

Canine Dehydration and Heat Stroke

By: Bob Franklin

Warmer weather is coming with lots of fun things to do with our JRTs – trials, fun days, hunting, walks in the woods, or chasing a ball in the back yard. Also, with summer we sometimes have very warm temperatures and the necessity to protect our 4-legged friends from possible dehydration or even heat stroke. Here are some tips to help keep your terriers hydrated and to help you recognize the danger signs that indicate dehydration or overheating may be occurring. Also listed are several emergency things to do if heat stroke symptoms are discovered. This article will avoid being overly technical, but includes several reference websites at the end – some which are highly technical.

Proper hydration is essential to maintain optimum body functions and temperature in all mammal species. Virtually all metabolic reactions occur in the presence of water. A water shortage (dehydration) causes the blood to thicken, reduces oxygen carrying capacity of the blood and may cause body temperature to elevate to potentially lethal levels. Canines cool themselves by dissipating heat through their skin (mostly their bellies), by evaporation from rapid panting, by a small amount of moisture excretion and evaporation (similar to human sweating) but from only their paws or simply by drinking water. However, in extreme heat situations, these cooling efforts may be insufficient and dehydration and eventually heat stroke can occur.

Tips to Avoid Dehydration:

1. Always have water available to encourage dogs to drink frequently.
2. Wet a dog before starting intensive physical activity or before going out into a hot day – especially wet the stomach and groin areas and the dog's paws if water is in short supply.
3. Do not cover the dog with a wet towel or other so called “cooling blankets” as this inhibits evaporation and can create Sauna like conditions around the dog's body.
4. Use battery powered crate fans to move air around crated dogs and always keep crates out of direct sunlight. Remember that shade travels during the day.
5. If the dog has not had a drink for a long time or shows signs of dehydration, start re-hydration slowly – allowing only a few laps of water every few minutes. Over drinking too quickly can lead to vomiting and often causes even more fluid loss.
6. Do not allow the dog to drink excessive amounts of water after strenuous exercise as this can also lead to vomiting. Wait a few minutes after heavy exertion and allow frequent but small drinks every few minutes.
7. If a dog shows some signs of dehydration, it may even be reluctant to drink. Try meat/chicken broth mixed with water to encourage drinking.
8. If a dog has problem holding the water down, let it lick a popsicle or ice.
9. If a dog refuses to drink for any extended period of time and exhibits dehydration or heat stroke symptoms, seek veterinary assistance which may include among other things injection of fluids subcutaneously or intravenously.

Dehydration and Heat Stroke Symptoms:

A primary cause of both dehydration and heat stroke occur when dogs are shut up in cars or other confined areas with no ventilation and the “green house effect” from the sun causes the interior of the vehicle or confined area to reach high temperatures. Water should always be available. Dogs can overheat if they are unable to find shade or a cool spot on a hot sunny day – especially if the humidity is high. Obviously, dark colored or heavily coated dogs are more susceptible to over heating in sunny conditions but clipping or stripping a dog’s coat prior to hot weather can help the dog keep cooler. Puppies up to 6 months or age, overweight and older dogs are at greatest risk to heat related illnesses.

Exercise is healthy, but extreme exercise under hot conditions can also cause dehydration and may eventually create heat stroke symptoms. Exaggerated panting is the dog’s first attempt to cool its body. Increased salivation accompanies increased panting and unless moisture lost through this panting is replenished, it eventually will lead to dehydration. Symptoms of dehydration are reduction of skin elasticity as the dog loses moisture. Pinch a little skin between your thumb and forefinger on the dog’s back. If when released, the skin does not pop back into place like it should, this usually indicates dehydration is occurring. (You should have performed this test under normal conditions to have an idea how this normally works because younger, fatter dogs will have more elasticity than will older, skinnier dogs).

Reduced oxygen to the body because of dehydration can cause the pulse rate to increase or become erratic. The dog’s temperature may elevate (body temperatures over 105 degrees Fahrenheit are dangerous). As mentioned earlier, excessive salivation accompanies increased panting and the dog may appear anxious or have a staring expression. The eyes may appear sunken and lack moisture and the dog may become lethargic. The mouth appears dry and the gums and nose are dry. Vomiting/diarrhea may occur. Panting can even suddenly stop. The tongue and lips may initially turn very red and eventually bluish in color. Muscle tremors, convulsions, vomiting, lack of coordination, collapse and eventually loss of consciousness, coma and even death can occur if remedial steps are not taken immediately.

Emergency Heatstroke Treatments

1. Immediately move the dog to a cool, shady place.
2. Wet or immerse the dog in cool (not ice cold) water.
3. Fan wet dog vigorously to promote evaporation to help cool the dog’s body temperature.
4. Do not apply ice as this constricts blood flow and will inhibit the body’s attempts to cool itself.
5. Allow the dog to have small drinks of water every few minutes, lick ice, ice cream or a popsicle. Use broth in water to encourage drinking.
6. If recovery is slow, take the dog to a veterinarian as soon as possible.

For more information relating to dehydration and heat stroke go to following websites.

1. Dehydration in Dogs – <http://www.bichonfriseusa.com/articles/dehydration.htm>
2. 10 minutes to Disaster – <http://www.trdogtraining.com/heatstroke.html>
3. Heat Stoke – <http://ww.sandiegoschutzhund.org/references/heatstroke.htm>
4. Canine Heat Stroke - http://www.k9power.com/deboer_heatstroke.htm