

# Marine Medicine and Human Health

Marine Biology · Practice Test · 12 Questions

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**1. What substance found in the blue blood of horseshoe crabs is essential for testing the sterility of medical vaccines?**

- A) Hemoglobin
- B) Limulus Amoebocyte Lysate
- C) Squalene
- D) Chitosan

**2. Which marine-derived fatty acid is scientifically proven to reduce high triglyceride levels in human cardiovascular health?**

- A) Oleic acid
- B) Palmitic acid
- C) Omega-3
- D) Lauric acid

**3. The drug Ziconotide, used for treating severe chronic pain, is a synthetic version of a toxin found in which marine animal?**

- A) Box jellyfish
- B) Cone snail
- C) Pufferfish
- D) Blue-ringed octopus

**4. Which protein, originally isolated from the jellyfish *Aequorea victoria*, is used in medical research to track the movement of cancer cells?**

- A) Collagen
- B) Keratin
- C) Green Fluorescent Protein
- D) Hemocyanin

**5. Cytarabine, a chemotherapy medication used to treat leukemia, was originally developed from compounds found in which marine organism?**

- A) Sponges
- B) Starfish
- C) Sea cucumbers
- D) Sea anemones

**6. Which compound found in shark liver oil is commonly used as an adjuvant in vaccines to enhance the human immune response?**

- A) Calcitriol
- B) Squalene
- C) Tocopherol
- D) Retinol

**7. Certain species of coral are used in surgical procedures as a substitute for what human tissue due to their similar porous structure?**

- A) Skin
- B) Nerves
- C) Bone
- D) Cartilage

**8. Which essential mineral, found in high concentrations in seaweed, is critical for the production of thyroid hormones in humans?**

- A) Iron
- B) Iodine
- C) Zinc
- D) Magnesium

**9. Chitosan, used in medical bandages to accelerate blood clotting and wound healing, is derived from which part of marine life?**

- A) Fish scales
- B) Crustacean shells
- C) Shark skin
- D) Whale blubber

**10. Tetrodotoxin, a potent neurotoxin found in pufferfish, works on the human nervous system by blocking which specific pathways?**

- A) Calcium channels
- B) Potassium pumps
- C) Sodium channels
- D) Neurotransmitter receptors

**11. Ciguatera poisoning in humans is caused by eating predatory reef fish that have accumulated toxins from which microscopic organism?**

- A) Diatoms
- B) Dinoflagellates
- C) Cyanobacteria
- D) Radiolarians

**12. Which heavy metal, often found in large predatory fish like Swordfish, is a potent neurotoxin that can cross the human blood-brain barrier?**

- A) Cadmium
- B) Lead
- C) Arsenic
- D) Methylmercury