

Box Jellyfish (*Chironex fleckeri*)

Why is the box jellyfish so dangerous?

'*Chironex fleckeri*', also known as the major box jellyfish has the most rapidly acting venom known to science and is capable of killing a person in under 5 minutes.

What does the box jellyfish look like?

The bell of the jellyfish is a rounded box shape with the bottom missing, with 4 fleshy appendages, 1 at each corner, from which tentacles trail.

The jellyfish is difficult to see in the water because the bell is colourless, and although the outermost tentacles are sometimes purple near their base the others are white or dull yellow.

Visible baby box jellyfish have bodies 2-5cm in diameter, while the larger mature specimens can often be 20cm across or even larger. An adult jellyfish may have 40 or more tentacles, each of which may be 2 metres or more in length.

When and where are they found?

The official 'stinger' season for the Northern Territory is from 1 October until 1 June. However stings have been recorded in all months of the year.

Chironex fleckeri inhabit the shallow waters of the northern Australian coast, and are more numerous after local rain and in calm seas, especially near river and creek outlets and around boat ramps.

What happens if you are stung?

The tentacles contain millions of 'nematocysts' which store venom. A sting occurs when the tentacles contact the bare skin causing these nematocysts to very quickly (within 3 milliseconds) release their harpoon like thread, which injects venom into the skin.

A massive dose of venom can cause heart beat irregularities and even lead to cardiac arrest and death within 5 minutes of being stung.

Children are at greater risk of a severe, life threatening reaction because of their smaller body mass. There have been 14 deaths in Top End since 1975 – all have been children.

What other symptoms occur when stung by a box jellyfish?

There is immediate severe pain at the site of the sting. Within minutes white welts appear where the tentacles contacted the skin, followed by red whip-like lines which may later blister. Subsequent skin death can occur and lead to permanent scarring.

In up to 60% of cases an itchy bumpy rash can occur 1-2 weeks later at the site of the sting. This 'delayed reaction' can be intensely itchy. The rash usually resolves within 10 days although it may occasionally persist for weeks. The itching may be relieved by antihistamines and steroid cream if the skin is not broken.

How can I prevent a box jellyfish sting?

The best prevention is to stay out of the water where there may be jellyfish especially during the 'stinger season'.

If entering the water wear protective clothing. Any clothing, even if very thin, will provide protection as long as there are no gaps or exposed skin. The more skin that is covered, the greater the protection. Special stinger suits are available for those undertaking coastal water activities.

What is the initial treatment if stung?

Immediate first aid is vital and cardiopulmonary resuscitation (CPR) may be needed.

- remove the person from the water
- call for help (dial 000 or get a surf life saver or life guard if available to help you)
- assess the patient and commence CPR as necessary
- pour vinegar if available on the area of the sting to stop further discharge from nematocysts – do not wash with fresh water
- if vinegar is unavailable, pick off any remnants of the tentacles (the skin of the pads of the fingers and palm is thicker so any stinging will usually be minor)
- seek urgent medical assistance with rapid transport to hospital. Treatment with antivenom may be required in severe stings.

Ice or hot packs may be applied for local pain relief for less severe stings, but do not use hot packs in severe stings.

Contact

For more information contact the [Centre for Disease Control](#) in your region.

Location	Phone
Darwin (Top End Region)	(08) 8922 8044 1800 008 002
Katherine (Big Rivers Region)	(08) 8973 9049
Tennant Creek (Central Australia Region)	(08) 8962 4259
Alice Springs (Central Australia Region)	(08) 8951 7540
Nhulunbuy (East Arnhem Region)	(08) 8987 0357