

# Toxins from Venomous Animals



**SNAKE BITES, SCORPION  
STINGS & BEE STINGS**

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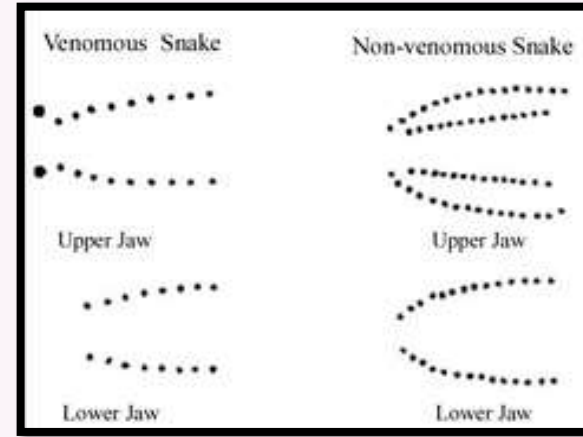
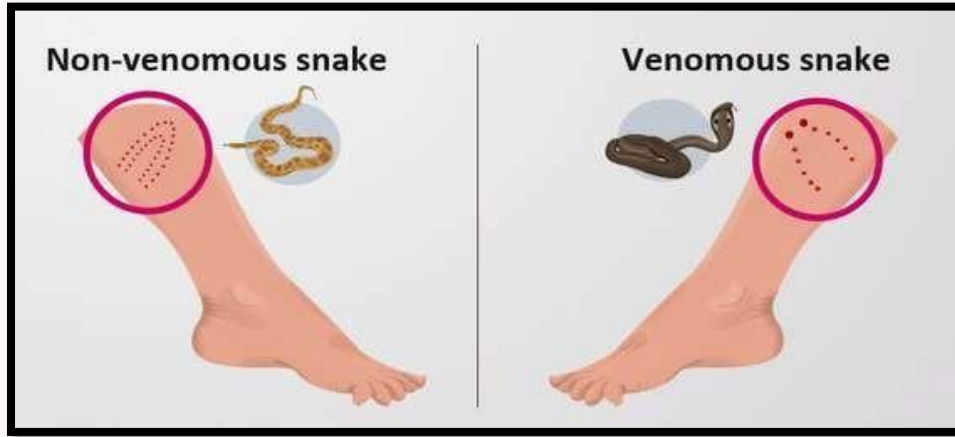




# Snake Bites



# Snake bite is an injury caused by a bite from a snake, often resulting in **puncture** wounds inflicted by the animal's fangs. → اینان



➤ The presence of two puncture wounds indicates a bite by a poisonous snake. In the case of a non-venomous snake bite, small puncture wounds are seen arranged in an arc.

**FANG MARKS:** Classically, two puncture wounds separated by a distance varying from 8 mm to 4 cm depending on the species.



# The effect of the snake bite depends on:

- ① The species of the snake.
- ② The amount of venom injected.
- ③ The area of body bitten.
- ④ The general health of individual.

## Venom injection effects:

- ① Local effects (at the site of the bite).
- ② Systemic effects (spreads through lymphatic & circulatory systems).
- ③ Secondary infections (due to tissue damage & contamination).





## Cytotoxins

- ♦ disrupt blood vessels, cause swelling & tissue damage.

## Myotoxins

- ♦ break down muscles.

# Types of toxins



## Hemotoxins

- ♦ affect blood.

## Neurotoxins

- ♦ paralysis or nervous system damage.

# 1– Signs:

Signs vary depending on the type of snake and the amount of venom injected

♦ Common signs include:

- ① Puncture wound at the site of the bite.
- ② Pain/ redness/ swelling.
- ③ Bruising / local tissue damage.

Bites from vipers & cobras may be extremely painful with local tissue becoming swollen and tender within 5 minutes.



## 2- Symptoms:

**Nausea.**  
**Vomiting.**  
**Diarrhea.**  
**Sweating.**  
**Difficulty breathing.**  
**Vertigo.**  
**Fainting.**

*In severe cases, snake bites can lead to paralysis, convulsions, organ failure, and even death if not treated promptly*



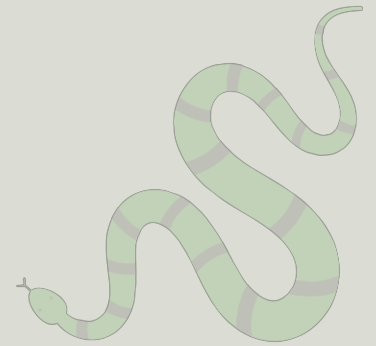
# 3- Management:

- 1) Encourage the victim to stay calm to slow the spread of venom.
  - 2) Remove any tight clothing or jewelry near the bite area as swelling may occur.
  - 3) Immobilize the affected limb [keep it at or slightly below the level of the heart].
  - 4) Clean the wound with soap and water (do NOT apply ice or attempt to suck out the venom).
  - 5) Apply a bandage [use firm pressure; should NOT cut off circulation].
  - 6) Seek medical help (do not catch the snake but try to remember its color and shape).
  - 7) Anti-venom, hydrocortisone, antihistamine or epinephrine auto-injector Monitor vital signs.
- <in case of an allergic reaction or the type of snake is unknown>

## Monitor vital signs

- Anti-venom is an immunoglobulin purified from the serum or plasma of a horse or a sheep that has been immunized with the venoms of one or more species of snakes.
- If anaphylactic shock occurs, STOP it and give adrenaline

- If respiratory distress or bulbar paralysis
- mechanical ventilation





# SNAKEBITE FIRST-AID

## Do's



Bitten by a snake,  
Call the ambulance.



Immobilize the victim.  
Remove belt, jewellery,  
watch, rings, etc as the  
bitten area may swell.



If ambulance is  
delayed, rush to the  
nearest hospital using  
any mode of transport.



Transport the victim lying on left side,  
right leg bent and hand supporting  
the face. Patient will breathe better  
and not choke on vomit.



Inform the doctor  
details of the bite.  
Antivenom is the  
only cure.

## Don'ts



Do not panic.  
Snakebite is a  
treatable condition.



Say no to faith  
healing. Do not try  
to kill or capture the  
snake.



Do not cut or suck the  
bite area.



Do not tie a tourniquet,  
apply ice or massage the  
bitten area as it causes  
further damage.



Do not self medicate or  
apply any herbs or  
spices. Nothing helps.

## How To Avoid Snakebite



Wear a closed pair  
of shoes while going  
out.



Always use a torch  
at night. Look where  
you put your hand or  
foot.



Avoid sleeping on the  
floor and use a well  
tucked mosquito net.



Keep home and  
surroundings clean and  
clutter free. Control  
rodent population.

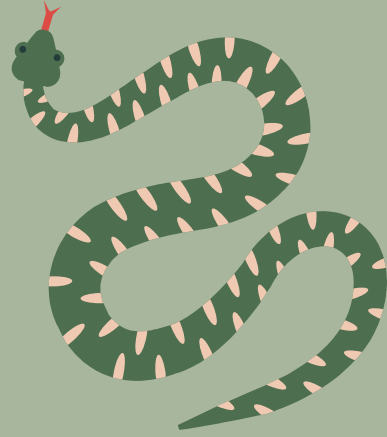


Create awareness in  
communities. Help  
prevent snakebite.



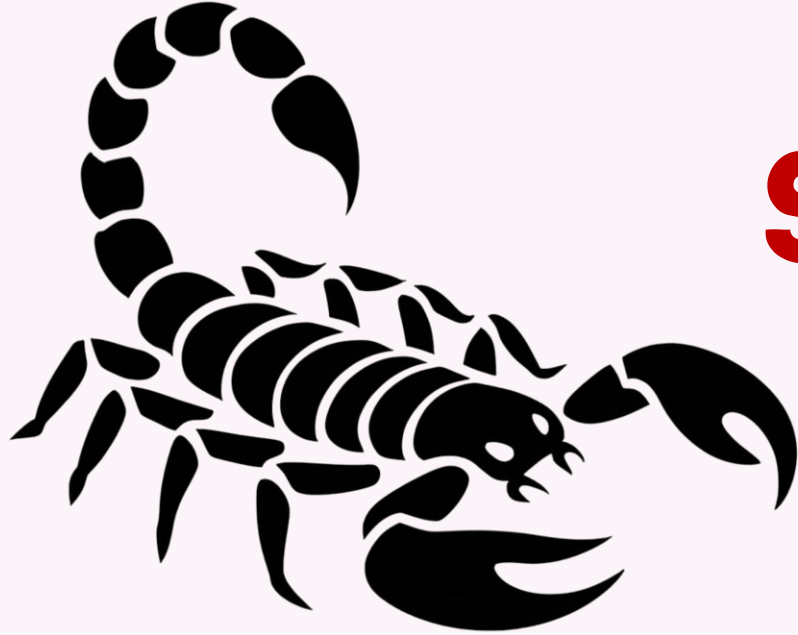
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# "Watch on YouTube"



<https://youtu.be/ymdzYuZWsko?si=Wo87SEIEkFxFxRgf8>





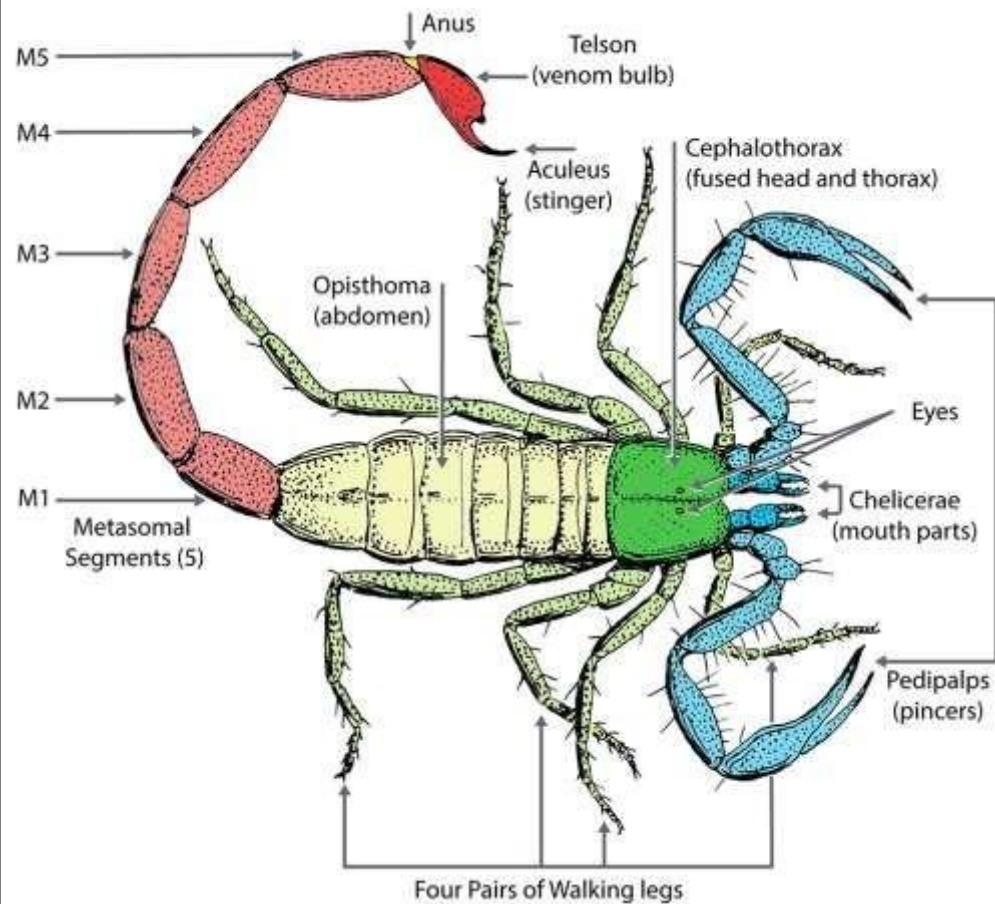
# Scorpion Stings

- **Scorpion stings may cause cutaneous conditions.**

- **The anatomical part of the scorpion that deliver the sting is called a telson.**

- **Most of the scorpions are dangerous to humans**





# Signs & Symptoms :



1. Immediate pain at the sting site, which can range from mild to severe.
2. Swelling, redness, and warmth around the sting area.
3. Numbness or tingling at the site of the sting.
4. Muscle twitching or jerking (myoclonus).
5. Sweating, restlessness, or agitation.
6. Abdominal cramps, nausea, or vomiting.
7. Difficulty breathing or swallowing
8. Increased heart rate or blood pressure / irregular heart beats (arrhythmias).
9. In severe cases, symptoms such as convulsions, drooling, blurred vision, or loss of consciousness may occur



# Management:

Encourage the victim to stay calm to slow the spread of the venom.

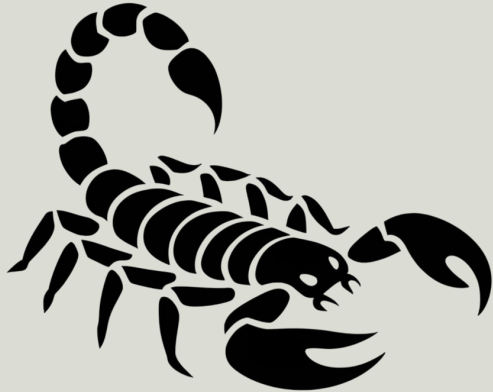
Clean the site of the sting with soap and water.

Apply a cold compress to the area.

Elevate the area [to the same level of the heart]. Use an antihistamine or corticosteroid on the affected area.

Over-the-counter pain reliever(e.g. acetaminophen) to reduce the pain. Monitor the symptoms. Anti-venom

treatment



- epinephrine auto-injector <in case of an allergic reaction or the type of scorpion is unknown>

- Do NOT cut into the wound or apply suction.

# Scorpion Stings 101

## SYMPTOMS:

- Pain and burning
- Numbness and tingling sensation
- Blurry vision, convulsions, and unconsciousness

## STING CARE

- Wash with soap and water
- Apply a cool compress
- Call the Poison Control Center Hotline



## WHO'S AT RISK FOR FATALITY?



- Babies



- Small children



- The elderly



trip**savvy**

# Bee Stings



**A bee sting is commonly known as a sting from a bee { honey bee, sweat bee, and bumble bee }.**

**The sting from most of these species are quite painful.**

**It is important to differentiate a bee sting from an insect bite.**

**It is also important to recognize that the venom or toxins from stinging insect is quite different.**

**The sting injection of apitoxin into a victim body is accompanied by release of alarm pheromones, a process which is accelerated if the bee is fatally injured.**



# Signs & Symptoms :

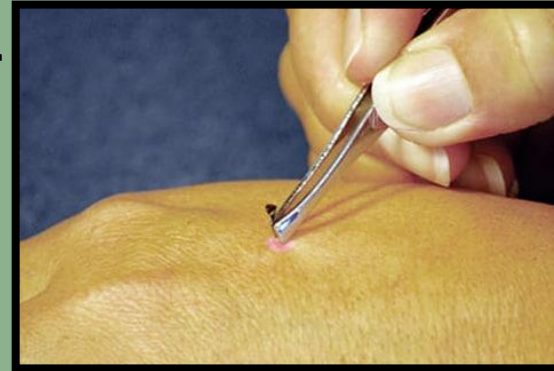
❖ Bee stings can produce different reactions, ranging from temporary pain and discomfort to a severe allergic reaction.

- ① Redness/ Swelling / Itching around the sting area.
- ② Sharp burning pain in the stung area.
- ③ A small, whitespot where the stinger punctured the skin.
- ④ Possibly anaphylactic shock.



# Management :

If the sting is embedded in the skin, hold a pair of tweezers close on the skin, grasp the sting and remove it. As bee stings react to acid, they can be treated by applying some ammonia or soda. Once the stinger is removed, pain and swelling should be reduced with a cold compress. Many traditional remedies have been suggested for bee stings including damp pastes of tobacco, salt, baking soda, meat tenderizer, toothpaste, clay, garlic, urine, copper coins, aspirin, onion. For anaphylactic shock; Use an epinephrine auto-injector.



STEP  
01

Remove the stinger by scraping it off with a fingernail or straight-edged object. Do not squeeze it.



STEP  
02



Wash the affected area with soap and water to remove any remaining venom.

STEP  
03



Apply a cold compress to reduce swelling.

STEP  
04



Apply hydrocortisone cream or calamine lotion to ease redness or itching.



If the casualty begins showing signs of an allergic reaction, go to the hospital.

STEP  
05



LOW BLOOD  
PRESSURE



LOW PULSE



TROUBLE  
BREATHING



SWELLING IN MOUTH  
AND THROAT



***Thank you!***

