

# Heat Stroke Prevention, Warning Signs and Treatment

By Denice Rackley

Summer heat is upon us in the Ohio valley. We head to pools, lakes or inside where air conditioners are working overtime but we need to be aware of the health risks heat poses to our pets.

Dogs can overheat due to exercise in warm weather and being confined in a hot environment with no way to get out of the heat or cool off. People do not realize they can also overheat in rather cool temperatures due to mental stress and anxiety.

Evaporative cooling is the most efficient means of lowering body temperature. We are able to sweat over our entire body, dogs can't sweat. Panting is the primary means of evaporate cooling for dogs. Having a wet tongue allows for evaporation to occur. High humidity quickly multiplies the concerns of summer temperatures. Similar to us when the humidity is high dogs have difficulty keeping cool becoming overheated more easily. Overweight dogs, dogs that are not physically fit and those that are medically compromised have even a tougher time with weather extremes. Overheating can cause organ and heart failure, it can be fatal. Knowing how to prevent heat stroke, the warning signs and action you can take immediately to cool a dog could save your dog's life.

## Preventing Heat Stroke

Knowing how your dog normally behaves in warm or humid weather is the first step to recognizing warning signs. Most dogs' normal temperature is 101 to 102. It is not uncommon for dogs that are nervous or scared to have temperatures of 102.5. (Temperature can be taken rectally with a normal human thermometer.) After exercise the temperature can easily be 103. If they reach 104 some dogs will exhibit warning signs of becoming too hot.

Preventing heat stroke is easier than treating a dog after it has overheated.

- Know your pets' normal temperature
- Provide clean cool water to keep dogs hydrated
- Exercise early morning / late evening
- Provide small amounts of water frequently
- Take breaks during training or exercise allowing pets to cool off
- Walk dogs on grass or dirt rather than cement/asphalt
- Offer opportunities for your dog to take a swim or cool off in running water
- Feed smaller meals
- Be aware of what is "Normal Behavior" for your dog
- Know your vets' policy on emergencies
- Know the location and phone number of the nearest 24 hour emergency clinic

## Signs of Heat Stroke

Dogs can exhibit multiple signs of overheating. The first signs can be subtle continuing to get more serious as their condition worsens. Most agree that a temperature of 103 is high. A temp over 106 indicates the dog is in immediate danger and veterinary care needs to be sought.

Signs of overheating and heat stroke can include

- Slower to respond to commands
- Tongue becomes enlarged as they get hotter, may be scoop shaped at tip
- Panting excessively - panting can turn loud and raspy indicating air is not being moved efficiently
- Squinting or Glazed eyes
- Weakness - most notice in rear legs first
- Wobbly, Lack of Coordination
- Disorientated
- Gums and/or tongue becoming bright red or blueish
- Vomiting
- Diarrhea
- Lethargy
- Irregular heart rate
- Loss of Consciousness

**If you notice any One of these signs of overheating it is time to take action to help your dog cool off.** My personal experience with working Border Collies is that when I notice either of the first two signs listed having my dog stop working/playing, take a couple drinks and a dip in cool water then move to shade where there is a good breeze (or fan) is very effective in bringing their temperature down to normal. If caught early simply offering cool water to drink and running cool water on the dog's stomach, legs and paws will help lower their temperature. Placing a dog where there is good air flow will help him cool off. Putting a dog in a tub of water, allowing it to stay there is not as effective as running water over the dog or having the dog get in and out of water. When a dog is immersed in a tub of water the water trapped in the hair will get warm acting as an insulator against the cooler water. Just getting a dog wet is not the point, you want the water to be cool taking heat from the body then away from the dog. You need the water to be running so continual cool water is in contact with the dog or you need the water to evaporate aiding in cooling. Placing the dog in front of a fan or in air conditioning will help with evaporation.

#### CAUTION

If the dog is alert offer cool water to drink but only allow a few laps of water at a time every few minutes. Swallowing lots of water while panting excessively could lead to the dog swallowing air possibly leading to bloat. Do not force your dog to drink which could result in water getting into its lungs. Monitor the dogs temperature every 3 minutes. As soon as their temperature begins to drop stop cooling efforts and continue monitoring. Dry the dog off, keeping them in a cool environment. If you continue cooling you may cause the temperature to drop to low. Once the dog's temp is normal and panting has slowed more water can be offered allowing the dog to rehydrate itself.

**Do not confine a dog to a crate** that has had recent exercise even if they appear fine. This is especially true of warm dogs that are wet. The crate will act as sauna. The water being cooler than the dog restricts the blood vessels reducing the blood flow to the dog's skin forcing the heat inward raising the dog's temperature. A crate restricts air flow preventing evaporative cooling. The dog will be hotter inside the crate than outside. Air flow is critical.

Dogs don't lose electrolytes through exercise like we do. Oral replacements of electrolytes are generally not effective. If a dog exhibits heat stroke there are physiological changes that make intravenous fluids and electrolytes necessary.

Contact your veterinarian if you are concerned about your dog.

## RISK FACTORS

While All dogs are at a certain risk for overheating there are some breeds that have a higher risk.

- Brachycephalic breeds (those with short noses and/or flat noses) shih tzus, pugs, boxers, bulldogs...
- Overweight dogs
- Those of compromised health – breathing problems, heart conditions
- Very Young or Old dogs
- Extremely active dogs – hunting and herding breeds. Some of these dogs will keep going till they drop so it up to you to have them take frequent breaks to hydrate and cool off.
- Environmental factors can place a dog at risk ie no shade, confined in sun, high humidity

Dogs can over heat rather easily. It is up to you to know your dog's normal behavior and the warning signs that your dog is getting overheated. Prevention is rather simple – provide cool water, shade, frequent rest breaks for your four-legged friends in an environment with good air flow. The best course of action is to prevent this potentially life-threatening condition.

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