



DIABETES MELLITUS

Facts About Diabetes Mellitus

- The most common complaint is frequent urination and excessive drinking.
- Laboratory work is necessary to confirm diabetes in dogs and cats. The lab tests usually run \$190-210.
- Any unexplained increase in urination frequency and drinking should be brought to your veterinarian's attention to prevent this situation.
- Once diagnosed with diabetes, the animal is started on daily insulin injections given by the owner at home. It needs to have occasional monitoring of blood sugar levels to make sure the disease is controlled. Initial cost of treatment runs around \$100-140.
- There are oral treatment options for cats (not dogs).
- The animal can be started on prescription diet that makes control of the diabetes much more effective.

Diabetes is one of the best known diseases among pet owners. It is also one of the most frequently diagnosed problems in middle-age to senior dogs and cats. The purpose of this handout is to discuss some of the typical concerns about diabetes, including diagnosis and long-term management.

What is diabetes?

Diabetes is a disease in which specific cells in the pancreas fail to produce enough insulin. Insulin is the hormone which is responsible for managing sugar levels in the blood. In diabetes, poor insulin output results in high blood sugar levels, and this then spills over into the urine. This results in a frequent need to urinate, often manifesting as accidents in the house. The frequent urination causes dehydration, which the animal tries to make up for by drinking more water. Any animal that is drinking more water than usual or frequently urinating should be examined.

Untreated diabetics can develop a kind of acidosis in their blood if they are not managed. The high level of glucose in the blood results in the development of a form of acid called a ketone. As this acid level builds up, the animal can become very ill, becoming anorexic and nauseous, and can die if the ketone levels are too high.

How is it Diagnosed?

Most animals are brought to the veterinarian long before becoming severely ill. The primary complaint is inappropriate urination and excessive drinking. After a complete physical exam and history are performed, a blood test and urinalysis are necessary to confirm the excessive blood glucose levels and glucose in the urine. The combination of these two factors is diagnostic for diabetes. The lab work necessary to diagnose diabetes costs around \$190-210 depending on the tests performed.

How is Diabetes Managed?

It is important to recognize that diabetes cannot be cured, only managed. Diabetic dogs require subcutaneous insulin injections, usually given twice a day. These are done by the owner at home, and are nowhere near as painful as human insulin injections, which have to be given into a muscle. The owner gives the injections at home for a week, and then the animal must spend a day at the hospital for a blood glucose curve to monitor how well the insulin is working. Initial cost of supplies, treatment, and the glucose curve usually runs around \$90-130 depending on how quickly the animal responds to treatment.

Some cats can be treated

with oral drugs instead of insulin injections. These come in both pill and liquid forms

Long term management of diabetes can sometimes require the use of dietary therapy. A high fiber prescription diet has been demonstrated to improve the control of this disease.

Complicated diabetics (e.g., those who have been untreated and progressed to the ketoacidotic state) usually require hospitalization, including intravenous therapy and cautious monitoring of glucose levels. Stabilization and management of ketoacidotic diabetics can run into the hundreds of dollars, and not every animal survives this ordeal. Because of this, if you notice any unexplained increase in your pet's water intake or urination frequency, a consultation with a veterinarian should be pursued promptly.

Adjustments and return blood glucose checks are usually necessary over the course of the animal's life to make sure that the animal is properly supplemented with insulin. The body's natural supply of insulin can wax and wane, making it difficult occasionally to find a suitable dose. However, proper insulin management and good communication with your veterinarian will usually prevent most of the major complications of diabetes.