



Oral Bacteria Linked to Increased Dementia Risk

Description

Can the bacteria in your mouth help show if you might have dementia?

New studies suggest that the bacteria on your tongue and gums can affect your brain. This may change how we age and if we get dementia.

Scientists are finding connections between the bacteria in our mouths and the health of our brains.

A study I worked on included 115 adults over 50 years old. Some had healthy brains, while others showed early signs of memory problems.

We found that people with more bacteria called *Neisseria* and *Haemophilus* did better on brain tests. They had better memory and can focus better.

Eating vegetables rich in nitrates, like spinach and beetroot, can help grow good bacteria in our mouths.

But some bacteria can hurt brain health. One type, *Porphyrromonas*, is linked to memory problems.

This research suggests that keeping our mouth bacteria healthy may help keep our brains healthy.

It's very important to brush your teeth, visit the dentist, and eat healthy foods.

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Vocabulary List:

1. **Dementia** /dɪ'menʃə/ (noun): A chronic or persistent disorder of the mental processes caused by brain disease or injury characterized by memory disorders personality changes and impaired reasoning.
2. **Bacteria** /bæk'tɪəriə/ (noun): Large domain of prokaryotic microorganisms which are typically a few micrometers in length and have various shapes.
3. **Connections** /kə'nekʃənz/ (noun): Relationships or associations between things or people.
4. **Nitrates** /'naɪ.treɪts/ (noun): Salts or esters of nitric acid containing the anion NO₃.
5. **Memory** /'meməri/ (noun): The faculty by which the mind stores and remembers information.
6. **Healthy** /'helθi/ (adjective): Free from injury or disease; conducive to health; healthful.

Comprehension Questions



Multiple Choice

1. What is the main focus of the studies mentioned regarding mouth bacteria and dementia?

- Option: Effects of mouth bacteria on overall health
- Option: Correlation between mouth bacteria and brain health
- Option: Prevention of dental issues
- Option: Dietary impacts on mouth bacteria

2. What types of bacteria were mentioned to have positive effects on brain tests?

- Option: Neisseria and Clostridium
- Option: Streptococcus and Escherichia
- Option: Neisseria and Haemophilus
- Option: Lactobacillus and Bifidobacterium

3. Which type of bacteria was associated with memory problems?

- Option: Clostridium
- Option: Neisseria
- Option: Haemophilus
- Option: Porphyromonas

4. What food type is suggested to help grow good bacteria in the mouth?

- Option: Processed foods
- Option: Sugary snacks
- Option: Fermented foods
- Option: Vegetables rich in nitrates

5. What practices are recommended to maintain healthy mouth bacteria?

- Option: Regular flossing only
- Option: Avoiding all sugar intake
- Option: Brushing teeth, visiting the dentist, and eating healthy foods
- Option: Using only mouthwash

6. How many adults were part of the study mentioned?

- Option: 75
- Option: 95
- Option: 115
- Option: 135



True-False

7. Eating vegetables rich in nitrates can negatively impact mouth bacteria.
8. Porphyromonas bacteria have positive effects on memory.
9. The research suggests a direct relationship between mouth bacteria and brain health.
10. Regularly visiting the dentist is not important for maintaining healthy mouth bacteria.
11. Memory problems were only observed in adults over 50 years old in the study.
12. Eating sugary snacks is recommended for improving brain health according to the studies.

Gap-Fill

14. Eating vegetables rich in nitrates can help grow _____ bacteria in our mouths.
15. One type of bacteria, Porphyromonas, is linked to _____ problems.
16. It is important to brush your teeth, visit the dentist, and eat _____ foods.
17. The study included 115 adults over _____ years old.
18. The bacteria Neisseria and Haemophilus were associated with better performance on _____ tests.

Answer

Multiple Choice: 1. Correlation between mouth bacteria and brain health 2. Neisseria and Haemophilus 3. Porphyromonas 4. Vegetables rich in nitrates 5. Brushing teeth, visiting the dentist, and eating healthy foods 6. 115

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

Gap-Fill: 14. good 15. memory 16. healthy 17. 50 18. brain

Vocabulary quizzes



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

1. Which stage of sleep is characterized by rapid eye movement and dreaming?
Option: Stage 1
Option: Stage 2
Option: Stage 3
Option: Stage 4
2. Who are scientists that study celestial objects such as stars planets and galaxies?
Option: Biologists
Option: Geologists
Option: Physicists
Option: Astronomers
3. What term is used to describe a decline in cognitive function that affects memory thinking and behavior?
Option: Bacteria
Option: Dementia
Option: Virus
Option: Fungi
4. What force attracts a body toward the center of the Earth?
Option: Magnetism
Option: Friction
Option: Tension
Option: Gravity
5. What are individual events and occurrences that a person goes through in their lifetime?
Option: Solutions
Option: Results
Option: Experiences
Option: Consequences
6. What cognitive process involves encoding storing and retrieving information?
Option: Processing
Option: Memory
Option: Reasoning
Option: Imagination
7. What term describes a gentle feeling of fondness or liking?
Option: Hatred
Option: Jealousy
Option: Indifference



Option: Affection

8. What is the body's response to pressure or threat?

Option: Relaxation

Option: Meditation

Option: Stress

Option: Joy

9. What is a huge system of stars gas and dust bound together by gravity?

Option: Planet

Option: Satellite

Option: Comet

Option: Galaxy

10. What compounds are often used as fertilizers to promote plant growth?

Option: Nitrates

Option: Phosphates

Option: Sulfates

Option: Chlorides

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

11. A _____ between two people can be strengthened through open communication.

12. In chemistry a mixture is composed of a solute and a _____ .

13. Scientists conduct _____ to test hypotheses and theories.

14. The _____ between the Earth and the Sun is approximately 93 million miles.

15. Nuclear energy is a _____ source of electricity.

16. A smoke _____ can alert residents to the presence of a fire.

17. The magician performed a trick where the object seemed to _____ in mid-air.

18. The athlete _____ before starting the race to prevent muscle injuries.

19. The archeologists made a groundbreaking _____ in the ancient tomb.

20. The old mansion had a _____ atmosphere with creaking sounds coming from



unknown sources.

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

21. Establishing meaningful relationships and building professional networks are essential for personal growth.
22. Exercise and a balanced diet are crucial for maintaining a lifestyle.
23. After a long day I love to up with a good book and a warm blanket.
24. It is to listen actively in order to understand others better.
25. Trust and communication are key elements in a successful and lasting .
26. The Moon follows an around the Earth completing one cycle every 27.3 days.
27. Rubbing a balloon against a wool sweater can create electricity.
28. exercises help improve flexibility and prevent muscle stiffness.
29. A warm hug is a simple gesture that conveys love and .
30. A metal can identify the presence of metallic objects in luggage at airports.

Answer

Multiple Choice: 1. REM sleep 2. Astronomers 3. Dementia 4. Gravity 5. Experiences 6. Memory 7. Affection 8. Stress 9. Galaxy 10. Nitrates

Gap-Fill: 11. Connection 12. Solution 13. Experiment 14. Distance 15. Powerful 16. Detector 17. Levitates 18. Stretched 19. Discovery 20. Mysterious

Matching sentence: 1. Connections 2. Healthy 3. Cuddle 4. Important 5. Relationship 6. Orbit 7. Static 8. Stretching 9. Affection 10. Detector

CATEGORY

1. Health - LEVEL1

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