



Best friends



154 Worcester Road  
Malvern, Worcestershire  
WR14 1AA



## Understanding Diabetes - a guide for pet owners

### What is Diabetes?

Diabetes mellitus is a condition that occurs when your pet's body cannot effectively transport glucose (sugar) into cells. This results in an excessive amount of glucose in the blood and not enough in the cells.

Glucose is the body's sources of energy that is obtained when the digestive system breaks down food. Without enough glucose, your pet's cells cannot function properly. Your pet's body will then compensate by getting energy from other sources - such as from muscle and fat.

Diabetes is an extremely serious condition that without treatment, can often lead to death.

### What Causes Diabetes?

Diabetes is the result of deficient or malfunctioning insulin - a hormone produced by the pancreas that allows glucose to enter cells in the body. It is important to note, **there is no cure for diabetes.**

### There are two types of diabetes:

#### Type 1 Diabetes



- The pancreas does not produce enough insulin
- Most common in dogs

#### Type 2 Diabetes



- The pancreas produces enough insulin, but the cells do not properly respond to the insulin
- Most common in cats

### Clinical Diagnostic Testing

Diabetes is often detected through routine testing. Once the disease is diagnosed, treatment is determined based on the severity of the disease. The earlier it is detected, the sooner your pet's diabetes can be managed.

### What tests are done?

	<b>Chemistry Panel</b> Provides information on blood glucose levels and other values that can be affected by diabetes, including electrolytes, kidney values, and liver enzymes.
	<b>Blood Glucose Levels</b> Provides information on blood sugar levels.
	<b>Complete Blood Count (CBC)</b> Provides information on red and white blood cell counts and platelets.
	<b>Urinalysis</b> Provides information on urine concentration and presence of glucose, protein, ketones, and bacteria.
	<b>Urine Culture</b> Tests for urinary tract infection.
	<b>Imaging</b> Evaluates internal organs through X-rays or ultrasound.
	<b>Thyroid Testing</b> Determines if the thyroid gland is functioning normally.
	<b>Canine Pancreatic Lipase</b> Evaluates for disease of the pancreas in dogs, sometimes associated with diabetes.

### Clinical Signs for Diabetes

The first signs of diabetes can sometimes be easy to miss or be mistaken for something else. If you notice any of the following signs in your pet, start to track them and get them booked in for a vet appointment as soon as possible.





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## Clinical Signs for Diabetes

The first symptoms of diabetes in dogs tend to include:

- Increased thirst
- Increased hunger
- Peeing more
- Weight loss
- Low energy (lethargy).

Left untreated, diabetes can lead to a **much more serious condition called 'diabetic ketoacidosis' (DKA)**. DKA is when a product called ketones builds up in the body if cells aren't able to get the energy from blood sugars. Ketones in large numbers are extremely dangerous and cause the following symptoms:

- Vomiting
- Diarrhoea
- Not eating
- Low energy
- Appearing unsteady (as if they are drunk)
- Collapse
- Breath that smells sweet (like nail polish remover or pear drops)

**Symptoms of DKA are an emergency** - if you notice them, contact your vet immediately, especially if your pet has recently had other symptoms of diabetes (or has already been diagnosed).



## Treatment of Diabetes

**The main aim of treatment is to restore a good quality of life,**

not just for your dog but for you as well.

We can do this by stopping the signs of diabetes.

Treatment also

helps reduce the risk of diabetic complications.

Whilst dogs tend

to escape some of the more serious complications seen in diabetic

people, they will have a higher incidence of problems such as

cataracts.

Just as in people, diabetes can be effectively controlled by the

injection of insulin, such as Caninsulin. In dogs, insulin is generally

given in the morning and evening. In bitches,

control may be easier

after she has been spayed.

Routine is the key to successfully treating diabetes and revolves

around insulin injections, exercise, weight control and diet. Veterinary

nurses are often a great source of advice on these matters.

## Making Positive Changes to Help

There are some things you can do to help manage your pet's diabetes. Speak to a vet or nurse about:

- Changing diets
- weight management plans
- monitoring the condition at home

You should **never** change your pet's dose of insulin without consulting the vet first as this may cause instabilities in their condition to severe effect.





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## VERY IMPORTANT!

### Low Blood Glucose 'Hypoglycaemia'

One complication you need to be prepared for is low blood sugar, known as hypoglycaemia. This **can be fatal if left untreated**.

By knowing the most common causes, you can help to avoid hypoglycaemia:

- Giving too much insulin
- Missing a meal
- A change in food, or amount of food, fed
- Infection or illness, such as diarrhoea or vomiting
- A change in the body's need for insulin
- Interaction with other drugs

### SIGNS OF HYPOGLYCAEMIA CAN INCLUDE:

- Weakness
- Unrest
- Lack of energy
- Shivering/muscle twitching
- Fits
- Unconsciousness

It is important to keep a source of glucose at home in case, such as glucose powder, honey or jam (check not sugar-free).

When treating hypoglycaemia aim to give 1 gram of glucose per kilogram bodyweight. For example, a 4 kilogram dog would require approximately 1 level teaspoon of glucose/sugar

### What to do if you See Signs of Hypoglycaemia

#### If your dog is conscious:

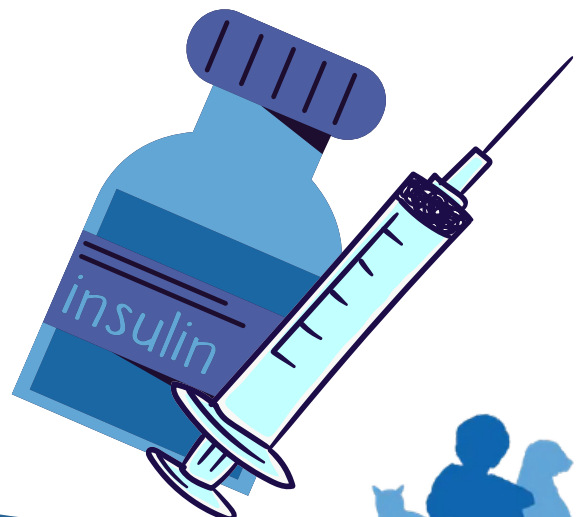
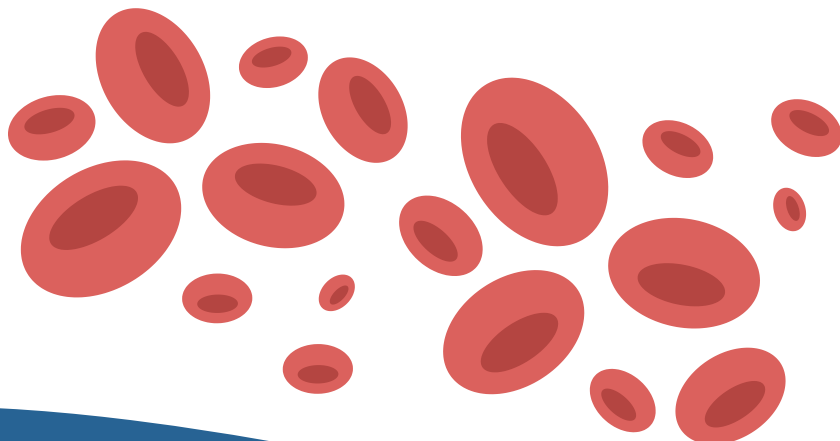
- Offer food immediately.
- If your dog does not eat straight away, syringe a small amount of glucose solution into the mouth and/or rub a glucose solution, honey or jam onto the gums. Take care not to get bitten.
- Call your vet for advice.

#### If your dog is unconscious or having a fit:

**THIS IS A MEDICAL EMERGENCY – CALL YOUR VET IMMEDIATELY**

#### In the meantime:

- Treat your dog – rub glucose powder, honey or jam onto your dog's gums.
- Your dog should respond quickly, within a couple of minutes.
- Once your dog has responded and is sitting up, offer a small amount of food.
- **Never pour glucose solution into your dog's mouth in these circumstances; there is a risk it could go into the lungs.**



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