

# Diabetes

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## What is diabetes?

Diabetes mellitus is a disease in which your pet's pancreas can no longer produce enough of the hormone insulin and/or for some reason their body has become resistant to the effects of insulin.

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## What does insulin do?

Every time your pet eats a meal, glucose is absorbed from the intestines and enters the bloodstream. Glucose (sugar) is the essential fuel of the body's cells and is needed for these cells to work and so for the body to function. At the same time, insulin is released by your pet's pancreas. Insulin allows the glucose to leave the bloodstream and enter cells (e.g. liver, kidney, brain and muscle cells) where it can be used for energy and growth. Think of insulin as a key that unlocks a door to let glucose into the cells. Insulin lowers blood glucose and allows it to enter cells, where it is used to produce energy.

## What happens with a lack of insulin?

In diabetic pets the pancreas can no longer produce enough insulin and/or their body has become insensitive to the effects of insulin. Without insulin, glucose is no longer able to leave the bloodstream to be used as energy by the body's cells. Hence the glucose in the blood will rise to an abnormally high level. The level will become so high that glucose overflows into the urine and your pet's urine will contain glucose.

The body's cells cannot utilise the glucose they depend upon for energy. In order to compensate for this, other 'abnormal' energy producing processes start up which do not depend on glucose (such as fat break-down). Unfortunately, these processes eventually create toxic by-products that can make your pet very sick.

## Can it be treated?

Your veterinarian will discuss treatment options depending on the extent of the diabetes. This could include dietary changes as well as considering insulin injection therapy to replace the insulin that your pet's pancreas can no longer produce.

**For further information about the disease and treatment, log on to [www.cat-dog-diabetes.com](http://www.cat-dog-diabetes.com)**



## What signs should I look for?

Contact your veterinarian if you have any concerns about your pet. Signs to look for are:

- Increased thirst
- Increased urination
- Changes in appetite
- Weight loss
- Deteriorating coat condition
- Lethargy or lack of energy

