

Human Paleo-Health and Evolution

Palaeontology · Answer Key · 15 Questions

1. What is the name of the scientific field that focuses on the study of ancient diseases in fossilized remains?

- A) Paleopathology**
- B) Bioarchaeology
- C) Forensic Anatomy
- D) Osteology

2. Which skeletal feature is often used by palaeontologists to determine if an ancient hominid walked upright?

- A) The length of the fingers
- B) The position of the foramen magnum**
- C) The size of the ear bones
- D) The number of ribs

3. What condition is indicated by 'Harris lines' found on fossilized human long bones?

- A) Chronic vitamin C deficiency
- B) Healed fractures
- C) Growth arrest due to malnutrition or illness**
- D) Genetic bone density disorders

4. Analysis of the 5,300-year-old mummy 'Ötzi the Iceman' revealed he suffered from which tick-borne illness?

- A) Malaria
- B) Lyme disease**
- C) Bubonic plague
- D) Typhus

5. What dental condition, often found in ancient human remains, provides a record of childhood physiological stress or malnutrition?

- A) Dental caries
- B) Enamel hypoplasia**
- C) Periodontitis
- D) Fluorosis

6. The 'obstetrical dilemma' refers to the evolutionary trade-off between which two human biological needs?

- A) Large brain size and bipedalism**
- B) High metabolism and heat loss
- C) Running speed and bone density
- D) Dexterity and arm length

7. Which substance preserved on ancient teeth allows scientists to reconstruct the microbiome and diet of extinct humans?

- A) Enamel
- B) Dentin
- C) Dental calculus**
- D) Pulp

8. What does the presence of 'cribra orbitalia' (porous bone in the eye sockets) typically suggest about an ancient individual's health?

- A) Vision loss
- B) Iron deficiency anemia**
- C) High blood pressure
- D) Brain swelling

9. Ancient DNA analysis has shown that most modern non-African humans carry what percentage of Neanderthal DNA?

- A) 0.5-1%
- B) 1-4%**
- C) 10-15%
- D) 20-25%

10. In palaeontology, what do 'stable isotope signatures' in fossilized bone collagen typically reveal about a person's health and lifestyle?

- A) Their blood type
- B) Their primary dietary protein sources**
- C) Their cause of death
- D) Their exact age in years

11. Why do modern humans frequently experience wisdom tooth impaction compared to ancient hominids?

- A) Evolutionary reduction in jaw size**
- B) Increase in tooth size
- C) Loss of enamel thickness
- D) Change in saliva acidity

12. Which ancient surgical practice is evidenced by holes drilled into fossilized skulls with signs of bone healing?

- A) Lobotomy
- B) Cauterization
- C) Trepanation**
- D) Phlebotomy

13. Evidence of which infectious disease has been found in human remains dating back 9,000 years in the Eastern Mediterranean?

- A) Smallpox
- B) Tuberculosis**
- C) Influenza
- D) Polio

14. The S-shaped curvature of the human spine, visible in the fossil record, is an adaptation primarily for what?

- A) Climbing trees
- B) Protecting the spinal cord
- C) Shock absorption during bipedal walking**
- D) Lifting heavy objects

15. What evolutionary change in the human throat allowed for complex speech but increased the risk of choking?

- A) Lengthening of the tongue
- B) Descent of the larynx**
- C) Hardening of the palate
- D) Widening of the esophagus