**Snake Bite Management - First Aid and Useful Information**

The Big Four PLUS One – Five Venomous Snakes of India

Note: The fifth venomous species in India is called the Pitviper. The Hump-nosed Pitviper is found commonly in Kerala and Sri Lanka. The Malabar Islander is common in the Hassan and Mysore districts and the Common Bamboo Pitviper is found in some parts of South India.

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<tbody>
<tr>
<td>Family</td>
<td>Viperidae</td>
<td>Viperidae</td>
<td>Elapidae</td>
<td>Elapidae</td>
</tr>
<tr>
<td>Biological Name</td>
<td>Bothrops alternatus</td>
<td>Bothrops alternatus</td>
<td>Naja Naja</td>
<td>Bungarus caeruleus</td>
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<tr>
<td>Color</td>
<td>Light buff with shades of brown, dull-red, gray.</td>
<td>Light brown.</td>
<td>Black, slate gray or dark gray.</td>
<td>Shiny steel blue-black, bluish-gray or dark brown.</td>
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<tr>
<td>Body Appearance</td>
<td>Stout body with a pear shaped head. Vertically elliptical pupils. White or light colored pattern on the body.</td>
<td>Dark brown/black spots (Almond marks), sometimes with white or yellow border.</td>
<td>Medium to large heavy bodied, elliptical depressed head, distinctly from the neck, with short rounded snout and large nostrils.</td>
<td>Pairs of narrow white bands across the body. Note: The bands may be absent in younger snakes.</td>
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<tr>
<td>Av. Length</td>
<td>1.5 to 2 feet.</td>
<td>3 to 5.5 feet.</td>
<td>4 to 7 feet.</td>
<td>3 to 6 feet.</td>
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<td>Distinguishing Features</td>
<td>Rough and strongly keeled scales over the body. Short, thin tail. Loops the body into S-shaped folds.</td>
<td>Flattened triangular head and blunt rounded, raised snout.</td>
<td>Spectacle mark on the hood. Wide black band on the underside of the neck.</td>
<td>Hides its head under the coil of its body (during day).</td>
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<tr>
<td>Venom Type</td>
<td>Hemotoxic</td>
<td>Hemotoxic</td>
<td>Neurotoxic</td>
<td>Neurotoxic</td>
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<tr>
<td>Ax Dry Wt. of Venomstrike</td>
<td>13 mg</td>
<td>63 mg</td>
<td>60 mg</td>
<td>N/A</td>
</tr>
<tr>
<td>Venom Rating</td>
<td>SC LD50</td>
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<td>SC LD50</td>
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Subcutaneous LD50 ratings converted into graphical indicators. This is only an approximate measure.

Snake bite management involves two important steps.

**Step 1 : First Aid**
- Do not lose precious time. Arrange for transport and medical care.
- Reassure the victim who may be anxious. Restrict movement.
- The wound may be very gently cleaned. But this step is not a must and may be avoided. Do not cover the bite area and puncture marks with bandage.
- The limb which has been affected by the bite should be immobilized with splint (a piece of wood, stick or any rigid material) or a sling, and be kept below the level of the heart.
- If necessary equipment and skills are available, consider pressure-immobilization or a pressure pad. See reference [1] for more details on this. If not possible, do not waste time in getting this done.
- Assure the victim and tell him/her not to panic. A panic situation will enhance the heart rate and would circulate the venom faster in the body.
- Remove any rings or constricting items; the affected area may swell.
- Let the victim take plenty of water and take rest. Bodily exertion must be avoided by all means.
- Call up the anti-venom center nearest to your residence and check if they have the anti-venom in stock.

**Step 2 : Medical Treatment**
- Once the anti-venom center is identified, rush the victim to the hospital for medical treatment.

**Antivenom Centers**
- Narayana Hrudayalaya, #25B/A Bommasandra Industrial Area, Horthur Road. 16Km., 25 - 45 Minutes. 4: 2783-5000.
- St. John’s Hospital Sarjapur Road, Koramangala. 10 Km, 30 - 60 Minutes. 4: 2206 5230 (E), 2206-5000.
- Dr Levine Memorial Hospital #17/1 Sarjapur Main Road, Behind HDFC Bank. 3 Km, 10 - 20 Minutes. 4: 4110-9971, 6547-0252.

Before heading to any hospital, do the following:
- Call up one of the hospitals listed above and confirm that they have antivenom in stock.
- Confirm that the hospital has a doctor who knows how to treat a snake-bite victim. If possible, speak to the doctor.
- If the response is not satisfactory on the phone, try calling another hospital.

**First Aid – Things to Avoid**
- ABOVE ALL, AIM TO DO NO HARM! - WHO!
- Never try to assess whether it was a venomous snakebite or not. Some snake bites may not show immediate effects. Hence it is better to get immediate medical assistance.
- Some people have faith in traditional remedies. But, do not use home remedies, tantra-mantra, herbal preparations, snake-stones, tattoeing, pricks, punctures etc., and waste precious time.
- Do not apply ice-packs or any other type of cooling action on the bite.
- Do not use string or rubber tourniquets on the limb. This cuts off blood flow completely and may result in amputation of the affected limb.
- Do not make incision on the area of the bite. Do not burn the wound. Do not use electric shock. Do not suck the wound with mouth. Do not attempt to use suction devices.
- Do not give alcohol or hot beverages to the victim.
- Potassium permanganate should never be used.

Note: Please read the disclaimer on Page 2
How to Avoid Snakes at Home

- The bottom of all external doors should either have a rubber lining or a traditional Indian raised step to prevent entry of snakes through gaps. Close all cavities and large unsealed spaces beneath cupboards.
- All windows should be fitted with a steel/insect mesh and kept closed when not in use, especially at night.
- Do not keep leftover food and used vessels outdoors, because this attracts rats and rodents. Instead, dispose kitchen waste in a garbage container indoors.
- Snakes and rodents can reach your bathroom via the network of drains. Cover drain pipe openings of your kitchen and bathrooms using fixed mesh covers.
- Avoid rock-gardens, water ponds in your lawn. It is the most suitable place for snakes. Avoid paving lawn with loose tiles.
- Keep your outdoor areas, the inner, and outer compound wall of your house free from any rubble and garbage.
- Prune any vegetation (such as creeper, bush or small tree) touching the walls of the house or windows. Prune bushes and shrubs up to a height of 1 to 2 feet from the ground.
- Install electric switches outside the doors of your bathroom. Never get into a dark bathroom; First switch on the light from outside and then look around you before you enter.
- Snakes love dark and cool places! Eliminate such areas at home.

... And Outdoors

- Always carry a torch while stepping out at night times.
- Wear shoes or footwear that covers your feet. Also, wear garments that cover your legs.
- Do not leave any shoes outdoors.

In Case of an Encounter with a Snake

If you meet a snake, go back slowly, don’t do sudden movements, do not turn your back to the snake, do not run, and give the possibility for the snake to go attack you. Never provoke or irritate the reptile.

References:

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