

Snakes

There are 18 species and sub-species of rattlesnakes identified in Arizona. The rattlesnake is a "pit viper" meaning it has a heat sensing "pit" located between the nostril and eye on each side that is used to locate and trail prey. Rattlesnakes can grow up to six feet in length. Baby rattlesnakes are capable of a venomous bite from birth.

The coral snake is small, less than 2 feet, and has a bright red, yellow and black striped pattern. Coral snakes are shy and will seldom be seen in the open. Snake venom contains some of the most complex toxins known; venoms can affect the central nervous system, brain, heart, kidneys, and blood.

According to Arizona Poison Control, there are approximately 350 snakebites per year in Arizona, with a death occurring every 3 to 5 years. Over 50% of bites are preventable by simply leaving the snake alone – give it a 2 to 3 foot radius if you encounter one and do not provoke.

The severity of a rattlesnake bite is gauged by how rapidly symptoms develop, which depends on how much venom was injected. Signs and symptoms of a pit viper bite may include:

- Immediate and severe burning pain and swelling around the fang marks, usually within five minutes. The entire extremity generally swells within eight to 36 hours.
- Purplish discoloration around the bite, usually developing within two to three hours.
- Numbness and possible blistering around the bite, generally within several hours.
- Nausea and vomiting
- Rapid heartbeat, low blood pressure, weakness, and fainting
- Numbness and tingling of the tongue and mouth
- Excessive sweating , fever and chills
- Muscular twitching, convulsions

Rather than leaving two distinct fang marks, the coral snake leaves one or more tiny scratch marks in the area of the bite. There is little pain or swelling and the patient's tissue usually does not turn black and blue. Usually, there is no pain or swelling at the bite site. However, one to eight hours after the bite, the patient may experience blurred vision, drooping eyelids, slurred speech, increased salivation and sweating.

The priorities of emergency care for snakebites are to maintain basic life support - airway, breathing and circulation - and to transport the patient to a

hospital without delay.

Treatment for snakebite includes:

- Move the patient away from the snake to prevent repeated bites or bites to yourself.
- Have the patient lie down and keep him quiet. Reassure him to slow the metabolism and subsequent spread of the venom.
- Do not cut and suck.
- Keep the bitten extremity at the level of the heart.
- Remove any rings, bracelets or other jewelry that could impede circulation if swelling occurs.
- Clean the wound gently with alcohol, soap and water, hydrogen peroxide or other mild antiseptic.
- Do not cool or chill or apply ice.
- Do not attempt to tie any type of tourniquet or constricting bands.
- Transport the patient as soon as possible to the hospital.

Another venomous creature in Arizona is the Gila monster. The Gila monster injects venom with a chewing motion from the venom glands in the bottom of its mouth. The venom flows across the teeth with the chewing motions. The venom may attack the nervous system and will cause pain, swelling and possibly low blood pressure. While mostly the reaction is localized, there may be broken teeth embedded in the flesh which must be removed at a health care facility. Antibiotics may also be recommended as well as an up to date tetanus vaccine. This bite is totally preventable by never attempting to handle a gila monster.

Insect Bites and Stings

Insect bites and stings are common, and most are considered minor. It is only when an individual has an adverse reaction and runs the risk of developing anaphylactic shock, that the situation becomes an emergency. Even under those conditions, accurate diagnosis and prompt treatment can save lives and prevent permanent tissue damage.

The normal reaction to an insect sting is a sharp, stinging pain followed by an itchy, swollen, painful raised area. The swelling may be there for several days but usually goes away within 24 hours. Local reactions are rarely serious or life-threatening and can be treated with cold compresses. However, there are some people who have allergic reactions to "normal" insect stings. Approximately 50 people die each year in the United States from insect stings. This is more than all other bites combined including snakebites. Thousands of people are allergic to bee, wasp, and hornet stings. Insect stings can be deadly for those people within 10 minutes of the sting on the average, but almost always within the first hour.

Symptoms such as the tongue swelling and a feeling that the throat is closing are signs of a severe allergic reaction. Call 9-1-1 and seek medical treatment immediately.

Black Widow

The black widow is a spider with a shiny black body, thin legs and an hourglass shaped red/white mark on its abdomen. The black widow is not aggressive but will defend her eggs. They are usually found in dry, secluded, dimly lit areas. The venom is a neurotoxin that causes little local reaction but does cause pain and spasms in the larger muscle groups of the body within 30 minutes to three hours. Severe bites can cause respiratory failure, coma and death. Those at the highest risk are children under age 16, the elderly, people with chronic illness and people with high blood pressure.

Signs and symptoms of a black widow spider bite may include:

- A pinprick sensation at the bite site, becoming a dull ache within 30 to 40 minutes
- Pain and spasms in the shoulders, back, chest, and abdominal muscles within 30 minutes to three hours
- Rigid, board like abdomen
- Restlessness and anxiety
- Fever
- Rash
- Headache
- Vomiting and nausea
- Flushing
- Sweating
- Symptoms usually last 24 to 48 hours.

Treatment includes cold compresses and pain relief, with transport to an emergency facility if symptoms persist.

Brown Spider

There are two types of brown spiders or brown recluse spiders in Arizona. They often are called violin spiders because of the characteristic "violin-shaped" marking on the upper back. They are generally brown but can range in color from yellow to dark brown. They are timid with webs in dry undisturbed areas. The Arizona species is not the same as the brown recluse spider in the Midwest.

The bite of the brown spider can be a serious medical condition. The bite is nonhealing and causes tissue death. Sometimes surgery is necessary. The

bite causes only a mild stinging sensation if any at all. Victims often are unaware they have been bitten. Several hours after the bite, the following signs and symptoms begin to result:

- A small white area appears surrounded by a margin of redness which may produce a mild itching pain.
- A blister appears surrounded by mild swelling and redness.
- A "bulls-eye" or "target" lesion develops
- There may be fever, chills, rash, hives, nausea and pain in the joints over the next few days.

The target lesion will enlarge over the next few days and produce extensive tissue death. There is no antivenin. The lesion will have to be soaked in antiseptic and possibly antibiotics. Surgery may be necessary to cut out the dead tissue.

Scorpions

There are many species of scorpions found in Arizona but only one, the bark scorpion, is potentially lethal. It is one of the smaller species being one to one and a half inches long. It prefers places dark and cool, wood piles, palm trees, decorative bark. The severity of the sting depends on the amount of venom injected and it can be very serious for small children. 95% of stings are treated at home with cool compresses and analgesic. Transport to an emergency facility if symptoms are severe or persist.

Signs and symptoms of scorpion stings may include:

- Sharp pain at the site of the sting
- Swelling that gradually spreads
- Discoloration
- Nausea and vomiting
- Restlessness
- Drooling
- Poor coordination
- Incontinence
- Seizures

Bees

Africanized honey bees were imported to Brazil in 1956 to enhance honey production in the tropics. Some of the bees escaped into the wild and have gradually moved towards North America. The bees are the temperamental cousin of the more common European honey bee found in Arizona. They

often are called "killer bees" because they are more defensive in guarding their nests, resulting in hundreds of stings to an intruder. It is impossible for the average person to tell the difference between an Africanized honey bee and the common European honey bee. Those at highest risk are individuals who are allergic to bee stings and pets that are penned or tied up near honey bee hives.

Do's and Don'ts

- DO check your property regularly for bee colonies. Honey bees nest in a wide variety of places, especially Africanized honey bees. Check animal burrows, water meter boxes, overturned flower pots, trees and shrubs.
- DO keep pets and children indoors when using weed eaters, hedge clippers, tractor power mowers, chain saws, etc. Attacks frequently occur when a person is mowing the lawn or pruning shrubs and inadvertently strike a bee's nest.
- DO avoid excessive motion when near a colony. Bees are much more likely to respond to an object in motion than a stationary one.
- DON'T pen, tie or tether animals near bee hives or nests.
- DON'T destroy bee colonies or hive, especially with pesticides. Honey bees are a vital link to U.S. agriculture. Each year, pollination by honey bees adds at least \$10 billion to the value of more than 90 crops. They also produce about \$150 million worth of honey each year.
- DON'T remove bees yourself. If you want bees removed, look in the yellow pages under "bee removal" or "beekeepers".

If you are attacked you should run as quickly as you can away from the bees. Do not flail or swing your arms at them, as this may further annoy them. Cover your head as much as you can without slowing your escape. Get to the closest house or car as quickly as possible. Don't worry if a few bees become trapped in your home. If several bees follow you into your car, drive about a quarter of a mile and let the bees out of the car. If someone has been stung by many bees at once or has an allergic reaction to a bee sting, call 9-1-1.

Do not call the fire department for bee removal unless you are trapped or they are a threat to others, as in a public walkway or bus stop. Firefighting foam will kill the bees. If you want bees removed, look in the yellow pages under "bee removal" or "beekeepers".

Treating stings from Africanized bees is much the same as treating a common bee sting. If the sting was by a bee and the stinger is still in the

skin, remove it by gently scraping against it with your fingernail, a credit card or a knife. Be careful not to squeeze the stinger. Apply cold compresses to relieve pain and swelling but do not apply ice directly. If it becomes difficult to breathe, call 9-1-1. Itching should quit within a few hours. If it persists beyond two days, or if signs and symptoms of an allergic reaction occur after an insect bite you should be seen by a doctor.