



## FACTSHEET HAZARDOUS BITES AND STINGS

CM9/TRIM ID I22/14

Fire and Rescue New South Wales personnel are likely to operate in environments inhabited by hazardous flora and fauna that pose an increased risk of being bitten or stung. These areas include but are not limited to bushlands, coastal areas, wetlands, and grasslands where workers may be required to conduct hazard reductions, rescues, other incident response duties, or community safety activities.

If not properly managed, the effects of a harmful bite or sting may result in life-threatening illnesses such as a severe allergic reaction (anaphylaxis), poisoning, or envenomation via toxic injection into the body.

Hazardous species of insects, animals, and plants are common to New South Wales and include, but are not limited to:

- Ticks
- Mosquitos
- Leeches
- Sand flies
- Ants
- Bees
- Spiders
- Nettle

### Allergic reactions and anaphylaxis

Anaphylaxis is a potentially life threatening, severe allergic reaction and should always be treated as a medical emergency. Adrenaline is the first line treatment.

Anaphylaxis occurs after exposure to an allergen to which a person is allergic. Not all people with allergies are at risk of anaphylaxis.



The physical effects of a bite or sting that can indicate an allergic reaction vary from person to person and are dependent on the species of animal or plant, and the type and volume of toxin injected.

Generally, a person who has been bitten or stung may experience any number of the following signs and symptoms:

- Respiratory distress
- Itching
- Fever
- Weakness
- Rashes
- Loss of consciousness
- Anxiety
- Redness
- Nausea
- Profuse sweating
- Bleeding
- Hives or welts
- Headache Irritation
- Swelling
- Difficulty speaking
- Vomiting
- Tight chest
- Noisy breathing
- Confusion
- Pale skin
- Aching
- Increasing Pain
- Burning sensation

### First Aid

If you suspect a person is experiencing an allergic reaction, call Triple Zero "000" immediately and commence first aid (DRSABCD) if safe to do so.

Adrenaline is the first line treatment. Check if the patient is carrying an EpiPen and administer in accordance with the manufacturer's instructions on the products label.

If you carry an EpiPen ensure your supervisor and colleagues know its location and use in case of emergency.



## Hazardous flora

When touched or brushed, stinging plants such as nettles and stinging trees can leave the victim covered in painful micro hairs which imbed themselves in the skin.

Stinging plants can grow at and above head height and may also blend in with other flora in the area. Stingers can grow on either the leaves or the stem depending on the species and may not appear to be harmful initially. Often found along streams and walking tracks in Northern NSW, the hairs of the Gympie Gympie stinging tree are said to feel like a hypodermic needle filled with hot acid.



## Preventing bites and stings

The prevention of bites and stings requires a consistent and logical approach. Before commencing work, research the area(s) you will be operating in and conduct a risk assessment to identify hazards which may result in a harmful bite or sting. Any identified hazards, risks and controls should be discussed and recorded using the [Incident Safety Worksheet](#) or the [Workplace Safety Risk Assessment](#) (WSRA) form.

Ensure minimal skin exposure. Secure ankle and wrist fasteners over boots and gloves and ensure buttons, zips, Velcro's, and draw strings are closed to prevent contact with flora and mitigate insects climbing into PPC.

Where appropriate, preference wearing a wide brim hat over a baseball cap when working underneath foliage.

Regularly check yourself and others for bites, stings, and insects, especially on return to your vehicle or before departure.



## Supply and use of insect repellent

Pump spray insect repellent containing Picaridin can be ordered from ESCAT.

Insect repellent containing Picaridin can be safely applied to clothing and skin before entering areas suspected to contain hazardous insects, such as bushland, wetlands, coastal areas, and sand dunes, providing protection for up to 4 hours in ideal conditions.

If combining insect repellent containing Picaridin with sunscreen (SPF 50+), apply the sunscreen first and then the repellent over the top. Any PPC which has been in contact with Picaridin should be laundered after use.

**Always apply insect repellent as per the manufacturer's instructions on the products label.**

- Container must be stored in a cool, well ventilated area below 50 degrees.
- Wash hands thoroughly after applying and before eating or drinking.
- Avoid contact with eyes, can cause serious eye irritation.
- Flammable. Keep container away from sparks, open flames, and hot surfaces.
- Do not ingest.
- Wash hands, forearms, and face thoroughly on completion of duties.
- If skin irritation occurs, wash continuously with clean water
- If unwell, dial Triple Zero "000" and commence first aid.



**Reporting bites and stings:** If you receive, or suspect you have received a bite or sting, a NIIENM must be submitted in accordance with [In Orders 2010/14, Notification of work related injuries, illnesses, exposures and near miss procedure](#)

#### **Useful links and additional information**

- Department of Health Tick Bite Prevention  
<https://www1.health.gov.au/internet/main/publishing.nsf/Content/ohp-tick-bite-prevention.htm>
- NSW Health – Mosquitos are a health hazard  
<https://www.health.nsw.gov.au/Infectious/factsheets/Factsheets/mosquitoes-health-hazard.pdf>
- NSW Health – Avoiding spider bites  
<https://www.health.nsw.gov.au/environment/factsheets/Pages/avoiding-spider-bites.aspx>
- NSW Department of Primary Industries – Identifying Insects and Pests  
<https://www.dpi.nsw.gov.au/biosecurity/insect-pests>
- Stinging Plants - <https://www.healthdirect.gov.au/stinging-plants>
- [Ticks and tick-borne diseases](#)
- [Hazard Alert 6 – Ticks](#)
- [Infection Prevention and Control Manual PDF](#)
- [Safety Briefing Checklist for Prescribed Burns and Bushfire Incidents](#)