

Hot Weather, Hot Greyhounds and Heat Stress

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Recently it has been highlighted the dangers of heat stress and heat stroke with the tragic death of a toddler left in a car on what was not an overly hot day. As with humans heat can be devastating to your greyhound; especially as greyhounds can't release heat by sweating the way humans do. Heat and humidity can raise a greyhound's body temperature to dangerous levels and as a result hot weather can be deadly for greyhounds if not managed properly. Heat stroke kills, and heat stress (a less severe condition) can take a serious toll on a greyhound's health. Unfortunately, heat-related problems are among the most common summer canine ailments.

During "hot spells" or just days in a row of elevated temperatures we will attempt to keep cool, drink lots of fluids, and avoid exercise during the heat of the day. Unfortunately regardless of the strategies we put in place to avoid the heat and stay cool we still tend to be affected for sometimes days afterwards, due to dehydration, lack of sleep and reduced appetite. It is then only commonsense to think that if it is **too hot for us** then it is **too hot for your greyhound**.

Normal heat dissipating mechanisms cannot compensate for excessive heat load. When body temperature rises above a critical level, generalized tissue degeneration begins to occur and normal thermoregulatory mechanisms stop operating. The critical temperature for organ failure is 42.7C. In hot and at times humid summer temperatures, it is quite easy to reach this point of no return.



Changes to body systems that can be affected by heat stress – examples include:

- Central & Peripheral Nerve damage
- Dehydration
- Liver damage
- Kidney damage and/or acute kidney failure
- Circulatory compromise leading to shock and/or heart failure.
- Muscle Damage & in the extreme Muscle Meltdown

The key thing to understand about heat stress in *greyhounds* is that greyhounds do not cool by sweating as do many other animals. Animals that do not sweat over the surface of the body can not benefit from that very effective process of controlled evaporative skin cooling that other animals like humans and horses do.

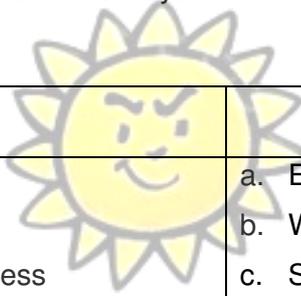
Greyhounds can and obviously *do* keep themselves cool by two methods:

- Evaporative cooling from lungs and mouth (panting)
- Conduction cooling from skin contact with cool surfaces/substances and damp shady breezy places



So long as they have plenty of fresh air and cool water, most reasonably fit/healthy greyhounds can manage hot weather without too much trouble at all. What they *can't* cope with is a combination of excessive heat + excessive humidity. On a humid day panting simply doesn't work at all well and the problem with excessive panting is that it can lead to huge losses of body fluids and can alter the acid-base balance in the greyhound's blood. Researchers have found a greyhound may lose up to 6% of its body weight before the body is stimulated to drink!

Heat can affect your greyhound in two ways:-



Heat Stress	Heat Stroke
<ul style="list-style-type: none"> a. Panting hard b. Actively seeking shade/cool c. Starting to show anxiety/distress d. Excessive salivation and enlarging tongue e. Congesting (more red) mucous membranes f. Increasing heart rate 	<ul style="list-style-type: none"> a. Excessive or loud panting, respiratory distress b. Wobbliness, trembling/fitting/falling down and seizures c. Strange behaviour c. Thick saliva and haemorrhagic vomiting (with blood) e. Haemorrhagic diarrhoea (with blood) f. Rapid heart rate or tachycardia & tacky dry pale gums g. Collapse and death

What can you do to help a greyhound showing the signs of?



1. **Heat Stress** – first aid

- a. Stop all exercise
- b. Move to a shaded area or into air-conditioning
- c. Provide plenty of cool, fresh water
- d. Provide plenty of ventilation to move evaporated fluid away and to drop the humidity levels
- e. Gently cool the greyhound – they can lay on wet towels, be wiped down or hosed with cool water – if you use the towels as cooling coats ensure that there is a breeze or ventilation and don't allow them to dry out as they become similar to wearing a blanket.
- f. Iced water can be used on the feet and covered ice packs can be placed in between the greyhound's thighs and in their 'arm-pits'. *Be careful you don't cause cold burns!*

Note: Using **iced water on the greyhound's body** can cause the blood vessels in the skin to contract, and this then **slows the cooling process** down because the hot blood is no longer coming to the surface where it can lose heat.

1. **Heat Stroke** – appropriate response is to seek veterinary treatment ASAP as any delay can be fatal due to organ damage. Any greyhound with a rectal temperature over 41.6 degrees is considered dangerously hot.

- a. The *priority is to lower the body temperature quickly*, but care has to be taken not to cause hypothermia (too cold) in the process. Therefore as per above but in conjunction with **advising your veterinarian** of the situation and **quickly transporting** your greyhound to the veterinary hospital.
- b. These greyhounds need to be taken to the vet where cold intra-venous fluids and cool water enemas can be done. The vet can also monitor for complications and give medications to aid in preventing some of the consequences of too high a body temperature – such as brain swelling and shock.





Minimizing the risk for your Greyhound on Hot Days

1. Be aware - If it is **too hot** outside or in the kennel or shed **for you** – it is too hot **for the greyhounds!**
2. Environment - All greyhounds should have shade and adequate cool, fresh water. Water containers need to be such that they cannot be accidentally tipped or spilled, checking that water bowls are full regularly throughout the day.
3. Ventilation – If the greyhound is housed in a kennel area it is important that they are kept in an area that is well ventilated with no restrictions on air flow. They should be insulated, but the best situation is in an air-conditioned environment; therefore bring them inside during the hottest part of the day.
4. Avoid exercise or any excessive activity – During the hottest part of the day avoid any forms of exercise and don't encourage vigorous play, etc. Because exercise significantly increases fluid loss, and raises body temperature, it is best to avoid it on hot days unless early in the morning or later at night when the temperature is cooler. **Remember** when you do exercise your greyhound; make sure that they drink plenty of fluids beforehand, as well as afterwards.



5. Avoid transportation – Unless unavoidable or life threatening avoid transporting your dog anywhere especially during the hottest part of the day. If you must travel, make sure ventilation is at a maximum, and that your transport vehicle is allowed to cool as much as possible before the greyhound gets in. Place the car in the shade, open the windows and doors and start the air-conditioning well before you travel. You can also use wet towels, ice in open containers, etc. to lower the temperature in the area near the greyhound.



6. Do not leave your greyhound in a car - It takes only minutes for a greyhound (or any pet or child) left in a vehicle on a warm day to succumb to heatstroke and suffocation - just 15 minutes can be enough for an animal's body temperature to climb from a normal 37°C to deadly levels. Rolling down a window or parking in the shade doesn't guarantee protection either, since temperatures can still climb into the danger zone very quickly. Most people don't realize how hot it can get in a parked car on a balmy day. However, on a 25°C degree day, temperatures in a car parked in the shade can exceed 32°C degrees -- and hit scorching 71°C degrees if parked in the sun. Even when the outside air temperature is 15°C, temperatures inside some vehicles can reach the danger zone on bright, sunny days. So is highly recommended not to leave pets or children in parked cars even for short periods if the temperature is 15°C or higher.

Finally most wild canines do not venture forth in the hottest part of the day. They seek cool spots in the earth or under vegetation until the sun goes down. It's wonderful that so many products are being developed to help greyhounds in adverse conditions, but where pets are concerned; **keeping them cool involves a certain amount of common sense.**



“Why drag a greyhound out into the heat unless it's to go for a swim or a wade?”

