



Heat Stroke / Hyperthermia

Hyperthermia is a term used to describe an elevation in body temperature. Although published normal values for dogs and cats vary slightly (100°- 102.5°F), body temperatures over 103°F are considered abnormal. Hyperthermia results when heat production is greater than heat loss. When a pet is exposed to high temperatures, heat stroke or heat exhaustion can result. Heat stroke is a very serious condition that requires immediate medical attention. Once the clinical signs of heat stroke are detected, there is little time before serious damage, or even death, can occur.

In the dog and cat the sweat glands are not well developed and have limited function in loss of body heat. The body heat is lost primarily through panting and sweating from the footpads and nose. If the body temperature rises too quickly, damage to the cells in the body can occur. If left untreated, some of the damages may be permanent or even life threatening. An animal with mild or moderate heat stroke (104°- 106°F) can recover within several hours if given prompt first aid and veterinary care. Severe heatstroke (> 106°F) can be fatal and immediate veterinary assistance is needed.

Clinical Signs of Heatstroke

- **Rapid Panting**
- **Bright Red Tongue**
- **Dark Red Gums**
- **Thick, Sticky Saliva**
- **Depression**
- **Dizziness**
- **Vomiting (sometimes bloody)**
- **Weakness (unable to stand)**
- **Diarrhea (often bloody)**
- **Muscle tremors / Seizures**
- **Shock**
- **Coma**
- **Sudden Death**

What to do if You Suspect Heat Stroke

- 1) Move your pet out of the heat and away from the sun immediately
- 2) Begin cooling the animal by placing cool wet rags or washcloths on the body. You can also spray or immerse in water. **DO NOT USE ICE OR VERY COLD WATER!!!** Extreme cold water can actually cause the blood vessels to constrict, preventing the heat loss.
- 3) Apply isopropyl alcohol on the footpads and under the arms and legs
- 4) Aid in the cooling process by setting up a fan
- 5) Offer your pet cool water, but do not force water into the mouth
- 6) Call or seek veterinary care immediately

Cooling too quickly and especially allowing the temperature to become too low (hypothermia) can cause other life threatening conditions. The rectal temperature should be checked every 5 minutes. **Once**

the rectal temperature reaches 103°F, stop the cooling process!!! At this point the animal should be dried thoroughly and covered so they will not continue to lose heat. Even if the animal appears to be recovering, take him / her to your veterinarian as soon as possible to be examined. Many animals that suffer from heat strokes will need to be hospitalized and treated with fluids and possibly oxygen. Blood tests should be performed to check for secondary problems that can arise from the episode (i.e. Kidney Disease, Blood Clotting Problems, and Liver Disease). Patients should be closely monitored for a minimum of 24 hours. Most animals will be monitored for several days depending on clinical presentation and secondary problems that may arise.

WAYS TO PREVENT HEATSTROKE

- Keep pets with predisposing conditions like heart disease, obesity, older age or breathing problems cool and in the shade. Even normal activity for these pets may be harmful.
- Limit exercise on hot days (early morning and late in the evening only).
- Provide access to fresh clean water at all times.
- Allow outside dogs plenty of access to shade. Avoid areas where the heat is reflected such as asphalt, concrete and the beach. Not to mention can be extremely hot and can even burn the pads of the feet.
- NEVER leave a pet in a car unattended. Research has shown that on a summer day, the temperature can rise 40°F in a single hour.
- Wetting down your pet or allowing them to swim can help maintain a normal body temperature.

Some animals can recover fully from a heatstroke if caught early enough. Sadly, many do not recover. If they do, many suffer from permanent organ damage as a result, requiring life long treatment. Prevention is the key to keeping your pet safe and healthy during warm weather.