

# ANZCOR Guideline 9.4.3 – Envenomation from Tick Bites and Bee, Wasp and Ant Stings

## Guideline

### Who does this guideline apply to?

This guideline applies to adults, children and infant victims.

### Who is the audience for this guideline?

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

## 1 Introduction

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Single stings from a bee, wasp or ant, while painful, seldom cause serious problems except for persons who have an allergy to the venom. Multiple insect stings can cause severe pain and widespread skin reaction. Stings around the face can cause serious envenomation and difficulty breathing even if the person is not known to be allergic.

It is important to remember that bee stings with the venom sac attached continue to inject venom into the skin, whilst a single wasp or ant may sting multiple times.

Ticks can inject a toxin that may cause local skin irritation or a mild allergic reaction, however most tick bites cause few or no symptoms.

**In susceptible people tick bite or other bites/stings may cause a severe allergic reaction or anaphylaxis, which can be life threatening.** This can also occur in victims with no previous exposure or apparent susceptibility.

## 2 Recognition

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Symptoms and signs may include:

### 2.1 Minor

- Immediate and intense local pain.
- Local redness and swelling.

### 2.2 Major/Serious

- Allergic reaction/anaphylaxis. (ANZCOR Guideline 9.2.7).
- Abdominal pain and vomiting in the case of allergic reaction to insect venom (ANZCOR Guideline 9.2.7).

Airway obstruction may result from swelling of the face and tongue due to anaphylaxis, or from insect stings in or around the mouth. This may occur immediately or over several hours and always requires urgent medical care.

### 3 Management

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- If the victim is unresponsive and not breathing normally, commence resuscitation, follow the Basic Life Support Flowchart (ANZCOR Guideline 8).
- If the victim has signs of anaphylaxis, follow Anaphylaxis Guideline (ANZCOR Guideline 9.2.7).
- In the case of a bee sting, remove the sting, by any means, as quickly as possible<sup>1,2</sup>.
- In the case of tick bite, if there is no history of tick allergy, immediately remove the tick<sup>3</sup>.
- If the victim has a history of tick allergy, the tick must be killed where it is, rather than removed<sup>3</sup>.
- If in a remote location, consultation with healthcare professionals is recommended.
- Move victim to a safe place.
- Apply a cold compress to help reduce pain and swelling.
- Monitor the victim for signs of allergic reaction (difficulty speaking, breathing difficulties, collapse and generalized rash).
- Refer the victim to hospital if sting is to the face or tongue.

Instructional information regarding auto injectors can be accessed from the Australian Society of Clinical Immunology and Allergy's (ASCIA) webpage: <http://www.allergy.org.au/health-professionals/anaphylaxis-resources>.

Instructional information regarding killing and removing ticks can be accessed from the web link: Tick-induced Allergies Research and Awareness (TiARA) [www.tiara.org.au](http://www.tiara.org.au)

### Acknowledgements

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Australian Society of Clinical Immunology and Allergy (ASCIA)

### Further Reading

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ANZCOR Guideline 8 Cardiopulmonary Resuscitation

ANZCOR Guideline 9.2.7 Anaphylaxis – First Aid Management

### References

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1. Australian Society of Clinical Immunology and Allergy (ASCIA) Allergic Reaction to Bites and Stings: <http://www.allergy.org.au/patients/insect-allergy-bites-and-stings/allergic-reactions-to-bites-and-stings?highlight=WyJiZWUiXO==> Accessed 19 September 2016
2. Visscher PK, Vetter RS, Camazine S. Removing bee stings. *Lancet* 1996;**348**:301-02.
3. <http://www.tiara.org.au/how-to-remove-a-tick/> Accessed 24 July 2018