



Keeping Your Pet Safe in the Great Outdoors

Photo courtesy of Jennifer Jurczynski

As the weather turns warm, not only do we enjoy the great outdoors, but so do many of our pets. However, there are hidden risks to our pets when they venture outside . . . even if it's only in the back yard.

We should take precautions and be aware of lurking dangers that can sicken or injure our animal companions. To learn more about what we all can do to help keep our pets safe during the warm weather, we asked three experts from the UC Davis School of Veterinary Medicine for their recommendations.

Dr. Karl Jandrey is an assistant clinical professor in the Small Animal Emergency and Intensive Care Service at the William R. Pritchard Veterinary Medical Teaching Hospital. He is board-certified in emergency and critical care and has been on faculty at the school since 1999. Dr. Jane Sykes serves as the director of the Small Animal Clinic in the hospital and is leading research in companion animal infectious diseases. Dr. Gina Davis-Wurzler is an associate professor in Small Animal Outpatient Medicine.

Avoiding Heatstroke

Increased outdoor temperature is a contributing factor to heatstroke, but it is an avoidable condition. An animal develops heatstroke when its body temperature rises to a dangerous point (often it is over 106 degrees Fahrenheit) that will damage cell health and normal functions.

Heatstroke often occurs during the first warm spell of spring, when a pet is not used to activity in warmer temperatures. Dogs at greater risk are those that are older, overweight and brachycephalic. Also at risk are pets left unattended in a parked car, which can reach dangerously high temperatures very quickly on a warm day.

Dr. Jandrey recommends, "The best way to avoid heatstroke is to slowly reintroduce activity to your pet, while ensuring it has breaks for drinking plenty of water or cooling off in a pool or safe body of water."

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He also advises that if you suspect your pet is overheated—with signs of weakness, increased respiratory effort or rate, excessive “panting” (or not panting at all), or even vomiting—stop the activity. Cool your pet by soaking its coat down to the skin and then see a veterinarian as soon as possible. Drive with the air conditioning on, or if your pet is secured and away from the windows, have the windows down to encourage evaporative cooling. Always know the location of the closest emergency clinic, even when traveling.

Protecting against Rattlesnake Bites

Some dogs love to hike with their owners, especially as the weather warms. So it is important to remember that the risk of rattlesnake bites is most common between April and October.

A few tips to help avoid rattlesnake bites are:

- Keep away from areas with tall grass, rocks or wood piles
- Stay on trails and have your dog on a leash
- Use a walking stick to rustle brushes along the trail to alert snakes of your presence.

Curious dogs often get bitten on the nose as they investigate typically reclusive snakes. “The best thing to do if your dog is bitten is to get to the nearest veterinarian quickly,” Dr. Jandrey advises. “A veterinarian can determine the course of treatment based on your dog’s symptoms. A rattlesnake vaccine does not necessarily prevent the need for veterinary attention or treatment!”

Preventing Infectious Diseases

Infections from fleas, mosquitoes and ticks:

Cats and dogs that go outdoors are susceptible to infections transmitted by fleas, mosquitoes and ticks. Even though your pet may not leave the yard or have direct exposure to other animals, it is still at risk for infection. Dr. Sykes offers helpful tips in protecting your pet against infectious diseases.

The most common disease transmitted by mosquitoes is heartworm disease. Since there are mosquitoes living year-round in many locations, the use of heartworm preventatives is an effective way to protect against this disease.

In California, dogs are more likely to develop tick-borne diseases than cats. Dr. Sykes explains that these diseases include a febrile illness known as granulocytic anaplasmosis, and, in some parts of California (primarily Humboldt County), Lyme disease. Bartonella is a bacteria transmitted

by fleas and possibly ticks (which manifests as cat scratch disease in people). It can cause endocarditis (heart problems) in dogs, though most cats infected with Bartonella do not get sick at all. A variety of products is available to protect against



Tick and flea prevention is one of the most important things that can be done if your animal spends time outdoors where ticks and fleas are common.

ticks. Make sure to follow the manufacturer’s instructions, or the products will not be effective. Dr. Sykes warns, “Cats are susceptible to toxicity from many tick products (permethrin and amitraz), so sometimes cats can get sick if they live with a dog using these products. If you have cats, make sure you use a product that is safe for cats, such as flumethrin or fipronil.”

Check your pet for ticks after outdoor activities and remove any ticks promptly. This will help prevent the spread of tick-borne infectious diseases. Do not use bare hands when removing ticks—use a special device (or curved forceps). With the forceps, grasp the tick as close to the skin’s surface as possible. Pull upwards with steady, even pressure and make sure mouth-parts do not break off and remain in the skin. If that happens, disinfect the area and watch carefully for the possibility of infection. If you see signs of swelling or redness, your pet should be checked by a veterinarian.

Feline infectious diseases: Cats who spend time outdoors are at risk for a number of infectious diseases. The most common one is an abscess that occurs from an injury received during a fight with another cat. Cats who fight are also at risk for acquiring two viral infections—feline leukemia virus and feline immunodeficiency virus. These viruses can gradually impair a cat’s immune system. The end result, often several years later, may be cancer or other infectious diseases. Feline viral upper respiratory disease and feline panleukopenia virus are also transmitted between cats. Some of these viruses require repeated or more intimate exposures than others.



Leptospirosis: This disease is seen most often in dogs who are outdoors, but more often during times of warm and wet weather. Leptospire bacteria can cause fever and kidney failure in dogs. Dr. Sykes advises, “Good vaccines are available for the prevention of leptospirosis and are recommended for dogs who spend a lot of time outdoors.”

Other infectious diseases: Kennel cough is a respiratory illness contracted when cats or dogs are housed in close quarters. “If you are planning to travel and leave your pet at a boarding kennel, consult with your veterinarian and care provider for the proper vaccination requirements,” Dr. Sykes recommends. It is also important to allow time for adequate immune response.

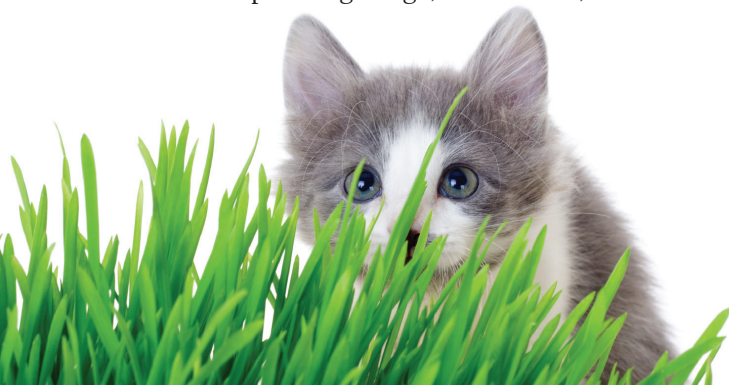
Cats and dogs can be exposed to infectious diseases when they eat lizards, rabbits, raw fish or rodents. These diseases include salmonellosis and rare diseases, like plague or tularemia, which can make people very sick too.

A variety of fungal organisms—such as *Aspergillus* and *Cryptococcus*—can also cause disease in dogs. One uncommon but serious disease is pythiosis, which is found in water sources in some areas of California. This is a fungus-like organism that can infect the gastrointestinal tract and cause bloody diarrhea and weight loss in dogs. It is very difficult to treat. Animals with congenital immune system disorders are susceptible to more serious complications.

Staying Safe from Toxic Plants & Products

Poisonings from toxic plants and products and certain common people foods can happen year round, not just during warm weather. Cats and dogs can get into household toxins if they are not properly applied and stored.

Commonly ingested substances include antifreeze, fertilizers, household compost or garbage, insecticides, medications, rat



Outdoor Tips at a Glance

- Have fresh water available at all times
- Know the location of the nearest veterinary clinic
- Know the risks for the area in which you are traveling
- Have your pet microchipped
- Protect your pet's paws from hot, rough, surfaces
- Check paws often when hiking in rough terrain or provide booties
- Create a pet “go bag” that should include:
 - Record of your pet's current prescriptions
 - Bottled water
 - First-aid kit, including flea and tick treatment and other items recommended by your veterinarian

poisons, and plants (such as lilies, oleander, sago palm and yew).

Common things that people eat, such as avocados, chewing gum with xylitol, chocolate, coffee/espresso beans, grapes/raisins, macadamia nuts and onions/garlic, can be very toxic for pets.

Dr. Jandrey suggests, “Take a quick assessment of the environment to see if anything is disturbed or eaten. Sometimes, dogs who eat intoxicating products will leave part of the packaging or small crumbs of the material. When you take your pet to the veterinarian, make sure to bring any packaging material such as medication vials or containers with labels indicating name brands or ingredients.”

Prevention is key to protecting against poisonings. “Avoid using toxic products in your yard whenever possible, and be familiar with proper application and storage of the products you use,” Dr. Davis-Wurzler cautions. “If you use a pest control service, make sure to inform your service that you have pets and ask them to use pet-safe products whenever possible. When choosing plants for your yard, make sure you choose non-toxic plants.”

For more information about **pets and toxic plants**, visit vetmed.ucdavis.edu/CAH/health_information/plants_pets.cfm

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Your Donations at Work

Thanks to your support, the CCAH has funded studies tackling problems affecting dogs in the great outdoors. These are a few highlights of current research projects:

- Evaluation of tick-borne disease in dogs
- Investigating pancytopenia in dogs with chronic Ehrlichia canis infection*
- Heat stress response in dogs with heat stroke*

(* Studies are being conducted jointly with the Koret School of Veterinary Medicine.)

For more information on these studies, please visit:
vetmed.ucdavis.edu/ccah/health_information/newsletter/news_cited_abstracts.cfm

Safeguarding against Other Dangers

Ideally, pets should not be left unattended outside at any time. However, this may not always be possible. So Dr. Davis-Wurzler offers some simple tips to help safeguard pets.

All pets need proper identification, such as microchips and license tags, and tags with contact and medical information. Microchips are now considered standard for permanent identification—this is a simple, inexpensive outpatient procedure that can be performed by your local veterinarian. Licensing your dog increases the likelihood that your dog will be returned to you if it gets lost and helps pay for local animal shelters. If your pet has a specific medical condition that requires ongoing medication, such as diabetes, have it wear a tag with that information too.

If your cat insists on going outside or you feel that its quality of life is improved by spending some time outside, then let it go outside with supervision or consider installing cat fencing around your yard. If that is not feasible, allow your cat to go outside only when you are home and make sure that it has proper identification.

Your pet should have free access to fresh water, as well as shade and a safe place to hide or rest. Also consider having a misting system installed where your pet resides.

When you walk your dog on rough terrain or on hot surfaces, such as asphalt, make sure it wears booties to protect its paws. There are various types of booties available. Look for those that are designed to fit over paws, are somewhat loose and held in place with Velcro. The stretchable latex type of booties may cause constriction. Carry fresh water with you at all times and keep your dog close by to better prevent injury.

Watching for Warning Signs

Companion animals can be very brave and may not necessarily exhibit pain the way people do. Dr. Davis-Wurzler suggests to carefully watch for warning signs that warrant a trip to the veterinarian.

Warning signs include:

- Unable to stand or walk, or seems reluctant to move for any reason
- Crying or whimpering as if in pain
- Wounds deeper than a mild scratch (puncture wound, open/gaping wound or swelling)
- Vomiting, decreased appetite and lethargy
- Gagging, retching or coughing
- Sneezing, head shaking or licking paws shortly after a walk (signs that a foxtail or plant bur may have lodged in the ear, nose or paw)
- Facial swelling or difficulty breathing (signs that possibly a bee sting or plant thorn is causing a severe reaction).



Warm weather offers many opportunities for fun activities in the outdoors. Following a few precautions is the best way to make sure that your pet stays safe and healthy to enjoy these activities with you. 🐾

Interested in learning more about our programs dedicated to improving companion animal health? We invite you to visit us at the CCAH. You are welcome to call (530) 752-7295 to schedule a visit.

We gratefully acknowledge Friends of Companion Animals members for supporting the CCAH and advancing animal health and well-being. The following benefactors contributed \$1,000 or more from July 1, 2011 to June 30, 2012.

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Recognizing compassionate giving to the Companion Animal Memorial Fund



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SAGE Centers for Veterinary Specialty and Emergency Care is one of the largest veterinary specialty practices in the country. Serving the greater San Francisco Bay Area since 1992, it has locations in Campbell, Concord, Dublin and San Mateo.

“Our name speaks to the wisdom and high level of expertise of our veterinary specialists, symbolizes the knowledge and commitment to healing and to the environment that we offer, and highlights the collaborative nature of our facilities,” describes Dr. Julie Smith (DVM 1992), one of the managing partners.

Collaboration is one of the most important values to SAGE Centers as a whole. It is fundamental to their dedicated team of nearly 300 professionals working effectively together, as well as their partnerships with referring veterinarians. Their integrative approach offers patients excellence in emergency and specialty care.

SAGE Centers may be high tech, but they are also high touch. When a cherished pet passes away, the compassionate veterinarians and staff are devoted to comforting a client.



“As a partner at SAGE as well as a UC Davis alumna, I am proud to be able to contribute to the Companion Animal Memorial Fund in memory of a patient who has passed away.

The Center for Companion Animal Health serves a great purpose at the university, and a gift in memory of a beloved pet is comforting to the owner as they deal with their grief.

I had the good fortune to tour the facility recently when celebrating my 20th veterinary school reunion, and it is beautiful. The work that is performed there is truly outstanding.”

— Dr. Micki McCabe (DVM 1991)

“At the Contra Costa Veterinary Emergency Center, now part of SAGE Centers, we would routinely make a contribution for all pets that died or were euthanized. We received many complimentary comments from appreciative owners. They mentioned how nice it was that they received a personal letter from UC Davis, and that the money went toward veterinary clinical research,” Dr. Greg Dannucci (DVM 1990) shares.

The Sage team takes pride in providing compassionate, loving care for pets and their families alike. They honor the importance of the human-animal bond and recognize that their patients are loved members of families. 🐾

For more information about the **Companion Animal Memorial Fund**, please contact the Development Office at (530) 752-7024 or visit vetmed.ucdavis.edu/CAAH/donations/camf.cfm.

Theresa Markovich

Love of dogs inspires giving

Seeing penguins in Antarctica is one of Theresa Markovich's fondest memories from her many travels. Mrs. Markovich, who celebrated her 95th birthday last fall, has experienced the excitement of visiting places all across the country and in every continent.

As a young nurse in the Navy from 1942 to 1949, Mrs. Markovich was stationed in several states. "I really enjoyed being a nurse and meeting a lot of different people and helping patients," she remembers with a smile.

One very special person who she met in the Navy was her husband, Edward. The Markovichs married in 1949 and then moved to California, where they both earned degrees in education from San Francisco State University. Soon after graduating, they settled down in the scenic community of Weimar, nestled in northern California foothills.

Valuing the importance of education, both Mr. and Mrs. Markovich dedicated their careers to teaching. Mrs. Markovich taught nursing courses at Sierra College for 25 years and loved her job. She notes, "I never missed a day of work!"

The Markovichs also shared a passion for travel and visited many places around the world—Alaska, the Antarctic, the Arctic Circle, Argentina, Australia, Cape Town, China, Hawaii, Hong Kong, Korea, New Zealand, Tahiti, Vietnam—to name a few.

Another passion they shared was their love of dogs. They were especially devoted to boxers, German Shepherd Dogs and weimaraners, owning several dogs throughout the years. Mrs. Markovich recalls the good times she had taking her dogs on early morning walks around the lake on their ranch. She enjoyed just being with them.

To keep their dogs healthy, the Markovichs made sure that they received routine veterinary care and were diligent about



Theresa Markovich is a devoted animal lover and has enjoyed the loyal companionship of dogs throughout her life.

taking them to their trusted veterinarian, Dr. Virgil Traynor, (DVM 1961).

"It's important to me to know that my gift to the school will support research to improve the health of dogs and scholarships to help educate tomorrow's world leaders in veterinary medicine."

— Theresa Markovich

When specialty care was required, he referred them to the School of Veterinary Medicine. Mrs. Markovich comments, "I was impressed with the excellent care my dogs received from the school and the exceptional way they helped animals."

Dogs hold a special place in Mrs. Markovich's heart. They have enriched her life with loyal companionship and provided a sense of security—something she found even more important after her husband sadly passed away. Her love

of dogs and other animals inspired her to provide for a gift to the School of Veterinary Medicine through her estate plans. She is honored by the school's Heritage Society for Animals for her commitment.

Helping others is inherent in Mrs. Markovich's nature. She says, "It's important to me to know that my gift to the school will support research to improve the health of dogs and scholarships to help educate tomorrow's world leaders in veterinary medicine." 🐾



To learn more about the **Heritage Society for Animals** and estate planning, please call the Development Office at (530) 752-7024.

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The CCAH is dedicated to advancing studies in veterinary medicine—encompassing new ways to prevent, diagnose and treat diseases including cancers, genetic and immune disorders, infectious diseases, kidney and heart diseases, and nutritional disorders in companion animals. We welcome visitors to come and learn more about our mission and programs. To schedule a visit, call (530) 752-7295.

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