



New Brain Cells Boost Adult Learning Through Listening

Description

Your brain can make new neurons even when you are an adult. But how does this help us think better?

Neurons are the cells that help our brain work. You are born with most of the neurons you will have in your life.

While your brain grows a lot when you are young, some places in the brain keep making new neurons as you grow up, but much less.

Scientists are still studying if making new neurons helps adults think better.

Research shows that people with epilepsy or Alzheimer's disease make fewer new neurons than people without these conditions. We are not sure if having fewer new neurons causes thinking problems in these patients.

Our team of researchers found that new neurons are important for learning from listening to others. People who have more new neurons do better at verbal learning.

This link may help us create new treatments for people with cognitive problems, especially as our population ages.

More studies are needed to understand how to improve brain health and support better thinking.

Vocabulary List:

1. **Neurons** /'njʊə.rɒnz/ (noun): The cells in the brain that transmit information.
2. **Epilepsy** /'ɛp.ɪ.lɛp.si/ (noun): A neurological disorder characterized by recurrent seizures.
3. **Alzheimer's** /'æɪ.laɪ.məz/ (noun): A progressive neurologic disease that causes brain cells to waste away.
4. **Cognitive** /'kɒg.nɪ.tɪv/ (adjective): Related to the mental processes of perception memory judgment and reasoning.
5. **Research** /'riː.sɜːtʃ/ (noun): The systematic investigation into a subject to discover or revise facts.
6. **Treatments** /'triː.t.mənts/ (noun): Methods of dealing with a patient or condition to improve health.

Comprehension Questions



Multiple Choice

1. What are neurons?

- Option: The cells that help our brain work
- Option: Blood cells in the brain
- Option: Muscle cells in the brain
- Option: Fat cells in the brain

2. Are you born with all the neurons you will have in your life?

- Option: Yes
- Option: No
- Option: Not sure
- Option: Depends on the person

3. Which group of people make fewer new neurons according to research?

- Option: People with epilepsy
- Option: People with Alzheimer's disease
- Option: Both A and B
- Option: Neither A nor B

4. In which type of learning do people with more new neurons do better?

- Option: Visual learning
- Option: Verbal learning
- Option: Auditory learning
- Option: Tactile learning

5. What do scientists still need to study about new neurons and adult thinking?

- Option: If it helps adults think better
- Option: If they are needed for motor skills
- Option: If they affect taste perception
- Option: If they relate to hearing ability

6. How can new treatments be developed for people with cognitive problems according to the content?

- Option: By reducing new neuron formation
- Option: By studying visual learning
- Option: By understanding the impact of new neurons on thinking
- Option: By increasing new neuron production



True-False

7. Your brain stops making new neurons as you age.
8. People with epilepsy or Alzheimer's disease have more new neurons than healthy individuals.
9. Having fewer new neurons is definitively linked to thinking problems in patients with epilepsy or Alzheimer's disease.
10. Listening to others does not impact the formation of new neurons.
11. Research has shown a direct correlation between new neuron formation and verbal learning abilities.
12. The content implies that understanding the role of new neurons can lead to improved brain health.

Gap-Fill

14. People with epilepsy or Alzheimer's disease make _____ new neurons than people without these conditions.
15. According to research, new neurons are important for learning from listening to others, especially for _____ learning.
16. Studies are needed to understand how to improve brain health and support better _____.
17. Our team of researchers found that new neurons are important for learning and may help create new treatments for people with cognitive problems as our population _____.
18. Scientists are still studying if making new neurons helps adults think _____.

Answer

Multiple Choice: 1. The cells that help our brain work 2. Yes 3. Both A and B 4. Verbal learning 5. If it helps adults think better 6. By understanding the impact of new neurons on thinking

True-False: 7. False



8. False 9. False 10. False 11. True 12. True

Gap-Fill: 14. fewer 15. verbal 16. thinking 17. ages 18. better

Vocabulary quizzes

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

1. What are the primary cells of the nervous system responsible for transmitting information?

Option: Axons

Option: Neurons

Option: Cognitive

Option: Matter

2. Which neurological disorder is characterized by recurrent seizures?

Option: Fossils

Option: Alzheimer's

Option: Epilepsy

Option: Gravity

3. Which disease is associated with memory loss and cognitive decline?

Option: Research

Option: Alzheimer's

Option: Challenges

Option: Interactions

4. Which type of cancer is primarily focused on the cervical region?

Option: Vaccination

Option: Evolution

Option: Cervical

Option: Approved

5. What is the study of the beginnings of the universe and life called?

Option: Gravity

Option: Significant

Option: Origins

Option: Particles

6. What are the remains or impressions of ancient organisms preserved in rock?

Option: Complex

Option: Relatives

Option: Discovery



Option: Fossils

7. Which part of a neuron carries signals away from the cell body?

Option: Challenges

Option: Study

Option: Axons

Option: Connect

8. Which term refers to processes related to thinking understanding and remembering?

Option: Neurons

Option: Cognitive

Option: Treatments

Option: Ancient

9. What force attracts objects toward each other?

Option: Interactions

Option: Matter

Option: Origins

Option: Gravity

10. Which activity involves systematic investigation to establish facts and reach new conclusions?

Option: Research

Option: Particles

Option: Approved

Option: Significant

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

11. Advancing medical science poses numerous _____ that researchers strive to overcome.

12. In a neuron dendrites receive signals the cell body processes information and axons _____ with other neurons.

13. Studying _____ civilizations provides insights into historical cultures and societies.

14. In the field of physics understanding the _____ between particles is crucial to explaining the behavior of matter.

15. The theory of _____ explains the gradual development of organisms over



generations.

16. The results of the recent experiments have led to _____ advancements in the field of chemistry.

17. Regular _____ can prevent certain diseases by stimulating the body's immune response.

18. After rigorous testing the new drug was _____ for use in medical treatment.

19. Subatomic _____ are the building blocks of all matter in the universe.

20. Advancements in medical science have led to more effective _____ for various illnesses.

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

21. Dedicated time and effort enhance the quality of learning and acquiring knowledge.
22. Exploration and research often lead to the uncovering of new findings and breakthroughs.
23. Anything that occupies space and has mass is considered as this fundamental substance in physics.
24. Examining genetic connections and lineages can reveal family ties and ancestry.
25. Intricate systems or problems often require detailed analysis and solutions.
26. These specialized cells play a vital role in transmitting electrical signals within the nervous system.
27. Obstacles and difficulties present opportunities for growth and innovation.
28. Long slender projections of neurons that conduct impulses away from the cell body.
29. Preserved remains of ancient organisms provide valuable insights into past life forms.
30. Tiny units of matter that exhibit unique properties and interactions in various fields of science.



Answer

Multiple Choice: 1. Neurons 2. Epilepsy 3. Alzheimer's 4. Cervical 5. Origins 6. Fossils 7. Axons 8. Cognitive 9. Gravity 10. Research

Gap-Fill: 11. Challenges 12. Connect 13. Ancient 14. Interactions 15. Evolution 16. Significant 17. Vaccination 18. Approved 19. Particles 20. Treatments

Matching sentence: 1. Study 2. Discovery 3. Matter 4. Relatives 5. Complex 6. Neurons 7. Challenges 8. Axons 9. Fossils 10. Particles

CATEGORY

1. Health - LEVEL1

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