



## 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.

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## Vocabulary List:

1. **Archaeologists** /,ɑːr.ki'ɒl.ə.dʒɪsts/ (noun): Scientists who study human history by excavating and analyzing artifacts structures and other cultural remains.
2. **Skeletal** /'skel.i.təl/ (adjective): Relating to the framework of bones supporting the body.
3. **Metabolic** /,mɛt.ə'bɒl.ɪk/ (adjective): Relating to the chemical processes that occur within a living organism in order to maintain life.
4. **Consumption** /kən'sʌmp.jən/ (noun): The act of using up a resource; in this context the use of tobacco.
5. **Prevalence** /'prɛv.ə.ləns/ (noun): The commonness or widespread existence of something such as a disease or habit.
6. **Significant** /sɪg'nɪf.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

### Date Created

2024/10/21

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