

Avoiding and Treating Timber Rattlesnake Bites

The question that often arises when the word rattlesnake comes up is “what if one bites me?” The likelihood of being bitten by a rattlesnake is quite small. Timber rattlesnakes are generally very docile snakes, and typically bite as a last resort. Instead, its instincts are to avoid danger by retreating to cover, or by hiding using its camouflage coloration to blend into its surroundings. If cornered, and provoked, a timber rattlesnake may respond aggressively. It will usually rattle its tail to let you know it is getting agitated. The snake may even puff itself up to appear bigger. Upon further provocation, the snake may bluff strike, where it lunges out, but doesn't open its mouth, or it may strike with an open mouth. Because venom is costly for a rattlesnake to produce, and you are not considered food, a snake often will not actively inject venom when it bites. In fact, nearly half of all timber rattlesnake bites to humans contain little to no venom, commonly referred to as dry or medically insignificant bites. Death due to a rattlesnake bite is unlikely. Timber rattlesnake bites in Minnesota are rare. Most bites result from people intentionally handling rattlesnakes and often involve the use of alcohol or drugs.

If you encounter a rattlesnake, or a snake you cannot identify, please do not try to capture or kill it. Statistics show there is a greater risk of being bitten when a person attempts to approach and kill a snake, rather than leave it alone. If you have a timber rattlesnake in your yard that is causing concern, you may contact your local law enforcement center for assistance. They have a list of people who will respond to rattlesnake calls, and can relocate a snake if needed, or provide advice on how to get the snake to move away from your property.

If a person is bitten by a timber rattlesnake, the following steps may benefit the bite victim.

IMMEDIATELY FOLLOWING A BITE:

Do:

- **Move away from the snake to avoid sustaining further possible bites**
- **Remain calm**
- **Remove rings, watches, bracelets**

Don't:

- **Do not cut the snakebite**
- **Do not apply ice or heat**
- **Do not attempt to suck the venom out with your mouth**
- **Do not administer alcohol or drugs**

Bite Response Measures:

Step 1: If a cell phone or radio is available, call for help immediately. Reassure the victim and do not allow unnecessary movement. Place the bitten limb in a comfortable position at a level slightly lower than the victim's heart. If the bite victim is in the field and is not accessible by vehicle/ATV, that person should walk slowly and calmly out of the field, trying to keep his/her heart rate down.

Step 2: Note the time that the bite occurred as the timeframe from bite to treatment is important for determining level of treatment. Look for the exact site of the bite (identify fang punctures). If you have a pen or a marker, outline the red, swollen area around the bite. This allows medical personnel to track the rate of swelling, which helps in determining the severity of the bite. If you do not have a pen/marker, this step may be skipped. It is more important to get to a medical facility than to search for a pen/marker.

Step 3: **Lightly** wrap a wide constriction band around the bitten limb just above the bite site. Leave the constriction band in place until the victim has arrived at a medical facility and antivenom therapy has been initiated if deemed necessary. Do not apply ice to the bite as this can concentrate any venom in the wound and cause more tissue damage.

Step 4: Get to a hospital that carries antivenom as soon as possible, preferably within one hour of the bite. Call ahead, if possible, to alert them you are coming. Verify that they have **CroFab Antivenom**.

For consultation in case of a rattlesnake bite, please contact Dr. Dan Keyler, a retired Hennepin Medical Center toxicologist who specialized in venomous snake bites. (612) 840-0425.

Area Medical Centers that Stock Rattlesnake Anti-Venom:

Minnesota: Mayo Clinic Health System – Red Wing
Red Wing, MN
(651) 267-5260

Mayo Clinic
Rochester, MN
(507) 255-5591

Hennepin County Medical Center
Minneapolis, MN
(612) 873-3000

Wisconsin: Gunderson/Lutheran Medical Ctr
LaCrosse, WI
(608) 782-7300

Franciscan Skemp Healthcare
LaCrosse, WI
(608) 785-0940

Iowa: Winneshiek County Memorial Hospital
Decorah, IA
(563) 382-2911



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Timber rattlesnake venom is considered a hemotoxin, which means it acts to destroy tissue as an aid in digesting its prey. With a timber rattlesnake bite, skin around the bite will typically swell and turn black, and may slough off as the skin heals. If a person or animal is bitten, it is important to seek medical attention in a timely manner to minimize the amount of tissue damage that may occur if venom was injected. Getting medical care within a few hours of the bite is highly recommended, and a person should not wait until the next day to see if they have a reaction to the bite. Not all physicians have experience with venomous snake bites, especially in Minnesota, since they are not common. If this is a concern in the event of a bite, you can request your doctor consult with Dr. Dan Keyler, a retired Hennepin Medical Center toxicologist who specialized in venomous snake bites. He can be reached at (612) 840-0425 cell.

The fear of snakes is a learned behavior, which has been exacerbated by such things as myths and media misrepresentation. Public attitudes toward snakes are slowly changing. More people are beginning to see snakes not only as fascinating creatures, but also as important animals in nature. Timber rattlesnakes, which feed primarily on small mammals, help to keep rodent populations in check and help reduce threats associated with rodent-transmitted diseases.

Timber rattlesnakes live in the blufflands of southeastern Minnesota. They are not found anywhere else in the state. They can be distinguished from nonvenomous snakes by a pronounced off white rattle at the end of a black tail, by their head, which is solid brown/tan and noticeably larger than their slender neck, and by the dark, black bands running across their body. The bands often resemble the black stripe on Charlie Brown's t-shirt.

Bite Response for an Animal

If a dog is bitten by a timber rattlesnake, it should be taken to a veterinarian. If a horse or livestock is bitten, you should call a veterinarian to come out to check the animal. Most animals, if bitten by a rattlesnake, are bitten in the face. If venom is injected, it is usually not a fatal dose, but severe swelling will occur and can close off nasal passages. It is important to seek medical attention for the animal so that the swelling can be reduced and air passages opened up. Use of antivenom on dogs and livestock is an option, but is often not necessary. Most veterinarians with venomous snake bite experience treat a bite with a series of steroids, anti-biotics and anti-inflammatory drugs rather than antivenom. Since most local veterinarians have limited to no experience with venomous snake bites, it is recommended they

contact the Pet Poison Hotline at 1-800-213-6680. They have several board certified veterinary toxicologists that are very knowledgeable about treatment of venomous snake bites and can provide great professional advice. Dr. Ahna Brutlag, Dr. Justine Lee, and Dr. Colleen Almgren are all consulting vets through the Hotline with venomous snake bite experience. Most medium- to large-sized dogs, livestock and horses survive a timber rattlesnake bite.

IMMEDIATELY FOLLOWING A BITE:

Do:

- * **Move the animal away from the snake to avoid sustaining further possible bites**
- * **Remain calm, try to keep the animal calm**
- * **Remove collar, bridle, or anything on the head if bitten in the face**

Don't:

- * **Do not cut the snakebite**
- * **Do not apply ice or heat pack**
- * **Do not attempt to suck the venom out with your mouth**

Rattlesnake bites are painful, so a bitten animal may act aggressively as a result of the pain. They may be easily agitated, and sensitive to touch around the bite. Your actions around a bitten animal should be slow and deliberate, in an effort to keep the bitten animal calm.

