

SNAKE-BITE FIRST AID MANAGEMENT

Principles of first-aid

First-aid treatment is carried out immediately or very soon after the bite, before the patient reaches a dispensary or hospital. It can be performed by the snake-bite victim himself/herself or by anyone else who is present and able.

Unfortunately, most of the traditional, popular, available and affordable first-aid methods have proved to be useless or even dangerous. These methods include: making local incisions or pricks/punctures at the site of the bite or in the bitten limb, attempts to suck the venom out of the wound, use of (black) snake stones, tying tight bands (tourniquets) around the limb, electric shock, topical instillation or application of chemicals, herbs or ice packs. Local people may have great confidence in traditional (herbal) treatments, but they must not be allowed to delay medical treatment or to do harm.

Aims of first-aid

- Attempt to delay systemic absorption of venom.
- Preserve life and prevent complications before the patient can receive medical care
- Control distressing or dangerous early symptoms of envenoming.
- Arrange the transport of the patient to a place where they can receive medical care.
- ABOVE ALL, AIM TO DO NO HARM!

Recommended first-aid methods

- Reassure the victim who may be very anxious
- Immobilize the whole of the patient's body by laying him/her down in a comfortable and safe position and, especially, immobilize the bitten limb with a splint or sling. Any movement or muscular contraction increases absorption of venom into the bloodstream and lymphatics.
- If the necessary equipment and skills are available, consider pressure-immobilization (see figure below) or pressure pad only if the snake species is identified as cobra or krait.
- Avoid any interference with the bite wound (incisions, rubbing, vigorous cleaning, massage, application of herbs or chemicals) as this may introduce infection, increase absorption of the venom and increase local bleeding.

Release of tight bands, bandages and ligatures: Ideally, these should not be released until the patient is under medical care in hospital, resuscitation facilities are available and ASVS treatment has been started.

Tight (arterial) tourniquets are not recommended!

Traditional tight (arterial) tourniquets are not recommended. To be effective, these had to be applied around the upper part of the limb so tightly that the peripheral pulse gets occluded. This method can be extremely painful and very dangerous if the tourniquet was left on for too long (more than about 40 minutes), as the limb might be damaged by ischaemia. Tourniquets have caused many gangrenous limbs.

Snake-bite first aid: pressure immobilization method

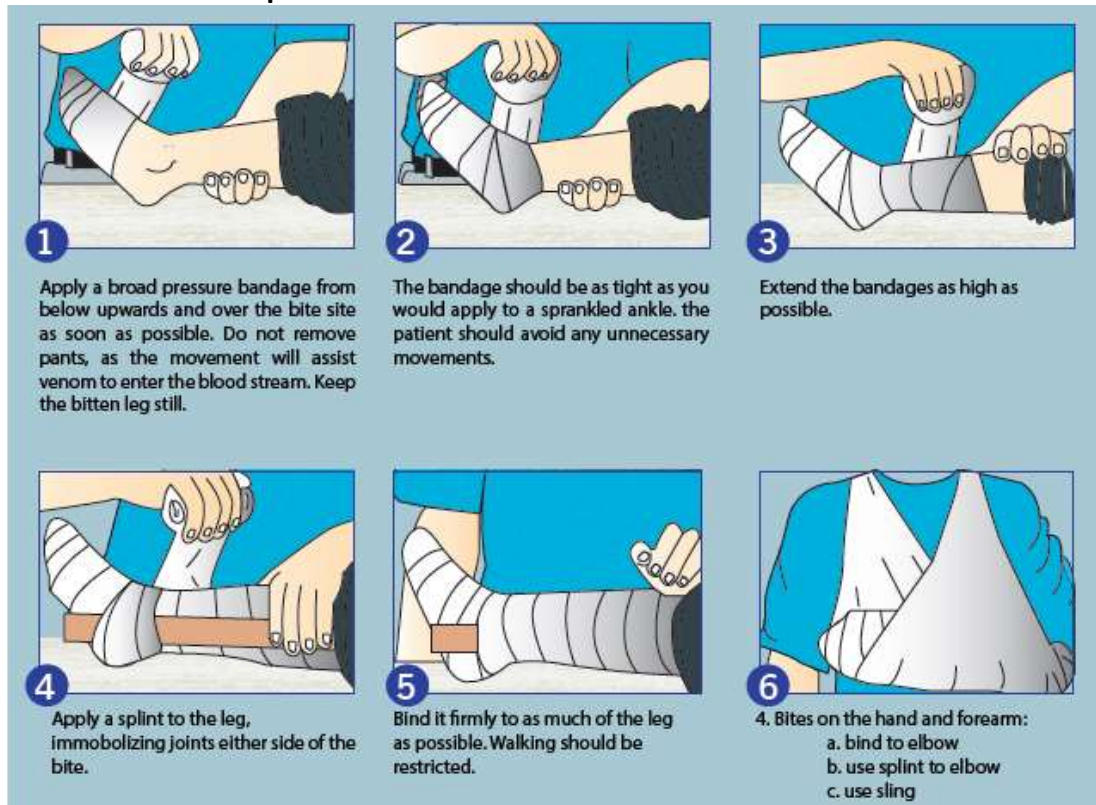


Figure 1: Pressure immobilization (Sutherland method)



Spectacled cobra



Common krait



Russell's viper



Saw-scaled viper

The above 4 species account for most snake-bite deaths in India.