

April Marks the Beginning of Rattlesnake Season

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You're out for a hike with your dog in the early evening after a warm day, and suddenly your dog wants to pull you into the grass to investigate something. Before you know it you hear a "rattle" and you're a few feet from a rattlesnake that recoils from you. What now?

This is the kind of situation that any of us who exercise in the hills around the Tri Valley can encounter, and this week's article will shed a little light on rattlesnakes.

First, for some basic information.

- The only venomous snakes in California are the rattlesnakes, and there are eight species.

In general, rattlesnakes have a broad, triangular head with a noticeable "neck" behind the head. Rattlesnakes have vertical pupils rather than round pupils like non-poisonous snakes (though hopefully you are never close enough to evaluate this!).

- In Northern California snakes will hibernate during cold months and are active March through September.
- Rattlers have good vision to at least 15 feet away under moderate illumination. However, their eyes are set so far to the sides of the head that they have only a limited field of binocular (stereo) vision. This may result in their moving their head from side to side as they try to get a good picture of something.
- Rattlers are too slow to outrun or dodge even the slowest of their enemies, thus the need for good long-range vision.
- And like all snakes, rattlers do not have ears or internal ear structures; instead they feel vibrations transmitted through the ground.

Rattlers tend to bask near an escape hole, a rocky crevice or animal burrow, to which they can go when they feel threatened. Their other methods of defense, in order of general preference, includes procrypsis (their protective coloring enables them to blend into the background especially when the snake is absolutely motionless); rattling; escaping down its bolt hole or just away from the disturbance; withdrawing its body into a flat (along the ground) coil, hissing and rattling; drawing up into a striking coil, hissing and rattling; striking. The last thing a snake actually wants to do is to bite you, as any close encounter with another animal (including YOU) puts the snake at risk as well.

Spring is the period of greatest activity as rattlesnakes emerge from winter hibernation. Their dens are usually in rocky outcroppings in the hills or in deep animal burrows. They are hungry and looking for mates, as this is also the breeding season. During this time they eat prodigiously, look for females to court, and battle competing males.

It is mistakenly believed that rattlers are active only during the heat of the day. Not only do they rest during the heat of the day, sheltered from the sun, they are adept hunters in the dark.

During periods of excessive heat during the day, many diurnal animals become crepuscular (active at dawn and dusk) or partially nocturnal. Thus rattlers are more nocturnal in summer than during the spring or fall, and adults are more nocturnal than juveniles. When out walking, hiking or camping, precautions should be taken from early morning to late evening, as temperature, season and humidity can all affect just when rattlers will be active.

Small mammals are rattlers' main prey. Those that live near areas with large populations of amphibians will also feed extensively on them. Others will feed on the eggs of ground nesting birds. Know your local wildlife!

The amount of venom injected into a bite is variable depending upon a number of factors: the age of the snake and how it perceives the threat; whether or not the snake has just envenomated prey, etc.

Dogs encounter snakes during play or work in the snake's natural habitat. Most bites to dogs occur on the face or extremities. The rattlesnake bite is generally hemotoxic, which means that it exerts its toxin by disrupting the integrity of the blood vessels. The swelling is often dramatic with up to 1/3 of the total blood circulation being lost into the tissues in a matter of hours. The toxin further disrupts normal blood clotting mechanisms leading to uncontrolled bleeding. This kind of blood loss induces shock and finally death. Facial bites are often more lethal as the swelling may occlude the throat or impair ability to breathe.

Symptoms of an envenomated bite include: immediate pain, swelling and discoloration, weakness, difficulty breathing, nausea and vomiting, and hemorrhaging from the wound site.

To prevent bites, take precautions such as wearing protective pants and boots, and look carefully where you are walking. Keep your dog on a leash when hiking, and stay out of tall grass. Do not let your dog investigate piles of wood or rocks.

Avoiding rattlesnakes

- Don't move planks, rocks or logs by hand - use a stick or crowbar until you can see under it.
- Don't reach into holes in the ground, rocks or trees, woodpiles, even abandoned buckets and tires.
- When walking, stay in cleared areas (paths) as much as possible, and keep a visual and auditory look out for rattlers.
- Take most care when the temperatures are moderate, not only when they are very hot.
- Step on a log, not over it, so you can first look down to make sure there is nothing concealed on the other side.
- Don't handle a dead or injured snake. Muscle contractions can still cause envenomated wounds.

So back to our original question: what do you do now that you and your dog have encountered a rattlesnake? When you hear a rattle, freeze until you identify where the sound is coming from; you don't want to accidentally step on the snake when trying to flee. Once you have spotted it, give it time to move away. If it doesn't, move slowly straight away from it; don't walk to one side or the other as that could be perceived as threatening. And, of course, look behind you before you start to walk backwards - you don't want to trip over a rock, or another snake.

If you or your dog are bitten by a rattlesnake, stay calm and seek medical or veterinary attention immediately.