

Irukandji syndrome

What is Irukandji syndrome?

Irukandji syndrome consists of a diverse range of symptoms that can occur following a sting from one of a variety of types of box jellyfish. The syndrome can be mild for some and severe and life-threatening in others.

What type of jellyfish causes Irukandji syndrome?

There are at least 14 different 4-tentacled box jellyfish that can cause Irukandji syndrome. The bell of the box jellyfish is a 'box shape', with in those causing Irukandji syndrome a single tentacle arising from each of the 4 corners. The tentacles range in length from a few cm to 35 cm. These box jellyfish are difficult to see in water as they are colourless with a bell commonly of 2.5cm diameter or smaller.

Where are these jellyfish found?

The jellyfish that cause Irukandji syndrome have been found along Australia's northern coastline from Fraser Island in Queensland across the Northern Territory to Broome in north Western Australia. Irukandji syndrome has also been reported in parts of Asia, the Caribbean and Hawaii.

What time of the year does Irukandji syndrome occur?

Irukandji syndrome has been recorded in the Northern Territory all year round. Stings occur less frequently during the dry season.

Around 40 people present to Top End hospitals or health clinics each year with a condition attributed to a jellyfish sting some of which will be Irukandji syndrome.

How does envenomation occur?

The bell and tentacles contain millions of 'nematocysts' which store and can inject venom. Contact with skin causes the nematocysts to rapidly fire - injecting highly toxic venom into the tissue through a harpoon-like thread structure.

What are the signs and symptoms?

The person may or may not feel a mild pain at the sting site and develop a goose bump-like skin reaction. After about 30 minutes symptoms worsen to include severe limb, abdominal and back pain, anxiety, headache, vomiting, profuse sweating and sometimes difficulty breathing. Their heart rate may become very rapid and their blood pressure may become very high. In extreme cases, heart failure, swelling of the brain and very rarely death may result.

In some cases the symptoms resolve in a matter of hours, however many patients require hospital admission with full resolution of symptoms taking up to several days. Complications from envenomation may continue for several days to weeks.

What is the treatment for Irukandji syndrome?

- pour vinegar if available on the area of the sting to stop further discharge from nematocysts – do not wash with fresh water
- seek urgent medical assistance and transport to hospital for assessment
- watch closely for difficulty breathing and loss of consciousness.

How do I prevent Irukandji syndrome?

Wear protective clothing at all times if entering the water. Small children especially need protective clothing. Long sleeved tops or rash-shirts and long pants will provide a good level of protection but a full-body lycra suit is better.

What is the difference between the jellyfish causing Irukandji syndrome and the major box jellyfish *Chironex fleckeri*?

The adult major box jellyfish, *Chironex fleckeri*, has a larger bell of 25-30 cm in diameter and has 10-12 tentacles from each of the 4 corners of the bell, each up to 2 metres or more in length.

It is extremely venomous causing immediate severe pain and the appearance of white welts within minutes followed by red whip-like lines which may later blister.

In some cases cardiac arrest and death occurs within 5 minutes of being stung by a *Chironex fleckeri* jellyfish.

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
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