TOP 5 SNAKES IN THE WESTERN CAPE
in particular the West Coast Area

GENERAL – POPULAR MYTHS BUSTED!

1. No snake will purposely attack you.
2. Snakes do not usually move around in pairs - if a snake is killed, its mate will not be in the vicinity, waiting to seek revenge.
3. Puff Adders do not strike backwards and young Puff adders do not eat their way out of the womb.
4. Snake repellents, old oil, Jeyes fluid, coarse gravel, vibrating spikes and various plants, including malvas, and garlic, do not keep snakes out of your garden. Rather keep your garden clear of building rubble and rock piles, where snakes may shelter or frogs and rodents may hide, providing a food source for snakes.
5. Only antivenom will treat a serious venomous snakebite successfully – herbal remedies, cutting or sucking the wound will have no benefit whatsoever.
6. A snake bite does not necessarily mean an envenomated bite - injection of venom is under the snakes’ control.
7. Should you be bitten - remain calm under all circumstances. Panic and shock are bigger killers than venom.

GENERAL – HOW TO AVOID SNAKEBITE

• Leave snakes alone and treat them with respect.
• Don’t handle even small snakes. Young venomous snakes are just as dangerous as adults.
• Never tamper with a seemingly dead snake, as many have the nasty habit of playing dead when scared or threatened, only to strike out the moment an opportunity arises.
• Look ahead and scan the path or area you are about to cross. A general awareness in the bush will do much to help you see a snake in good time.
• Step onto logs and rocks and never over them. Snakes often sun themselves while partially concealed under a log or rock.
• When making your way through long grass and thick bush, wear long trousers, boots or stout shoes.
• Never walk barefoot or without a torch at night when camping or visiting facilities in the bush. Many snakes are active after sunset and the slow-moving Puff Adder are easily trodden on.
• Do not try to kill or catch a snake if you come across one. Do not attempt to catch a snake with braai tongs or pin it and grab behind the head. Some snakes, such as the Stiletto Snake, cannot be held safely behind the head and you will certainly be bitten if you try.
• If you are starting to keep or already keep snakes for a hobby, do not believe that they will get to know you and become less dangerous as time goes on. They may well become tamer in the sense that they do not head for cover in the cage as you approach and individual snakes may allow you to handle them. To show that you can handle a dangerous snake like a harmless snake is foolish and exposes you to the risk of serious injury. No matter how tame you think a snake has become, remember that a quick movement made unconsciously near it will precipitate an instinctive strike.

TYPES OF VENOM

VENOM versus POISON

○ **POISON:** Any substance injurious to health which is injected or absorbed. (A poison is any substance that is harmful to the body. It may be swallowed, inhaled, injected, or absorbed through the skin).

Absorption may be either (a) Internal (e.g. gastrointestinal tract, respiratory tract) or (b) External (e.g. skin, conjunctiva).

○ **VENOM:** A poison produced by an organism and intended for injection.

Snake venom is generally divided into three categories based on the toxins it contains:

• **neurotoxins** (the mambas and several of the cobras, especially the Cape Cobra)
• **cytotoxins** (the Puff Adder, the Gaboen Adder, Black Spitting Cobra and the Mozambique Spitting Cobra)
• **haemotoxins** (the Boomslang and Twig Snake)
• **Neurotoxic venom** affects the nervous system and brain. Neurotoxicity alters the normal activity of the nervous system in such a way as to cause damage to nervous tissue. Symptoms may appear immediately after being bitten. This may include limb weakness or numbness, loss of memory, vision, uncontrollable behaviors, delusions, headache, cognitive and behavioral problems, “pins and needles”, dizziness, poor co-ordination, slurred speech, excessive salivation and drooping eyelids. The respiratory muscles are gradually paralysed, which may lead to respiratory failure.

Neurotoxic venom paralyses the musculature. Early warning symptoms are tingling in the lips, inability to swallow saliva and increasingly difficult respiration. The pupil dilates and does not respond to light. The action of such venoms is usually fairly rapid with severe symptoms manifesting themselves within hours in most cases.

• **Cytotoxic venom** affects the cells (blood vessels). Symptoms will include immediate burning pain at the site of the bite, followed by local swelling of the limb and blistering. Cells undergoing necrosis typically exhibit rapid swelling, lose membrane integrity and shut down metabolism. May require extensive surgery or even result in a loss of a limb. An untreated bite may cause death due to loss of blood, dehydration and secondary infection.

![Necrosis in a Puff Adder bite](image1.png)

Cytotoxic venom destroys the cells - usually causing massive necrosis or death of large parts of flesh. Adders have long fangs and this means the venom can be injected quite deeply into the tissues.

• **Haemotoxic venom** affects the blood clotting mechanism (heart and cardiovascular system). It can also cause organ degeneration and generalised tissue damage. Symptoms include oozing of blood from the site, headaches, nausea, mental disorientation, diarrhoea, lethargy and bruising. This is followed by bleeding from any small cuts and victim may already have bleeding mucous membrane and eventually severe internal bleeding.

![Massive tissue bleeding in victim of a boomslang bite](image2.png)

Haemotoxin causes the prolongation of blood clotting time or destroys the ability of the blood to clot at all. The victim suffers massive tissue bleeding and huge “bruises” develop all over the body. Blood oozes from all mucous membranes. It is slow acting and responds rapidly to the correct antivenom. In severe cases massive transfusions of whole blood may be necessary.
VERY DANGEROUS

CAPE COBRA (Naja Nivea) Very dangerous

Size: A moderate size cobra (maximum 1.6 m).
Venom: Neurotoxic (It has the most potent venom of all the African cobras).
Colour: Varied, from shades of yellow, brown, black to 'speckled'. The Cape Cobra is therefore also known as the "Geelslang", "Koperkapel", "Bruinkapel" en "Spikkelkapel".
Behaviour: The Cape Cobra is a very nervous snake that spreads its hood when confronted and does not hesitate to strike. It becomes aggressive if cornered, but given space it is most likely to retreat. These snakes are primarily active during the day and early evening.
Danger to man: This is an extremely dangerous cobra that will stand its ground if confronted. Bites are often fatal, with the victim dying of suffocation due to respiratory collapse.
BLACK SPITTING COBRA, ‘the Black Spitter’ (Naja Woodii)  

**Very dangerous**

**Size:** The Black Spitting Cobra is a moderate size Cobra – 1.2 to 1.5m long. Has the ability to raise its body, spread a narrow prominent hood. It spits its venom 2m or more.

**Venom:** Predominantly Cytotoxic. When confronting a human, it generally aims its venom at the face. Fangs smallish and is located in front of the mouth. If the venom enters the eyes, it causes great pain and must be treated immediately.

**Colour:** Pitch black. Eyes are medium in size and have round pupils. The head is fairly distinct from the body. Exaggerated by venom glands

**Behaviour:** Largely nocturnal - active during the night. Will stand its ground if provoked. Very nervous, will bite and spit readily

**Danger to man:** The snake **spits or bites.** Its venom is potentially deadly. Venom causes serious tissue damage, with Minor neurological symptoms. A bite from the Black ‘Spitter’ requires extreme Medical Emergency.
**BOOMSLANG** *(Dispholidus Typus)*  

**Very dangerous**

**Size:** The Boomslang average length is 1.2-1.5m, with a maximum length of nearly 2m.

**Venom:** *Potently haemotoxic*, causing severe internal bleeding and bleeding from the mucus membranes. If left untreated, may result in fatal haemorrhage. Effective antivenom is available at the National Health Laboratory Service in Johannesburg.

**Colour:** Most colour variation than any other South African snake. Juveniles light grey to brown. Most females are light to olive brown, whereas males are either green to olive green with black interstitial skin, or bright green with black-edged scales giving some cross-barred markings. Brick-red specimens are also found in some areas.

**Behaviour:** Notable unobtrusive, shy and diurnal snake that spends most of its time in trees and shrubs. Hunting is done in trees and shrubs. If provoked will inflate the neck region. Although the fangs are situated far back in the mouth, the Boomslang can open its mouth as wide as 170 degrees.

**Danger to man:** Though the venom is deadly, this shy snake very seldom bites.
PUFF ADDER (*Bitis Arietans*)  
**Very dangerous**

**Size:** A short stubby heavy bodied snake (max. 1.4m) with a triangular head.  
**Venom:** Potent cytotoxic with a degree of haemotoxicty - (one of the most toxic of any adder)  
**Colour:** The head has a big triangular shaped head and well defined nostrils.  
**Behaviour:** A slow moving, bad tempered and excitable snake that may hiss or puff when disturbed. It is mostly active after sunset. They may strike suddenly and at very high speed, considered to be one of the fastest strikers in the world.  
**Danger to man:** Relies on camouflage to escape detection bad-tempered snake with fangs up to 18mm considered to be South Africa’s most dangerous snake

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HARMLESS

MOLE SNAKE (*Pseudaspihis Cana*)  
**Harmless, but can inflict a nasty bite**

**Size:** A large thick harmless snake (max. 2m) with a powerfully muscled body. It has a small head and pointed snout.  
**Venom:** A non-venomous snake (constrictor) with a powerful bite (the teeth may inflict painful cuts).  
**Colour:** Adults are usually light grey to brown, dark brown, brick red or black and yellowish.  
**Behaviour:** Large powerful constrictor with a pointed snout for burrowing. It spends most of its time underground in search for food.  
**Danger to man:** Not considered harmful but large adults may inflict a harmful bite.

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Appearance variation of a Mole Snake
Snakes in South Africa do not go into hibernation but become far less active in winter, many sheltering in underground burrows or in hollow tree trunks but on hot days snakes may come out to bask. Some of our snakes, in some parts of their range, mate right into winter and in Gauteng this is true for both pythons and Puff Adders.

The main snakebite season is from January to April/May – hot and wet summer months and during this period about 80% of snakebites in Southern Africa are recorded. Most victims are bitten at night and around the ankle when they accidentally stand on or near snakes. Otherwise many victims are bitten on the hand.

**FIRST AID**

What **TO DO in a snakebite emergency**;

- Keep the patient as immobile as possible
  - Keep in mind that shock is probably present in all snakebite cases, whether from venomous or non-venomous species.
  - Shock can kill even more rapidly than snake venom.
  - Acquaint yourself with the symptoms of shock.
  - Be prepared to deal with shock symptoms in **ANY** snakebite victim.
  - Even those bitten by non-venomous species.
  - People have died of such bites in the past.
- Keep calm and act quickly and sensibly.
- Make a note of the time the bite occurred. This will help physicians to check on the progress of the venom.
• If possible phone ahead and clearly explain to the hospital that a possible snakebite case is on the way. If a positive identification of the snake can be made, make sure they know what to expect (as long as there is no risk to the victim of a second bite or of someone else being bitten).
• Do not attempt to catch or kill the snake – rather take a photograph from a safe distance.
• Elevate the affected limb.
• Reassure the victim that they will recover.
• Remove jewellery and tight clothing, including the victim’s shoes.
• If the victim stops breathing, begin mouth-to-mouth resuscitation
• Be prepared to render artificial respiration in the case of a cobra bite. A dangerous sign of impending lung paralysis is when the victim cannot blow out a match held at arm’s length. The venom does not kill - the inability to breathe is what causes death.
• Be prepared to keep the airways open and make sure the patient does not drown on his own saliva.
• Immobilise the victim, who must lie down and be kept as still as possible and transport to a hospital.
• In the case of a Cape Cobra - you want to get them to a hospital as fast as possible whilst in the case of the other dangerous snakes;
  - You have time to drive carefully to the nearest major medical facility.
• In the case of cytotoxic envenomation (the Puff Adder, the Black Spitting Cobra) DO NOT APPLY A TOURNIQUET get the victim to hospital as soon as possible.
• If a snake spits into someone’s eyes,
  - rinse the eyes with large amounts of water or bland liquid, preferably by holding the head under a running tap - NO CRYSTALS
  - Antibiotic eye ointment will prevent bacterial infection
  - MUST be treated immediately
• Use a bag valve mask as required (if you have received the appropriate training).
• Observe the person and record the symptoms and the time taken for them to appear.

Shock - How to Recognise and Treat

Shock is a condition in which the circulatory system fails to circulate blood throughout the body properly. It is a progressive deteriorating condition that can be fatal. It is present to some degree in ALL physical trauma.

Shock CAN kill.

The first indication that a person is going into shock is restlessness or irritability. Some of the symptoms of shock are:

• Heavy or difficult breathing
• Rapid breathing
• Racing or Pounding heartbeat
• Rapid, weak pulse
• Excessive sweating
• Pale or bluish skin
• Excessive thirst
• Nausea, vomiting
• Drowsiness or unconsciousness.

Although it is impossible to care for shock by first-aid alone, you can take measures that could be life-saving. First-Aid Treatment for shock is:

• Reassure the victim and keep him/her calm. Help them rest comfortably (pain can intensify the body’s stress, which accelerates shock).
• Have the victim lie down. Keeping them comfortable is the key.
• Keep your patient from becoming overheated or chilled. If a source of cold water is nearby, wet a cloth and wash their face regularly and lie them in the shade. If it is a cold day, wrap them in a blanket.
• If you sense that the victim is slipping into unconsciousness, take measures to prevent this from happening.
• Above all, keep the victim comfortable! Strike up a conversation with them and continue to reassure them.
• Once shock sets in, the victim's condition will continue to deteriorate, so getting help or getting the victim to help ASAP is the most important thing.

If you are within an hour of the nearest hospital with a trauma unit (ICU):

Do not carry out any first-aid measures. It is far more important to transport the victim to a Hospital, where they can receive professional treatment, IT WASTES VALUABLE TIME!

If you are a few hours away from a hospital with a trauma unit (ICU):

The first aid of choice, in snakebite, is the pressure bandage

The aim of the pressure bandage is to immobilise the limb and restrict the flow in the lymphatic system. This will slow the transport of the venom dramatically giving you the few hours extra to transport the patient to a well-equipped facility where medical practitioners can take over.

A word of advice - many medical men have never seen or treated snakebite. It is fairly rare. Telephone your nearest Poison Centre, University. They usually are able to give advice on physicians with experience of handling snake envenomation. You may ask the treating physician to consult with such a person.

• Arrange to meet the ambulance en route.
• If you cannot identify the snake, apply a pressure bandage, not a tourniquet, firmly around the area of the bite, covering the entire limb (from fingertip to armpit; from toe to groin).
• Apply hand pressure at the site of the bite until a bandage or strips of fabric can be obtained.
• Note: however, that pressure bandages should not be used for adder or spitting cobra bites.
• Get the victim to lie down immediately. Relax and reassure them. Keep calm yourself - you will have enough time. Talk soothingly and be confident.
• Using a crêpe bandage (or torn up strips of material) bandage the bitten limb.
  o Start at the bite site and work upwards.
  o Do not remove clothes as the movement required will assist the venom to spread.
  o Wrap the limb as tightly as you would for a sprain.
  o Firm, but do not cut off the blood supply.
  o Apply a splint to the limb to immobilise it.
  o Avoid massaging or rubbing the bite area.
  o Do not remove the pressure bandage until medical personnel are ready to start treatment.

A VICTIM OF A PUFFADDER BITE TO THE ANKLE IS MADE TO LIE DOWN IMMEDIATELY
OTHER VICTIMS – APPLY A PRESSURE BANDAGE, STARTING AT THE BITE SITE, IS BEGUN
The wide crepe bandage is bound as tightly as for a sprain. The bandage is taken as high up the limb as possible.

A splint is applied to the pressure-bandedaged limb. The splint is bound to the limb so as to immobilise it completely.

The leg is now completely immobilised by the splint. The patient is now ready to be transported to a hospital.

What **NOT TO DO** in a snakebite emergency:

- **Do not cut** or suck the wound. Cutting may expose the wound to secondary infection and sucking just doesn’t work.
- **Do not apply** a tourniquet. Snake venom is absorbed by the lymphatic system, not through the blood system. Tourniquets can promote necrosis and cause severe tissue damage. Call the nearest hospital and ambulance service. This may even result in the need to amputate if left on for too long.
- **Do not apply** ice or give the victim alcohol.
- **Do not panic**, and aim to keep the victim calm.
- **The victim must avoid excessive movement**, such as walking or running. This will increase the heart rate and the possibility of the venom spreading faster.
- **Do not inject** any antivenom as a first-aid measure. Most victims do not require antivenom and a large number of people are allergic to it and can go into anaphylactic shock. This can be life-threatening if adrenaline is not to hand.
Where to go, who to call, if you have been bitten

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<thead>
<tr>
<th>Institution</th>
<th>Phone Number</th>
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<tbody>
<tr>
<td>Life West Coast Private Hospital, Vredenburg</td>
<td>022-719-1030</td>
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<tr>
<td>24 hr Emergency Unit</td>
<td>022-713-4013</td>
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<tr>
<td>Tygerberg Hospital, Poison Unit</td>
<td>086-155-5777</td>
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<tr>
<td>Red Cross Hospital, Poison Unit</td>
<td>021-689-5227</td>
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<tr>
<td>Groote Schuur Hospital, Casualty</td>
<td>021-404-4141</td>
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Where to go, who to call, if your pets have been bitten

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<tr>
<th>Institution</th>
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<tbody>
<tr>
<td>Langebaan Animal Hospital</td>
<td>022-772-1708</td>
</tr>
<tr>
<td>Longacres (Langebaan) Animal Hospital</td>
<td>022-772-0019</td>
</tr>
<tr>
<td>Doornkloof Animal Clinic (Moorreesburg)</td>
<td>022-433-4883</td>
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<tr>
<td>Piketberg Animal Hospital</td>
<td>022-913-1148</td>
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<tr>
<td>Vredenburg Animal Hospital</td>
<td>022-715-1444</td>
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<tr>
<td>Velddrif / Laaiplek</td>
<td>Please contact Langebaan &amp; Wesland Animal Hospitals for consultation hours</td>
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<tr>
<td>Wesland Animal Hospital &amp; after hours</td>
<td>022-713-4970 / (a/h) 083-781-1779</td>
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Who to contact: Local Authorities

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<tr>
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<tr>
<td>Bergrivier Municipality - Piketberg</td>
<td>022-913-6000</td>
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<tr>
<td>Bergrivier Municipality – Velddrif</td>
<td>022-783-1112</td>
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<tr>
<td>Saldanha Bay Municipality</td>
<td>022-701-7000</td>
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<tr>
<td>Swartland Municipality-Moorreesburg</td>
<td>022-433-2246</td>
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<tr>
<td>West Coast District Municipality</td>
<td>022-433-8400</td>
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Who to contact: CapeNature

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<tr>
<th>Institution</th>
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<tr>
<td>CapeNature, Gatesville</td>
<td>021-483-0000</td>
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<tr>
<td>CapeNature, Porterville (enquiries: Donnie Malherbe)</td>
<td>022-931-2900</td>
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Permitted, by CapeNature, to ‘Catch, Remove & Release’ Snakes in your area

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Tanya Heald (HOW Rescue)</td>
<td>083-700-6377</td>
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<tr>
<td>Leon Joubert (Vredenburg &amp; surroundings)</td>
<td>083-272-1801</td>
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ACKNOWLEDGEMENTS

- **Johan Marais of the African Snakebite Institute at Hartebeespoortdam**: Written permission to use information from his books *A Complete Guide to Snakes of Southern Africa* and *Snakes & Snakebites in Southern Africa* to compile this document.

- **Marcel Witberg** of Cape Reptile Institute:
  - Provided photographs appearing in this document and shared his expert knowledge on snakes.

- **Marcel Witberg and Kobus Smit**: provision of all the information and photographs on the Black Spitting Cobra (*Naja Woodii*).

- **Pierre Joubert** of Reptile Wonders: provided photographs appearing in this document and shared his expert knowledge on snakes.

- **Sean Thomas**, Venomous snakes of the Cape Peninsula.

- **Hennie Agenbag**, for the photograph of greenish-brown Mole Snake on page 7.

**Compiled by:** Leon Joubert

Vredenburg, Western Cape
CapeNature, permit to Catch, Transport, Rehabilitate & Release Snakes