

Diabetes



Diabetes mellitus, commonly called "sugar diabetes" or just "diabetes", is a disease caused by failure of the pancreas to produce adequate amounts of insulin.

Diabetes mellitus is one of the most common endocrine diseases of pets and occurs in both cats and dogs.

(Diabetes *insipidus* is a different disorder that is not related to Diabetes *mellitus* and is not covered here.)

Importance of Insulin

Insulin has been called the cells' gatekeeper. It attaches to the surface of cells and permits glucose (blood sugar) to enter the cells from the blood. When insulin is absent or present in insufficient amounts, glucose builds up in the blood resulting in high blood glucose levels.

Importance of Glucose

Glucose is one of the body's primary energy sources. When insufficient amount of glucose are available to the cells, the body looks for alternate sources of energy (fat and protein).

Eventually, these energy demands lead to weight loss. This weight loss causes the animal to eat more in an attempt to make up for the "energy drain".

Also, the body attempts to remove excess blood glucose by spilling it into the urine. Since glucose attracts water,

tremendous amounts of water follow this glucose into the urine. This loss of water causes dehydration and the pet must drink more to counteract it.

The Symptoms of Diabetes

Therefore, high blood glucose levels result in four typical signs of diabetes. Not all 4 signs are readily seen in every patient with diabetes, but you can expect to see at least two of them.

The four classic signs of Diabetes are:

1. **WEIGHT LOSS**
2. **EXCESSIVE APPE-TITE**
3. **INCREASED URINATION**
4. **INCREASED THIRST**

Diagnostic Tests for Diabetes

These symptoms can also be present with other conditions. Therefore, diagnostic test must be done to diagnose diabetes. The two most important tests are blood glucose level and urinalysis to check for glucose in the urine.

Types of Diabetes

In humans, there are two types of diabetes, insulin dependent (Type I) and non-insulin dependent (Type II) diabetes.

Dogs only experience Type I diabetes and therefore must always be regulated with insulin.

Rarely, cats will experience insulin resistance that must be treated by other means.

Treatment of Diabetes

Treatment of Diabetes in pets requires administering the insulin that the body is unable to produce itself (generally every 12 hours). Injections are made under the skin with a tiny needle. The technique is very well tolerated by most pets.

Treatment Phases

The first phase of treatment is called the *regulation* phase. It involves determining the correct type and dose of insulin that the pet requires to keep the blood glucose in the correct range throughout the day. Pets are often hospitalized for short periods of time and monitored with blood glucose curves in order to achieve this goal.

The second phase of treatment is the *maintenance* phase. This means that the pet is regulated and has the appearance and behavior of a normal pet.

The signs of Diabetes disappear as long as the pet remains regulated.

Sometimes a pet's need for insulin changes and adjustments must be made to insulin levels or feeding programs.

Early Diagnosis/Treatment

If your pet is experiencing any of the symptoms listed here, make sure to have him/her tested for Diabetes.

Uncontrolled Diabetes will create many other problems and can cause a diabetic ketoacidosis crisis that can result in death!!