

# Dog & temperature



**HYPOTHERMIA**  
or low body temperature



# HYPOTHERMIA

## or low body temperature

Hypothermia: the core body temperature is below normal. A normal dog's body temperature is between 37 and 39°C.

**<36°C is a life threatening EMERGENCY!**



### Causes

- » Cold environment
- » Malnutrition
- » Hypoglycemia
- » Severe hypothyroidism
- » (Neurologic) trauma
- » Poisoning
- » Shock
- » Anesthesia
- » Chronic illness which causes cachexia (muscle wasting)

### Some dogs are at greater risk for hypothermia

- » Small dogs and puppies
- » Neonates are at particular risk of hypothermia as they have a poorly developed thermoregulation system and large surface area to volume ratios
- » Short haired/thin coat without under-coat
- » Underweight dogs
- » Old dogs
- » Sick dogs

### Signs

#### Recognizing the (first) signals is very important:

- » Barking/crying to come inside
- » Ears/feet and tail are cold to the touch
- » Shivering
- » Fixed and dilated pupils
- » Stiff muscles
- » Weak pulse and breathing
- » Weakness/lethargy
- » Unable to move or vocalize
- » Low blood pressure
- » Coma
- » Body temperature of 30 - 36°C



## ► **First aid**

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### **Call your vet!**

Ask someone else to call the vet while you start to rewarm your pet.

- » Remove the dog from the cold to a warm **environment**.
- » Wrap the dog in blankets to prevent further heat dissipation and allow the animal to shiver (is inhibited at  $<32^{\circ}\text{C}$ ) to generate heat. Shivering is the most effective means of increasing body temperature.
- » Use safe and warm heat packs, **in towels** (ensure the temperature in contact with the dog is  $<42^{\circ}\text{C}$ ).
- » If possible; use an infrared heat lamp at about 75 cm away from the dog.

### **Ensure gradual temperature correction! Rapidly to $30^{\circ}\text{C}$ and then slowly ( $0,5^{\circ}\text{C}$ per hour).**

Rectal temperature every 15 minutes. Lift the tail and insert the thermometer slowly and carefully into the rectum, located just below the base of the tail. Insert the thermometer about 2 cm and hold in place, 2 minutes for mercury thermometers or until the digital thermometer beeps.

## ► **Treatment**

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Your dog will have to be admitted to the veterinary clinic. Once the body temperature has been increased, any additional problem caused by the hypothermia need to be addressed. Your vet will need to do blood tests to monitor the function of organs such as the kidneys and liver. 'Cold stress' is less dangerous compared to 'heat stress': in mild to moderate cases of hypothermia, the metabolism slows down and recuperates quickly once the temperature is restored, which is not the case for hyperthermia.

The prognosis depends on the duration and severity of the hypothermia. Animals with reduced consciousness need more time and care to recuperate. Dogs with hypothermia due to chronic illness and muscle wasting often relapse and are hard to stabilize.

## ► **Effects**

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- » Muscle pain
- » Frostbite (frozen body parts)
- » Vasoconstriction
- » Reduced renal function
- » Organ damage
- » Hematological changes
- » Cardiac problems
- » Death

## ▶ **Prevention**

Freezing weather safety tips.

### **PREVENTION IS THE ONLY PROTECTION!**

- » Let pets limit time outdoors. If you see your dog shivering, put a stylish sweater on.
- » Dry feet, legs and stomach when your dog comes in from the snow. Fur loses its insulating ability when wet.
- » Check paw pads for wounds caused by snow, ice and salt.
- » When your dog has a sensitive skin (allergy), use a Vaseline like product to put on the paws before walking.
- » Never leave the dog in a car/vehicle. A vehicle can act as a refrigerator in winter and cause the dog to freeze.



- » Provide outdoor dogs (thick coat f.e. Huskies) with an insulated dry shelter with straw bedding. Feed them an increased protein heavy diet to provide energy for warmth. Provide fresh unfrozen water in a non-metal dish.
- » A properly groomed coat keeps dogs warm in winter. A dry, fluffed, tangle-free coat traps a layer of warm air to protect the dog from frostbite and hypothermia.
- » Pets left in extreme temperatures without unfrozen water, food and shelter, are at risk of frostbite, hypothermia and death. Contact the local animal protection service or police station when you notice such a situation.

