

Hot Fun In The Summertime: Heat Stroke and Heat Exhaustion

by Dr. Seth Landry, D.V.M.
Originally appeared in the June 2008 issue

Springtime has flown by and hints of a warm summer have become evident, mainly in our thermostats. As the temperatures increase, so do the outdoor activities. Barbeque pits are fired-up, picnic baskets dusted off and bathing suits dug up from the bottom of the drawer. With the additional outside lifestyle and higher mercury levels, it is important to monitor your dog for overexertion, which is commonly seen in practice during the summer months. I'm sure your Lab is like mine and rarely volunteers to end a game of fetch, so owner awareness is key to avoiding overexertion, leading to hyperthermia and potential heat stroke.

Hyperthermia, the precursor to heat stroke, refers to an elevation of the core body temperature above normal range, which for a dog is above 103°. The typical causes include exertion, excitement, or prolonged exposure to warm, humid conditions. Any time the body temperature is higher than 106°, a true emergency exists. The dog only has a capability to sweat through his nose and the pads on his feet, inhibiting him from dissipating heat efficiently. As a means of compensation, panting allows for the ability to cool down by a natural occurring convection system.

Hyperthermia unchecked may digress to potential heat stroke. Heat stroke is exposure to high ambient temperature, increasing the heat load, at a faster rate than the body can dissipate. The most common cause of heat stroke is when dogs are placed in a car with the windows closed (or any situation were they are placed in a closed environment with poor circulation). It is important to note that even short periods of time in a car on a temperate day could be detrimental to your canine. If the outside temperature is 75°, the temperature inside a car with the windows closed can reach 120° within 20 minutes. Excessive panting, labored breathing and a temperature above a 106° are all signs of heat stroke.

If you are concerned your dog may be suffering from hyperthermia or even heat stroke, the first step is to determine a temperature, then remove him from the source of heat or stop exercising, finally use a fan and wet your dog down with cool water. Beware of using ice-cold water because this may cause vasoconstriction, which will stall the cooling process. It may also be helpful to use rubbing alcohol on the skin of the stomach to speed evaporation of the heat. Antipyretics, such as aspirin, will not work for dogs with heat stroke because it is not a true fever. As the temperature nears normal, stop cooling because you want to avoid overcompensating and swinging to the other end of the spectrum with hypothermia. Because shock can occur from heat stroke causing organ damage or even total organ failure, a pet suffering from hyperthermia or heat stroke should be seen by a veterinarian as soon as possible.

It is especially important as the summer draws near to condition your dog to the heat and to exercising in the heat. Heat stroke prevention may also be helped by watching your dog's waistline. Thirty percent of dogs in the United States are either overweight or obese, and these dogs are at increased risk of hyperthermia.

Now the recipe for a summer block party is complete. Forearmed with the signs of heat stroke, you can now watch your dogs and your steaks with equal expertise.