



It's Summertime... And Time for Heat Stroke!

by Thom Somes, "The Pet Safety Guy™"



Heat Injury includes not only burns, but also hyperthermia. The systemic over-heating of pets is called hyperthermia (hyper = high or above, thermia = temperature), commonly known as heat stroke.

Pets primarily cool themselves by panting. Panting works by moving warm moist air out of the body. This warm moist air is usually warmer than the surrounding (ambient) temperature. Panting is not very efficient and the higher the temperature and/or humidity, the less effective panting becomes for pets. Brachycephalic (short-nosed) breeds are especially inefficient at cooling themselves

Excessive heat is hard on the cells and organs of the pet. At sustained temperatures 105° and above, cells begin to break down and lose functionality.

Brain and organ cells are most sensitive to these higher temperatures. A few of the life-threatening things that occur in a pet's body during heat stroke can include thickened and clotting blood, kidney failure, intestinal bleeding and the brain can swell. This is a horrible death for any living creature.

You should know and take the necessary steps to prevent any of your pets from becoming dangerously overheated.

However, accidents and oversights do occur and you also need to know the Signs and Actions for Survival that may be required for your pet to survive heat stroke. But first, let's talk about prevention.



Prevention Tips

1. Pets need a constant supply of fresh, cool, clean water available 7/24.
2. Exposing your pets to stresses like traveling; strange sights, sounds and smells; and excitement can be a very important factor in causing your pets to overheat.
3. If left alone at home or in the yard, make sure they have a cool, shady place they can go to with access to that cool, fresh water.
4. Older pets and very young pets are especially susceptible to heat stroke.
5. Never leave your pets in a car or in the back of a truck.

Note: Once a pet has survived heat stroke, it will more easily succumb to heat stroke again. Therefore, if your pets have ever suffered from heat stroke or exhibited any of the signs listed below, taking quick action could prevent a potentially life-threatening situation.

Signs

Breathing: Uncontrollable Panting. Your pet's primary method of cooling itself off is through panting. The pet's mouth (gums, tongue and nasal passages) act like a radiator to move heat (via warm moist) outside of the body.

Rapid Heart Rate. This makes sense, since the blood moves through the mouth and gums to cool. The heart then beats faster to move the blood more quickly through the radiator (mouth).

Temperature. Normal temperature for dogs and cats ranges from 101.5° to 102.4° F. For very short periods of time, pets (mammals) can handle higher body temperatures. As a general rule, any body temperature 105° and above is considered extremely dangerous.

Mucous Membranes. Tongue, gums and lips will initially be bright red as the pet's body tries to move as much hot blood to the mouth as possible to be cooled. As the pet's condition gets worse, the tongue, gums and lips will progressively move to blue/gray and the pet's mouth will be dry.

Foaming/Salivating. This is caused by the mechanical action of the tongue moving rapidly back and forth.

Lethargy. Your pet may become sluggish, uncoordinated, and may even go into convulsions. This is caused by the dual effect of the brain being overheated, and the cells of the pets' bodies being starved for oxygen.

Capillary Refill. Normal Capillary Refill time is one to two seconds. During heat stroke, capillary refill time can take more than two seconds; when it approaches five seconds, this is a late sign of heat stroke, requiring immediate actions for survival.

Vomiting. This can also be a late sign of heat stroke. It is also an important self-protective mechanism that can add valuable minutes of survival for your pet, because it moves this mass of hot material out of its body and away from the vital organs. Be sure to bring a sample to the veterinarian if your pet does vomit.



Actions For Survival

1. Note what time you began assisting your pet.
2. Restrain and muzzle the pet if necessary. However, if you must muzzle, the pet cannot pant and you are now responsible for cooling the pet's body down. This needs to be done immediately before transporting to the veterinarian or emergency animal hospital.
3. Bathe or hose your pet's body with copious amounts of cool water. Do not use ice or very cold water, which can make the situation worse by causing the capillary blood vessels at the surface of the skin to constrict. This constriction can create a thermal barrier that prevents the cooler blood from returning to the organs and brain. An ice pack can be used, if wrapped in a towel and placed along the inside of the abdominal area and under the arms and legs.
4. Monitor the temperature every few minutes. Stop cooling them when the temperature reaches 102°. Your pet will continue to cool down and you do not want to overcool it.
5. Monitor mucous membrane color every few minutes. Unless your pet normally has black gums, pink is normal
6. Prepare to treat for shock, which is the lack of adequate oxygen to the cells of the body.
7. Do not give them anything to eat or drink unless advised by a veterinarian to do so. In general, food or drink will not get into the system fast enough to help and may make the situation worse by causing vomiting. Food and water in the stomach can also increase the risks of surgery, if needed.
8. Contact your veterinarian or nearest animal hospital for further instructions or assistance.

Veterinarian Care

Veterinary care, support and treatment of heat stroke for both dogs and cats may include oxygen administration, body cooling, drug administration and fluid replacement (IV's). Immediate care will be to assess your pet's vitals. I cannot stress how important it is for you to pass on the vitals you assessed on your pet to the veterinarian and what time you took them. This builds a timeline for the veterinarian that will be a factor in to how aggressive the treatment will be. Temperature will be the first thing for your veterinarian to get under control. They will cool in a bath or with a hose. They may even give cool water enemas and cool fluid IV's. Immediate laboratory tests can include: blood count, urine, creatinine, liver, glucose and coagulation profile. This will assist in determining the extent the organs functionality has been affected. Ongoing monitoring over the next couple of days may be indicated, depending on the severity of exposure.

BE PROACTIVE



In addition to the actions you can take, remember, heat stroke is the number one preventable summer accident. Keep this article handy and refer to the prevention tips often. They'll help remind you how to avoid hyperthermia in your pets.



Thom Some, The Pet Safety Guy™, is an internationally renowned speaker, author and professional trainer. He is the founder and president of Pet Tech Inc., the first national training center dedicated to Pet First Aid & Care for dogs and cats. Pet Tech's programs are the official Pet First Aid Training for Pet Sitters International and pet first aid information in PSI's Accreditation Program was developed by Pet Tech. If you are looking for an instructor in your area, contact Pet Tech, P.O. Box 2285, Carlsbad, CA, 92018, call (760) 930-0309, check the Pet Tech Web site at www.PetTech.net or e-mail info@pettch.net. **PSI**