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Independent, Kind and Honest Veterinary Care in the Heart of Ryedale

Diabetes Mellitus

Information for Owners

The Disease

Diabetes mellitus is a complex metabolic disorder caused by **insulin** deficiency or a reduced response by the body to insulin. Insulin is a hormone produced by the pancreas, which plays an important part in carbohydrate and glucose metabolism. Insulin promotes the movement of glucose from the circulating blood stream into the tissues and allows long term storage. A lack of insulin results in an inability of the body to store and use glucose, this causes a raised level of glucose in the blood, and the “overflow” of glucose from the blood into the urine. If the metabolism of glucose remains incorrect for some time then a build up of toxins can occur making the animal significantly unwell. The presence of glucose in the urine essentially changes the concentration/chemical composition of the urine, this leads to water being drawn from the blood through the kidney, into the urine. This in turn causes large dilute volumes of urine being produced and results in an increase in thirst, in order to replace the water that is lost in the kidney.

The Signs

- ⑩ Increased thirst and urination.
- ⑩ Loss of weight along with an increased appetite.
- ⑩ Vomiting in the later stages of the disease.

Confirmation of Diagnosis

If your pet presents with the above signs, we will ask you to obtain a urine sample, and we will also take a blood sample. A raised level of glucose in these samples confirms the diagnosis of diabetes mellitus.

Treatment

Successful treatment requires the daily administration of synthetic insulin. This is given by subcutaneous injection i.e. under the skin and is usually required for life. It is not a difficult technique and we will teach you how to do it at home. Unlike the case in humans, diabetes mellitus in dogs and cats is rarely controlled by dietary management alone, but is crucial that a daily dietary routine is established and adhered to.



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Diet

It is crucial that this is constant, i.e. exactly the same quantity of the same diet is fed every day at exactly the same times. Alterations to the feeding pattern will make it difficult to stabilise the dose of insulin, resulting in widely varying blood glucose levels. We recommend that your pet be fed exclusively on a prescription diet, which is designed specifically for pets with diabetes mellitus. Although this seems more expensive than homemade diets, it is formulated to a strict specification, which makes stabilisation easier by reducing the daily fluctuations in the blood sugar level. It is cost effective and better for your pet's well being in the long term. **DO NOT GIVE TITBITS** as these can cause large fluctuations in blood glucose levels. Water should be freely available at all times.

Exercise

Your pet should be given the same amount of exercise, at regular times, every day.