Preventing and managing snake bites

Snakes come out of hibernation during the warmer months and in urban areas will inevitably move into, or near places where people live and work in search of food or a mate.

Snakes may have found quiet shelter at your workplace whilst the site has been vacant over weekends or holiday breaks. Cool, dark protected areas such as under buildings and near sheds, around rubble and stored materials, and in long grass are typical areas that snakes may be found. As with all Australian native animals, snakes are protected under the Nature Conservation Act 1992 (Qld) and cannot lawfully be killed or taken from the wild and held in captivity.

It can often be difficult to tell the difference between a venomous and non-venomous snake therefore people are wise to call for professional help as snake bites can easily occur if inexperienced people interfere with snakes.

Snakes are not usually aggressive and do not seek confrontation with humans, but may retaliate if provoked.

The important thing to remember is to never attempt to catch or kill a snake – most snake bites occur when people are trying to do this. It is not necessary to try and identify the type of snake if a person is bitten, physicians may be able to identify the type of snake from residual venom on the skin. Also, for many Australian snakes, a polyvalent antivenom (antivenom that is effective for multiple species of snake) is often sufficient for treatment of snake bites.

- Snake bites in Australia can be potentially fatal so immediate medical assistance should be sought for all cases of suspected snake-bite.
- While not all snakes are venomous, it is difficult to identify snakes so all bites should be treated as dangerous.
- No case of real or suspected snakebite should be regarded as trivial.
- Appropriate first aid should be applied and the patient promptly placed under medical supervision.

If a snake is seen or reported on or near the site:
1. Note the location of the snake and ensure that this area is isolated until the snake is removed.
2. Remove all staff and students from immediate area, or evacuate the room until snake is removed.
3. Do not approach, attack or otherwise provoke the snake. Remember – if provoked it may strike.
4. Contact the Queensland Parks and Wildlife Service on 1300 130 372 and follow the prompts if you have a snake on campus that you would like to have removed.

For more information on Queensland snakes, see the Queensland Museum Snakes feature.

Prevention
- Minimise the food sources for snakes by removing anything that may attract rodents or frogs.
- Reduce rubbish/materials where a snake could shelter.
- During high risk times or after holiday breaks, remind staff and students of the increased risk of the presence of snakes.
- Wear gloves and boots when moving stored materials and rubbish - they will give some protection.
- An increased awareness of snakes is the best protection. The snake will not be looking for you, so be alert and on the lookout for snakes.
Emergency snakebite action plan

Staff should be prepared in the event of a snake bite. An action plan should be in place to be implemented immediately when necessary.

If a snake bite occurs, call 000 for an ambulance, use the pressure-immobilisation technique (details below), and have the patient taken immediately to the emergency department of the nearest hospital.

Pressure immobilisation technique

The pressure-immobilisation technique is a first aid method for venomous bites. Its purpose is to retard the movement of venom from the bite site into the circulation, thus 'buying time' for the patient to reach medical care. Research with snake venom has shown that very little venom reaches the blood stream if firm pressure is applied over the bitten area and the limb is immobilised. Pressure-immobilisation is recommended for all species of Australian snakes, including sea snakes. The Australian Venom Research Unit has a video of the pressure immobilisation technique available on their website.

First aid for bites to the lower limb

1. As soon as possible, apply a broad pressure bandage from below the bite site, upward on the affected limb (starting at the fingers or toes, bandaging upward as far as possible). Leave the tips of the fingers or toes unbanded to allow the victim’s circulation to be checked. Do not remove pants or trousers, simply bandage over the top of the clothing.

2. Bandage firmly as for a sprained ankle, but not so tight that circulation is prevented. Continue to bandage upward from the lower portion of the bitten limb.

3. Apply the bandage as far up the limb as possible to compress the lymphatic vessels.

4. It is vital to now apply a splint. Bind a stick or suitable rigid item over the initial bandage to splint the limb. Secure the splint to the bandaged limb by using another bandage, (if another bandage is not available, use clothing strips or similar to bind). It is very important to keep the bitten limb still.

5. Bind the splint firmly, to as much of the limb as possible, to prevent muscle, limb and joint movement. This will help restrict venom movement. Seek urgent medical assistance now that first aid has been applied.
First aid for bites on the hand or forearm

1. As soon as possible, apply a broad pressure bandage from the fingers of the affected arm, bandaging upward as far as possible. Bandage the arm with the elbow in a bent position, to ensure the victim is comfortable with their arm in a sling. Leave the tips of the fingers unbanded to allow the victim’s circulation to be checked.
2. Bind a splint along the forearm.
3. Use a sling to further prevent limb movement.

Bites to the trunk

1. Call 000 for an ambulance
2. If possible apply firm pressure over the bitten or stung area. Do not restrict chest movement. Keep the patient still. Have the patient taken immediately by ambulance to the emergency department of the nearest hospital.

Bites to the head or neck

1. Call 000 for an ambulance
2. No first aid for bitten or stung area. Keep the patient still. Have the patient taken immediately by ambulance to the emergency department of the nearest hospital.

Additional information:

- It is important to keep the patient still. This includes all the limbs.
- Do not cut or excise the bitten or stung area
- Do not apply an arterial tourniquet. Arterial tourniquets, which cut off the circulation to the limb, are potentially dangerous, and are no longer recommended for any type of bite or sting in Australia.
- Do not wash the bitten or stung area. The type of snake involved may be identified by the detection of venom on the skin.
- Note: Even if the bitten or stung person is ill when first seen, the application of pressure-immobilisation first aid may prevent further absorption of venom from the bite or sting site during transport to the hospital.
- 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 taken off until the patient has reached medical care.
- The treating doctor will decide when to remove the bandages. If a significant amount of venom has been injected, it may move into the blood stream very quickly when the bandages are removed. They should be left in position until appropriate anti-venom and resuscitation equipment has been assembled.
- Bandages may be quickly reapplied if clinical deterioration occurs, and left on until anti-venom therapy has been effective.

*Information regarding Pressure Immobilisation Technique sourced from Queensland Health and the Australian Venom Research Institute*