

## Fever - is it serious?



Often when you put a hand on your dog it feels warm, particularly on a patch of bare skin. This is because the normal body temperature of a dog is higher than that in people. Body temperature is maintained within a fairly narrow range (between 37.8°C (100°F) and 39.3°C (102.7°F)) although it varies slightly during the day, with lowest temperatures recorded in the morning and the highest in the evening. Fever is simply an increase in body temperature and can be seen with many disorders in dogs.

### How is body temperature controlled?

Body temperature is kept constant even when the dog is exposed to wide changes in environmental temperature. Any change in body temperature is detected by specialised receptors (thermoreceptors) that send signals to the body organs that are able to lose or generate heat. If the body temperature goes up, blood flow through the skin increases so that heat is lost from blood flowing near the surface of the dog. In hot conditions the dog will pant and seek out a cool place to lie. When the environment is cold shivering occurs (because muscle activity increases heat production), dogs curl up in a ball and their hair coat becomes erect to trap warm air against the skin.

### Can a fever hurt my dog?

Since body temperature is so closely controlled in the normal dog a fever is an indicator that something is wrong. In some diseases short fever 'spikes' occur (where the temperature is suddenly raised for a short period of time only to drop to normal and then rise again later). In other diseases persistent fever occurs and the temperature is always above normal.

A dog with a fever is usually depressed and may not want to eat but short-term moderate fever does not do any permanent damage to the body. If the fever gets very high (above 41°C) body tissues can be damaged and it is important to try to bring the body temperature down. Soaking the coat with cool water and using fans may help but veterinary advice must be sought immediately. Fortunately it is very rare for body temperature to rise this high and such high temperatures are more often the result of heat stroke or serious seizures (fits) than infections.

### Why do fevers occur?

Fever is caused by the action of 'pyrogens' - substances which change the level at which the body temperature is maintained. The body's regulatory mechanisms act in the normal way but now try to maintain body temperature at a higher level. Pyrogens include bacteria, viruses, toxins, some drugs and natural substances released by the body in response to inflammation. In many cases a moderate fever can be beneficial; for example in a bacterial infection increased temperature affects the growth of bacteria and gives the dog a better chance of dealing with the infection. It is not always wise to suppress a fever without trying to find out what has caused it, and it is always better to try to treat the underlying cause if possible.

### How can I tell if my dog has a fever?

If you suspect that your dog has a fever you can check their temperature to be sure. Digital thermometers are easy to use and fairly reliable. If your dog's temperature is high check it again a few hours later (if the temperature rises above 40°C or is persistently higher than normal contact your vet). Occasionally a falsely low temperature reading is recorded if the thermometer is accidentally inserted into faeces in the rectum - if you think this might have happened check the temperature again after your dog has just passed a motion.

### What can my vet do to help my dog?

The vast majority of fevers in dogs are caused by infections of some kind. In most cases body temperature returns to normal spontaneously or with the help of antibiotics to control the infection. In some cases fever persists and despite simple tests no obvious cause of the raised temperature is found - in this case the condition is given the name 'Fever of unknown origin' or FUO. There are many different diseases in which on examination, the only abnormal finding is a fever.

If your dog's temperature remains high after a few days of treatment your vet may want to undertake further tests to try to identify the cause of the problem. Investigation of an unexplained fever will usually require blood samples, x-rays and ultrasound, but there may be many more tests that need to be run.

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Some tests will have to be repeated a number of times in order to confirm or rule out particular diagnosis. Unfortunately investigation often continues for several weeks, may cost many hundreds of pounds and there is no guarantee that a specific diagnosis will be found. However once certain conditions have been eliminated from the checklist it may be possible to try medications to reduce the fever even if the diagnosis is not known. Never give medications to your dog without veterinary advice because you may mask the signs of a more serious disease and make it harder for your vet to find out what is going on, and many human drugs can be toxic to pets unless used correctly. In some dogs with unexplained fever the fever may resolve without treatment but may then recur months or years later, again with no apparent cause.

### How to take your dog's temperature

- Turn on the thermometer (usually by pressing the button on the side).
- Dip the end of the thermometer into vasoline or similar lubricant.
- Lift your dog's tail gently and slowly insert the thermometer into the rectum.
- Keep the thermometer in place until a steady temperature reading is recorded (most digital thermometers will automatically 'bleep' when temperature has been recorded).
- Remove the thermometer and read the temperature displayed in the small window.
- Turn off the thermometer and wipe clean before storage.
- Record the time and date that the temperature was recorded.

**If you want any other information on health issues concerning your dog please contact your local Village Vet practice and we will be happy to advise you.**