

# Maritime Technology and Human Health Facts

Maritime Technology · Answer Key · 15 Questions

---

**1. What physiological condition is most commonly associated with prolonged exposure to low-frequency vibrations from ship engines and machinery?**

- A) Increased bone density
- B) Enhanced proprioception
- C) Motion sickness
- D) Hand-arm vibration syndrome (HAVS)**

**2. In a submarine environment, what is the primary health risk associated with prolonged rebreathing of exhaled air without adequate CO2 scrubbing?**

- A) Hyperoxia
- B) Carbon dioxide narcosis**
- C) Hypoxia
- D) Nitrogen narcosis

**3. Exposure to significant G-forces during naval operations, such as high-speed maneuvers or catapult launches, can lead to a physiological response known as 'G-LOC'. What does G-LOC stand for?**

- A) Gravitational Limit of Consciousness
- B) Gravity-induced Loss of Control
- C) G-force Induced Loss of Consciousness**
- D) Gravitational Impact on Central Organism

**4. What is the primary mechanism by which a hypobaric chamber, used in naval diving training, helps acclimatize divers to pressure changes?**

- A) Simulating high atmospheric pressure
- B) Increasing oxygen partial pressure
- C) Gradually increasing ambient pressure**
- D) Reducing atmospheric nitrogen levels

**5. To mitigate the effects of long-term isolation and confinement on psychological well-being in submarines, what technological intervention is often implemented regarding lighting?**

- A) Constant, bright white light
- B) Dim, red lighting
- C) Simulated circadian rhythm lighting**
- D) No artificial lighting

**6. What common maritime health issue is exacerbated by continuous exposure to wind and saltwater, leading to skin dryness, cracking, and inflammation?**

- A) Photosensitivity
- B) Dermatitis
- C) Xerosis cutis**
- D) Melanoma

**7. When working in noisy engine rooms on ships, what is the recommended method for preventing noise-induced hearing loss?**

- A) Using earplugs only during maintenance
- B) Wearing hearing protection devices consistently**
- C) Increasing the distance from the noise source
- D) Using noise-canceling headphones only for communication

**8. The phenomenon of 'space adaptation syndrome' in astronauts is analogous to what common maritime health issue experienced by passengers and crew on vessels?**

- A) Seasickness**
- B) Seabed sickness
- C) Deck sickness
- D) Port sickness

**9. What specific type of radiation, often shielded against in modern naval vessels, can penetrate deep into tissues and damage DNA?**

- A) Infrared radiation
- B) Ultraviolet radiation
- C) Ionizing radiation**
- D) Microwave radiation

**10. In the context of maritime emergency medical equipment, what is the primary physiological benefit of a positive-pressure breathing apparatus (PPBA) for a victim of smoke inhalation?**

- A) To induce hyperventilation
- B) To deliver a higher concentration of oxygen**
- C) To increase carbon dioxide levels
- D) To reduce heart rate

**11. What physiological change is the body attempting to achieve through the process of acclimatization to cold water immersion, often practiced by naval personnel?**

- A) Increased blood flow to extremities
- B) Reduced metabolic rate
- C) Conservation of core body temperature**
- D) Increased perspiration

**12. Prolonged exposure to the visual demands of navigating at sea, particularly in low light or fog, can lead to what common ocular condition?**

- A) Presbyopia
- B) Night blindness
- C) Eye strain and fatigue**
- D) Macular degeneration

**13. What is the main purpose of anti-exposure suits used by maritime personnel in cold waters?**

- A) To increase buoyancy
- B) To provide thermal insulation and prevent hypothermia**
- C) To improve visibility to rescuers
- D) To reduce drag in the water

**14. In a confined maritime environment with limited fresh water, what is a significant health concern related to the use of desalinated seawater for drinking if not properly treated?**

- A) Excessive sodium intake
- B) Dehydration due to electrolyte imbalance**
- C) Increased risk of scurvy
- D) Mineral deficiency leading to osteoporosis

**15. What physiological system is most directly affected by the vestibular disturbances caused by the rolling and pitching motions of a ship?**

- A) Digestive system
- B) Respiratory system
- C) Nervous system (specifically the balance and coordination centers)**
- D) Endocrine system