

Health Science Pre-assessment 14-18

1. Which of these can be signs of dehydration—even before you feel thirsty?

- A. Headaches
- B. Trouble focusing in class
- C. Irritability or bad mood
- D. Dry lips
- E. All of the above.**

2. Which system in your body helps you both respond to danger AND properly digest your food?

- A. The immune system
- B. The muscular system
- C. The nervous system**
- D. The skeletal system

3. True or False: The food you eat can change how your genes behave—without changing your DNA sequence.

- A. True**
- B. False

4. Which situation is most likely to weaken your immune system over time?

- A. Exercising daily, even when tired
- B. Feeling constant pressure and anxiety, even if you eat well**
- C. Taking vitamins but eating mostly junk food
- D. Getting minor colds that your body fights off

5. Your brain uses about how much of your body's total energy?

- A. 5%
- B. 10%
- C. 20%**
- D. 50%

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6. How does not getting enough sleep contribute to weight gain and muscle loss?

- A. Lack of sleep increases hunger hormones and slows muscle repair**
- B. Sleep doesn't affect your weight or muscles—only diet and exercise matter
- C. When you're tired, your body burns extra calories to stay awake
- D. Losing sleep makes your muscles grow faster because your body works harder

7. What is a scientifically proven effect of losing sleep, even for just one night?

- A. Your body burns more fat while resting
- B. You become more resistant to illness
- C. You make better decisions and react faster
- D. Your hunger hormones increase, making you crave unhealthy food**

8. Deep, slow breathing activates which powerful system in your body?

- A. Your parasympathetic nervous system**
- B. Your fight-or-flight response
- C. Your muscles to burn more calories
- D. Your digestive system to shut down

9. Scientists call the gut your 'second brain' because:

- A. It stores memories
- B. It controls how you think
- C. It produces mood-regulating chemicals like serotonin**
- D. It's where most thoughts happen

10. How does physical exercise improve your brain performance, according to research?

- A. It only strengthens your muscles, not your brain
- B. It increases blood flow, oxygen, and brain chemicals that help with focus and memory**
- C. It makes you feel more tired, which reduces distractions
- D. It boosts endorphins, which relax your brain so you fidget less and think less

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11. When is the most effective time to exercise if you want to boost your brain for school?

- A. Right before bed
- B. After sitting still for hours
- C. First thing in the morning, before class**
- D. It doesn't matter—exercise doesn't affect your brain

12. Which of these unexpected benefits of exercise is supported by science?

- A. It helps your brain grow new cells and connections**
- B. It only helps your muscles grow, not your brain
- C. It permanently increases your IQ by 50 points
- D. It weakens your ability to concentrate because you're tired

13. Does the exercise you do when you're young affect your future as an adult? If so, how?

- A. Some benefits may temporarily improve your health, but most measurable effects diminish within about 5 years unless activity is maintained consistently
- B. Physical activity in youth contributes to structural changes in the body—such as increased bone density and neural connections—that can influence health decades later**
- C. Early exercise primarily alters appearance and athletic performance, but biological systems naturally reset over time
- D. Exercise improves cardiovascular endurance in youth, but its influence on brain development or long-term health has not been scientifically established