

Concerns about overheating in dogs

Every summer dogs and children get sick and/or die because of severe overheating (hyperthermia). In many cases, a dog or a child is simply forgotten in a car. Temperatures in a parked car rise to lethal levels very quickly. In other cases, dogs can overheat from simply exercising in warm and/or humid weather. Several websites listed below provide excellent information on risks of overheating:

Article from AVMA on pets in cars: <https://www.avma.org/public/PetCare/Pages/pets-in-vehicles.aspx>

Articles from veterinary schools:

http://vetmed.illinois.edu/pet_column/heat-stroke-in-dogs/

<http://vetmed.tamu.edu/news/pet-talk/the-dangers-of-leaving-fido-in-a-hot-car>

<https://vet.osu.edu/cvm/tips-avoiding-heat-stroke-and-trip-emergency-room>

https://vetmed.tennessee.edu/News/Pages/current_news.aspx#news318

Article by Debra Primovic, DVM from PetPlace on heat stroke:

<http://www.petplace.com/article/dogs/diseases-conditions-of-dogs/emergency-trauma-urgent-care/heat-stroke-in-dogs>

Article on hyperthermia from Veterinary Partner by Roger W. Gfeller, DVM, Dip ACVECC, Michael W. Thomas, DVM, and Isaac Mayo:

<http://www.veterinarypartner.com/Content.plx?A=366>

Article on temperatures in parked cars:

<http://pediatrics.aappublications.org/content/pediatrics/116/1/e109.full.pdf>

Interview on protecting pets from summer heat:

<http://www.wbir.com/news/local/five-at-four/pets-and-the-summer-heat-/270926630>

In addition, Nate Baxter, DVM wrote the article, Avoiding Heat Related Injuries in Dogs which is reproduced below with Dr. Baxter's permission. This article is particularly relevant to those who do field work... Please realize that the mentioning of a specific product is not intended as an endorsement of that product. Dr. Baxter's article and links to the useful websites above are intended to provide general information for owners to discuss with the attending veterinarian, who should always be consulted for advice on preventing disease in a specific [dog]...

Avoiding Heat Related Injuries in Dogs

Nate Baxter DVM

The first thing that needs to be understood is that dogs and people are different enough that most of the info cannot cross lines. I do not profess to know what the appropriate procedures for people other than what I learned in first aid.

First realize the ambient temperature does not need to be that high for heat injury to occur, humidity and dew point play a big role. As does how well your dog has adapted to the environment. For example you live in a relatively dry area and then travel to an area that has

more humidity, your dog has not adapted to that and needs monitoring. Even long swims in warm water on a hot summer day can make a dog hot, so it not always a land issue.

Dogs do not lose enough electrolytes thru exercise to make a difference, but if the dog gets truly into heat stroke the physiology changes will make them necessary. BUT oral replacement at that point is futile, they need intravenous fluids and electrolytes and lots of it.

Cooling: Evaporative cooling is the most efficient mean of cooling. However, in a muggy environment, the moisture will not evaporate so cooling does not happen well. I cool with cool water, not ice cold. The best way is to run water over the dog, so there is always fresh water in contact with the skin. When you immerse a dog in a tub, the water trapped in the hair coat will get warm next to the dog, and act as an insulator against the cool water and cooling stops. If you can run water over the dog and place it in front of a fan, out of the crate in the shade, is the best. Misting the dog with water will only help if you are in a dry environment or in front of a fan. Just getting the dog wet is not the point, you want the water to be cool itself and flow over the dog, constantly being replaced by fresh water, or to evaporate.

With very early intervention (this is where reading and knowing your dog is so important), for MOST situations all you will need to do is get the dog in a cooler environment, i.e. shade, or in the cab of the truck with the air conditioning on (driving around so the truck does not overheat and the AC is more efficient). Having a fan for your crates is also very important. I personally believe that keeping them cooler all day, helps them handle the stress of the test. Example, Aug 2015 I went to a HRC test, it was hot and muggy in Ohio as usual. I took my car instead of the truck with the dog box. Had a wire crate, parked in the most shade I could get, and covered the car with those silver space blankets to reflect the heat. Have a 12 V fan from Fantastic Vent, Endless Breese it has hooks to hang on the crate and kept it on her on low or medium. By the beginning of the last series, several dogs scratched due to the owners concern about the heat. She ran the series and never really looked to get very hot. I believe it was due to my obsession of keeping her cool all day. She had more reserve capacity since she was not battling it all day.

Alcohol: Have never used it; do not even carry it anymore.

Watching temperature: If you feel your dog is in danger of heat injury, check its temp and write it down. Keep checking the temp every 3 minutes. The digital thermometers from the drug store have gotten better. I suggest buying a "medium" priced one. Don't forget to use the probe covers. Some brands do not do well when the probe gets too wet so use the probe cover. If using a glass thermometer remember to shake it down to below 100 before inserting. This is VERY IMPORTANT**once the temp STARTS to drop, STOP ALL COOLING EFFORTS. The cooling process will continue even though you have stopped. If the temp starts at 106.5, and then next time it drops to 105.5, stop cooling the dog, dry it off, and continue monitoring. You will be amazed how it continues to go down. If you do not stop until the temp is 102, the temp will drop way too low. I cannot emphasis this point enough.

When the dog is so heated that it is panting severely, only let it have a few laps of water. Water in the stomach does not cool the dog, you just need to keep the mouth wet so the panting is more effective. Do not worry about hydration until the temp has started down. A dog panting heavily taking in large amounts of water is at risk for bloat. The heavy panting will cause them to swallow air, mixed with a large amount of water they can bloat. Once the temp is going down and panting has slowed to more normal panting then allow water. The dog will rehydrate itself after temp is normal. If the dog has a serious problem and even though you have gotten the temp normal, get the dog to a vet, as it can still need IV fluids and some medication. Also, a case of heat stroke can induce a case of hemorrhagic gastroenteritis (not parvo), with a ton of very bloody diarrhea and a lot of fluid and electrolyte loss. These cases need aggressive treatment.

It is not real hard to learn how to place an IV catheter, or hopefully someone, if you are at an event, will be able to. For more significant issues with heat injury, or a dog that does not respond to “first aid type” treatments, IVs can be essential. But you need to learn how to do it properly. Once a dog has gone into shock, it needs serious help from fluids and professional treatment.

Occasionally there will be a dog that goes from moderate signs into shock quickly, some may be just prone to it. These dogs need immediate IVs and professional care. Again, close monitoring is the key.

The best method of treatment is prevention. Learn to watch your dog, and see the changes in the size of the tongue, and how quickly it goes down, does he/she pant extra hard with a “squeak” in the panting, does it slow its step, droop the tail, etc, etc. Body language is your first signs of distress. Even very fit dogs can be susceptible to heat injury. Learn your dog’s response to the different environments, and be careful when you head south for an early season hunt test or trial. I have been to Nashville at the end of May, only 5 hours away, but the difference in temp and humidity did affect the dogs as they were used to more spring weather in Ohio. Try different things in training to help the dog cool and learn what works better. Another very important point=> Do not swim your hot dog to cool it then put in put in a box or crate. Remember, evaporation cannot take place in a tight space, and the box will turn into a sauna and you will cook your dog. Carry a stake out chain, and let the dog cool and dry before putting it up. I demonstrated this lesson one spring with a 10 month old pup. After doing a 15 minute session of yard drills on a warm 70 degree day, she was panting pretty hard and was pretty hot. She was OK but it was time to stop. Just for the heck of it I took her temp. She was 103.6, above normal not too bad for a dog that had just finished working. In my back yard I have a 300 gallon Rubbermaid tub that was “freshly” filled with water, so pretty cool to cold from the hose. I took her to it and she jumped in and out 3-4 times. She appeared totally improved, tongue was much smaller, and eyes brighter and her full spring was back into her step. So I re-took her temp and it was 104.2, so even though she looked better she was hotter. This is a perfect lesson to show not get a hot dog wet and then put them in a box, or think they are “OK now”. The water on her skin caused the blood vessels to constrict, decreasing blood flow to the skin. Therefore the hot blood was shunted back to the dog’s core and retained the heat. After

standing her in the shade and strong breeze in 5 more minutes the temp started down. You may have felt the same thing, after exercising and still being very warm/sweating, take a shower and get cooled off but as soon as you turn the shower off you start sweating again.

I know this is a bit long, but hopefully this is easy to understand and helps provide some useful information.

Remember: Prevention, learn your dog. It is worth the time and effort.