

# SNAKES

Snakes are present worldwide, and though many are harmless, others are quite lethal when they bite humans. Since certain workers are at risk for snakebite, employers must take measures to prevent exposure of these reptiles to staff

All snakes are meat eaters. They don't see humans as their next "value meal" but rather as a threat and will strike out when they are startled, provoked or have no means of escape if cornered. There are about 45,000 snakebites per year in the US

Working outside, especially in the summer months, increases the possibility of encountering snakes. Snakes can be dangerous to outdoor workers including farmers, foresters, landscapers, groundskeepers, gardeners, painters, roofers, pavers, construction workers, laborers, mechanics, and any other workers who spend time outside.

The most likely areas in the United States for bites by venomous snakes are in the South and Southwestern States. However, all states except Alaska, Hawaii, and Maine are reported to have poisonous snakes of some kind. Venomous snakes include the rattlesnake, copperhead, cottonmouth, and coral snake.

The first three snakes are members of the pit viper family, the most prevalent being the rattlesnake. Rattlesnakes account for 60% of all snakebites and virtually all fatalities. Most pit vipers have two fangs, which leave characteristic puncture wounds. Non-poisonous snakes leave a row of teeth marks when they bite

Although rare, some workers with a severe allergy to snake venom may be at an extra risk of death if bitten. It has been estimated that 7,000–8,000 people per year receive venomous bites in the United States, and about 5 of those people die. The number of deaths would be much higher if people did not seek medical care.

## RECOMMENDATIONS FOR PROTECTING WORKERS

Employers should protect their workers from snake bites by training them about:

- Their risk of exposure to snakes
- How to identify poisonous snakes
- How to prevent snake bites
- What they should do if they are bitten by a snake

## TYPES OF VENOMOUS SNAKES

### Rattlesnakes



There are many species of rattlesnakes in the United States. Rattlesnakes are the largest of the venomous snakes in the United States. They can accurately strike at up to one-third their body length. Rattlesnakes use their rattles or tails as a warning when they feel threatened. Rattlesnakes may be found sunning themselves near logs, boulders, or open areas. These snakes may be found in most work habitats including the mountains, prairies, deserts, and beaches.

**U.S. Geographic Region:** Across the United States.

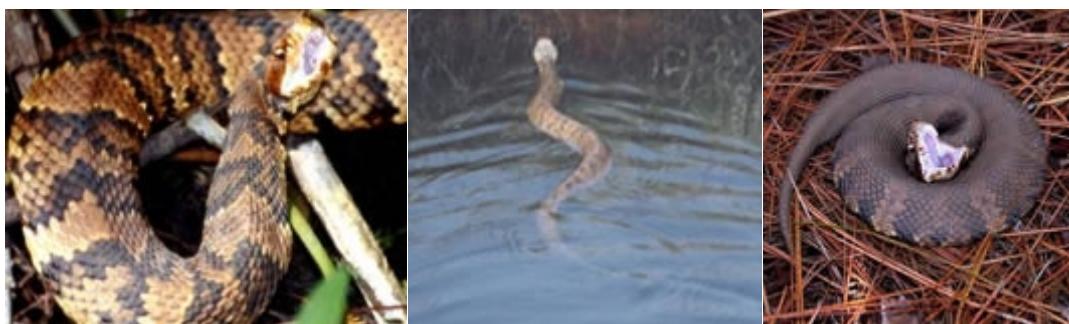
### Copperheads



Copperheads vary in color from reddish to golden tan. The colored bands on their body are typically hourglass-shaped. Most adults are 18–36 inches long. They are not usually aggressive, but will often freeze when frightened. Workers are more likely to be bitten when they unknowingly step on or near a copperhead. Copperheads are often found in forests, rocky areas, swamps, or near sources of water like rivers.

**U.S. Geographic Region:** Eastern states, extending as far west as Texas.

### Cottonmouths/Water Moccasins



Cottonmouth snakes average 50–55 inches long. The adult snake's skin is dark tan, brown, or nearly black, with vague black or dark brown crossbands. Juveniles have a bold crossbanded pattern of brown or orange with a yellow tail. Cottonmouths are frequently found in or around water. They do not scare easily and will defend themselves when threatened.

**U.S. Geographic Region:** Wetland areas, rivers, lakes, etc., in the southeastern states.

### Coral Snakes



These snakes are often confused with nonvenomous king snakes, which have similar colored bands although in a different arrangement. However, if the red bands are touching the yellow bands, then it is a venomous coral snake. Coral snakes tend to hide in leaf piles or burrow into the ground.

**U.S. Geographic Region:** Wooded, sandy, or marshy areas of the Southern United States.

### **Preventing Snake Bites**

Workers should take the following steps to prevent a snake bite:

- Do not try to handle any snake.
- Stay away from tall grass and piles of leaves when possible.
- Avoid climbing on rocks or piles of wood where a snake may be hiding.
- Be aware that snakes tend to be active at night and in warm weather.
- Wear boots at least 10 inches high and long pants when working outdoors.
- Wear leather gloves when handling brush and debris.
- Watch where you place your hands and feet when removing debris. If possible, don't place your fingers under debris you are moving.
- If you see a snake, step back and allow it to proceed.
- Watch for snakes sunning on fallen trees, limbs or other debris.
- A snake's striking distance is about 1/2 the total length of the snake.
- When working in close contact in and around dense brush you should be extra attentive.
- Never step OVER a log or rock or other object that blocks your view of where you are walking.
  - Always step on top of these objects.
  - Look on the other side to see if there are any threats.
  - After insuring its clear, step over and continue on your way.
- When the ambient temperature of the air is cool (60° F or below) and the sun is bright snakes are most likely to be observed basking during the day to help keep them warm through the night. Special care should be taken when working around the types of favorite basking substrates such as rocks, sand, metal, cement, and wood
- The profile of a snakebite victim that applies equally to you and me is somebody afield in warm weather at low light, or during spring or fall when snake activity is limited to

daylight hours.

## **Snake Bite Symptoms**

If you are bitten you should seek immediate medical attention. Effects from a bite can be instant or gradual. Puncture wounds can easily become infected from non-poisonous varieties. A tetanus shot is required if the victim hasn't had one within 5 years.

Signs or symptoms associated with a venomous snake bite may vary depending on the type of snake, but may include:

- A pair of puncture marks at the wound
- Redness and swelling around the bite
- Severe pain at the site of the bite
- Nausea and vomiting
- Labored breathing (in extreme cases, breathing may stop altogether)
- Disturbed vision
- Increased salivation and sweating
- Numbness or tingling around your face and/or limbs

## **Snake Bite First Aid**

**Workers should take the following steps if they are bitten by a venomous snake:**

1. Keep the person calm, reassuring them that bites can be effectively treated in an emergency room. Restrict movement, and keep the affected area below heart level to reduce the flow of venom.
2. If you have a pump suction device (such as that made by Sawyer), follow the manufacturer's directions.
3. Remove any rings or constricting items because the affected area may swell. Create a loose splint to help restrict movement of the area.
4. If the area of the bite begins to swell and change color, the snake was probably poisonous.
5. Monitor the person's vital signs- temperature, pulse, rate of breathing, and blood pressure -- if possible. If there are signs of shock (such as paleness), lay the person flat, raise the feet about a foot, and cover the person with a blanket.
6. Seek medical attention as soon as possible (dial 911 or call local Emergency Medical Services.)

You may also call the National Poison Control Center (1-800-222-1222). The center can be called from anywhere in the United States. This national hotline number will let you talk to experts in poisoning. They will give you further instructions. This is a free and confidential service.

7. Try to remember the color and shape of the snake, which can help with treatment of the snake bite. Bring in the dead snake only if this can be done safely. Do not waste time hunting for the snake, and do not risk another bite if it is not easy to kill the snake. Be careful of the head when transporting it -- a snake can actually bite for up to an hour after it's dead (from a reflex).

8. Inform your supervisor as soon as possible

**Do Not:**

- Do NOT allow the person to become over-exerted. If necessary, carry the person to safety.
- Do NOT apply a tourniquet.
- Do NOT apply cold compresses to a snake bite.
- Do NOT cut into a snake bite with a knife or razor.
- Do NOT try to suck out the venom by mouth.
- Do NOT give the person stimulants or pain medications unless a doctor tells you to do so.
- Do NOT give the person anything by mouth.
- Do NOT raise the site of the bite above the level of the person's heart.
- Do not wait for symptoms to appear if bitten, seek immediate medical attention.
- Do not apply ice or immerse the wound in water.
- Do not drink caffeinated beverages.
- Do not drink alcohol. Alcohol will increase the venom absorption.