

# Diabetes Mellitus

## The clinical signs

Weight loss, excessive drinking, excessive urination, increased hunger, collapsing

## What is diabetes?

Insulin is the hormone involved in reducing blood glucose (sugar) levels in an animal after it has eaten. Diabetic animals have a high blood glucose level due to either a lack of insulin production or a failure of the body to respond to the insulin produced (insulin resistance). Just like in humans, animals that are overweight are much more likely to develop diabetes. Insulin acts on all cells to promote glucose uptake into them. In animals that lack or can't respond to this hormone, food is digested and changes into glucose but none of the body's cells can use it. So the animal remains persistently hungry and still loses weight. The high levels of glucose in the bloodstream are too much for the kidneys to cope with and so the glucose flows out in the urine. Because of this the animal has to pass more urine than usual. To compensate the animal drinks more.

## How is diabetes diagnosed?

Diabetes is suspected in any middle aged to older pet that has lost a lot of weight and is eating and drinking more. We initially recommend taking a urine sample. A urine sample is an inexpensive and easy way to detect diabetes. If the urine sample does not have any glucose in it, your pet is not diabetic. If the urine does have glucose in it then a blood sample will need to be taken. Your pet's blood glucose is measured in 2 ways, the blood glucose (this is your pet's blood glucose level is at any given time) and the fructosamine (the average blood glucose level over the preceding 3 weeks). Both are very important in the diagnosis of diabetes. Additionally, a blood sample is a good way of ruling out any other concurrent metabolic diseases that are common in older pets.

## How is diabetes treated?

Dogs that are diabetic will always require insulin injections. About 50% of cats can be controlled on diet alone, whilst the remaining 50% require insulin injections.

- Insulin injections are given under the skin once to twice daily to mimic the natural hormone's effects. In order to achieve good control you must try to give the injections at regular intervals and keep your pet's lifestyle as consistent as possible.
- Additionally, you should feed a diabetic diet. For dogs this is carbohydrate based, for cats this is protein based. If your pet is overweight it will not respond to insulin as well, so a weight loss diet is also recommended.

## What is the long term prognosis?

Diabetes is an expensive disease to treat and requires a very dedicated owner.

Diabetes is a life-limiting condition; this means that your pet will not live as long as they might have done without the disease. However, with advances in treatment and very regular checks, we can make your pet live a very comfortable and normal life.

NB: Cats have a form of diabetes which can revert back to normal. Please speak to your vet about what this means to your cat.

**Managing a diabetic pet may at first appear daunting. Do not worry, we will help you to establish a routine and provide all the help and advice you need to control your pet's condition and help them to lead a happy, comfortable life.**