

Heat, Water, and Dogs

Our topics for this week are warm weather risks to dogs, including:

- **Heat exhaustion**
- **Heatstroke**

Dogs do not tolerate high environmental temperatures as well as humans. Humans perspire to cool their body. Dogs depend on panting to cool blood vessels in their tongue and dissipate the heat in the blood transported to and from other areas in the body. When the environmental temperature is near, or above, a dog's normal temperature, 101.5F or humidity is high impeding evaporation, cooling by panting is not very effective. Impaired blood circulation or airway problems compound the risk of the dog being unable to cool its body. Dogs with thick hair coats, such as German shepherd dogs, Australian cattle dogs, malamutes, and collies for example are more susceptible to heat exhaustion than smooth, short-coated breeds. Medications that depress respiration or circulation can contribute to the body overheating.

Excessive Heat - Heatstroke

Excessive heat can damage the organs of any mammal, including dogs. Environmental situations that can exacerbate exposure to heat can include lack of available shade, high humidity, and lack of ventilation,

When the dog cannot compensate for its body getting too hot, it enters the stage of heat exhaustion. In this stage, signs of discomfort become evident, such as lethargy and weakness. If relief from the heat is not found, the signs of heatstroke may appear, including excessive panting, vomiting, severe lethargy, staggering, bright red tongue, thick and stringy saliva, and diarrhea. Rectal temperature may exceed 106F. Normal in a dog is 101.5. Coma and death can soon follow.

Exposure to Heat and Compensation Mechanisms

Common causes of heatstroke in dogs are:

1. Being left in a motor vehicle in warm or humid weather
2. Being confined to concrete outdoor runs
3. Having little to no shade
4. Being tethered outdoors
5. Wearing a muzzle in warm weather
6. Overexercising in warm weather

7. Having heart disease, respiratory disease, or any condition that impairs breathing, such as laryngeal paralysis.

Short-nosed dogs have difficulty in breathing through their nose and have a small trachea for their body size. Plus, their tongue has less surface area to benefit from cooling by panting.

Water

Water is required for all forms of heat dissipation from the body. About 60% of an adult mammal is water. Water is required for perspiration, normal blood flow, and in dogs, cooling by panting enhanced evaporation from the mouth. Heatstroke can be caused by failure to have access to fresh water at all times. A 20 lb. dog should have access to at least a quart of drinkable water per day. Outdoor water in metal drinking bowls can be inaccessible due to extreme heat.

Preventive Measures for Heat Exhaustion and Heat Stroke in Dogs

1. Keep the dog in air conditioning whenever possible during extreme heat of summer.
2. Go to greater extremes to avoid heat if your dog has heart or respiratory problems, a short nose, or a thick haircoat,
3. Exercise dogs in warm weather months in the early morning or late evening.
4. Avoid exercise on concrete or asphalt.
5. Do not exercise your dog while you ride a bicycle or wear rollerblades.
6. If a dog is left outdoors in a penned area, make sure they have access to cool water, grass, and shade throughout the time they are outdoors.
7. Do not use metal water bowls outdoors.
8. Never tether a dog outdoors.
9. Do not muzzle your dog if it will be exposed to hot weather.
10. If a dog must be in a crate during hot weather, use open wire crates for ventilation with cloth where and when needed to provide shade.
11. Brush your dog's haircoat frequently, especially if it has a thick or double-coated hair coat.
12. Trimming the coat is OK, but do not clip the haircoat short in hot weather.
13. Be aware of the medications your dog is being given and their possible effects on the risk of heatstroke.
14. Do not leave a dog in a car if the outside temperature is above 70F. In some states, exposing a dog to excessive heat in a car can lead to criminal charges.

If you have comments or you're interested in particular subjects contact us at CBC@BetterAnimalHandling.com

Now let's recap the key points to remember from today's episode:

- 1. The risk of heatstroke is created by environmental temperature, humidity, but the susceptibility to heatstroke involves many other factors.**
- 2. While outdoors, dogs should have accessibility to cool water, shade, cool surfaces to sit or lie on, and good ventilation.**
- 3. Dogs should never be tethered outdoors.**

More information on animal handling is available in my book, *Animal Handling and Physical Restraint*, published by CRC Press and available on Amazon and from many other fine book supply sources.

Additional information is available at: www.betteranimalhandling.com

Don't forget, serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.