

Desert Dangers

Preventative Measures

Arizona's Sonoran Desert has more varieties of animal life than any other desert on earth. Understanding and respecting desert wildlife will help you and your pet avoid unnecessary and potentially dangerous run-ins. Although the most famous desert creature is the rattlesnake, there are several other notable wild animals and plants that both people and their pets should avoid. Below are a few tips to help you and your pets stay safe in the desert:

Leave wild animals alone. Most animals in the desert are not overtly aggressive and if given space and an escape route will leave a confrontation willingly. The majority of bites, stings, and attacks occur when the animal has been provoked.

Never let your pets run free! While people have the advantage of common sense, our pets do not. They are often curious about new creatures and will get close enough during their investigation to get bitten. It is very important to keep cats indoors at all times and to keep dogs on a leash when in the desert.

Do not leave pets unattended outside after dark. Much of the desert's wildlife is nocturnal. Snakes, coyotes, owls, bobcats and javalina (wild pigs) are all active after dark, particularly at dusk. Be particularly mindful around dusk that your pets are well controlled and in safe surroundings. Many nocturnal animals hunt at night. Owls and coyotes are known to use dogs and cats as food sources.

Keep your home safe. Make sure heavy traffic areas are well-lit. Clean away cobwebs and spider webs. Be aware of nooks and crannies (especially woodpiles). Have a regular inspection by a pest company. Make sure your trash is secure in a heavy duty container with a tightly fitting lid.

Africanized "Killer" Bees:

These bees differ from native bees. They arrived in Arizona in the early 1990's. Although their venom is no more potent than that of a native bee, these bees travel in large swarms and are far more aggressive. They are easily angered and will attack as a swarm. Killer bees are most dangerous because of the number of stings they deliver during an attack, which can be several hundred. Several dogs have been fatally attacked since the bees arrival. These bees can be eliminated from your home by an exterminator. When walking with your dog, wear light-colored clothing and keep an eye out. These bees also frequently hover around traffic lights. If you see a swarm, make sure to roll up your windows.

Black Widow / Brown Recluse Spiders:

Both of these spiders are very dangerous. The Brown Recluse poses a greater threat to dogs and cats. The tissue around the bitten area will die and rot, causing a serious infection. The Black Widow are very common. Their bite may often go unnoticed initially but can cause serious systemic symptoms. Both spiders live in dark, cool areas. Check regularly for any webs and destroy them. If you suspect that your pet has come in contact with either of these spiders, contact your primary or emergency care veterinarian immediately.

Coral Snakes:

Coral snakes are very shy reptiles and are very rare. They are, however, quite venomous. They are easily identified by the colorful bands of black, yellow and red which encircle their bodies. Because their mouths are small and their fangs immobile, it is unlikely they will be able to successfully bite a pet, especially through fur. Regardless, if your pet is exposed or bitten, seek immediate help from your primary or emergency care veterinarian.

Coyotes:

Coyotes are native dogs that range from 20-45 pounds. They are generally shy around people but are not nearly as shy of pets. Coyotes travel in a pack and can successfully attack dogs of all sizes. They roam the washes and open desert, and with the explosion of recent housing development they now frequent residential areas. Coyotes will hunt cats and dogs for food if hungry. They can jump fairly high fences so it is best to keep pets indoors at night.

Gila Monsters:

Gila Monsters are exceptionally rare. They live underground except when they emerge to hunt or mate. The Gila Monster's jaw locks once it has bitten. This allows them to hold onto a victim while pumping in massive amounts of venom. The jaws may have to be pried loose or the lizard submerged in water to release its bite. Gila Monsters are very slow-moving reptiles and cannot chase either a human or a pet. Bites from these reptiles occur when they are being handled or provoked (sniffing). Gila Monsters are protected by state law and should be given plenty of space if encountered.

Owls (Great Horned and Screech):

Owls hunt at night and are powerful enough to carry away cats and small dogs. These predators pose one of the greatest risks to small pets outside after dark. If the pet is lucky enough to escape, they may sustain fatal injuries resulting from the talons.

Scorpions / Centipedes:

These venomous creatures will emerge at night from beneath rocks, wood piles or other sheltered areas, to hunt insects. As with almost all the animals listed here, scorpions and centipedes would prefer to flee rather than fight. Dogs and cats can be persistent, however, and this is usually what leads to a bite or sting. Most stings simply cause local pain and/or swelling. The sting of the small Bark scorpion is the most serious. If you are concerned that your pet has been bitten, you should call poison control. You should also seek advice from your primary or emergency care veterinarian immediately. You can help your pet avoid these insects by keeping them inside at night or calling an exterminator if you think your house is infested.

Foxtails and Cactus:

Desert plants can be hazardous to pets! "Foxtails" are the dried seed heads of western grasses. When the winter grasses turn brown in the spring and summer, the seed heads break off easily. These foxtails are pointed on one end and spiked on the other, much like a fishing hook. After attaching to an animal, the foxtails tend to move in only one direction --- in. They may work their way beneath eyelids, down ear canals, between toes, and in severe cases into the chest and abdominal cavities. Removal usually requires veterinary assistance.

To avoid foxtail problems, keep lawn mowed, and avoid fields where dried grass is visible. Seek veterinary care if an animal suddenly squints, tilts its head constantly, or chews and licks a paw continuously.

Occasionally, pets have a run in with cactus. Depending on the type of cactus, they may have one needle or they may have many. Their spines may be large, or they may be very small. Larger needles are easier to see and remove. Use caution when removing cactus spines so you don't get poked too! Left in the pet, the needles can cause inflammation and possibly infection. Many times when a pet tries to chew the spines out, they stick in the mouth and cause discomfort and inappetence. Your pet may need to see your primary veterinarian for cactus spine removal.

Heartworm Disease:

Heartworm disease is a serious, life-threatening disease for dogs. It is spread by mosquitoes. Heartworm is less prevalent in Arizona than in more humid climates, but it is still a risk to pets in our area. Because we have golf courses, orchards, and a growing agricultural community, the population of mosquitoes is rising and with it rises the risk of heartworm. When the mosquito bites a pet, it transfers an immature form of the parasite. Once mature, the adult heartworm can reach a length of 6-18 inches.

Pets with heartworm disease can be completely free of symptoms, or can show one or more signs such as coughing, weakness, listlessness, labored breathing, or weight loss. Pets can be treated for heartworm disease; however, the treatment can be difficult, so prevention is recommended. Seek advice from your primary veterinarian regarding heartworm testing and heartworm preventative.

Heat Stroke:

Heat stroke poses a major threat to pets in Arizona 9 months out of the year. Temperatures often begin to rise in early April and do not begin to cool off until November. Animals can suffer from heat stroke even when the ambient temperature outside is not extreme. Heat stroke occurs when pets are exposed to high temperatures and placed under stress. Animals require shade and cool water to help maintain normal body temperature. They are only able to "sweat" from their tongues and the pads of their feet.

One of the most frequent places heat stroke occurs is in a parked car or in any enclosed area/compartments without adequate ventilation and cooling. With poor ventilation, the temperature rises too quickly and your pet is not able to keep cool. Your pet will begin to breathe rapidly trying to cool off. The body temperature can rise 5-10 degrees. Vomiting and diarrhea, and seizures often follow and death can occur within minutes.

If you suspect heat stroke, apply cool water to the entire animal and call your primary or emergency care veterinarian immediately.

Heat exhaustion, a less severe reaction to heat, can be prevented by acclimating your pet to the heat. This is a particularly good idea if your pet has not grown up in a desert climate. Introduce them to hot weather gradually, making sure to provide plenty of shade and cool water. Remember that the desert summer is very dry. Both pets and people lose large amounts of fluid in dry heat and can easily become dehydrated.

Plague:

Plague is a disease that has affected man for many centuries. This disease still occurs in semi-arid regions of the United States with most cases reported in California, New Mexico and Arizona.

Fleas carry and spread the causative organism (*Yersinia pestis*) from rodents to other rodents, dogs, cats, rabbits, and humans. Man can also be infected from handling plague-infected animals (skinning rabbits, etc.) and from infected pets (via bites, scratches and aerosolization).

Plague in cats can cause fever, respiratory difficulty, lymph node swelling and death. Dogs are more resistant to plague and many show mild or no clinical signs. Affected humans may develop fever, chills, diarrhea, and vomiting. Draining lymph nodes, septicemia, and nervous system signs often follow. Death is not uncommon in untreated cases.

Elimination of fleas on pets in plague areas can help prevent the disease. Pets that are not allowed to roam freely are also less likely to contract the disease. Hunting/skinning of rabbits should be avoided in known plague areas.

Rabies:

Rabies is a deadly disease that is present in many areas of the United States. It is carried by a number of species, including dogs, rats, skunks, bats, bobcats, and foxes. In Arizona, rabies is rarely found in dogs and cats, and has been found mostly in bats and skunks. The disease is transmitted through a bite from an infected animal, or any transfer of saliva which contains the virus.

Rabies has been effectively controlled in the dog and cat population through vaccination. The vaccine can be administered to puppies and kittens after 3 months of age. The first vaccination usually provides immunity for one year, while the following vaccinations usually provide immunity for 3 years. In Arizona, it is required by law that dogs are vaccinated for rabies.

If your pet is bitten by a wild animal, seek attention from your primary veterinarian immediately.

Ticks and Fleas:

Ticks are very prevalent in Arizona. They cause a multitude of problems for the dogs and cats they bite. Ticks can spread disease. In Arizona, the most common tick borne disease is Tick Fever (Ehrlichiosis). Dogs and cats can also be infected with Rocky Mountain Spotted Fever and Lyme disease, though these diseases are far less common in Arizona. At this time, the tick that carries Lyme disease can be found only in remote areas of our state. In heavy infestations, dogs and cats can also suffer from anemia due to blood loss. Symptoms of all three diseases include fever, listlessness, anemia, weight loss, unexplained bleeding, seizures, joint pain, and poor appetite. Prevention of tick infestation primary means of controlling these diseases, but treatment is available.

Fleas are also a significant problem for dogs and cats. They may cause skin allergies, anemia and act as carriers for tapeworm and other diseases.

Toad Poisoning:

The Colorado River toad is a large amphibian that typically comes out after rain during the monsoon season. These toads have skin glands that secrete a neurotoxin. Mouthing or ingestion of these toads can cause a mild to severe toxicity in dogs and cats. The most common initial presenting clinical signs are mouth irritation and excessive drooling. Affected animals may also develop heart arrhythmias, seizures, weakness, collapse, vomiting and diarrhea. Severe toxicities can quickly lead to death if not treated. If a pet is observed playing with a toad, rapid intervention by the

owner is necessary. The first step is to wash the pet's mouth thoroughly with water. While rinsing your pet's mouth, take care to use a gentle water pressure and point the stream of water across the mouth. It is very easy when rinsing your pet's mouth to cause aspiration pneumonia. Once you have rinsed your pet's mouth, seek care from your primary or emergency care veterinarian as soon as possible.

Toxoplasmosis:

Toxoplasmosis is an infection that primarily targets pregnant women and immuno-compromised people. Infection with toxoplasmosis, a one-celled parasite, may cause blindness, pneumonia and nervous system disease in immuno-compromised people, and blindness and mental retardation in unborn babies of infected women. Cats have suffered a bad reputation as a source of infection, as they are the only animal in which toxoplasmosis completes its life cycle. An infected cat can shed eggs in its stool which can then infect humans. Maintaining good hygiene, avoiding cleaning litter boxes or digging in outdoor areas where cats will deposit feces are ample preventative measures for a susceptible person to take. Casual contact with cats, particularly indoor or non-hunting cats, does not usually pose a risk.

Another important source of toxoplasmosis is tissue cysts in pigs, sheep, and goats. Prevention of exposure includes thorough cooking of raw meat from these animals and pasteurization of raw milk.

Rattlesnake Bites:

As the weather begins to warm up in the desert of the Southwest, rattlesnakes begin to come out of hibernation. Be aware that although snakes do hibernate during the winter months, they do come out on warm winter days. There are no months in Arizona during which no snakes are out. Rattlesnake bites are among the most serious hazards your pets face. Snakebites are usually triggered by your pet's aggressive, playful or curious behavior. Dogs are more likely than cats to be attacked, with most of the strikes hitting the muzzle. Cats are prone to being struck on the forelimbs, while pawing and batting at the snake.

In Arizona, we have two types of rattlesnake venom. Type B venom is the most common and is carried by all species of diamondback. Type B venom causes the symptoms listed below. Type A venom is carried by a sub-species of Mojave unique to Southern Arizona. This venom is primarily a neurotoxin. In addition to the symptoms below, your pet may also lose consciousness, seizure or experience disorientation. Type A venom does not always cause localized swelling or bleeding.

If you see your pet bitten by a snake, see your primary or emergency care veterinarian immediately. The treatment for rattlesnake bites is most effective within 4 hours of the bite. The amount of venom injected varies, and there is no way to tell how much venom your pet may have gotten. The majority of rattlesnake strikes are severe enough to require emergency treatment.

What to Watch For:

The risk of toxicity depends on the size of the animal bitten and the amount of venom injected.

Look for:

- Rapid swelling at the site of the bite
- Intense pain
- Puncture marks from fangs
- Oozing blood

- Drooling
- Rapid breathing
- Pale gums
- Weakness
- Collapse

After a snakebite, keep your pet calm. Limiting his activity may reduce the effect of the bite. DO NOT apply a tourniquet, which can cut off blood circulation, seriously injuring tissue, but do little to stop the circulation of the venom. Do not try to suck the venom out of the bite, as the site will be extremely painful, and you could be injured by your pet, or cause serious infection from harmful bacteria in human saliva. Do not try to give your pet any pain medications (human medications can be toxic to animals), tranquilizers or ice treatments.

Veterinary Care:

Diagnosis is based on a physical exam to look for evidence of a snakebite, as well as the potential exposure to venom. Blood work may be done to evaluate distortion of red blood cells and how long it takes for your pet's blood to coagulate. (Rattlesnake venom contains anti-coagulants, enzymes that can damage blood vessels and tissue, and substances that can cause blood vessels and tissue, and substances that can cause blood pressure to drop dangerously low.)

Antivenin is usually recommended to neutralize the venom. Your pet will also be treated for pain and infection, and may need to be hospitalized if the bite is severe.

****Pets that have been vaccinated with the "Rattlesnake Vaccine" can still suffer serious and even fatal effects from being bitten by a snake! Please do not delay in seeking immediate veterinary care for your pet even if they have been vaccinated!****

Prevention:

Control your dog on a leash while out walking.

Do not allow your dog to explore holes or dig under rocks, logs or planks.

Stay on open paths where snakes may be more visible.

Don't walk at night; rattlesnakes are nocturnal most of the year.

If you hear a rattlesnake, keep your dog at your side until you locate the snake, then move away.