

Rattlesnakes and Your Pet in Santa Fe County

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Western Diamondback Rattlesnake

Photo courtesy of National Geographic

Venomous Snakes in New Mexico

Although rattlesnake bites in dogs and cats are quite rare in Santa Fe County, Eldorado Animal Clinic sees between two to five snake bites in dogs between the months of May and August each year. Venomous snake bites in cats are much less common, but they do happen. Snakes are most commonly seen in the spring and summer, when they emerge from their winter dens in search of food and water. Snakes become most active in the fall, actively hunting in order to put on weight in order to make it through the winter hibernation. In New Mexico, there are two types of venomous snakes, rattlesnakes and coral snakes. The most common snake is the

rattlesnake, inhabiting each corner of our state, whereas the coral snake is found primarily in the southwest corner of the state.

There are several species of rattlesnakes in New Mexico (we encourage you to do some online research and familiarize yourself with them) and the most common type we see here is the Western Diamondback. All rattlesnakes exhibit the typical triangular head of the elapidae family (the family of venomous snakes that includes cobras). These snakes have elliptical-shaped pupils, and upper jaws with fangs. Adult rattlesnakes are usually 2.5 to 4.5 feet long, and have the classic rattle button that makes a “rattling” sound when

threatened. In contrast, the coral snake is much smaller than the rattlesnake (13-21 inches long), and is often too small to bites humans or pets, but it's venom is highly toxic. Coral snakes can be mistaken for the New Mexico milk snake, which is not toxic because their banding patterns are similar. A useful rhyme can help you distinguish between the coral snake and the milk snake: For the coral snake, “Red touches yellow will kill a fellow,” and for the milk snake, “Red touches black, you're OK jack.”

Rattlesnakes live in many areas, and can be a life-threatening danger to dogs and cats of all sizes. But with just a few preventive steps, you can reduce the chances

your pet will get bitten

and suffer from a rattlesnake bite. Rattlesnakes are very common along hiking trails in the Eldorado and Galisteo area, as well as up in the national forests as well, so it is helpful to be in the look out for snakes while enjoying the outdoors with your best friend.

Below are some suggestions on how to protect your pets from rattlesnake bites, and what to do if your pet is bitten:

1. Vaccinate your dog with the rattlesnake vaccine

Red Rock Biologics, based in California, manufactures a rattlesnake vaccine for dogs and horses as well (there is

no vaccine for cats at present). The vaccine was initially developed to offer protection for dogs against the venom of the Western Diamondback Rattlesnake, however, it can also provide some protection against the venoms of the Western Rattlesnake, Timber Rattlesnake, Massasauga, Sidewinder, and the Copperhead as their venom is very similar to that of the Western Diamondback. The vaccine also offers partial protection against Eastern Diamondback Rattlesnake venom. Red Rock Biologics states that the rattlesnake vaccine does not provide protection against Coral Snake, Water Moccasin (Cottonmouth), or Mojave Rattlesnake bites.

The rattlesnake vaccine does not mean that your dog

with be 100% protected, but it may reduce the severity of symptoms and reactions caused by a venomous bite. As a result, emergency care is still needed if your dog is bitten. The rattlesnake vaccine costs on average about \$25, and besides minimizing the severity of the bite, it can also reduce the amount of antivenin your dog would need if treated. Antivenin therapy is quite expensive, with each vial costing between \$500 to \$700. It is costly, but here at Eldorado Animal Clinic, antivenin has shown to speed recovery, and is recommended for bites in cats, dogs and puppies less than 20 lbs, for multiple bites and for bites to the tongue and torso.

Peak vaccine protection occurs about four to six weeks after the initial or most recent vaccine booster dose. That protection then declines slowly over time. On average, vaccinated dogs receive good protection for about six months after a booster. Depending on the dog, some protection may continue out to a year or longer. If you decide to have your dog vaccinated, Eldorado Animal Clinic recommends an initial vaccine followed by a booster four weeks later, then booster each year after that.

2. Avoid rocky areas and dense brush

When walking with your dog, be sure to stay on the trail,

and choose wide trails or roads over narrow brush-bordered trails if you can, this way you are more likely to see a snake sunning itself across your path, and be able to stop yourself and your dog to avoid it in time.

3. Keep your dog close or leashed, or take early morning walks

The majority of rattlesnake bites in New Mexico occur when a dog is off-leash or sometimes on a long flexible lead. If you see a rattlesnake on the path ahead of you, or hear one, it's easier to control your dog's curiosity if he/she is on a shorter leash. If you don't want to keep your dog restrained on a leash while out walking or hiking, take him/her out early in the morning or before

dusk. In the summertime, rattlesnakes are more active at dusk and during the night.

4. Snake-proof your yard and courtyard

In Eldorado, Galisteo, and in Santa Fe, having a fenced yard or adobe-walled courtyard does not necessarily mean that it will keep snakes out. Snakes can get under fencing that does not have a solid cement base, or a rock wall. Many homes out here have coyote fences that are not fortified. With these types of fences, you can use hardware cloth all along the base of your fence, including across any gated areas. It's recommended to dig a trench, and bury 20" to 24" of the hardware cloth into the ground, and have at least 18" of the cloth visible

above ground, and nailed or stapled to the base of your fence. Hardware cloth is not cheap and can cost about \$1 per foot, but if you live in a rattlesnake area and want your dog to be safe, the investment may be worth it. You can also reduce risk in your yard, by eliminating brush piles, piles of rocks, stacked firewood, and cholla where snakes like to rest and sun themselves, and to move bird feeders outside your fence line (bird seed attracts rodents, and snakes like to eat rodents).

5. Rattlesnake-bite symptoms

Whether or not your dog has been vaccinated with the rattlesnake vaccine, do not waste time in getting him/her to the vet as soon as possible! This especially

goes for cats as they are small, and snake bites tend to be more lethal in cats. A venomous snake bite is a medical emergency, and the sooner your pet is treated, the better his/her chances of survival.

Snake bite symptoms:

- Puncture wounds (can be bleeding)
- Acute swelling
- Pain
- Panting, agitation, or drooling

Depending on how much venom is injected into your dog or cat, and the size of your pet, the maturity of the snake (baby and juvenile snakes are more dangerous as

they often do not control the amount of venom injected)
some of the following severe symptoms listed below may
appear quickly or within a few hours.

Severe snake bite symptoms:

- Weakness, lethargy, sometimes collapse
- Seizures
- Muscle spasms or tremors
- Diarrhea
- Bradycardia (reduced respirations) and other neurological signs

6. What to do if you and your pet encounter a rattlesnake

If you see a rattlesnake, stop, and back away from the snake slowly and quietly until you are no longer within striking distance (about the snake's length).

Rattlesnakes and other venomous snakes are by nature shy, and they prefer hunting small game like rodents and mice. When a snake encounters a human or a pet, its first instinct is to flee not to bite, and if you see a rattler coiling and rattling its tail, it is only doing so in self defense. Carefully leave the area, because if there is one snake, there are likely to be more in that same area. Also, it would be helpful to notify any other hikers or walkers in the area.

7. What to do if your pet is bitten by a rattlesnake

It's always helpful to identify the snake if your dog is bitten, however, don't put yourself in danger by getting too close. Also, don't try to kill it. People are at greater risk of being bitten by a snake if they are trying to harm it. If you are unable to identify the snake, it is in the end not as important since in Eldorado and Santa Fe County, the treatment for rattlesnake bites and for other venomous varieties is the same.

If you can, try carry your pet to your car, or walk him/her to your car. Try to reduce your pet's activity, this will help to limit the venom spreading around in

your pet's body. TAKE YOUR PET TO A VETERINARIAN IMMEDIATELY! The faster your dog or cat can get emergency treatment, and antivenin if needed, the greater the chance of survival and recovery.

Please note that your pet will be quite painful after being bitten, so use caution when picking up or handling your pet and try not to touch the area that has been bitten. A painful snake bite can cause your furry companion to snap at you, or bite you when being handled. If your pet needs help into your car, try wrapping him/her in a thick comforter or blanket, and try to keep calm. We recommend putting cats in a cat carrier or box if possible.

DO NOT DO THE FOLLOWING IF YOUR PET IS

BITTEN:

- Do not put any sort of tourniquet on your pet. This is Hollywood, not reality! A tourniquet actually can cause more harm than good by localizing the venom to the bite area, cutting off circulation and tissue necrosis and possibly amputation.
- Do not apply ice.
- Do not try to suck the poison out or make any cuts into the skin
- Do not apply a compression bandage, or any salves or medications to the wound

Rattlesnake venom causes local tissue injury, shock, and coagulation (bleeding) disorders, and can affect the respiratory and cardiovascular systems of your pet. A rattlesnake may or may not inject venom with every bite, and a bite where venom is not injected is known as a “dry bite.” The size of the snake doesn't necessarily determine how much, or how little venom is injected, since most snakes have the ability to control how much venom is injected. As mentioned before, younger snakes have been known to inject more venom than adult snakes because they may actually fear for their life out of inexperience.

What to expect once you get your dog to the veterinarian

Once you get your pet to the clinic, your veterinarian and staff will advise you on the best tests and treatment for your pet based on his/her condition. First off IV fluids and pain management will be addressed. Many animal bitten by snakes can go into shock, and IV fluid therapy will address this by encouraging perfusion and raising your dog's blood pressure. Also, since snake bites are quite painful, the veterinarian will administer an injectable pain medication to help your pet become more comfortable. Blood tests are often done, such as a CBC (complete blood count to look at red blood cells and white blood cells) and a blood chemistry (to measure

liver, kidney functions as well as blood sugar values).

Your veterinarian may want to look at what is called a blood smear to help determine if your pet was bitten by a venomous snake (sometimes the red blood cells of an animal that was bitten will look like spiky wheels when seen under a microscope). Snake venom can cause a bleeding disorder as the venom contains anticoagulants, so your veterinarian may also want to do a blood test to read clotting times (an APTT and a PTT test). Other tests that may be performed include a urinalysis, blood pressure, EKG, and temperature. Other treatments for snakes bites include anti-histamines, steroids, antibiotics, and antivenin. Antibiotics are always recommended as snake bites can also cause secondary bacterial infections.

Depending on the size of your pet, the location of the bite, and number of bites, antivenin may or may not be recommended. Antivenin is a good option in cases where your animal's clotting times are affected, or as mentioned before, if your pet is less than 20 lbs or was bitten on the thorax or on the tongue. Antivenin can help to alleviate bleeding disorders, and we have seen it drastically reduce the amount of swelling and speeds recovery. It is best not to wait for antivenin treatment if needed, as it is most effective if administered within four to six hours after a bite. Pets are carefully monitored during the administration of antivenin, as they can have allergic reactions to the horse serum contained in the

antivenin, but your veterinarian and staff take every precaution to minimize this risk.

What is the prognosis if your pet is bitten?

If a pet receives timely attention after getting a snake bite, death is rare, but sadly in some cases it does happen. This is why we encourage you to seek veterinary care as soon as possible after a bite happens.

The majority of animals who are bitten are usually bitten on the snout or on a limb, and those areas will be very tender and swollen for several days. The skin around the bite may become discolored, bruised and in some cases the skin will slough several days later. We recommend that pets be hospitalized on IV fluids and

pain medication for 12-24 hours and then go home with antibiotics and pain medications once they are stable and pain can be managed at home. More severe bite cases may require hospitalization for several days. Also, if the skin around the bite does slough, additional care such as cleaning and tending the area may be required.

We hope that this electronic book has offered you useful tips in keeping your pet safe from venomous snake bites here in Santa Fe County. If you have any questions, or need further information, please call us at 505-466-6050, or contact us via our website at <http://www.eldoradoanimalclinic.com>

Sources

Venomous Creatures in New Mexico

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