

SUMMER 2025

THE ANTIDOTE

News and Notes from the Blue Ridge Poison Center

It's Ssssnake Season!

Do you know how to prevent—and treat—a bite?

Warmer weather brings people outdoors into snake habitats--and leads to more encounters with snakes. The Blue Ridge Poison Center at UVA Health has already received 24 calls about snake bites in 2025, and it's not even June yet. Nationwide there are about 3,000 venomous snake bites reported to U.S. poison centers each year. However, on average only a few, if any, of those bites results in a death. *In the U.S., snake bites are treatable and preventable.*



Virginia's venomous snakes have fangs to deliver venom. Our non-venomous snakes do not have fangs.

How many snakes in Virginia are dangerous?

There are about 30 species of snakes in Virginia. Most are completely harmless to people and pets. Three Virginia species, however, are *venomous*, meaning they can inject poisonous venom into their victim through a pair of hollow, needle-like fangs. All 3 of Virginia's venomous species—the **copperhead**, the **timber rattlesnake**, and the **water moccasin** (also known as the **cottonmouth**)—are members of the *pit viper family*. Pit vipers have a heat-sensing pit on each side of their head which helps them locate prey.

POISON TRIVIA



What toxic substance can also be an antidote for antifreeze poisoning?

Answer on page 2

How can you tell if a snake is venomous?

In addition to their heat-sensing pits, all pit vipers have triangular, spade-shaped heads instead of narrow, oval heads. The wider head makes room for the pit organs and also the fangs used to inject venom. Pit vipers have elliptical pupils (like a cat's eye) instead of round pupils.

The [Virginia Herpetological Society](#) has excellent snake identification information on its website. Note that

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snake experts advise against relying too heavily on pictures of snakes for identification. Colors and patterns can differ depending on the snake's age, health, or when it last shed its skin. Also, it is not wise to try to get close enough to a snake to determine head shape or pupil shape. Snakes can move lightning-fast when threatened, and this could result in a bite. To be safe, assume a snake may be venomous and leave it alone.



Copperhead. Young copperheads may have a yellow tail, which fades as the snake matures.



Water moccasin or cottonmouth.



Timber rattlesnakes may darken as they age.

What happens if a venomous snake bites you?

Snake venom destroys blood cells, blood vessels, and other tissues. Snakes use venom to help paralyze and digest their prey. They also use venom to protect themselves. If you are bitten by one of Virginia's venomous snakes, you may experience some of these symptoms:

- Intense pain spreading out from the bite
- Puncture wounds from fangs
- Swelling and bruising (may be severe)
- Sweating
- Weakness, dizziness
- Nausea and vomiting
- Muscle twitching



The most important item in your "snake bite kit."

Snakebite? Here's what to do:





Remember: Snakebites are treatable. Stay calm! A bite victim should go to an emergency care facility, where they will have access to medical care for the pain and swelling, and antivenom if required (it is not always necessary.) If possible, wash the bite with soap and water. Swelling is likely, so remove tight items like jewelry or clothing near the bite. Calling the Blue Ridge Poison Center can be helpful, as our experts will talk you through these steps and help keep you calm. We can also guide you to the nearest healthcare facility.

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POISON TRIVIA ANSWER: Ethanol—the alcohol in beer, wine, and spirits. When given intravenously, ethanol can prevent antifreeze from turning into the dangerous compounds which harm us if we drink it.

Snakebite? DON'T DO THIS:

Don't believe everything you see in the movies! The actions below will not improve a bite victim's outcome and in fact *may cause more harm*:

-  **Do not** cut into the wound or use any form of suction.
-  **Do not** give the victim any drugs or alcohol.
-  **Do not** apply a tourniquet.
-  **Do not** apply ice.

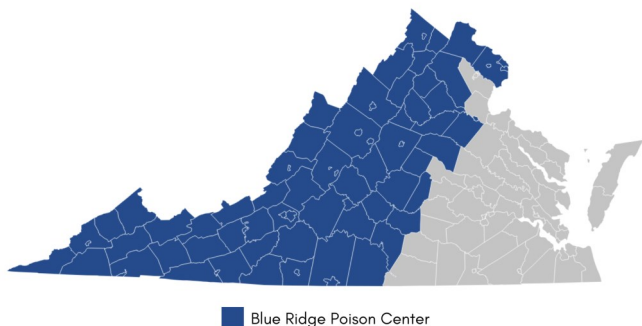
Snake bite prevention is simple.

Snakes do not want to bite you, and will always try to get away from you first if given the chance. Avoid harm by keeping your distance. When in snake habitats, such as tall grass, rocky areas, or the forest, stay alert. Watch where you place your hands and feet, and always wear long pants and shoes. Walk with a flashlight outdoors at night.

**How do I keep snakes out of my yard?**

Snakes want to live where they can easily find food and hide from predators. Keep the area around your home mowed and free of pests, debris, and woodpiles. Mothballs and other chemical deterrents do not work, and could poison other wildlife or pets.

Keep in mind that snakes play an important role in controlling rodent pests; such as rats, mice, and voles; which are more likely than snakes to spread disease and damage property. Having snakes in your yard is a good thing as they are an important part of our ecosystem. They control these pest populations which can be harmful to our health.

Blue Ridge Poison Center Welcomes Additions to our Coverage Area

On March 31, 2025, the Blue Ridge Poison Center's coverage area expanded to include the counties of Arlington, Fairfax, Fauquier, and Loudoun, and the cities of Fairfax, Alexandria, and Falls Church. This grew the number of inpatient hospitals we serve to 59, and the number of Virginia citizens we serve to over four million people. Welcome! We look forward to providing you with our outstanding medical care, professional education resources, and quality poisoning prevention programs for all ages.

Measles Prevention Myth

Large doses of vitamin A do not prevent measles, and could be dangerous



With several regions in the United States experiencing a surge of measles cases, misinformation about how to prevent and treat it is causing some people to overdose on vitamin A. But consuming too much vitamin A can cause a range of health effects, including liver damage.

Measles is a highly contagious disease caused by a virus. It spreads easily when an infected person breathes, coughs or sneezes. It can cause severe health complications, and even death, particularly in children. Symptoms may include a high fever, cough, runny nose and a rash all over the body.

There is no specific cure for measles. Treatment primarily focuses on providing comfort and relief from the symptoms. Under the supervision of a healthcare provider, vitamin A may be given to boost the body's ability to fight infection, particularly in patients who are malnourished and may have a vitamin A deficiency. This has led to a misunderstanding that large doses of vitamin A can cure or prevent measles. This is not true. People who try to treat themselves with vitamin A are at risk for *hypervitaminosis A*, or vitamin A poisoning.

Because vitamin A is fat soluble, the body stores excess amounts. If too much vitamin A is stored, it can become toxic. Poison centers across the United States typically receive 400 to 500 calls per year related to vitamin A, and the Blue Ridge Poison Center is concerned that figure may increase this year.

"When it comes to taking any medicine or supplement, including vitamins, more is not necessarily better," said Christopher Holstege, MD, medical director of the Blue Ridge Poison Center. "Unless a person has a diagnosed deficiency, or some other health condition, and a health professional has advised the extra supplement and is monitoring their care, taking doses of vitamins greater than the recommended daily amount can be harmful."

According to the federal Centers for Disease Control and Prevention, the best protection against measles is the measles, mumps, and rubella (MMR) vaccine. The MMR vaccine is safe and effective. Two doses of MMR vaccine are about 97% effective at preventing measles; one dose is about 93% effective.

The [Blue Ridge Poison Center](#) is part of University of Virginia Health. Other funding sources include the Virginia Department of Health and [HRSA](#). We are accredited by [America's Poison Centers](#). Proudly serving the Commonwealth since 1978. [Join the mailing list](#) to receive this quarterly newsletter.

