



Hyperthermia in Dogs

What is Hyperthermia?

Hyperthermia, or overheating, according to Dr. Dana A. Vamvakias, DVM, CCRT, cVMA, of K2 Solutions, is when the body temperature significantly exceeds the accepted normal temperature range of a healthy dog. Normal range for a dog is typically between 99.5°F-102.5°F.

How can dogs get Hyperthermia?

There are two main types of hyperthermia that can be seen in healthy dogs:

- ✓ Classical hyperthermia (nonexertional) usually occurs in the summer when a dog is locked in a car, or placed in the sun with no shade and their attempts at cooling themselves are unsuccessful due to the environmental conditions.
- ✓ Exertional hyperthermia is where a dog's activities generate excessive physiological heat and their body fails to maintain adequate cooling. Exertion based hyperthermia can happen in any season; for example, Iditarod sled dogs can suffer from exertion-based hyperthermia.

Symptoms of Hyperthermia

According to Dr. Vamvakias, **an elevated temperature alone does not mean a heat injury.** There is no magic number that translates to heat injury. A dog may have an elevated temperature but may not be in a heat crisis. With working dogs, it is not uncommon for dogs to reach temperatures above 106°F with no evidence of physiological injury or distress.

- ✓ **Heat Stress:** Excessive panting, tongue excessively protruding out with a flattened end, cheeks pulled back revealing the full arcade of the teeth including the molars, brick red mucous membranes, and early changes in the dog's focus or readiness.
- ✓ **Heat Exhaustion:** The excessive panting becomes uncontrollable, the other clinical signs are still present, but now there is possible vomiting, diarrhea, and weakness or stumbling.
- ✓ **Heat Stroke:** The dogs have the signs of heat exhaustion with the addition of mentation and consciousness changes. The dog can be in a stupor, seizures, head tremors and depressed, or in a coma.

Treatment

The treatment starts with the obvious: stop the activity of the dog and cool her immediately.

- ✓ What is important is not how high the temperature goes, but how long the temperature stays at the excessive level.
- ✓ The best and cheapest way to start the cooling is to use cool water from a hose, or partially submerge the dog's body in a cool swimming pool.
- ✓ Focus on cooling the main arterial and venous regions by applying hose water to the groin, armpits and jugular regions.
- ✓ Towels submerged in icy water can be applied over the back and head while the underside is being sprayed.
- ✓ Place the dog in the shade, by a fan, or in air conditioning.
- ✓ Stop cooling a dog when his temperature reaches 103°F to avoid rebound hypothermia.

When Can Hyperthermia Occur?

Hyperthermia can occur any time of year, but dogs may be especially prone to hyperthermia in the spring when temperatures can fluctuate drastically from day-to-day and from night-to-night. Dogs need time to become acclimated to the temperature changes as the weather begins to warm. High humidity can exacerbate or accelerate hyperthermia.

More Info

Learn more about hyperthermia in dogs, which includes a free daily temperature chart, by downloading our interview with Dr. Dana A. Vamvakias, DVM, CCRT, cVMA, Chief Veterinarian at K2 Solutions.

This article is provided by the AKC Canine Health Foundation whose mission is to advance the health of all dogs and their owners by funding sound, scientific research and supporting the dissemination of health information to prevent, treat, and cure canine disease. For more information or to support their work visit www.akcchf.org.

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