describes, among various other ailments and their remedies, a

condition of "too great emptying of urine" perhaps, the reference to diabetes mellitus

Treatment

For the treatment of this condition ancient Egyptian physicians were advocating the use of wheat grains, fruit and sweet beer. The Ebers papyrus also refers to 'correcting urine of excess [EB264], which may be a more likely reference to polyuria due to diabetes.

kt	nt	ḳ	mwyt	nt	ḥꜣw	
Another	for	correcting	urine	that	(is in) excess <sup>15</sup> :	
giw	wḳ	prt	šnw	wḳ		
cyperus grass <sup>16</sup> ,	one;	seeds	grass <sup>17</sup> ,	one;		
mnyt	nt	bhḥ	wḳ	ḥbk	m	
root	of	bhḥ shrub,	one;	beat	into	
ḥt	wḳty	ḥn	ḥr	ḥnḳt	nḏmt	
consistency	a uniform,	steep <sup>18</sup>	in	beer	sweet;	
swr	iw	m	ḥrw	nyw	r	s
drunk	is	along with	the dregs	a bowl	of	this.

Another for correcting urine in excess:

- Cyprus grass.....1
- Grass seeds.....1
- Root of bhḥ shrub.....1
- Beat into a uniform consistency (and) steep in sweet beer. A bowl of this is drunk, along with the dregs

**THYROID AND GAIN OF WEIGHT IN ANCIENT EGYPTIAN WOMEN**

One test for pregnancy used by the ancient Egyptians was to tie a reed round a woman's neck. If it snapped the woman was pregnant. The snapping was caused by enlargement of the thyroid, but enlargement is just one of the changes of the thyroid during pregnancy. Undiagnosed pregnancy may even be confused with thyrotoxicosis because of the enlargement, the increased metabolic rate, and the rise in total thyroid hormone concentration caused by oestrogen enhancing synthesis of thyroxin binding globulin



The god Bes of ancient Egypt is usually depicted as a dwarf but it has not been conclusively determined whether this affliction was myxoedematosis or achondroplasty.

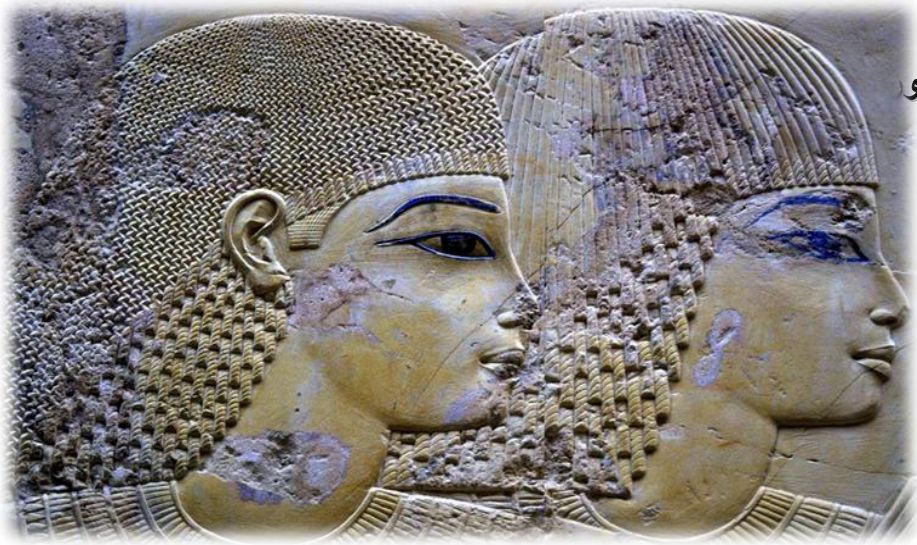
Moreover, a relief has been found representing Cleopatra with what could be an enlarged thyroid





### Conclusion

The ancient Egyptians should have had abundant health. But they didn't. In fact, they suffered pretty miserable health. Many had heart disease, high blood pressure, diabetes, obesity, and thyroid. Ancient Egyptians may have portrayed themselves beautiful on the outside, but the inside story was not the same. Scholars who examined bone and lung tissues from a 3000-year-old mummies from Thebes in the west Upper Egypt. The DNA analysis, coupled with X-ray and other findings, showed that Ancient Egyptians suffered from many diseases. Both Congenital and acquired, which developed as a result of their Cultural practices and environment.



Public health in ancient Egypt were made in nutrition, housing, water waste disposal system. Most significant was that the emphasis has extended beyond disease concerns into the concepts of health and well-being. The later concepts are recognized today as important development to the extent that these expressions are essential components of any definition of health.

The Ancient Egyptian people were probably the first people in world to have based their knowledge of careful and astute observation, early doctors or physician priests of ancient Egyptian began practices that were world renowned. There was a medical system that was developed over three thousand years and gave much toward the advancement of medical science worldwide

Ancient Egyptian emphasized a tripartite system which exists even to this day. Within Egyptian medicine there are extant texts on anatomy, physiology and diagnosis. These texts clearly show a high degree of understanding and knowledge of human body.

Our main sources on ancient Egyptian medicine relies on dozen of papyri some of them have drawn their origin from the old kingdom. They include diagnosis and treatment of diseases and surgery as well as pharmacological receipts and formulas; some of them describe hopeless cases of illness and accidents, or deals with mental disturbances or spiritual problems