



# RATTLESNAKES!

A Homeowner's Guide to Urban Rattlers: Basic information on behavior and natural history, with precautions for human family and homes

Melissa Kaplan, 1994

I have used this guide with people who have been concerned about the possible or actual presence of rattlesnakes around their homes. When rattlesnakes must be removed from a site, I always give out [referrals](#) to people who will live-catch the snakes and relocate them to remote local sites. With any luck, this guide will also reduce the needless slaughter of harmless king and gopher snakes as well as enable a more comfortable coexistence between the intruders and the native species. Note that the precautions and recommendations in this article can be used to reduce interactions between humans and other, innocuous snakes.

## General Information

Rattlers have good vision to at least 15 feet away under moderate illumination. The 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.

Like all snakes, rattlers do not have external ears or all of the usual internal ear structures; instead they feel vibrations transmitted through the ground, though more recent research indicates that many snakes are able to hear airborne sounds as well.

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 procrystis (their protective coloring enables them to blend into the background especially when the snake is absolutely motionless); rattling; flight - escaping down it's 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.

Spring is the period of greatest activity. Emerging from winter hibernation, they are hungry and looking for mates, as this is also the breeding season. During this time they will eat prodigiously, look for females to court, and will battle competing males. During these times of stress, and when trying to eat and when in their opaque stage several days before they are ready to shed, they are most likely to act in an aggressive manner when disturbed.

Snakes migrate to and from their winter denning site, so aggregations of them may be found during a short period of time during the spring and fall. Dens are usually in rocky outcroppings in the hills, or in deep animal burrows.

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, their heat pits and sense of smell guiding them to prey. 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.

Despite their need for heat to be able to function, rattlers can function at surprisingly cold temperatures - especially the Mojave rattlers and sidewinders.

Rattlers cannot move fast enough to overtake a person who wants to get out of its way. The only danger is that the person falls or trips in getting away, thus disturbing another snake, or falls towards the rattler rather than away. They are not good tree climbers, but many are good swimmers.

Rattlers' preferred habitats include (depending upon species) deserts, grassy plains, and brushy and rocky hills. In addition, there needs to be a suitable amount of prey, proper climate for the species, and places to hide and hibernate.

Rattlers' main prey is small mammals. 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 envenomed prey, etc. Mortality rates in the 1950's remain pretty much the same today - only 3% of bites are fatal, and the fatality generally is caused by secondary infection, alcohol poisoning, being bitten repeatedly and/or by multiple snakes, allergic reaction to the venom.

Symptoms of an envenomed bite include: immediate pain, swelling and discoloration, weakness and giddiness, difficulty breathing, nausea and vomiting, hemorrhaging from the wound site, circulatory disturbance such as rapid, fluttery or thready pulse and a drop in blood pressure. Bites on face or neck may result in difficulty in swallowing, numbness of lips and tongue, excessive thirst and cold sweats. Note that many of these symptoms are symptoms of shock and panic, and are not uncommon in the case of a person who is terrified of snakes (or who believes that all snakes are venomous) who is bitten by an otherwise innocuous non-venomous snake.

To prevent bites, take precautions such as wearing protective pants and boots, and look where you are walking and sticking your hands. Bites commonly occur in the following instances: picking berries or flowers; picking up kindling or firewood - even from neatly maintained stocks of firewood; reaching into brush to pick up animals or rocks, etc.; reaching blindly into tree hollows and animal burrows; turning rocks; climbing rocks, especially reaching for hand and toe holds without looking; walking and hiking through brush without protective clothing; cutting thick brush; picking produce from a heavily grown-over garden; moving around in the dark, picking up and moving things.

### **Do's and Don'ts**

Don't move planks, rocks or logs by hand - use a stick or crowbar until you can see under it.

Don't gather firewood in the dark. Do it in the daylight, or at night under well-lighted conditions.

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 or cold.

Use a flashlight when moving about the yard at night.

Step on a log, not over it, so you can first look down to make sure there is nothing concealed on the other side.

If possible, avoid walking too close to rocky ledges.

Never put your hands and feet where you can't see them.

When crawling under a fence, beat the grass or brush first to assure there is no snake lying there.

Look around before you sit on a rock or log.

Learn to recognize the venomous snakes. Avoid killing all snakes (even rattlers have an important environmental niche they fill), but at all costs, avoid killing non-venomous ones.

When you hear a rattle, freeze until you identify where the sound is coming from; you don't want to accidentally step on it 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. Look behind you before you start to walk backwards - you don't want to trip over a rock, or another snake.

Don't handle a dead or injured snake. Dead snakes may not really be dead. Muscle contractions can still cause envenomed wounds, even when handling the decapitated head of a rattler.

## **On instilling fear of all snakes into young children...**

**...(and why you shouldn't do it ):**

"Since most children cannot distinguish venomous from nonvenomous snakes, the inculcation of moderate fear of snakes is probably justified as a safety measure. But to instill such a horror and revulsion at the sight of a snake that, when they become adults, people cannot bear to look at a snake in a cage is a mistake. This insensate fear is so widespread--it is incorrectly believed to be instinctive--that senseless prohibitions against the ownership of harmless snakes, and the ruthless killing of harmless and agriculturally beneficial snakes ensues.

"The cultivated fear of snakes...[can cause] people to become so paralyzed upon encountering a rattler in the field that they cannot take the most elementary safety precautions. If bitten by a snake, they are in no condition to judge whether it was venomous or harmless...Even in areas of the United States--and they are extensive--where rattlers are the only venomous snakes [as here in Northern California], victims usually cannot even report with certainty whether or not the culprit had rattles on its tail. These are the people who destroy all harmless snakes--the natural competitors, and even destroyers of rattlesnakes--thus aiding in the protection and increase of the dangerous snakes they so greatly fear. So children should be taught to avoid snakes, not to be terrified by them, and eventually we may have a more understanding adult population.

"That the shock that can be caused by the bite of a harmless snake can be serious and even fatal is well authenticated. It is obvious that such an eventuality is more likely to happen to persons in whom the fear of snakes is exaggerated. Two such cases have been reported in San Diego county. In one, a man was bitten by a harmless gopher snake and almost died of fright; in the other a hunter was stuck by the barb of a wire fence, thought he was bitten, and barely survived the shock.

"Some of the exaggerated fears of rattlesnakes arise from equally exaggerated stories of their prevalence, their viciousness, and the inevitable fatalities from their bites. In truth, they are rarely as common as people think; they are timorous creatures that will bite human beings only if hurt or frightened; and a bite is rarely fatal if properly treated. In 1803, it was said that if the travelers' tales of the danger from rattlesnakes were true, America would be uninhabitable."

- Laurence Klauber

Rattlesnakes: Their Habits, Life Histories, and Influence on Mankind. 1982. University of California Press, Berkeley, CA. pp. 350.

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## **Snake-Proofing Home and Yard**

The most effective way is to construct a fence which extends several feet below ground (to prevent mammals from burrowing through, which would give snakes access) and above ground. The fence must remain stark, as any decorative bushes or trees would give access to the snakes. And at best, these fences are not perfect excluders.

Since the main thing snakes are after is food, a hiding place and a basking place, the best things to do are to get rid of potential food and shelter. Keep grounds and trash areas clean and free of cover to dissuade the populations of mice, rats, ground squirrels, voles, and other rodents which are attractive to snakes. Plug up any holes you find in the ground; they may be burrows which can be used by snakes in the pursuit of prey and for sleeping. Keep brush, rocks, old boards and trash at a minimum, especially around the house. Make sure all access to the house is blocked up: vents covered by small mesh, and the foundation kept crack-free.

Now that you have eradicated, or almost eradicated, snakes from your property, do be prepared for an increase in rodents and, depending on the microhabitats in your yard, amphibians. Remove a natural predator, and you encourage an increase in the population of the prey animals on which they feed. As villages and towns (even Orange County, California, formerly a major agricultural center rapidly converted to a major metropolitan area south of Los Angeles) all over the world have found to their dismay, wiping out the snakes results in a population explosion of rodents....not to speak of sleepless spring and summer nights spent listening to all of the frogs calling all night long, safe from being snatched by a hungry snake!

## Sources

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Grenard, Steve. (1994) Medical Herpetology. Pottsville, PA: NG Publishing Co.

Klauber, Laurence M. (1982) Rattlesnakes: Their habits, life histories, and influence on mankind. Los Angeles: University of California Press.&#26;

Stebbins, Robert C. (1985) Peterson Field Guides: Western Reptiles and Amphibians. Boston: Houghton Mifflin Company.

[Palm Beach \(FL\) Herpetological Society: Venomous Snake Bite](#)

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## Identify Snakes in Your Area

[California Herps](#) - Compare and contrast the Pacific rattler with the harmless California king and gopher snakes

[Enature.com Field Guides](#) - Look up the snakes in your area by zip code

[SDMNH Field Guide to California Reptiles & Amphibians](#) - Southern California herps

## Related Articles on Rattlers and Other Venomous Snakes

[San Diego Museum of Natural History: Rattlesnake FAQ](#)

[CDF&G Urges Outdoor Enthusiasts to be Snake Smart](#)

[Snake Getters' Information: What You Can Do Before You Call Someone](#)

[Venomous Snake Relocators](#)

[Herpmed's Venomous Snakebite Information](#)

[Additional Rattlesnake Information](#)

## Articles on Snakes Ability to Hear Sound

[Auditory Atavism and Integrated Pathways for Hearing in Snakes \(PDF\)](#)

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