

# Heat stroke:

## How to prevent heat stroke



Spring is finally here, and we are all very happy and excited about it! This includes our furry friends, who can't wait to go play outside. It is important however to keep in mind that warm weather, when added to exercise, humidity or excitement, can lead to heat stroke. This article will focus on dogs. Cats rarely suffer from heat stroke, with the exception of a few cats per year presented to the emergency room after spending some time in the dryer, or confined in direct sun.

### **The car is fun, only when it's moving!**

NEVER leave your dog in the car. Simple, firm rule! Even with the windows slightly open, a car can

become a tomb in minutes, mostly in the summer sun. This advice obviously applies to cats, children and all other friends, furry or not.

### **Warm days are best for relaxing!**

It is advisable to plan jogging or active games for cooler summer days, or early in the morning and evenings. Going swimming or other water play is probably a better idea if simply "chilling in the shade next to your water bowl" isn't appealing to your dog. If your animal will spend time outside, assure that there is a shaded area for him to rest and plenty of water available. If your dog is very active, then plan a gradual increase in activity when summer arrives over several weeks to allow him or her to acclimatize.

Certain breeds of dogs will be particularly sensitive to the heat. Brachycephalic dogs, dogs with a short nose and face, as bull dogs or pugs, are particularly at risk for overheating. Other small breed dogs may also be of concern because they are more prone to develop a collapsing trachea with age, such as Pomeranians or miniature poodle. Those dogs will not tolerate walks on hot days and probably are best kept indoors with air conditioning when it's very warm. Dogs dissipate heat through panting, and if the breathing is impaired, heat dissipation will be decreased. Also, excessive panting can create swelling and inflammation in the airways further decreasing the breathing capacity and heat dissipation, causing a vicious circle that can lend them in the emergency room.



Older animals or animals with chronic conditions will also be more at risk for heat stroke. Particularly, the old Labrador with loud breathing may get worse when spring arrives and cause an episode of overheating because of laryngeal paralysis.

### **Despite my best effort, I think my dog is overheating, what should I do?**

First of all, you should stop any physical activity, remove the animal from the heat and attempt to calm them in a shaded cool environment. You may offer water if he is alert, not in respiratory distress and not vomiting. Ideally, it would be great to take a rectal temperature on the animal if at all possible. You may call your veterinarian or the emergency clinic close to your house for further instructions. It will likely be appropriate to cool down your pet by hosing him with cool water. We do not recommend to bath the animal in iced water or to pour friction alcohol on them. A fan can then be applied on the way to the veterinarian.

Many medical complications can occur following overheating. Cardiovascular collapse is common and immediate. However, certain complications will occur hours after the exposure to heat. Clotting may become a problem and this may require plasma transfusions. Breathing may remain labored because of hemorrhage in the lungs or pneumonia. The mentation of the animal will likely be depressed, but coma and seizures may also be seen. Any organ system may be affected, including the kidneys, gut, and liver.

Your veterinarian will likely recommend hospitalisation, supportive care, such as IV fluids, and some diagnostic tests. Certain tests may be repeated over time, as certain complications will develop later.

Depending of the severity and duration of the heat insult, treatment will vary. If treated rapidly with efficacy, most dogs will recover without sequelae from heat stroke. However, if the damage is severe and multiple organ systems are dysfunctional, heat stroke can be deadly.

**Heat stroke generally occurs at the beginning of summer, time to be alert!**