

Advice on preventing and treating overheating in Greyhounds

Greyhounds overheat because their mechanisms for losing heat are overwhelmed by the factors tending to warm them up.

A greyhound loses heat by radiating heat from the skin, by losing warm urine, faeces and saliva, but mainly by evaporating water from moisture from the lungs, airway and mouth by panting. Think how cold you can get on a hot day by standing about wet after swimming, as the water evaporates from your skin.

This system works extremely efficiently, but if the external pressures are too high, such as if the outside temperature is too high or high air humidity slows the rate of evaporation of moisture, then inevitably the control mechanisms will become overloaded and even more rapid panting eventually isn't sufficient to keep the body temperature within the normal 38-39° range. Note that ONLY water and heat are lost during this process – not electrolytes.

If the greyhound becomes dehydrated, its body retains more fluid to keep the important brain and kidney cells supplied, so less moisture is available to be evaporated for cooling. Temperature regulation spirals out of control, and by the time its body temperature gets to 41°, the life threatening changes of heatstroke are well established, resulting in staggering, blindness, disorientation, stupor or coma. By this stage many metabolic changes have taken place and specialised veterinary treatment is urgent if the greyhound is to be saved.

Prevention is always best:

Every greyhound should be well hydrated before travelling. Although the taste of electrolytes encourages greyhounds to drink more, the presence of any excess of electrolyte over actual requirements will tend to dehydrate without any of the other causes coming in to play. A splash of milk will work just as well to encourage water intake. Greyhounds are rarely electrolyte deficient unless they have had severe gut upsets, as food is full of electrolytes and the body takes what it needs, excreting the excess. Plain water is the ideal drink for hot weather as it replaces exactly that which has been lost. Once dehydration has set in, electrolytes will contribute to excessively high salt levels in the brain which are dangerous.

Travel in a vehicle is a particularly high risk in hot weather; a greyhound may be excited, denied water, in direct sun in the back of a vehicle, and in high humidity with poor ventilation. Ventilation is often much worse in a vehicle away from the driver, who is anyway more shaded. If windows are left wide open, there is a risk of escape unless properly restrained, and of eye injury from high speed air flow with particles.

The best, most reliable method of providing ventilation is from a properly designed air conditioning system which controls the climate of the greyhounds' travelling area, not just the driver's section. Second best is the air management system, but you need to be aware that although this circulates air effectively, it does not cool or dehumidify it so it may not be sufficient in all circumstances. This enables greyhounds to travel with the windows closed, and controls temperature and humidity, but provision must always be made for a system or electrical breakdown to cover all eventualities. It is always best to park in shade, away from the excitement of seeing other animals passing by.

Heat loss from the skin can be speeded up by either spraying with a light mist of water, or draping with a wet sheet, and encouraging air flow over it to aid evaporation. Greyhounds with dark coats absorb more heat than lighter skinned ones, so a light coloured, lightweight jacket can reduce overheating in direct sunlight.

Treatment of suspected overheating:

If you are hot, and you think your greyhound may be, don't wait for trouble but take action sooner rather than later. Put the greyhound in shade, increase the air flow, and dampen the coat as described. If you have a thermometer, take the greyhound's rectal temperature so you can tell how you are doing.

Do NOT leave it unattended.

Encourage plenty of cold water intake, and splash water in and around the face and mouth. A house plant spray works well for this.

Electrolytes should not be given at this stage unless a specific requirement has been shown by a blood electrolyte test at the time. If loss of electrolytes has not been proven, giving them at this time is likely to make dehydration worse.

Make sure you know the location and phone number of the nearest veterinary practice in case the situation worsens.

Putting the greyhound in an open chest freezer has been advocated, but there is a real risk of freezer burns to the feet and any wetted skin. Cold hosing of a very hot greyhound is very stressful to the heart – remember the icy cold water plunge in to an unheated pool on a hot day? It's therefore much safer to act sooner and use more gentle methods of cooling.

You will know you are winning when the greyhound starts to shiver – the mechanism for keeping warm. Well done.

Heat exhaustion and heat stroke are entirely preventable conditions when advance planning has been done properly, especially now that financial help is available for air management.

It is always the trainer's responsibility to make sure that all greyhounds live, and especially travel, in comfort and safety, by whatever means necessary. Transport guidelines are part of the Rules of Racing and give more detail.

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