



Archaeologists Uncover Lasting Impact of Smoking

Description

Recent research conducted by archaeologists at the University of Leicester reveals that tobacco leaves lingering traces in the bones of smokers, persisting not only throughout their lifetimes but for centuries following their demise.

By examining human remains buried in Britain between the 12th and 19th centuries, researchers have uncovered the significant influence of tobacco on skeletal structure and its connection to various bone-related ailments, including an elevated risk of fractures.

This study illuminates the profound changes brought about by the introduction of tobacco to Western Europe approximately 500 years ago.

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Researchers have uncovered the profound effects of tobacco on bone structure. (PA Archive)

Previously, archaeologists primarily utilized dental evidence to determine smoking habits, searching for characteristic stains or wear from pipe use. However, such methods frequently fell short in cases where teeth were missing.

The Leicester team examined the dense outer layer of 323 bones, differentiating between known smokers and individuals with uncertain smoking histories. Using mass spectroscopy, they identified 45 distinct molecular features that marked smokers' bones.

Published in *Science Advances*, the study states: "Tobacco consumption creates a unique metabolic record in human bones, allowing identification even in those of unknown smoking histories." This research not only enhances our understanding of historical smoking prevalence but also underlines tobacco's long-lasting impacts on human health, revealing valuable insights into its skeletal consequences.

Vocabulary List:

1. **Archaeologists** /ˌɑːr.kiˈɒl.ə.dʒɪsts/ (noun): Scientists who study human history by excavating and analyzing artifacts structures and other cultural remains.
2. **Skeletal** /ˈskel.i.təl/ (adjective): Relating to the framework of bones supporting the body.
3. **Metabolic** /ˌmɛt.əˈbɒl.ɪk/ (adjective): Relating to the chemical processes that occur within a living organism in order to maintain life.
4. **Consumption** /kənˈsʌmp.jən/ (noun): The act of using up a resource; in this context the use of tobacco.
5. **Prevalence** /ˈpreɪ.v.ə.ləns/ (noun): The commonness or widespread existence of something such as a disease or habit.
6. **Significant** /sɪɡˈnɪf.i.kənt/ (adjective): Having meaning; important or noteworthy.

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. Which term refers to the proportion of individuals in a population having a particular ailment at a specific time?

- Option: Archaeologists
- Option: Skeletal
- Option: Prevalence
- Option: Diagnosis

2. Which term describes a condition involving the progressive degeneration of the structure or function of the nervous system?



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- Option: Attribute
Option: Prion
Option: Neurodegenerative
Option: Destigmatize
3. What term means to make something less severe serious or painful?
- Option: Intriguing
Option: Mitigate
Option: Consumption
Option: Expenditure
4. Who are scientists who study past human societies through their material remains?
- Option: Proactive
Option: Archaeologists
Option: Vigilance
Option: Significance
5. Which term refers to the using up of a resource?
- Option: Proactive
Option: Consumption
Option: Susceptibility
Option: Destigmatize
6. What is a potentially serious sleep disorder in which breathing repeatedly stops and starts during sleep?
- Option: Inefficiency
Option: Mitigate
Option: Obstructive
Option: Apnea
7. Which term refers to the identification of the nature of an ailment or other problems through examination of the symptoms?
- Option: Skeletal
Option: Prion
Option: Diagnosis
Option: Consumption
8. What term refers to having knowledge or perception of a situation or fact?
- Option: Prion
Option: Significance
Option: Awareness
Option: Havoc
9. Which term describes a harmful or evil influence?



- Option: Intriguing
- Option: Malevolent
- Option: Inefficiency
- Option: Consumption

10. Which term refers to a connection or cooperative link between people or organizations?

- Option: Association
- Option: Mitigate
- Option: Obstructive
- Option: Prion

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. _____ remains provide valuable insights into the physical characteristics of past populations.
12. It is important to maintain _____ against potential security threats.
13. Taking a _____ approach can help prevent issues before they occur.
14. Efforts are being made to _____ mental health issues and encourage open discussions.
15. Understanding the historical _____ of artifacts is crucial in archaeology.
16. An _____ sleep apnea can lead to serious health complications.
17. The company reduced unnecessary _____ to improve profitability.
18. Addressing _____ in processes can lead to cost savings and productivity gains.
19. Certain populations may have a higher _____ to specific diseases.
20. Post-surgery the patient experienced some unexpected _____ that required further treatment.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)



21. Prions are infectious agents composed of protein in a misfolded form.
22. Alzheimer's disease is a common type of disorder.
23. A minor like the flu can sometimes lead to significant complications.
24. The hurricane wreaked on the coastal town causing widespread destruction.
25. Genetic factors can increase one's to certain environmental factors.
26. Being rather than reactive can help in preventing crises.
27. Excessive food can lead to health problems such as obesity.
28. The team worked to meet the deadline for the project.
29. Early of cancer can significantly improve treatment outcomes.
30. The study found a strong positive between exercise and mental well-being.

Answer

Multiple Choice: 1. Prevalence 2. Neurodegenerative 3. Mitigate 4. Archaeologists 5. Consumption 6. Apnea 7. Diagnosis 8. Awareness 9. Malevolent 10. Association

Gap-Fill: 11. Skeletal 12. Vigilance 13. Proactive 14. Destigmatize 15. Significance 16. Obstructive 17. Expenditure 18. Inefficiency 19. Susceptibility 20. Complications

Matching sentence: 1. Prion 2. neurodegenerative 3. ailment 4. havoc 5. susceptibility 6. proactive 7. consumption 8. continuous 9. diagnosis 10. association

CATEGORY

1. Health - LEVEL4

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