

Neanderthals' Genetic Crisis Triggered Their Extinction 100,000 Years Ago

Description

The extinction of Neanderthals is a big mystery. Scientists think many things could have caused it. These include climate change and conflicts with modern humans.

Some experts wonder if Neanderthals didn't have enough genetic variety to survive. A new study supports this idea. It suggests a big drop in their genetic diversity happened before they disappeared.

Researchers used ear canal shapes and Neanderthal genetics to find clues. They found signs of less genetic variety about 100,000 years ago.

By comparing the ear shapes of Neanderthals and modern humans from different areas, they learned about differences in human types. The study focused on fossils from places like Croatia and France.

It seems something caused a big drop in their population before they went extinct around 40,000 years ago. This study does not explain why this happened, but factors like climate change and competition could be reasons.

The researchers want to look at more fossils to learn more about Neanderthals. Their findings are published in the journal *Nature Communications*.

Vocabulary List:

- 1. **Extinction** /ɪk'stɪŋkʃən/ (noun): The state or process of a species family or larger group being or becoming extinct.
- 2. **Diversity** /daɪ'vɜːrsɪti/ (noun): The state of being diverse; variety.
- 3. Genetic /dʒə'nɛtɪk/ (adjective): Relating to genes or heredity.
- 4. Comparison /kəm'pærɪsən/ (noun): The act of comparing; the state of being compared.
- 5. **Fossil** /'fɑːsəl/ (noun): The remains or impression of a prehistoric organism preserved in petrified form or as a mold or cast in rock.
- 6. **Population** /,pppju'leɪ[ən/ (noun): All the inhabitants of a particular town area or country.

Comprehension Questions



Multiple Choice

1. What are some possible reasons for the extinction of Neanderthals according to scientists?

Option: Climate change

Option: Conflicts with modern humans

Option: Lack of genetic variety

Option: All of the above

2. When did the drop in genetic diversity of Neanderthals occur as mentioned in the study?

Option: Around 100,000 years ago Option: Around 40,000 years ago Option: Around 50,000 years ago Option: Around 10,000 years ago

3. Which method did researchers use to find clues about Neanderthals?

Option: Ear canal shapes
Option: Fingerprints
Option: DNA sequencing
Option: Hair samples

4. Where did the study focus on fossils of Neanderthals and modern humans?

Option: Croatia and France Option: Italy and Spain

Option: Germany and Sweden Option: Japan and Australia

5. What do researchers want to do to learn more about Neanderthals?

Option: Study more fossils
Option: Study modern humans
Option: Build a time machine
Option: Forget about Neanderthals

6. Which journal published the findings of the researchers?

Option: Nature Communications

Option: Science Daily

Option: National Geographic Option: Journal of Archaeology



True-False

- 7. Neanderthals had enough genetic variety to survive.
- 8. The study focused on genetic diversity in Neanderthal ear canal shapes.
- 9. The extinction of Neanderthals occurred around 40,000 years ago.
- 10. The researchers are not interested in studying more fossils of Neanderthals.
- 11. Climate change is not considered as a possible reason for Neanderthals' extinction.
- 12. The drop in Neanderthals' population occurred around 10,000 years ago.

Gap-Fill

ap-Fill		
3. The big drop in Neanderthals' genetic diversity happened before they disappeared around		
years ago.		
4. Researchers used ear canal shapes and Neanderthal genetics to find clues about the lack of genetic	С	
ariety approximately years ago.		
5. The study focused on fossils from places like and France.		
16. Factors like climate change and competition could be reasons for the big drop in Neanderthals'		
7. The researchers want to look at more fossils to learn more about		
8. The findings of the researchers are published in the journal		

Answer

Multiple Choice: 1. All of the above 2. Around 100,000 years ago 3. Ear canal shapes 4. Croatia and France

5. Study more fossils 6. Nature Communications

True-False: 7. False 8. True 9. True 10. False 11. False 12. False

Gap-Fill: 13. 40,000



14. 100,000 15. Croatia 16. population 17. Neanderthals 18. Nature Communications

Vocabulary quizzes

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

1. What is the distance around a circle called?

Option: Radius Option: Diameter Option: Circumference

Option: Area

2. Which type of food should be limited in a healthy diet?

Option: Fresh Option: Processed Option: Organic Option: Homemade

s.com 3. What is physical activity done to improve health called?

Option: Break Option: Exercise Option: Rest Option: Diet

4. What is the possibility of something bad happening called?

Option: Award Option: Risk Option: Reward Option: Challenge

5. Which type of factors are inherited from parents?

Option: Environmental

Option: Genetic Option: Lifestyle Option: Dietary

6. What term describes a person who is significantly overweight?



Option: Underweight

Option: Obese	
Option: Athletic	
Option: Average	
7. What term refers to a range of differe	ent things?
Option: Uniformity	
Option: Diversity	
Option: Similarity	
Option: Consistency	
8. What are the activities related to selli	ng products or services?
Option: Production	
Option: Sales	
Option: Innovation	
Option: Distribution	
9. What is the total number of people liv	ring in a specific area?
Option: Traffic	
Option: Population	
Option: Immigration	
Option: Territory	vior and norms of a specific group?
10. What encompasses the social behav	vior and norms of a specific group?
Option: Music	Totalia norma or a appearite group?
Option: Music Option: Culture	
Option: Science	
Option: Sport	
Gap-Fill (Fill in the blanks with the	e correct word from the vocabulary list.)
•	•
11. Education is	for personal growth and development.
12. Due to climate change the frequenc	y of extreme weather events is
13. The system can perform	updates without user intervention.
14. Developing good study	can improve academic performance.
15. Regular exercise provides numerous	s health



16. Excessive workload can lead to high levels of		
17. People	festivals to mark special occasions.	
18. Setting an alarm is a useful $_$	to wake up on time.	
19. Online shopping offers the	of shopping from home.	
20. Hard work is often recognized	d with and promotions.	
21. It is important to	junk food consumption.	
Matching Sentences (Match	each definition to the correct word from the vocabulary list.)	
22. Scientists who conduct expe	eriments and studies to expand knowledge in their field.	
23. Individuals involved in a research study or an event.		
24. Eating fruits and vegetables is for overall health.		
25. The disappearance of a species from the Earth.		
26. Evaluating similarities and o	differences between two or more things.	
27. Remnants or impressions of ancient organisms preserved in rock.		
28. A decline in cognitive function beyond normal aging.		
29. The way in which two or more people or things are connected.		
30. A series of actions or steps taken to achieve a particular result.		
31. A feeling of emotional or physical tension.		

Answer

Multiple Choice: 1. Circumference 2. Processed 3. Exercise 4. Risk 5. Genetic 6. Obese 7. Diversity 8. Sales 9. Population 10. Culture

Gap-Fill: 11. Important 12. Increasing 13. Automatic 14. Habits 15. Benefits 16. Stress 17. Celebrate 18. Reminder 19. Convenience 20. Rewards 21. Limit

Matching sentence: 1. Researchers 2. Participants 3. Beneficial 4. Extinction 5. Comparison 6. Fossil 7.

Dementia



8. Relationship 9. Process 10. Stress

CATEGORY

1. Health - LEVEL1

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