

New Diet Found to Boost Brain Health and Slow Decline

Description

Although the phenomenon of brain aging is an inevitability of human life—at least for the present moment—emerging research suggests there are potential methods to decelerate cognitive decline. A recent study has illuminated the critical influence of blood sugar levels on the rate at which the brain undergoes aging.

This research is the culmination of efforts by an international consortium of scientists who sought to build upon a [2022 investigation](#) that established associations between dietary patterns and brain atrophy. Previous findings indicated that adherence to the Mediterranean diet, particularly the modified green variant characterized by increased plant intake and reduced meat consumption, correlated with diminished neurological degeneration.

In this new inquiry, the researchers were intent on discerning the underlying mechanisms that may elucidate this correlation. Their findings revealed a robust relationship between lower blood sugar markers and reduced incidence of brain shrinkage and neuronal death, phenomena that are typically exacerbated with age.

Green tea
Image not found or type unknown

Green tea could have a protective effect on brain aging. ([Na Visky/Unsplash](#))

"Sustaining low blood sugar levels, even within normative ranges, exhibits promise in preserving cognitive vitality, especially when amalgamated with a nutritious diet and habitual physical exercise," asserts [Iris Shai](#), the senior author and an epidemiologist at Ben-Gurion University in Israel.

Data were procured through [magnetic resonance imaging](#) (MRI) scans of 224 participants, averaging 51 years, diagnosed with obesity or elevated triglycerides. Over an 18-month timeframe, participants were divided into three cohorts, each adhering to distinct dietary regimens: the Mediterranean diet, the green Mediterranean diet, or a standard nutritious diet.

The convergence of findings regarding slower brain aging in conjunction with the Mediterranean diets, particularly the green variant and lower blood sugar levels, strongly suggests interconnectivity—reinforced by the prior 2022 study.

Notably, those who incorporated ample green tea and [Mankai duckweed beverages](#) as components of the green Mediterranean diet exhibited the least decline in brain tissue integrity. This observation posits that plant-based foods may confer neuroprotective benefits.

"In particular, [polyphenols](#) inherent in plant-rich diets may traverse the blood-brain barrier and mitigate brain inflammation, a critical factor for maintaining cognitive function," explains Shai.

Although direct causation cannot be definitively ascribed to the observed data, there is compelling evidence to suggest that Mediterranean dietary practices are beneficial for cognitive health— underscored by an array of preceding studies. Within this framework, it appears that low sugar levels and a high consumption



of plants serve as pivotal components.

Brain aging, while an inherent facet of the human experience, accelerates the susceptibility to cognitive decline and associated neurological disorders. Enhancing our understanding of this process equips us with the knowledge to potentially intervene through dietary modifications.

"This study presents a viable avenue toward decelerating cerebral aging—through the adoption of the principles inherent in a green Mediterranean diet," articulates lead author [Dafna Pachter](#), another esteemed epidemiologist at Ben-Gurion University.

This research was disseminated in the [American Journal of Clinical Nutrition](#).

Vocabulary List:

1. **Phenomenon** /fə'nɒmɪnən/ (noun): An observable fact or event.
2. **Decelerate** /di:'sel.ə.reɪt/ (verb): To reduce the speed of; slow down.
3. **Cognitive** /'kɒgnɪtɪv/ (adjective): Related to the mental processes of perception memory judgment and reasoning.
4. **Correlate** /'kɔ:rə.leɪt/ (verb): To show that a relationship exists between two variables.
5. **Neuronal** /njʊ'rɒnəl/ (adjective): Of or relating to neurons or the nervous system.
6. **Amalgamated** /ə'mælgə'meɪtɪd/ (adjective): Combined; united or fused to form a single entity.

Comprehension Questions

Multiple Choice

1. What is the critical influence on the rate at which the brain undergoes aging according to the recent study?

- Option: Exercise frequency
- Option: Blood sugar levels
- Option: Meat consumption
- Option: Vitamin intake

2. How many participants were involved in the MRI scans for the research?

- Option: 124
- Option: 224
- Option: 324



Option: 424

3. What beverages were noted to contribute to the least decline in brain tissue integrity?

- Option: Green tea and coffee
- Option: Orange juice and water
- Option: Mankai duckweed and green tea
- Option: Soda and energy drinks

4. What did the researchers aim to elucidate in the new inquiry?

- Option: Potential brain surgeries
- Option: Underlying mechanisms of correlation
- Option: The impact of moon phases
- Option: Psychological profiles

5. What type of diets were compared for their impact on brain aging?

- Option: Italian vs. Japanese diets
- Option: Keto vs. Paleo diets
- Option: Mediterranean vs. Standard vs. Green Mediterranean diets
- Option: Vegetarian vs. Vegan diets

6. Which polyphenols were mentioned to potentially mitigate brain inflammation?

- Option: Flavonoids
- Option: Carotenoids
- Option: Tannins
- Option: Polyunsaturated fats

True-False

- 7. Lower blood sugar markers were found to be correlated with increased brain shrinkage and neuronal death.
- 8. The Mediterranean diet had no correlation with neurological degeneration in the previous findings.
- 9. Cognitive function maintenance is not affected by brain inflammation according to the researchers.
- 10. The study concludes that low sugar levels and high plant consumption are pivotal for cognitive health.
- 11. The study was disseminated in the European Journal of Clinical Nutrition.



12. The observational data definitively establishes direct causation between diet and brain aging.

Gap-Fill

13. According to the data, participants were scanned through MRI over an _____
-month timeframe.

14. The lead author, Dafna Pachter, recommends decelerating cerebral aging through adopting the principles of a green Mediterranean diet presented in the study.

15. The research suggests that the incorporation of green tea and Mankai duckweed beverages into the green Mediterranean diet resulted in the least decline in brain tissue _____.

16. The primary focus of the study was to discern the underlying mechanisms that may elucidate the correlation between _____.

17. In the research, a robust relationship was found between lower blood sugar markers and reduced incidence of brain shrinkage and neuronal _____.

18. The authors emphasize that it is promising to sustain low blood sugar levels in conjunction with a nutritious diet and habitual _____.

Answer

Multiple Choice: 1. Blood sugar levels 2. 224 3. Mankai duckweed and green tea 4. Underlying mechanisms of correlation 5. Mediterranean vs. Standard vs. Green Mediterranean diets 6. Flavonoids

True-False: 7. False 8. False 9. False 10. True 11. False 12. False 14. False

Gap-Fill: 13. 18 15. integrity 16. dietary patterns and brain atrophy 17. death 18. physical exercise

Vocabulary quizzes

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



1. Which of the following is a method used by animals to hide or disguise themselves?
Option: Metabolic
Option: Camouflage
Option: Microgravity
Option: Viability
2. What is the name of the cells responsible for color change in animals like chameleons?
Option: Metamorphosing
Option: Chromatophore
Option: Decelerate
Option: Implications
3. Which term relates to the chemical processes occurring within a living organism in order to maintain life?
Option: Cognitive
Option: Metabolic
Option: Delineating
Option: Illuminate
4. What is the act of escaping or avoiding something or someone?
Option: Neuronal
Option: Evasion
Option: Proliferation
Option: Obstruct
5. Which term refers to an observable event or occurrence that is considered extraordinary or impressive?
Option: Fertilization
Option: Phenomenon
Option: Viability
Option: Adorn
6. Which term means to provide insight or clarity on a subject?
Option: incapacitate
Option: illuminative
Option: obstruct
Option: implications
7. Which term describes food that is beneficial for health and growth?
Option: fertilization
Option: irresistibly
Option: nutritionally
Option: motility



8. What are the possible effects or consequences of an action or decision?

- Option: therapeutic
- Option: amalgamated
- Option: implications
- Option: evasion

9. Which term refers to the ability of something to work or be successful?

- Option: viability
- Option: amalgamated
- Option: microgravity
- Option: delineating

10. What does the term "proliferation" mean in the context of rapid increase or growth?

- Option: correlate
- Option: proliferation
- Option: therapeutic
- Option: delectable

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

11. _____ allows animals to blend in with their environment for protection.

12. The fox displayed impressive agility and cunning in its _____ tactics.

13. Witnessing the aurora borealis is truly a natural _____.

14. A balanced diet is essential for good _____ functions.

15. Solving puzzles and riddles can enhance your _____ abilities.

16. The chameleon's ability to change color is a form of natural _____.

17. The rapid _____ of technology has greatly impacted our daily lives.

18. Many people find gardening to be a _____ and calming activity.

19. Proper road maintenance is crucial to prevent debris from _____ traffic flow.

20. The extensive market research helped determine the _____ of launching a new



product.

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

21. Chameleons use cells to change color and blend into their surroundings.
22. Experiments conducted in space can take advantage of the effects of on various processes.
23. The two companies their resources to create a stronger market presence.
24. The professor used a detailed diagram to the complex chemical process.
25. The sperm's is essential for successful fertilization of the egg.
26. The chef prepared a five-course meal for the special occasion.
27. In order to lead a healthier lifestyle it is important to processed foods.
28. Data analysts often look for patterns that with specific trends in the market.
29. is the process of fusion between the sperm and the egg.
30. The aroma of freshly baked bread was drawing people into the bakery.

Answer

Multiple Choice: 1. Camouflage 2. Chromatophore 3. Metabolic 4. Evasion 5. Phenomenon 6. illuminative
7. nutritionally 8. implications 9. viability 10. proliferation

Gap-Fill: 11. Camouflage 12. evasion 13. phenomenon 14. metabolic 15. cognitive 16. camouflage
17. proliferation 18. therapeutic 19. obstruct 20. viability

Matching sentence: 1. chromatophore 2. microgravity 3. amalgamated 4. illuminate 5. motility 6. delectable
7. eschew 8. correlate 9. fertilization 10. irresistibly

CATEGORY

1. Health - LEVEL6

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