

# Snake Bites

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My fear of snakes began in New Braunfels, Texas. I was just a young boy walking down the beautiful Comal River when a flash went by my left eye. Looking back, I could see it was a cottonmouth water moccasin who made a run at biting me in the head, but missed.

Ever since then, I have been wary of snakes.

An old adage is that “Snakes are more afraid of you, than you are of them”. Experience has shown this to be true, with the possible exception of the copperhead. I have known a copperhead to stand its ground, or even advance, if confronted on its territory.

The best snake bite advice you will ever hear comes from Australia: “Take two steps back, Jack”.

If you see a snake, any snake, give it as much room as you can, as quickly as you can. Avoiding a snake bite is infinitely better than dealing with one.

All four types of venomous snakes in Texas are present here in Lee county. I have seen water moccasins, a coral snake and too many copperheads to count on my small property. I don't venture out at night this time of year without a light to help me avoid stepping on the copperheads. Luckily, I have never come across a rattlesnake, but folks west of here in Blue and Paige report them regularly.

Each year about a dozen people in Lee county get bitten by venomous snakes, almost always a copperhead. And almost always on the hand or arm. The lesson is clear: do not stick your hand down somewhere you can't see. Tall grass surrounding your water meter or a fence line or even your outside air conditioning unit is no place to reach down with a bare hand. Use a stick to probe the area, just in case. The same is true of peeling old lumber off a pile: do not put your hand where you can't see it.

However, as ARES members, we know things will happen. People will get bitten by snakes, maybe even you. Understanding how snake venom progresses through a human body will greatly assist you in remembering what to do in case of a snake bite.

Understand this: snake venom travels the body via the lymphatic system, not the blood stream. Cutting the wound and attempting to suck out the poison is a waste of time and leaves an ugly scar. The venom is already in the flesh and will travel the body through the lymphatic system, not the blood. Knowing this is key to every thing you should do in the event of a snake bite in Texas.

Number one is to get away from the snake. Don't let it get a second bite or bite someone else by trying to punish the snake. A picture of it will help confirm its identity, but only if it is safe to take the photo.

From then on there is only one more rule: the snake bite victim moves and breathes as little as possible. The lymphatic system is not pumped like the blood stream. Snake venom enters the lymphatic system at the site of the bite and will not travel far in the body unless it is pushed by muscles or arteries. You cannot “walk off” a snake bite. Any physical exertion by the bite victim advances the venom. Keep the bite area lower than the heart at all times. Keep a stiff upper lip about the situation. Panic only increases the heart rate, thereby pushing the venom along in the adjacent lymphatic system.

Do not move. Call 911 or have someone else go for help. The bite victim may be carried out to facilitate extrication by first responders, but every effort must be made to avoid physical exertion. Splint the affected limb to pass the time until help comes. Do not constrict the limb with a tourniquet or any tight bandages. Remove anything that might get in the way of the almost certain swelling of the affected limb, things like jewelry, shoes or boots.

Venomous snake bites vary greatly on the amount of damage they do to the bite victim. They may pass no venom at all (a “dry” bite) or clothing might cause it to just graze the skin rather than sinking deep. Or it just might be an unlucky day for you. In any case, you must get to medical help as soon as possible. Waiting to seek medical help until severe symptoms appear is why people die of snake bites in Texas.

Once you are at the hospital you will soon learn the importance of CroFab, or Crotalidae polyvalent immune Fab. It is the only antivenom yet developed to stop the destruction caused by pit viper bites: rattlesnakes, water moccasins and copperheads. It does this by binding to venom molecules, then facilitating their removal from the body. A typical dosage for a full on pit viper bite is between 4 and 12 vials administered intravenously or by injection. Each vial costs something close to \$10,000, you will be very glad you have health insurance.

I return to where we started: avoiding a snake bite is infinitely preferable to dealing with one. Be careful in tall grass and do not put your hand where you cannot see it!

This concludes tonight’s training, This is KI5HHI, back to net control.