

# Envenomation (Marine)

## Definition 📖

Envenomation via marine life. Categorized into three types: Stings (Jellyfish, Sea Wasp), Bites (Sea snakes, blue ringed octopus), and punctures (Sea urchin, stingray, fish spines, and bristle worms). Likely to occur in intertidal regions, reefs, and surf zones.

## Signs and Symptoms

- Stings: immediate, intense pain followed by local, linear erythematous eruption
- Punctures: immediate, intense pain out of proportion, may result in several puncture wounds, may involve systemic symptoms.
- Bites: Often painless, symptoms are variable but may be extreme (paralysis, altered mental status, respiratory distress)

## Management

1. For Stings (Jellyfish, Sea Wasp)
  - Remove stinger, tentacles, etc. if possible with gloved hand, forceps, or tape
  - Immediately flush with vinegar, isopropyl alcohol, or seawater. NOT FRESH WATER!
  - Apply topical lidocaine and/or topical steroids
2. For Bites (Sea snakes, blue ringed octopus)
  - Follow **Envenomation (Snakes)** protocol
3. For Punctures (Sea urchin, stingray, fish spines, bristle worms)
  - Remove all penetrating foreign bodies with gloved hand, forceps, or tape
  - Irrigate w/sea water
  - Soak the affected area in non-scalding water (110-115 degrees) for 30-90 minutes to inactivate toxins
  - Ultrasound or X-ray (if available for retained foreign body)
4. Follow **Pain Management** protocol

## Disposition

- Evacuation not required if signs and symptoms do not indicate severe envenomation after 24 hours of observation (cardiovascular collapse, anaphylaxis, paralysis, ascending edema of limb)
- **Urgent** evacuation if evidence of severe envenomation

