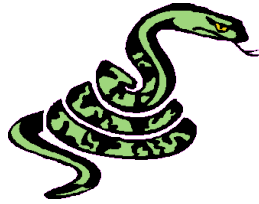


## Dogs and Snake Bites



### "TYPES OF POISONOUS SNAKES"

The United States has fifteen species of rattlesnakes; two kinds of water moccasins, the copperhead and cottonmouth; and two kinds of coral snakes. The six types described here make a good representation of the venomous snakes present in the USA. Fortunately, if your dog happens to be bitten by a poisonous snake the odds are in favor of a complete recovery. The degree of damage inflicted by a venomous snake is determined by a wide variety of variables. The age and species of snake, the intensity and depth of the fang penetration, the amount of venom injected, the location of the bite, and the size of the dog are just a few of the variables. In general, snakes want to be left alone. But along comes an inquisitive dog probing every mysterious hole in the ground, sniffing under downed logs, slogging along the riverbank, and digging up leafy patches on the forest floor... and a lightning strike of the serpentine kind may be the result!

### "WHAT SHOULD YOU DO in the event a snake bites your dog?"

First, let me tell you what "not to do". DO NOT take out your pocketknife and cut Xs over the fang marks! Do not attempt to suck venom through those X marks. "DO NOT GRAB THE SNAKE" in a fit of anger and attempt to choke it to death. You may be bitten yourself.

### "PLEASE DO..."

- \* Try to identify the snake by taking note of its size, color patterns and the presence or absence of a rattle at the end of the tail.
- \* Look the dog over carefully for fang marks, noting that there may be more than one bite wound.
- \* If bitten on a leg, wrap a constricting band on the affected limb snugly at a level just above the bite wound (on the body side of the wound). This band could be fashioned of a shirtsleeve or other fabric and should be snug but not excessively tight.
- \* Start your journey to the nearest animal hospital while trying to keep the dog as quiet as possible.

### "PREVENTING SNAKE BITES"

- \* While out walking, controlling your dog with a leash may be your best safety device.
- \* Do not allow your dog to explore holes in the ground or dig under logs, flat rocks or planks.
- \* Stay on open paths where there is an opportunity for snakes to be visible.
- \* Keep nighttime walks to a minimum; rattlers are nocturnal most of the year.
- \* If you hear a rattlesnake, keep your dog at your side until you locate the snake; then move away.
- \* Off-trail hiking with an unleashed dog may stir up a snake and you may be as likely a victim as your dog.
- \* If your dog seems unusually curious about "something" hidden in the grass, back off immediately until you know what it is.



### **"WHAT IS VENOM?"**

Venom is a toxic fluid created in specialized oral glands related to salivary glands, and the toxic component is composed of an array of complex proteins. Every snake's venom contains more than one toxin, and in combination the toxins have a more potent effect than the sum of their individual effects. Most of the toxic effects are due to the enzymes in the venom and there have been about twenty-five enzymes discovered so far. Venoms are of two types, either neurotoxic (affecting the nervous system) or hemotoxic (affecting the blood and vessels). The venom of many snakes contain both neurotoxic and hemotoxic components.

### **"WHAT DOES VENOM DO?"**

Venomous snakebites cause severe pain, cell death, numbness, diminished function and, occasionally, loss of a limb. Snake venoms inflict local effects such as inflammation, damage to blood vessel lining, clotting defects and localized tissue destruction. Some venom can also cause neurotoxicity and interfere with nerve transmission resulting in paralysis.

### **"WHAT IS ANTIVENIN?"**

Antivenin is a serum that is commercially produced to neutralize the effects of the injected venom. At special laboratories healthy horses are injected with increasing amounts of selected snake venom (non-fatal, of course), gradually challenging the horse to make more antibodies. To obtain these antibodies, a small amount of blood is later removed from the horse and the protein antibodies are separated out and purified. A specific antibody is produced for each type of snake. According the Dr. Schaer the newer antivenins are ovine derived and very expensive at \$1500 per 2 vials. Severe envenomations might require as many as 10 vials.

### **"SNAKE BITE KITS"**

Should dog owners carry antivenin kits with them routinely while outside with their dogs? Probably not says Dr. Schaer. "An antivenin kit probably wouldn't be that practical because of expense, routes of administration and other important reasons." Most antivenin products are targeted for a particular species of snake and may have no effect on the snake that bites your dog.

Vigilance and keeping control of your dog when walking in areas inhabited by poisonous snakes will be your best deterrent to a snake encounter. It's not a bad idea to memorize your veterinarian's emergency phone number, too!

