

How to Treat Jellyfish Stings

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Jellyfish stings can vary greatly in severity. Most often they result in immediate pain and red, irritated marks on the skin. Some jellyfish stings may cause more whole-body (systemic) illness, and in rare cases, are life-threatening. Most jellyfish stings get better with home treatment, but severe reactions require emergency medical care. Here's Dr. Lopez' professional advice about the topic.

Causes

Jellyfish tentacles contain microscopic barbed stingers (nematocysts). Each nematocyst is made up of a tiny bulb that holds venom and a coiled, sharp-tipped tube. The jellyfish uses the venom to protect itself and kill prey.

When something comes in contact with the tentacle — a fish or a human — tiny triggers on the surface of the tentacle release the nematocysts. The sharp tube penetrates the skin and releases the venom, which affects the immediate area of contact and may enter the bloodstream.

Jellyfish that have washed up on a beach may still release venomous stingers if touched.

Prevention

The following tips can help you avoid jellyfish stings:

Wear a protective suit. When swimming or diving in areas where jellyfish stings are possible, wear a wetsuit or other protective clothing.

Avoid water during jellyfish season. Stay out of the water when jellyfish numbers are high.

Don't dive in. To avoid stings on the face, don't dive into waters that may have jellyfish.

If you're stung, leaving the water as calmly as possible, rather than splashing about, may prevent further activation of stingers.

Symptoms

A reaction to a jellyfish sting can vary in severity. The reaction may be more severe depending on:

- Species of jellyfish
- Age and size of the person
- Duration of exposure
- Area of skin affected.

Common signs and symptoms include:

- Immediate burning pain or itching
- Red, brown or purplish tracks on the skin
- Tingling and numbness
- Throbbing pain that may radiate up a leg or arm to the torso

If left untreated the symptoms generally resolve within one to two weeks. Discoloration of the skin may last one to two months.

Severe jellyfish stings can cause a widespread (systemic) reaction. These reactions may appear rapidly or several hours after a sting. Signs and symptoms of severe jellyfish stings can include: nausea, vomiting, headache, weakness, difficulty breathing, irregular heartbeat, muscle spasms. If this happens seek medical treatment right away.

First Aid

Most jellyfish stings can be treated with relatively simple at-home remedies:

- **Remove tentacles.** Remove any remaining pieces of tentacle by washing the area with seawater. Avoid using fresh water and also avoid touching the tentacles with your hands. Preferably, use an object like a credit card to gently brush it off. *Careful: rubbing it off with a towel or clothing is likely to cause the discharge of more venom.*
- **Deactivate stingers.** If you are sure it is *not* a Portuguese Man-of-War sting, then generously rinse the affected area with white vinegar (acetic acid 3-10%) for at least a minute, which may deactivate the stingers. The treatment of choice *for* Portuguese Man-of-War stings is to apply a paste made of baking soda and seawater. *Don't* use vinegar on a Portuguese Man-of-War sting as it can cause discharge of nematocyst. If nothing else is available, apply seawater followed by hot water for 15-20 minutes regardless of the species of jellyfish.
- **Relieve pain or irritation.** Recent studies have suggested that soaking the affected area in tolerably hot fresh water for at least 20 minutes — *after a vinegar or baking soda + seawater treatment* — may be more effective in pain relief than cold packs, because the heat may decrease the potency of the venom. The temperature should be between 104 and 113 F (40 and 45 C).
- **If you do not know what type of jellyfish stung you,** the safest bet is to rinse thoroughly in salt water, followed by soaking in hot water followed by lidocaine cream or calamine lotion.

Remedies to Avoid

- Human urine, because it is inconsistent and it can have the same effect as fresh water, releasing more venom from the stingers
- Meat tenderizer has not been scientifically proven effective
- Methylated spirits, vodka or alcohol in any form may cause rapid massive discharge of stingers (nematocysts).
- Fresh water: causes rapid discharge of stingers as well
- Pressure bandages
- Pain relievers because they will have little effect on that type of pain and they may mask a more serious reaction

When to see a doctor

Although jellyfish stings can be quite painful, most are minor and get better with home treatment.

Seek emergency treatment if:

- Stings cover large areas of skin
- You have any systemic symptoms or a severe reaction
- Stings affecting the eyes
- Difficulty breathing, difficulty swallowing, chest pain, or intense pain at the site of the sting.
- If the sting happened to someone who is very young or old.

Types of jellyfish

While many types of jellyfish (such as the Moon jellyfish and the Cannonball or Cabbage Head jellyfish found in Belize) are relatively harmless to humans, others can cause severe pain and are more likely to cause systemic reactions. Types of jellyfish known to cause more-serious problems in people include:

Sea nettles. Common in both warm and moderately cool seawaters.

Portuguese man-of-wars/Bluebottle jellyfish. (*Although this is not a jellyfish, but a siphonophore, it is included here due to the similarity in symptoms*). These species live mostly in warmer seas (tropical and subtropical Pacific and Atlantic oceans). A Portuguese man-of-war has a blue or purplish gas-filled bubble that keeps it afloat on the surface of the water and acts as a sail.

Lion's mane jellyfish. These are the world's largest jellyfish. The body of a lion's mane can reach a diameter of 10 feet (3 meters). They are most common in cooler, northern regions of the Pacific and Atlantic oceans.

Box jellyfish. Also called sea wasps, box jellyfish are generally the most harmful jellyfish to humans and can cause significant pain. Life-threatening reactions are more common with these species. The more dangerous species of box jellyfish are found in the warm waters of the Pacific and Indian oceans.

Sources include:

www.mayoclinic.org • www.en.wikipedia.org • www.emedicinehealth.com