

Human Body in Space: NASA's Research on Astronaut Health

Space Medicine · Practice Test · 10 Questions

1. What acronym summarizes the five human spaceflight hazards related to stressors on the body?

- A) RIDGE
- B) SPACE
- C) HAZARD
- D) HUMAN

2. Which type of radiation in the space environment has a larger impact on health outcomes compared to radiation experienced on Earth?

- A) Solar energetic particles
- B) Galactic cosmic rays
- C) Particles trapped in Earth's magnetic field
- D) Ultraviolet radiation

3. What is one method NASA uses to counteract possible problems related to isolation and confinement during space missions?

- A) Providing unlimited internet access
- B) Using actigraphy to improve sleep and alertness
- C) Eliminating all communication with Earth
- D) Increasing workload to prevent boredom

4. What is the average distance from Earth to Mars?

- A) 240 miles
- B) 140 million miles
- C) 1,000 miles
- D) 1 million miles

5. How much bone mineral density can astronauts lose per month during spaceflight due to the lack of Earth's gravity?

- A) 0.1% to 0.5%
- B) 1% to 1.5%
- C) 5% to 10%
- D) 0.01% to 0.05%

6. What is one way NASA monitors the air quality of the space station?

- A) Releasing exotic gases
- B) Analyzing blood samples
- C) Swabbing surfaces
- D) Monitoring for gases like formaldehyde and carbon monoxide

7. Which of the following is NOT a gravity field astronauts will encounter on a Mars mission?

- A) Weightlessness
- B) Earth's gravity
- C) One-third of Earth's gravity
- D) Lunar gravity

8. What is the purpose of quarantining astronauts before their missions?

- A) To boost their immunity
- B) To study their behavior
- C) To prevent catching illnesses before launch
- D) To test their physical fitness

9. What is one potential health risk associated with increased radiation exposure in space?

- A) Decreased risk of cancer
- B) Improved vision
- C) Increased risk of degenerative diseases
- D) Enhanced muscle mass

10. What is one potential solution that can help prevent crew boredom during a multi-year round trip to Mars?

- A) Eliminating communication with Earth
- B) Engaging in relevant activities like learning a language
- C) Restricting privacy
- D) Increasing workload