



ANZCOR Guideline 9.4.2 - First Aid Management of Spider Bite

Summary

Who does this guideline apply to?

This guideline applies to adults, children and infants.

Who is the audience for this guideline?

This guideline is for use by bystanders, first aiders and first aid training providers.

Recommendations

The Australian and New Zealand Committee on Resuscitation (ANZCOR) makes the following recommendations:

1. If serious symptoms or signs develop from any spider bite, transport the person to hospital.
2. If funnel-web spider bite is suspected:
 - Send for an ambulance. [Good Practice Statement]
 - Keep the person immobilised (still), reassured and under constant observation. [Good Practice Statement]
 - Apply pressure bandaging with immobilisation. [Good Practice Statement]
 - Sudden collapse with cardiac arrest requires immediate CPR. [Good Practice Statement]
3. If other spider bite, apply ice pack for pain relief, transport to medical care if unwell. [Good Practice Statement]

Abbreviations

Abbreviation	Meaning/Phrase
ANZCOR	Australian and New Zealand Committee on Resuscitation
CPR	Cardiopulmonary Resuscitation

Guideline

1 Introduction

The bites of many different Australian spiders may cause pain but only bites from some funnel-web spiders are an immediate threat to life, although the Redback spider bite may be a threat to life in the very young or very old. There are no spiders native to New Zealand that are considered a threat to life, however, Australian Redback spiders may be encountered in some areas of New Zealand.

If serious symptoms or signs develop from any spider bite, transport the person to hospital.

2 Funnel-web Spiders

A bite from a large (> 2cm), dark-coloured spider ("big black spider"), especially in the regions of Sydney, Blue Mountains, central, northern, southern highlands or south coast of NSW, or south-eastern Queensland, should be considered a dangerous bite and immediate treatment given.^{1,2,3}

Recognition

Symptoms and signs of funnel Web spider bite may include:

- pain at the bite site, but little local reaction
- tingling around the mouth
- profuse sweating
- copious secretion of saliva
- abdominal pain
- muscular twitching (called fasciculation)
- breathing difficulty
- confusion leading to unconsciousness



Sydney funnel web spider, *Atrax robustus*,
Photo copyright Prof Julian White

Note:

Life threatening effects may occur within 10 minutes.

Management

The rescuer should:

- Send for an ambulance [Good Practice Statement]
- Apply pressure bandage with immobilisation and immobilize the person immediately [see Refer to ANZCOR Guideline 9.4.8] [Good Practice Statement]

Attempts to capture the spider may result in further bites. Do not bring a live spider to hospital. A photo on a phone may help in identification but should not delay the first two steps of management. [Good Practice Statement]

If the person is unresponsive and not breathing normally, follow Australian Resuscitation Council and New Zealand Resuscitation Council Basic Life Support Flowchart [Refer to ANZCOR Guideline 8].

Note:

Antivenom is available for treatment of funnel-web spider envenomation in areas where these spiders are encountered in Australia.

3 Redback Spider

This spider (approximately 1cm body length) has a characteristic red, orange or pale stripe on the back of its abdomen. A bite may threaten the life of a child, but apart from pain, is rarely serious for an adult.¹

Recognition

Symptoms and signs may include:

- immediate pain at the bite site which becomes hot, red and swollen
- intense local pain which increases and spreads
- nausea, vomiting and abdominal pain
- profuse sweating, especially at the bite site
- swollen tender glands in the groin or armpit of the envenomated limb.



Red back spider, *Latrodectus hasseltii*,
Photo copyright Prof Julian White

Management

The first aider should:

- keep the person under constant observation
- apply an ice or cold compress to lessen the pain (for periods of no longer than 20mins)
- transport the person to a medical facility, preferably by ambulance, if the person is a young child or collapse occurs or pain is severe.

[Good Practice Statement]

Note:

Local pain develops rapidly at the bite site and may become widespread, but the venom acts slowly so a serious illness is unlikely in less than 3 hours. Pain can be treated with antivenom^{3,4,5,8} in a hospital where resuscitation facilities are available. [Good Practice Statement] A related species, the Cupboard Spider (resembles the redback spider without the stripe) may be treated with the Redback spider antivenom.^{1,5} [Good Practice Statement]. The Pressure Immobilisation Technique is **not** used because the venom acts slowly and any attempt to slow its movement tends to increase local pain.

4 White-Tailed Spider Bite

Although the bite of the White-tailed spider may cause severe inflammation,⁷ contrary to popular opinion it has caused very few cases of severe local tissue destruction.^{1,7} An ice pack may be used to relieve pain. [Good Practice Statement]

The Pressure Immobilisation Technique should **not** be used. [Good Practice Statement]



White-tailed spider,
Photo copyright Prof Julian White

5 Other Australian Spider Bites

All other spider bites should be treated symptomatically: apply ice or cold compress to lessen the pain. [Good Practice Statement]

6 Spider Bites in New Zealand

Spider bites in New Zealand are much rarer than Australia and only the Katipo spider is considered dangerous to people; but this spider is not aggressive and rarely bites humans.⁹ However, the more aggressive Australian redback spider has been introduced into New Zealand and populations of the spider are described in Central Otago and New Plymouth and these bites may be encountered. Spider bites in New Zealand should be treated symptomatically: apply ice or cold compress to lessen the pain.⁹ If redback spider bite is suspected in the young or elderly, send for an ambulance. [Good Practice Statement]

References

1. Sutherland SK, Tibballs J. Australian Animal Toxins, Oxford University Press, Melbourne. 2001
2. Isbister GK, Gray MR, Balit CR et al. Funnel-web spider bite: a systematic review of recorded clinical cases. Med J Aust 2005; 182: 407-11.
3. White J and Limited C. (2013). A clinician's guide to Australian venomous bites and stings: Incorporating the Updates CSL Antivenom Handbook. CSL Limited; 2013
4. Ellis RM, Sprivulis PC, Jelinek GA, et al. A double-blind, randomized trial of intravenous versus intramuscular antivenom for Red-back spider envenoming. Emerg Med Aus 2005; 17: 152-156.4.
5. Isbister GK, Brown SGA, Miller M. et al. A randomised controlled trial of intramuscular vs. intravenous antivenom for latrodectism- the RAVE study. Q J Med 2008; 101: 557-565.
6. Isbister GK, Gray MR. Effects of envenoming by comb-footed spiders of the genera *Steatoda* and *Achaearanea* (family Theridiidae: Araneae) in Australia. J Toxicol – Clin Toxicol 2003; 41: 809-819.
7. Isbister GK, Gray MR. White-tail spider bite: a prospective study of 130 definite bites by *Lampona* species. MJA 2003;179: 199-203
8. Isbister GK, Page CB, Buckley NA, et al. Randomized controlled trial of intravenous antivenom versus placebo for latrodectism: the second Redback Antivenom Evaluation (RAVE-II) study. Annals of emergency medicine. 2014 Dec 1;64(6):620-8..
9. Derraik, JG, Sirvid, PJ and Rademaker, M. (2010). The first account of a bite by the New Zealand native spider *Trite planiceps* (Araneae: Salticidae). The New Zealand Medical Journal (Online). 123(1314).

Further Reading

- ANZCOR Guideline 8 Cardiopulmonary Resuscitation
- ARC Guideline 9.4.8 Envenomation - Pressure Immobilisation Technique

About this Guideline

Search date/s	Sept 2020
Question/PIC O:	P: For adults, children and infants I: Any first aid intervention C: No first aid O: Morbidity or mortality
Method:	Scoping review. The papers found and notes are shown in the attached Excel spreadsheet. The details of the searches are in the attached worksheet.
Primary reviewers:	Finlay Macneil
Other consultation:	Geoffrey Newman-Martin
Worksheet	https://resus.org.au/download/worksheets/worksheets_to_support_guidelines/anzcor-spider-bite-gl-9-4-2-worksheet-aug-2020.pdf
Approved:	April 2021
Guideline superseded:	ARC Guideline 9.4.2 - July 2014