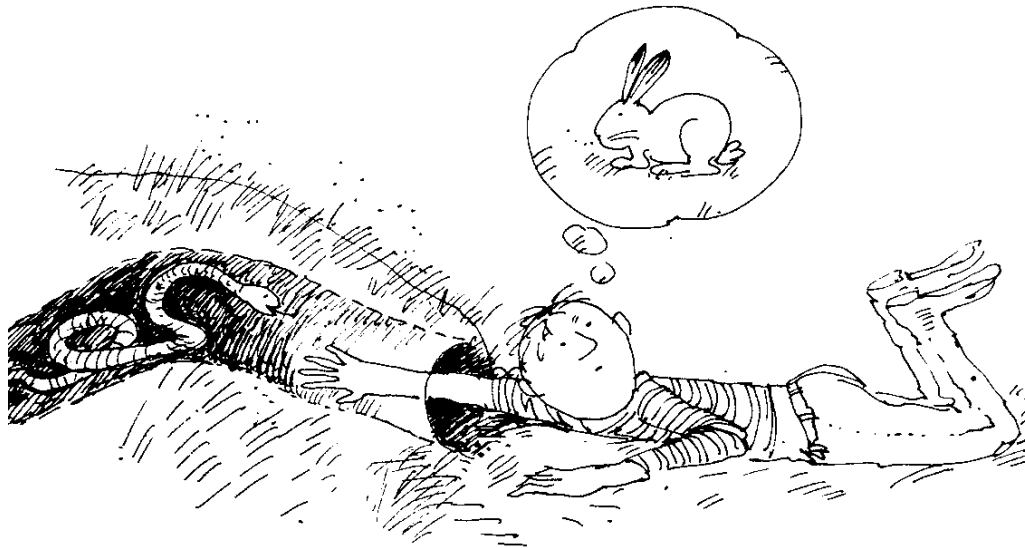


Venemous creatures



It is estimated that tens of thousands of Australians are bitten or stung annually by venomous creatures. Fortunately, serious bites and stings are relatively infrequent, probably due to the highly urbanized nature of our population. In 2006, there were 84 Victorian hospital admissions and 478 emergency department presentations as the result of a venomous bites or stings among children aged 0–14 years.

Venomous bites and stings are more frequent in the warmer months, representing both an increase in the activity of venomous creatures and the prevalence of outdoor activity. Bites and stings are particularly common to the limbs.

Advice on treatment for bites and stings is available from the Poisons Information Centre

T 131 126 from anywhere in Australia

Snakes and snakebite

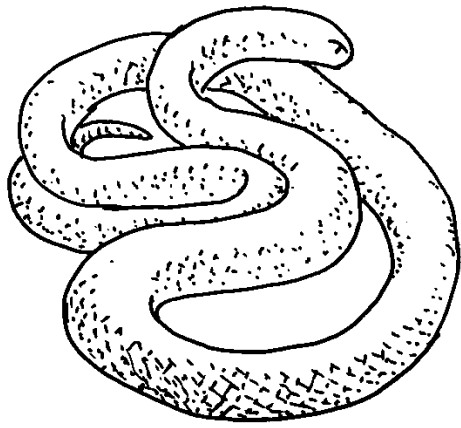
Prevention of snake bite

Most cases of snakebite can be avoided by following these simple rules:

- Leave snakes alone.
- Wear sturdy shoes and adequate clothing in 'snake country'. Do not wear sandals or thongs.
- Never put hands in hollow logs or thick grass without prior inspection.
- When stepping over logs, carefully check the ground on the other side.
- Always use a torch around camps and farmhouses at night – most snakes are active on summer nights.
- Keep barns and sheds free of mice and rats, as they will attract snakes.
- Keep grass well-cut, particularly in playgrounds and around houses.

Special notes regarding children:

- Never let children collect snakes.
- If a young child says he or she has had contact with a snake, please believe them. (Better to be safe than sorry).
- Sudden collapse, fainting, vomiting and/or persistently bleeding scratch or puncture marks in children who have been playing



outside might indicate snakebite. Better to apply appropriate first aid and treat as for snakebite.

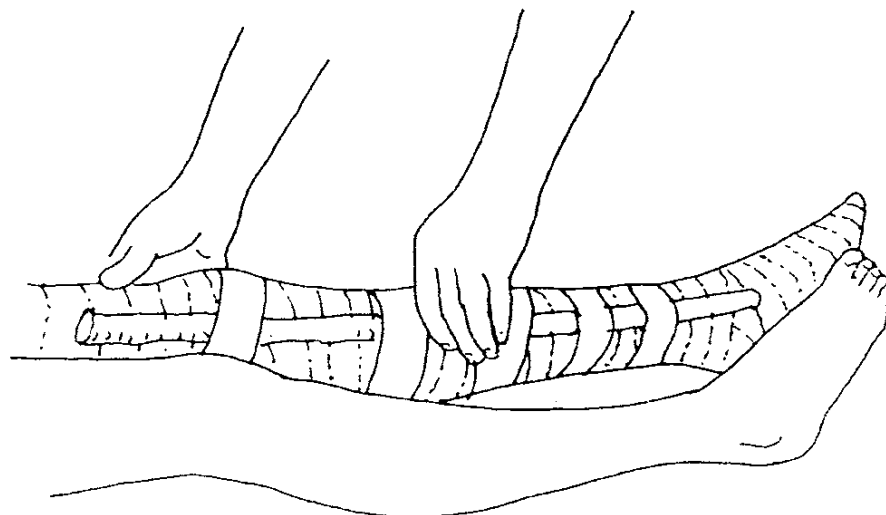
- Snakes do not sting. If a child says they were stung by a snake – treat as a bite. Children in rural areas have died because of misunderstandings about death adder ‘stings’.

Snake bite when far from civilisation

Leaders of bush walking groups, scouts and individuals travelling alone in remote areas often seek advice on this subject. Such groups should be advised on how to avoid snakebite before setting out (see above).

- People travelling in isolated areas are far more likely to need medical aid following falls, heart attacks or other illness, than for snakebite.
- When possible a radio transmitter or mobile telephone should be part of the expedition’s equipment.

When bandaging, leave tips of toes showing so that cyanosis (blue skin colour) will be visible on inspection



- Before setting out, have a plan in case of bites and stings, including evacuation and knowing where the nearest medical facility is and how to contact it.
- If snakebite occurs, appropriate first aid may ‘buy time’ for the patient to reach medical care.

Some facts on snakebite

- Not all snakes are venomous but it is safer, from a first aid point of view, to consider all snakes dangerous.
- Sometimes only minimal amounts of venom are injected, even though puncture marks are present.
- At least 95% of bites occur on the limbs. Around 60% involve the lower limb.
- The venom may be injected quite deeply. It has been shown that little venom is removed by incision or excision.
- Research has shown that movement of venom into the blood stream may be delayed if firm pressure is applied to the bitten area and the limb is immobilised.

First Aid for snakebite

First aid using the pressure-immobilisation procedure

- Immediately apply a broad, firm pressure bandage around the limb and over the bite site.
- It should be as tight as one would bind a sprained ankle.
- As much of the limb as possible should be bandaged.

- Bandage from below upwards as this will be most comfortable. Even though a little venom is squeezed upwards, the bandage will be far more comfortable, and therefore may be left in place for longer if required.
- Start at the toes or fingertips.
- High quality pressure bandages are ideal but in an emergency any flexible material can be used.
- Do not remove clothing from the bite site, as the movement in doing so will promote the entry of venom into the blood stream.
- Lie the patient down to minimize movement.
- Keep the limb and the victim as still as possible.
- Bind some type of splint to the limb e.g. piece of timber, spade, and rigid object. For the leg, you can even use the other leg as the splint.
- Bring transport to the victim whenever possible.
- Leave the bandages and splint on until medical care is reached.
- Don't cut or excise the bitten area.
- Don't apply an arterial tourniquet.
- Don't wash the bitten area. The snake involved may be identified by the detection of venom on the skin. If the snake can be safely killed, bring it to the hospital with the victim for identification.

Bites on the hand or forearm

- Bind to elbow with bandages
- Use splint to elbow
- Use sling.

If the bandages and splint have been applied correctly, they will be comfortable and may be left on for several hours. They should not be removed until the patient has reached a doctor.

If venom has been injected, it may move quickly into the circulation when the bandages are removed. The doctor will leave bandages in position until he or she has assembled appropriate antivenom and drugs, which may have to be used when the bandage is removed.

(The first aid measures can always be quickly re-applied if deterioration occurs, and left on until antivenom therapy has been started.)

Additional first aid for snake bite

- Bites to the trunk: If possible apply firm pressure over the bitten area. Do not restrict chest movement. Keep the patient still.
- Bites to the head or neck: No first aid for bitten area.
- Sea snakes: The pressure-immobilization procedure is appropriate for sea snake bites.

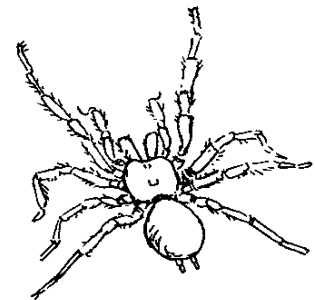
Spider and insect bites

First aid for bites and stings by other Australian creatures, which may cause death

The pressure-immobilisation procedure described on the previous pages is now recommended for use in the majority of other bites and stings with several exceptions discussed below. Arterial tourniquets are no longer recommended for any type of bite or sting.

Sydney funnel-web spider

The pressure-immobilization procedure should be commenced as soon as possible and left in position until the patient is in hospital. Experimental evidence suggests that this venom may lose its activity if kept in the bitten limb. Antivenom is available.



Redback spider

No first aid is recommended for these bites other than the local application of iced water. The venom works slowly and if its movement is restricted, local pain may become severe. More than 300 cases received antivenom each year and



no deaths have occurred since this treatment became available.

Other types of spiders

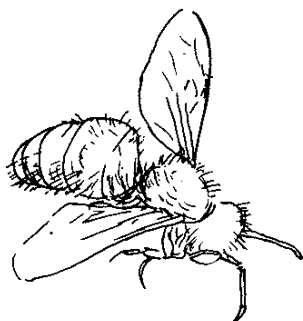
A variety of common house and garden spiders frequently deliver bites, but usually very little occurs other than a little local pain and swelling. Bites are best lightly washed with soap and water. Iced water may give relief from mild pain and itching. Medical advice should be sought if local changes are causing concern.

Note: If bitten by a spider, always try to capture and preserve the culprit in methylated spirit for identification purposes, even if it has been squashed.

Bees, wasps and ants

May cause anaphylactic shock or death in allergic persons. In non-allergic persons, iced water usually relieves the pain. In all cases, bee stings should be scraped or pulled off as quickly as possible to prevent further injection of venom from the venom gland, which remains attached to the sting.

In persons known to be allergic, medical care should be sought immediately. Patients who have suffered systematic reactions should have access to injectable adrenaline and know how to use it. Purified venoms are available to desensitise people allergic to bees and most wasps. Purified jumper ant, bull ant and green-headed ant venoms are not commercially available, except for jumper ant venom for desensitisation in Tasmania.



The Australian paralysis tick

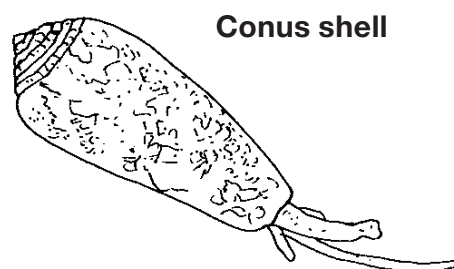
As soon as possible, the tick should be carefully removed by levering it out of the skin with tweezers, dental floss or the open points of curved scissors. It is possible that this action

may result in the further injection of toxic saliva into the victim, but the longer the tick remains in situ, the more venom may be injected. If the child is unwell, especially if there is any weakness, including difficulty walking, swallowing or any droopiness of the face and/or fever and rash, seek urgent medical attention. As allergic reactions may also occur after a tick bite, treat such effects as for the allergic reactions caused by bees, wasps and ants.

Marine creatures

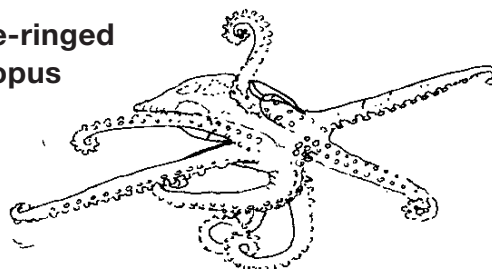
Blue-ringed octopus and Conus shells

The pressure-immobilisation procedure is recommended. Prolonged artificial respiration may be needed following a bite or sting.



Conus shell

Blue-ringed octopus



Box jellyfish

Pour domestic vinegar (never methylated spirit or alcohol) over the adhering tentacles to inactivate them as soon as possible. This prevents the further discharge of stinging cells. Artificial respiration and cardiac massage may be required. Antivenom is available.

Other types of jellyfish

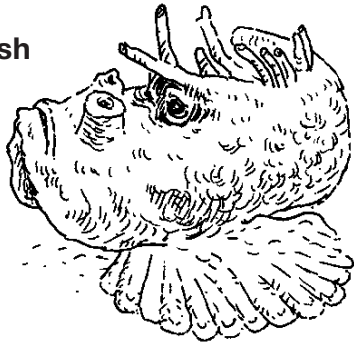
The application of vinegar is recommended for stings by the other dangerous jellyfish such as the Morbakka and Irukandji. Current opinion is that all other jellyfish stings, including those of

the Physalia (the 'blue bottle' or 'Portuguese man 'o' war') are best washed with sea water and then covered with iced water packs or hot but not scalding water (as for stinging fish).

Stonefish and other stinging fish

Severe pain is the most prominent feature. Do not attempt to restrict the movement of the injected toxin. Some stonefish stings respond to bathing in warm (not scalding) water. All stonefish stings require medical attention, as do most deep stings caused by other fish. Often foreign material and bacteria are deposited quite deeply. Stonefish antivenom is available.

Stonefish



Stingrays

While stingray spines contain venom, tissue damage and the possibility of infection may be more important considerations. All cases

should be reviewed medically as these stings may result in serious wound infections (as well as other problems). Any stings or suspected stings by stingrays involving the chest or abdomen must be considered an emergency and medical attention sought immediately. Deaths have occurred when the barb has penetrated the heart or abdomen. First aid consists of (i) the application of local pressure above bleeding wounds (to stop bleeding), (ii) if it is still in place, don't remove the stingray barb yourself – leave that to the doctors in hospital, (iii) if the pain is significant and there is no bleeding then immersing the stung area in hot (but not scalding) water may reduce the pain (as for other stinging fish).

For further information contact:

The Australian Venom Research Unit provides a 24-hour advisory service for doctors via the Poison Information Centres:

T 131 126 Australia wide, and directly 1300 760 451.

The Australian Venom Research Unit

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Our thanks to the Australian Venom Research Unit for contributing this section.