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Not such a modern disease: Mummified head and lungs of ancient Egyptian 'Chief of Stables' reveal oldest victim of heart failure

- **3D scans of the mummified remains of Nebiri show signs of heart disease**
- **Scientists found plaques in his arteries and 'heart failure' cells in his lungs**
- **They say this suggests the middle-aged man died of acute cardiac failure**

By [Richard Gray for MailOnline](#)

Published: 11:52 GMT, 2 September 2015 | Updated: 16:52 GMT, 2 September 2015

It is often described as a modern affliction due to our increasingly sedentary lifestyles and high fat diets, but scans of a 3,500-year-old Egyptian mummy have revealed it was a victim of heart disease.

The mummified head and lungs of Nebiri, an Egyptian chief of stables found in a tomb in Luxor in 1904, have been found to show classic signs of cardiovascular disease seen in more modern patients.

It would make it the oldest ever case of chronic heart failure to be yet discovered.

Scroll down for video



© J.Fletcher/University of York Mummy Research Group

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Three dimensional scans on the mummified head (pictured left) and lungs (pictured right inside the cracked canopic jar) of Nebiri, the overseer of the stables in ancient

Egypt 3,500 years ago have revealed he was afflicted with cardiovascular disease and died from acute cardiac failure

The findings build on work in other Egyptian mummies which suggest heart disease and the associated symptoms were rife in the ancient society.

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In 2008 cardiologists reported a build of fatty plaque on the inside of the arteries of a mummy belonging to King Merneptah, a pharaoh who ruled around 3,200 years ago.

EGYPTIAN PRINCESS ALSO SUFFERED FROM HEART DISEASE

An Egyptian princess who 3,500 years ago is another mummy to have been found to have had clogged arteries.

Cardiologists at Cairo's Al Azhar University made the discovery in 2011 when they found the Egyptian princess Ahmose-Meryet-Amon, who lived in Thebes between 1540 and 1550 BC, had calcium deposits in two main coronary arteries.

The princess' father and brother were both pharaohs. The mummy had pierced ears and a large incision in her left side made by embalmers to remove her internal organs.

The researchers said it was unlikely she would have received much treatment beyond maybe taking special herbs or honey.

However, they said her condition was so severe that if she had been alive today she would have needed open heart surgery.

Subsequent scans of other mummies held at the Egyptian Museum of Antiquities have also shown they too displayed clear signs of this fatty build up, known as atherosclerosis.

However, as only the wealthiest and most powerful ancient Egyptians were mummified, it suggests their lifestyles were leading to the problem.

But the findings are also challenging many beliefs about heart disease and shows that rather than being a recent problem it is something that has affected humans for millennia.

Scientists at the University of Turin used 3D reconstructions of Nebiri's skull from his mummy and found he

suffered from severe gum disease and had atherosclerosis in the right carotid artery.

Further scans on lung tissue found in the canopic jar in his tomb, which was partially broken due to looting, also showed it was filled with air sacs.

Dr Raffaella Bianucci, a medical anthropologist at the University of Turin who presented the findings at the International Congress of Egyptologists in Florence, said: 'Nebiri was middle aged - 45 to 60 years old - when he died and he was affected by a severe periodontal disease with several abscesses.



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Nebiri was the Chief of Stables who lived around 3,500 years ago under the rule of the ancient Egyptian pharaoh Tuthmosis III (pictured). The study of his head and lungs have shown he died of acute cardiac failure, making him the oldest victim of heart disease yet to be discovered



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Nebiri's tomb was uncovered in the Valley of the Queens (pictured) in 1904 but had been looted, meaning just the head and the internal organs inside canopic jars remained undamaged. The researchers used CT scans of the 3,500 year old head and lungs to build up a 3D reconstruction of them

'There is evidence of calcification in the right internal carotid artery.

'It can be confidently concluded that Nebiri died from an acute cardiac failure after having experienced a chronic cardiac insufficiency.'

Nebiri is thought to have been a member of the Egyptian elite who served as the Chief of the Stables during the reign of Thutmose III, a pharaoh from the 18th Dynasty of ancient Egypt.

His remains were discovered in the Valley of the Queens in Luxor in 1904, but as the tomb has been plundered just his head and the canopic jars containing his organs remained.

The researchers, which included experts from the University of York and the University of Munich, used multidetector computed tomography to reconstruct the skull in three dimensions.



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Previous research has shown that cardiovascular disease was rife among ancient Egypt's ruling classes. A 3D CT reconstruction of a mummified male scribe called Hatiay (pictured) revealed signs of arterial plaques

It revealed the right internal carotid artery had calcification consistent with mild atherosclerosis.

Scans on the lungs also showed small aggregates of cells typically seen in heart failure patients along with a pulmonary oedema, where fluid accumulates in the lungs air sacs.

Speaking to [Discovery News](#), Dr Bianucci said: 'Our finding represents the oldest evidence for chronic heart failure in mummified remains.'

'A systematic analysis of canopic jar content could help establish whether the disease was more frequent in our ancestors or its prevalence increased in modern times.'

Speaking to Mail Online, she added: 'Indeed it is highly likely heart disease has origins as ancient as

humankind.

'From a scientific point of view, this case shows to be important as it allows following the course of the disease until the demise of the individual in absence of chemical treatment or surgery.

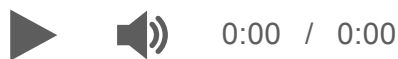
'More research is needed to provide indirect information about the prevalence of hypertension in Ancient Egypt, a data which is still unknown, and genetic predisposition to cardiovascular pathologies.'

Professor Joann Fletcher, an Egyptologist at the University of York who also took part in the study, added: 'The remains of Nebiri are quite minimal - his body had been broken up when his tomb was looted in antiquity, so when discovered the archaeologists discovered little more than his detached head and the canopic jars which held his internal organs removed during the embalming.

'Yet his head is in superb condition - indicating a very high quality embalming.

'Since one of the canopic jars was already broken when found, this allowed access to the organs within, in this case his lungs, meaning we were able to take minute samples with the very minimal of disturbance.'

Mummy scans reveal heart disease plagued our ancestors



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Humans had left Eden, the diet changed massively. Remedies and new foods took centuries to ascertain. The massive die off meant humans were isolated after the "tree of life" plasma display had disappeared. It was also known as the Tower of Babel. In isolated settlements, the common tongue of a large part of the old Earth changed, allowing people to say that there were many languages.

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