

The Impact of Heat on the Brain

Description

A **heat wave** in Boston during July 2016 gave Harvard researcher Jose Guillermo Cedeño Laurent a chance to study how heat affects young adults' thinking. He looked at university students living in **dorms** with and without **air-conditioning**. He found that students in rooms without air-conditioning did worse on tests during hot days.

Studies show that high temperatures affect our bodies and our **cognitive** functions. Even a small increase in temperature can make thinking harder. This is a problem for students taking exams in hot rooms. High temperatures can affect cognitive performance, making it hard to focus and think clearly.

Heat is also linked to more anger. People are more likely to be angry and act without thinking in hot places. The brain uses energy to keep the body cool, leaving less energy for cognitive functions. To stay sharp and in a good mood, it is important to stay cool and drink water to stay **hydrated**.

Vocabulary List

- 1. **Heat wave** /hi?t we?v/ (noun): A period of very hot weather.
- 2. Air-conditioning /?e?r k?n?d???n??/ (noun): A system that cools the air indoors.
- 3. **Dorms** /d??rmz/ (noun): Short for dormitories, buildings where students live.
- 4. Cognitive /?k??n?t?v/ (adjective): Related to thinking and understanding.
- 5. **Hydrated** /?ha?dre?t?d/ (adjective): Having enough water in the body.

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- 4. Cognitive /'kpgnitiv/ (adjective): Related to thinking and understanding.
- 5. **Hydrated** /haɪ'dreɪtɪd/ (adjective): Having enough water in the body.
- 6. **Performance** /pərˈfɔːrməns/ (noun): The manner in which someone or something functions operates or behaves.

Vocabulary quizzes

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



1. Which type of food is highly processed and typically low in essential nutrients?

Option: Refined grains Option: Whole grains

Option: Fruits

Option: Vegetables

2. What type of substance helps protect cells from damage caused by free radicals?

Option: Antioxidant Option: Carbohydrate

Option: Protein Option: Fat

3. Who is a scientist who studies the patterns causes and effects of health and disease conditions in defined populations?

Option: Epidemiologist Option: Psychiatrist Option: Cardiologist Option: Endocrinologist

4. What medical device delivers electrical stimulation to specific nerve sites in the body? SL-NE

Option: Neurostimulator Option: Pacemaker Option: Insulin pump

Option: Oxygen concentrator

5. Which process involves all the chemical reactions that occur in the body to maintain life?

Option: Metabolism Option: Respiration Option: Photosynthesis Option: Digestion

6. What term describes the state of having adequate water or fluid in the body?

Option: Hydrated Option: Dehydrated Option: Satiated Option: Starved

7. What is the body's response to injury or infection causing redness swelling pain or heat?

Option: Inflammation Option: Circulation Option: Lubrication Option: Mobilization



8. Which carbohydrate is commo	only found in foods such as potatoes ric	ce and wheat?
Option: Starch		
Option: Fiber		
Option: Sugar		
Option: Protein		
9. Which term describes a medic	al device or material that is inserted in	nto the body?
Option: Implanted		
Option: External		
Option: Surface		
Option: Portable		
10. What describes a person env	rironment or action that provides encou	uragement or assistance to others?
Option: Supportive		
Option: Oppressive		
Option: Critical		
Option: Indifferent		
Gap-Fill (Fill in the blanks w	rith the correct word from the voca	bulary list.)
11. Consuming too many	may lead to health	issues due to high levels of added
sugars fats and salt.		
12. A neurostimulator is used to	manage a specific medical	by providing targeted
stimulation.		
13. Patients with inflammation m	nay experience a range of	such as pain fever and
swelling.		
	can be controlled by opting for nutrier	nt-dense snacks over unhealthy
15. During a	staying cool and hydrated is cru	cial to prevent heat-related illnesses.



16. Severe inflammation near the spinal cord can lead to temporary or permanent		
in certain body parts.		
17. Lack of a specific may result in difficulty digesting certain types of		
carbohydrates.		
18. Regular physical activity can help build to certain health conditions.		
19. Individuals with implanted neurostimulators may experience fewer associated		
with their condition.		
20. Sudden changes in cognitive function could be and may require immediate		
medical attention.		
Matching Sentences (Match each definition to the correct word from the vocabulary list.)		
21. The campaign aimed to educate the public about the importance of making healthy food choices.		
22. Improved infrastructure and policies can enhance the availability and quality of medical services in underserved areas.		
23. The cognitive abilities of the elderly can be maintained through engaging activities and social interactions.		
24. Regular exercise and stress management techniques contribute to overall well-being and mental health.		
25. Many students opt to live in university dorms for the convenience and social aspects of communal living.		
26. Athletes focus on nutrition and training to optimize their physical and mental performance during competitions.		
27. The combination of symptoms observed in the patient indicated a rare genetic syndrome.		
28. The neurologist recommended brain stimulation therapy to help alleviate chronic pain.		



29. The surgeon successfully implanted the artificial heart valve during the open-heart surgery.

30. She found a supportive community online that helped her cope with the challenges of her medical condition.

Answer

Multiple Choice: 1. Refined grains 2. Antioxidant 3. Epidemiologist 4. Neurostimulator 5. Metabolism 6. Hydrated 7. Inflammation 8. Starch 9. Implanted 10. Supportive

Gap-Fill: 11. processed foods 12. condition 13. symptoms 14. cravings 15. heat wave 16. paralysis 17. enzyme 18. resistance 19. seizures 20. concerning

Matching sentence: 1. nutrition awareness 2. healthcare access 3. cognitive 4. well-being 5. dorms 6. performance 7. syndrome 8. stimulation 9. implanted 10. supportive

CATEGORY

1. Health - LEVEL2

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