

MARINE BITES AND STINGS

Marine Risks

Most injuries involving marine life involves tropical regions and reef environments specifically. Risk to humans includes risk to swimmers, waders, snorkelers and divers. **The general rule of thumb is to watch where you sit, step or place your hands.** Many of the risks are easily identified by their colors or patterned appearances. Other risks, such as stingray injuries can be prevented with awareness of the environment these invertebrates inhabit as well as precautions to reduce bite risk.

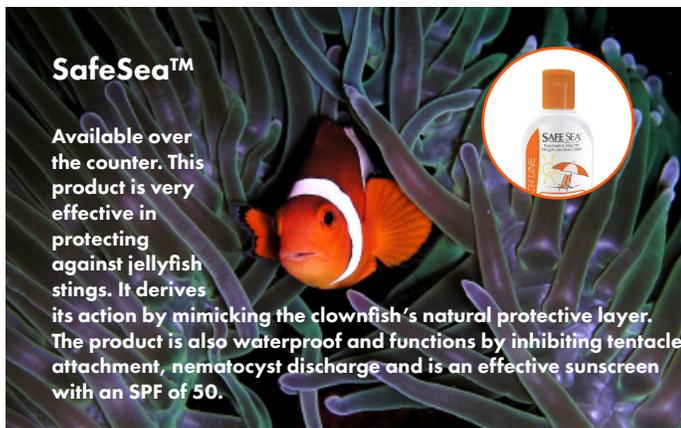
Jellyfish

Jellyfish are among the biggest risks to swimmers, snorkelers and surfers. The jellyfish possesses a multitude of stingers known as nematocysts. In fact, the number of these nematocysts can number in the million on a single large jellyfish tentacle. Even nematocysts of severed tentacles can remain active for weeks after. Occasionally, getting tangled in the tentacles, and the resulting panic and struggle to get free results in serious envenomation injuries.



Portuguese Man o' War Jellyfish are the exception to the rule in that their nematocysts are activated by household vinegar which is used to remove other jellyfish.

spine removal can be challenging as they are quite fragile and should be removed carefully and in the reverse direction as the trajectory of the entrance wound. Sea urchins and spiny starfish cause many more injuries than do marine predators like sharks.



SafeSea™

Available over the counter. This product is very effective in protecting against jellyfish stings. It derives its action by mimicking the clownfish's natural protective layer. The product is also waterproof and functions by inhibiting tentacle attachment, nematocyst discharge and is an effective sunscreen with an SPF of 50.

Marine fish

Several species of marine fish are associated with venomous injuries. These include some tropical reef fish, stonefish, scorpionfish, among others. Marine fish envenomations, while not extremely traumatic,



Stonefish varieties can blend very easily into coral reef structures.

derive their severity from the degree of pain and venom potency. The principle of spine removal and hot water immersion remains the same however. Transport to a medical facility is needed because care will need to include exploration and irrigation of the wound, probable x-rays and prophylactic antibiotics. **It is strongly advised that travelers seek medical care locally instead of waiting until they return home.**

Stingrays

A significant number of injuries, especially in freshwater, involved people stepping on or swimming above stingrays. These may be avoided by shuffling the feet when wading and taking care in shallow water. One easy method of reduced injuries from bite, stings and even foreign bodies like broken glass, is to **always wear some type of protective footwear near water of any type.**

Treatment of jellyfish stings needs to be quick to reduce the number of nematocyst stings. Tentacle removal should only be done with a gloved hand or by copiously washing the involved area with **sea water only. Fresh water should never be used** because it will stimulate nematocysts to discharge their venom.

The major species of jellyfish can all have their nematocysts effectively inactivated with **household vinegar or isopropyl alcohol**. One important exception is the Portuguese Man o' War jellyfish, whose nematocysts are actually discharged by vinegar. **Drinking alcohol (ethyl alcohol) is not recommended** as dependable treatment and is often the underlying cause of many misadventures.

Urchins and Starfish

Urchin and starfish spine wounds are another common occurrence on beaches. **The wounds that result from their stings should be immersed in warm water (120F/50C) for 30 to 60 minutes.** Pain unfortunately may return to the bite site as the skin cools to body temperature. The removal of the sea urchin spine is important due to the persistent venom leak that can occur from spines that remain in the wound. The issue of