



What occurs in their minds?

Description

Researchers in the Netherlands discovered a small group of individuals with signs of Alzheimer's in their brains but never experienced any symptoms while alive. This rare occurrence is due to the long gap between the initial brain changes of Alzheimer's and the onset of symptoms. Factors such as genetics, lifestyle choices, and cognitive activities can contribute to this so-called resilience to Alzheimer's. The study highlights the importance of cognitive reserve in protecting the brain against damage. It also emphasizes the role of brain cells, antioxidants, mitochondrial function, and other mechanisms in maintaining brain health. While Alzheimer's usually presents with memory loss and cognitive decline, some individuals can have the disease without any noticeable symptoms. These findings shed light on the complexity of Alzheimer's disease and provide insights into potential preventive strategies.

Vocabulary List:

1. **Resilience** // (noun): The ability to recover quickly from difficulties or toughness.
2. **Genetics** // (noun): The study of genes and heredity.
3. **Cognitive** // (adjective): Related to thinking, understanding, and mental processes.
4. **Antioxidants** // (noun): Substances that prevent or delay cell damage caused by free radicals.
5. **Mitochondrial** // (adjective): Relating to or involving the mitochondria, which are organelles in cells that generate energy.
6. **Preventive** // (adjective): Intended to stop something undesirable or harmful before it occurs.

Vocabulary quizzes

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

1. What tiny particles may cause harm to marine life and ecosystems?
Option: Chemicals
Option: Microplastics
Option: Pollution
Option: Sperm
2. What type of substances are often found in polluted environments?
Option: Sperm
Option: Chemical



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- Option: Inflammation
Option: Pollution
3. How might one feel if caught in a situation that draws unwanted attention?
Option: Hopeless
Option: Embarrassed
Option: Breakthrough
Option: Receptor
4. What type of medication is specifically designed to combat viruses?
Option: Antiviral
Option: Pandemic
Option: Surveillance
Option: Infections
5. Which field of study involves the study of heredity and variation of organisms?
Option: Resilience
Option: Genetics
Option: Cognitive
Option: Antioxidants
6. Which type of DNA is passed down from the mother to her offspring?
Option: Mitochondrial
Option: Preventive
Option: Issued
Option: Reckless
7. What behavior is characterized by a lack of concern for the consequences of one's actions?
Option: Endorsed
Option: Reckless
Option: Compulsive
Option: Impulsive
8. Which neurotransmitter is associated with pleasure and reward?
Option: Inflammation
Option: Chemical
Option: Obesity
Option: Dopamine
9. What biological response occurs when the body is combating infection or injury?
Option: Agonist
Option: Inflammation
Option: Detected
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Option: Pandemic

10. Which emotion might a person feel when facing a seemingly impossible situation?

Option: Resilience

Option: Hopeless

Option: Breakthrough

Option: Surveillance

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

11. High levels of _____ can have detrimental effects on the environment.

12. The _____ of water sources by harmful substances can pose serious health risks.

13. A sedentary lifestyle and poor diet can contribute to the development of _____.

14. The presence of microplastics was _____ in the water samples collected from the river.

15. Efficient _____ systems are crucial for early detection and response to disease outbreaks.

16. Building _____ can help individuals cope with life's challenges and setbacks.

17. Taking necessary _____ can help prevent the spread of infectious diseases.

18. The policy change was _____ by a majority of the committee members.

19. Individuals with _____ behaviors may engage in repetitive actions despite negative consequences.

20. Regular exercise has been shown to improve _____ function in older adults.

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

21. A substance that binds to a receptor and activates a response in the cell.

22. An outbreak of a disease that occurs over a wide geographic area.



23. Ensuring the right person is assigned to the correct task.
24. A protein on the cell surface where specific molecules can bind.
25. Acting without thinking about the consequences.
26. Molecules that can prevent or slow damage to cells caused by free radicals.
27. Male reproductive cells involved in fertilizing the female egg.
28. A significant development or discovery that advances knowledge or technology.
29. The invasion and multiplication of harmful microorganisms in the body.
30. Feeling of despair with no expectation of a positive outcome.

Answer

Multiple Choice: 1. Microplastics 2. Chemical 3. Embarrassed 4. Antiviral 5. Genetics 6. Mitochondrial 7. Reckless 8. Dopamine 9. Inflammation 10. Hopeless

Gap-Fill: 11. Pollution 12. Contamination 13. Obesity 14. Detected 15. Surveillance 16. Resilience 17. Precautions 18. Endorsed 19. Compulsive 20. Cognitive

Matching sentence: 1. Agonist 2. Pandemic 3. Matching 4. Receptor 5. Impulsive 6. Antioxidants 7. Sperm 8. Breakthrough 9. Infections 10. Hopeless

CATEGORY

1. Health - LEVEL1

Date Created

2024/05/27

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