

## ADVANCED FIRST AID MEASURES

*(These measures are adopted from the Wilderness Medical Society Position Statements.)*

### Diagnosis of Envenomation

- A. Crotalidae (pit vipers, includes rattlesnakes, copper heads, cottonmouths)
1. Pain at the bite site and swelling, occurring within 10-15 minutes, are the most common signs. Rarely, these signs are delayed.
  2. Fang puncture wounds are not always present. A single puncture or scratch may be the only fang mark.
  3. The degree of envenomation does not correlate with the size, quality or number of fang marks. 20-30% of bites do not result in envenomation.
- B. Elapidae (includes coral snakes)
1. Signs and symptoms may be delayed for a few hours and fang marks may not be seen, so envenomation must initially be assumed.

### Walk-out Versus Evacuation

Walk-out should be attempted if the distance is not too great and the bitten person is physically able to ambulate. Walk-out is imperative if the person is alone. Severe manifestations of snake venom poisoning may not occur for 2-6 hours following the bite, so there is time to travel in most cases. Evacuation (carrying-out) is recommended if walk-out requires a strenuous climb or long distance.

### Incision and Suction

This is not effective in any type of bite, and is not recommended.

### Lymphatic Constriction Band

There is no evidence that constriction bands have any definite treatment value. Most consultants feel they interfere with definitive treatment and result in increased local tissue edema and damage; however, some consultants still advocate their use.

### Splint Immobilization of Bitten Extremity

There is no evidence that splints or pressure wraps have any value in the first aid treatment of snake envenomation. However, an upper extremity splint and elevation may make the patient more comfortable.

### SIGNS OF SERIOUS SNAKEBITE (ENVENOMATION)

1. Fang marks
2. Swelling
3. Strange or unusual sensations around the mouth is usual within the first 5 minutes:
  - tingling
  - a metallic, minty, or rubbery taste
4. Bruising about the bite will usually occur within 1 to 2 hours. Pain is not usually severe.
5. Blisters form usually at about 2 hours after the bite. At first the blisters are filled with clear fluid. Later they become filled with blood.

### ✚ FIRST AID:

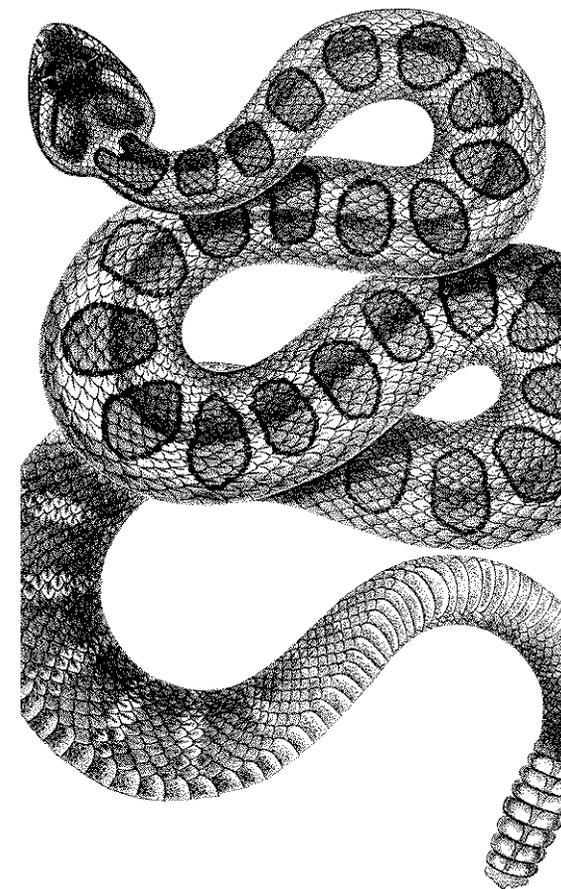
1. Put the victim at rest.
2. Give the victim reassurance.
3. Immobilize the affected part.
4. Watch for any adverse reaction.
5. Transport to hospital as quickly as possible.

### IMPORTANT NUMBERS:

Rocky Mountain Poison Control Center:  
**(303) 629-1123**  
Golden Police, Fire and Ambulance: **911**  
Jeffco Sheriff, Fire and Ambulance: **911**

# SNAKEBITE IDENTIFICATION

— A guide to —  
Prevention ✚ First Aid



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# Snakebite Identification, Prevention & First Aid

*John R. McInerney, M.D., F.A.C.E.P.*

- The prairie rattlesnake is the only poisonous snake found in the Golden area.
- A prairie rattlesnake can be easily confused with a bull snake.
- Snakes are active in an outdoor temperature range between 70 and 99 degrees F.
- Rattlesnakes are active in the Golden area between mid-March and mid-October.
- Rattlesnakes have been found at elevations as high as 13,000 feet.
- A snake's rattle makes a noise like escaping steam: "sissss". It does not sound at all like a cricket or cicada.
- Snakes use their rattle to scare away animals they do not want to kill. When hunting, a rattlesnake is silent.
- When a person and a rattlesnake meet, the snake will usually do everything possible to get away or scare the person away.
- A rattlesnake will bite a human only when surprised or when it cannot get away.
- Approximately 40% of all serious snake bites are caused by people purposely disturbing the snake.
- A snake can strike a distance equivalent to the length of its body.
- A bite of a small prairie rattlesnake is just as dangerous as the bite of a large snake.
- Rattlesnakes, even when the heads are cut off, can strike and inject venom with their fangs an hour after they are killed.

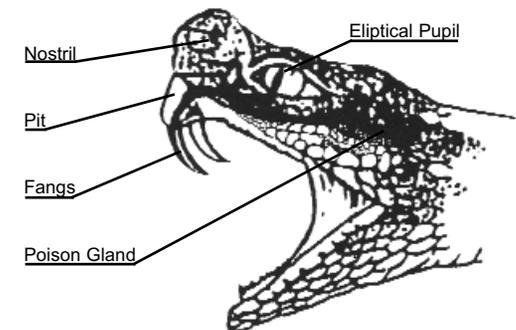
## RULES FOR AVOIDING SNAKEBITES:

1. Don't put your hands or feet in places you cannot see and do not put them in places without first looking.
2. Don't turn over a rock or fallen tree without making sure your hands are out of striking distance of any snake that might be underneath.
3. Don't crawl beneath fences without first looking under them carefully.
4. Don't sit down on a log before looking about carefully.
5. Don't gather firewood after dark.
6. Don't sleep near wood or rubbish piles, at the entrance to a cave, or near swampy areas.
7. Don't disturb snakes or try to kill them.
8. Don't attempt to capture snakes.
9. Don't handle freshly killed snakes.
10. Don't get within the snake's striking distance in attempting to identify it.
11. Don't walk at night in the open spaces of this area unless you wear boots. In fact, never walk in any rattlesnake haunt in low-cut shoes.
12. Don't swim in waters known to be infested with snakes.
13. Examine supposedly dead snakes with a stick, not with your hands.
14. If you must transport a dead snake, put it on the end of a long stick or shovel.
15. Remember that rattlesnakes may be found at high altitudes, and they can climb walls and trees.
16. In hiking, stay on paths and avoid tall grass and heavy underbrush.
17. Climb up cliffs, between rocks and over boulders with caution.

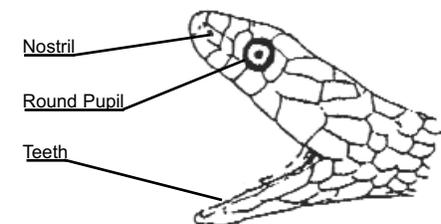
18. Avoid traveling alone in snake-infested areas.
19. Make camp on open ground.
20. Use caution when moving tree limbs in or near swampy areas, where snakes are known to sun themselves.
21. Be particularly careful when moving boats left on shore for several hours.
22. Most importantly, don't "horse around" with or near snakes.
23. If you are bitten, get away from the snake as quickly as possible.

*These rules were taken almost verbatim from the book Snake Venom Poisoning, by Findlay E. Russell, M.D., Ph.D., pp 268 & 269.*

## POISONOUS (Pit vipers)



## HARMLESS



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