

Jellyfish Envenomation: 10 Fast Facts

- *Alex Belardo-DeFelice, MD PGY2*

Jellyfish stings are common in coastal regions and rarely result in clinically significant envenomation requiring systemic treatment. There are three clinically relevant jellyfish envenomation patterns that you need to know about: Box Jellyfish envenomation, Irukandji syndrome, and Portuguese Man o' War stings. Below are 10 fast facts about recognizing and treating jellyfish envenomation.

1. **Jellyfish stings are very common and rarely clinically significant:** Jellyfish stings are incredibly common and almost always require little to no treatment. Most often only require topical rinses and pain control with Tylenol and ice packs. May require antihistamines for larger local reactions.
2. **Don't pluck retained tentacles off the patient:** Don't use your hands, gloves, tweezers, forceps, etc. The stinging cells in the tentacles are activated by pressure and can still activate and sting you when the tentacles are detached/dead.
3. **DON'T PEE ON A JELLYFISH STING:** Vinegar is best to rinse off tentacles and inactivated cnidocytes, warm seawater will generally be a preferred second choice. Vinegar is also effective at decreasing sting site pain. Urea and ammonia have been shown to be ineffective at reducing pain and may activate cnidocytes.
4. **Box Jellyfish stings are rarely fatal:** Most common reaction is a localized skin reaction ("frosted ladder" appearance). Severe envenomation can lead to cardiac instability (hypotension, arrhythmia, arrest). Only
5. **Antivenom exists for Box jellyfish:**
 - a. Give 6 vials for envenomation resulting in arrest, co-administered with magnesium.
 - b. Give 3 vials for severe envenomation.
 - c. Give 1 vial for pain refractory to IV opioids.

6. **Irukandji syndrome is characterized by delayed onset pain:** Irukandji syndrome starts with mild pain in the sting site, then develops into generalized pain with sweating, vomiting, severe hypertension and a sense of impending doom. This can progress to fatal pulmonary edema, severe myocardial injury, or intracranial hemorrhage.
7. **Treat pain and hypertension in Irukandji syndrome:** Irukandji syndrome treatment is IV opioids (HIGH doses) and nitroglycerin infusion to address severe hypertension. Treat like SCAPE. Continue to treat sting site as any other sting (vinegar irrigation, etc)
8. **Man O' War stings (*Physalia physalis*) are almost never fatal:** Atlantic stings are worse than Pacific stings. Systemic symptoms include abdominal pain, vomiting, chest pain, confusion, muscle spasms. Treat similar to other minor jellyfish stings (vinegar rinse, acetaminophen, etc).
9. **Hot water for Man O' War stings:** Submerging *Physalia* stings in hot water immersion has been shown to be more effective for pain relief than vinegar. Think hot shower or hot-tub temperatures (45 degrees Celsius).
10. **DON'T PEE ON A JELLYFISH STING:** This warrants being said twice.

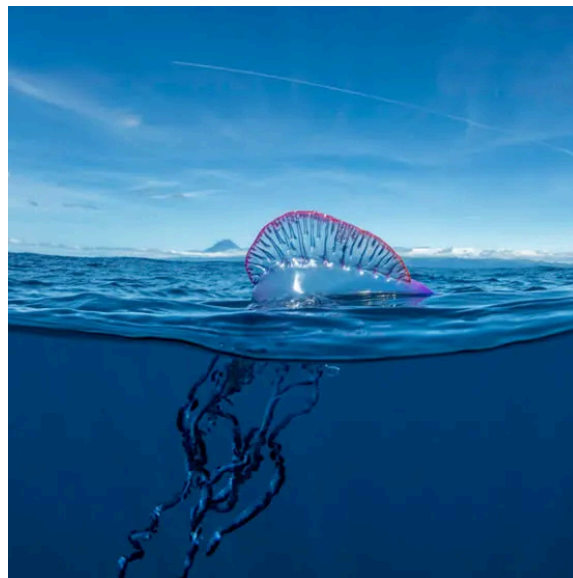


Figure 1. Portuguese Man O' War

Credit: <https://www.mentalfloss.com/article/550892/facts-about-portuguese-man-o-war>