

If You Are Bitten by a Rattlesnake

The most important thing to do in case of a rattlesnake bite is to **stay calm and get to the nearest medical facility as quickly as possible.**

- Move away from the snake to avoid further bites.
- Gently wash the bite area with soap and water if available.
- Remove any watches, rings, etc. that may constrict during swelling.
- Apply a cold, wet cloth over the bite if possible.
- Remove or loosen tight or restrictive clothing around the bitten limb.
- Hold the limb in a comfortable position slightly lower than your heart.
- Go to the nearest emergency facility as quickly as is safely possible (do not speed or drive recklessly, this may cause an accident that is more dangerous than the bite). If possible, the victim should lie quietly in the vehicle while someone else drives.

DON'T apply a tourniquet.

DON'T pack the bite area in ice or ice water.

DON'T cut the wound with a knife or razor.

DON'T suck out the venom by mouth.

DON'T drink alcohol.

DON'T apply electrical shock to bite area. This is an anecdotal and unsubstantiated treatment.

By following the suggested precautions, and knowing the proper responses to snake encounters, visitors can ensure that open space is safe for themselves and for the myriad of interesting and important snakes that inhabit the preserves. For more information about snakes in California, visit the California Reptiles and Amphibians Web site at: www.californiaherps.com.

Emergency Contact Information

In the event that you experience an emergency on District lands (fire, accident, or other immediate threat to life or property), call 911 or contact the District's 24-hour emergency dispatch number for District rangers at 650-968-4411. This phone number is for emergency use only; for any other District business call the District's administrative office at 650-691-1200. This number is answered weekdays during regular business hours, and voice mail is available outside of regular hours.

For Further Information

For further information, please call, write, or visit the District: Midpeninsula Regional Open Space District, 330 Distel Circle, Los Altos, CA 94022-1404. The telephone number is 650-691-1200, email may be sent to info@openspace.org, or visit www.openspace.org.

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Mountain king snake and rattlesnake photos are courtesy of CalPhotos (www.elib.cs.berkeley.edu/photos). Gopher snake photo is courtesy of Jason Penney, www.kingsnake.com/hudspeth. All photos were used with permission.

Written by Brianna Richardson, for the Midpeninsula Regional Open Space District. December, 2003.

Snakes in Open Space



Mountain king snake

Snakes can live in almost any habitat, from dry, hot chaparral to cool, moist waterways. There are 33 species of snakes in California. Species commonly found in the wild lands of northern California include gopher snakes, racers, California kingsnakes, garter snakes, and the northern Pacific rattlesnake.

Snakes fulfill a vital ecological role. They eat rodents and insects, which can damage crops and spread disease. A rattlesnake can eat 25% of the rodents in a given area each year. In turn, snakes provide food for raptors, coyotes, and even other snakes.

Snakes sense ground vibrations to detect approaching predators, but have a poor sense of smell. Pit vipers—like rattlesnakes—are able to sense radiant heat from prey animals, using their loreal pits found on either side of the head.

Regional Open Space

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Snakes are ectothermic (cold-blooded) and move between sun and shade to maintain a stable temperature. In northern California, snakes become dormant during the colder, winter months. This is not hibernation in the same sense that mammals like bears hibernate, but it is a slowing of physiological activity. Some snakes spend their dormant period alone, but others den together in large groups.

Some snakes use venom to subdue their prey while they eat, however, most snakes are not venomous. The northern Pacific rattlesnake (a subspecies of Western rattlesnake) is the only venomous snake found in Northern California.

Northern Pacific Rattlesnake

Crotalus viridis oreganus



Northern Pacific rattlesnakes can be found from sea-level at the Pacific to 11,000 feet in the Sierra Nevada mountains. They are most active in spring and fall,

and in the morning and evening (or at night in warm weather). In cool weather or in the evening, rattlesnakes will bask on logs or rocks that have absorbed the sun's heat. When it's hot, they seek shade under rocks, ledges, logs, brush, and in crevices, holes, and cracks.

Northern Pacific rattlesnakes are typically shy animals and avoid contact with humans. They are not aggressive, and only strike when startled or provoked. Given the opportunity, they will retreat when confronted by humans. Most snake bites occur when a snake is intentionally or accidentally touched.

How Do I Know It's a Rattlesnake?

Northern Pacific rattlesnakes are often smaller than snakes you've seen on television. They average less than 3 feet long, though 5-foot snakes have been found. They have thick bodies and blunt tails with **distinctive rattles**. Rattlesnakes can lose their rattles, however, so don't rely on seeing rattles for identification.

Northern Pacific rattlesnakes usually have large, squarish blotches along their backs, against a main body-color of brown, gray, or olive-green, and black and white bands right before the rattle.



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Viridis, the species name, *Rattlesnake rattle* means 'green' in Latin, and comes from the snake's distinctive green cast. Rattlesnakes have wide variations in color and pattern; check other traits to positively identify a rattlesnake.

More useful in identification is the shape of the head. Rattlesnakes have a **wide, triangular head, much wider at the back than the front, and a distinct, thin 'neck' area**. Non-poisonous snakes in California have heads the same width as their bodies, with no discernable 'neck' region.

Non-venomous gopher snakes are often mistaken for rattlesnakes. Gopher snakes have sharply pointed tails without rattles, and when relaxed,



© Jason Penney

Gopher snake

their heads are narrow with a relatively smooth transition to the body. However, when alarmed, gopher snakes may flatten their heads, vibrate their tails, and strike, which makes it easy to mistake them for rattlesnakes.

In the United States each year, an average of 800 people are bitten by rattlesnakes. Of those, only one or two die. More people are killed by bee and wasp stings than rattlesnake bites.

How to Avoid Rattlesnakes and Rattlesnake Bites

Rattlesnakes are active spring through fall in California. In warmer weather, you are more likely to encounter rattlesnakes under rocks, ledges, or logs. In cooler weather, watch out for them on top of rocks and logs.

If a rattlesnake senses your approach and has an avenue of escape, it will leave the area, probably before you ever see it. Startling a snake is the way most people get bitten. If the snake cannot escape, it will flatten its body and head, and rattle its tail to give you warning. Should you encounter a rattlesnake, or hear its warning rattle, stand still until you have located the snake, then walk away from it calmly. Rattlesnakes cannot crawl as fast as you can walk, and you should have no trouble leaving the area. Though rattlesnakes can strike in a split second, they can only strike within a distance of one to two and a half feet.

There is some truth to the old saying: "The first one over the log wakes it up, the second one makes it mad, the third one gets bitten." EVERY open space preserve visitor should look before reaching or stepping.

The following tips can help you avoid snakes, and protect yourself:

- Wear hiking boots.
- Stay on paths and trails. Avoid tall grass, weeds, and brush where snakes may hide.
- Look for concealed snakes before picking up rocks, sticks, or firewood.
- Check carefully around stumps or logs before sitting down.
- Step on logs and rocks—not over them.
- When climbing, look before placing your hands. Snakes climb walls, trees, and rocks.
- Keep hands and feet out of areas you can't see, such as holes, or piles of rocks or brush.
- Consider using a walking stick when hiking. If you encounter a snake it may strike the stick instead of you.
- Walk heavily, snakes may sense the ground vibration from your footsteps and leave the area.
- Baby rattlesnakes are poisonous and do bite.
- Don't handle a dead snake; if it was recently killed you can still be bitten as a result of a reflex response.
- Don't tease a snake.
- Teach children to respect snakes and to leave them alone.
- Give rattlesnakes the right-of-way.

Visitor and staff safety is a priority for the Midpeninsula Regional Open Space District. Snakes play an essential role in natural systems on the preserves, and because of the risk to visitors, visitors **should not** kill or attempt to move snakes of any type. If you are concerned about a snake you have encountered on District land, please call the Midpeninsula Regional Open Space District at (650) 691-1200, and staff will carefully review the situation to determine whether relocation or other action should be taken.