



Marine Stinger Management Newsletter

Vol. 3. No. 1/2

January/February 2007

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The life of the beach.



Sting Treatment Update

The Australian Resuscitation Council met in mid-February to discuss, among other important issues, the question of hot water for jellyfish stings. The issue has been held over, and a revised guideline is being drafted. Therefore, the current treatment guidelines (www.resus.org.au, guideline number 8.9.6) remain in effect, and are explained on [Page 3](#) of this Newsletter.

The revised guidelines are unlikely to affect treatment of tropical stings, except to clarify the need for vinegar as a life-saving tool. In potentially life-threatening stings, reducing the amount of venom entering the body is more important than minimising pain – the pain is not deadly, but the venom can be.

We have seen some serious Irukandji stings recently being diagnosed as blue bottles or food poisoning. It is imperative to remember to treat the patient rather than the species – regardless of what species caused the sting, if the person is violently ill, in great pain, or having difficulty breathing, then they need medical care!

We are dramatically down in sting numbers this year with respect to recent years, and I believe this is due to a high usage rate of protective clothing offshore, and better management at beaches. For more details, see [Page 4](#) of this Newsletter.

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Mark the Date: Calendar

- We often see a “spike” in Irukandji activity in March/April, especially offshore; extra care should be taken in wearing protective clothing during this time.
- A schedule of seminars and workshops is currently being assembled for 2007 - please contact the SLSQ Marine Stinger Coordinator, Dr. Lisa-ann Gershwin 0409 627 869 if you would like to schedule an event.

Did you know...

For both box jellyfish and Irukandjis, it does not matter where on the body you are stung, you still get the same toxic effect.

However, the majority of stings occur on the body, legs, and upper arms, the parts covered by protective swimwear.



Sting treatments demystified

Many tourists and local residents remain confused about the proper treatment for jellyfish stings, resulting in many stings being made worse by treatment rather than better.

Some newspapers, TV shows, and magazines have reported misleading information, leading people to apply the wrong treatment. Some recent reports include:

- Vinegar makes stings worse, and therefore should not be used (FALSE)
- Vinegar should only be used on alarming box jellyfish stings (FALSE)
- By the time you know it's an Irukandji sting, it's too late for vinegar (FALSE)
- Hot water is better than ice for all jellyfish stings, including Irukandji (FALSE)
- Beer, metho, urine, or taking a shower are good sting remedies (FALSE)

Treatment involves two parts

PART 1: Neutralising invisible stinging cells to prevent further injury

PART 2: Treating the pain

Think of it like burning your hand on a hot stove. It is necessary but not sufficient to run your hand under the tap to ease the pain – you have to also remove your hand from the stove to prevent it from causing more injury.

What does vinegar do and not do?

Vinegar effectively “kills” the stinging cells remaining on the skin – you can't see them, but there are thousands if not millions there, whether tentacles are stuck on the skin or not (they are measured in *thousandths* of a millimetre long, and can only be seen with a microscope). Vinegar neutralises stinging cells of box jellyfish and Irukandjis, as well as the common single-tentacled blue bottle *Physalia utriculus*. It causes discharge in some species such as hair jellies, blubbers, etc, which are of only minor medical nuisance, as well as partial discharge in the multi-tentacled blue bottle which is occasionally found in Central QLD and associated with Irukandji syndrome-like symptoms. Vinegar is not recommended for blue bottle stings, but should be used for box jelly and Irukandji stings. Vinegar does not provide pain relief from stings, but may save a life in a severe sting.

What is the best pain relief?

Box jellyfish and Irukandjis require narcotic pain relief. Other jellyfish may have an initial sharp sting, but will usually self-resolve in about a half hour without treatment. Hot water baths have been used successfully for blue bottles in NSW, but are unproven for box jellyfish and Irukandjis. The Australian Resuscitation Council at this time still recommends rinsing the sting with seawater (not freshwater!), then applying ice for pain. Freshwater will cause more stinging cells to inject more venom into the skin.

The best advice: If in doubt, use vinegar. If it is a minor sting, you will do no medical harm; if Irukandji syndrome subsequently develops, you will have stopped it from being worse.



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Sting numbers are down!

Many enquiries have come in about how stings this year compare to other recent years. The answer deserves a hearty pat on the back for all the operators using protective clothing, and the Lifesavers taking the care to learn better predictors.

YEAR TO DATE TOTALS: 24 as of 21 Feb 2007

2005-2006 we had 74 by this date

2004-2005 we had 29 by this date

2003-2004 we had 46 by this date

2002-2003 we had 53 by this date

2001-2002 we had 58 plus whatever number of the 116 from Cairns occurred by this date

Of the 18 QLD Irukandji stings so far (2006-2007 season), the breakdown is:

Cairns:	15	beach: 7	Reef/island: 8
Townsville:	4	beach: 0	Reef/island: 4
Whitsunday:	5	beach: 2	Reef/island: 3
Mackay:	0	beach: 0	Reef/island: 0
Capricorn:	0	beach: 0	Reef/island: 0

2005-2006: 102 Irukandji stings recorded

Cairns:	32	beach: 22	Reef/island: 10
Townsville:	20	beach: 12	Reef/island: 8
Whitsunday:	38	beach: 10	Reef/island: 28
Mackay:	4	beach: 4	Reef/island: 0
Capricorn:	8	beach: 7	Reef/island: 1

2004-2005: 44 Irukandji stings recorded

Cairns:	35	beach: 18	Reef/island: 17
Townsville:	2	beach: 1	Reef/island: 1
Whitsunday:	7	beach: 1	Reef/island: 6
Mackay:	0	beach: 0	Reef/island: 0
Capricorn:	0	beach: 0	Reef/island: 0

2003-2004: 59 Irukandji stings recorded

Cairns:	32	beach: 22	Reef/island: 10
Townsville:	5	beach: 1	Reef/island: 4
Whitsunday:	17	beach: 0	Reef/island: 17
Mackay:	1	beach: 0	Reef/island: 1
Capricorn:	4	beach: 0	Reef/island: 4

2002-2003: 74 Irukandji stings recorded

Cairns:	35	beach: 15	Reef/island: 20
Townsville:	14	beach: 2	Reef/island: 12
Whitsunday:	23	beach: 2	Reef/island: 21
Mackay:	2	beach: 1	Reef/island: 1
Capricorn:	0	beach: 0	Reef/island: 0

2001-2002: 111 Irukandji stings recorded -- including 2 fatalities

Cairns: 39 beach: 33 Reef/island: 6 ---- this is definitely a low estimate, as Cairns Base hospital has previously published that they treated 116 patients for Iruk syndrome that year, which are not included herein due to lack of data

Townsville: 0 beach: 0 Reef/island: 0 ---- this is also inaccurately low -- there were stings at Horseshoe Bay on Magnetic Island and the Yongala that are not included in here due to lack of data

Whitsunday: 57 beach: 2 Reef/island: 55 ---- this is likely the only reliable number for this year

Mackay: 5 beach: 2 Reef/island: 3 ---- this is also probably low, as Mackay/Sarina likely had more stings that year

Capricorn: 12 beach: 12 Reef/island: 0 ---- this is also a low estimate, as stings known to have occurred at Keppel are not included due to lack of data



What's coming in future issues?

In upcoming issues, we will look at topics including:

- Best Practice Standard for Marine Stinger Protective Swimwear
- Update on Irukandji Antivenom
- Catalogue of resources available for marine stinger management
- Current research on marine stingers
- What can we learn from this “stinger season” to reduce stings next year?

Did you know...

Meet our newest Box Jellyfish.....

Chiropsella bart

- Just a little guy, about 5-6cm tall
- Not deadly, sting similar to a blue bottle
- Common at beaches in the Gove region of eastern Arnhem Land in the dry season -- all other known box jellies are prevalent in the wet season
- Named to honour Professor Bart Currie at the Menzies School of Health Research in Darwin
- Distinguished from *Chiropsella bronzie* in the coalesced internal “sacculs” and longer “pedalia”



Where to get more information

Emergency sting information	000
Reports of stings or specimens	24/7: 0409 627 869
General safety information	SLSQ (07) 3846 8000
General jellyfish information	SLSQ (07) 3846 8000
Media enquiries	SLSQ (07) 3846 8044
Signage enquiries	SLSQ (07) 3846 8020
Requests for brochures, posters, etc	SLSQ (07) 3846 8000
Requests for speaking engagements	Coord. 0409 627 869
Research info or project ideas	Coord. 0409 627 869
Contributions to newsletter	lisa.gershwin@jcu.edu.au
Add to mailing list	lisa.gershwin@jcu.edu.au

<http://www.reef.crc.org.au/publications/brochures/Moreinformation.htm>

<http://www.marinestingers.com.au/marinestingers/default.htm>

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If stung

by Irukandji / box jellyfish:

1. Call for help (dial '000' or send someone for a lifeguard)
2. Treat the victim (Provide emergency care - CPR if necessary)
3. Treat the sting (flood with vinegar)
4. Seek medical assistance