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Diabetes Mellitus (diabetes) is a fairly common disease seen in the cat. There are two types: Insulin Dependent (IDDM), comprising about 50-70% of cats, and Non-Insulin Dependent (NIDDM), about 30-50% of cats. While NIDDM is usually caused by obesity, and is reversible, IDDM can be caused by a variety of factors, including pancreatic islet amyloidosis, obesity, infection, concurrent illness, certain drugs (such as cortisone), pancreatitis, genetic predisposition, and immune-mediated insulinitis. Pancreatitis, islet amyloidosis, and renal insufficiency secondary to diabetes have recently been strongly implicated in association with both forms of diabetes. Many cats have a transient diabetes, in which insulin requirements wax and wane, or sometimes disappear completely.

Both types cause the cat to develop unusually high blood sugar levels. The classic signs of Diabetes are an obese cat with excessive thirst (polydipsia), excessive urination (polyuria), and a ravenous appetite combined with weight loss. Some cats may develop a plantigrade posture, where the hocks touch the ground when they walk. The additional signs of loss of appetite, weakness, vomiting, dehydration, and occasionally a strong odor of acetone on the breath which may indicate a dangerous state in a diabetic called ketoacidosis. Diagnosis of ketoacidosis is usually made upon measuring large amounts of ketones in the cat's urine. This condition is fatal if not treated promptly. Diabetes is fairly easy to diagnose based on blood and urine sugar levels, but a full blood panel evaluation, including thyroid levels and urine culture, should be done initially to rule out concurrent disease. Therapy includes a high fiber, high complex carbohydrate diet, to aid in glycemic control and aid in weight loss. The diet should have moderate protein content, and low fat content. Examples include Hill's Prescription Diet W/D, Science Diet Maintenance Light, or Iams Less Active. Underweight diabetics should be fed their regular food until their weight is normal, then fed a high fiber diet. Multiple small meals are preferred over one or two large ones, should have constant access to food. Since chronic pancreatitis and exocrine pancreatic insufficiency (EPI) have been associated with diabetes mellitus, a high fiber diet will be beneficial for both of these disorders.

Over dosage of insulin, failure to eat, or strenuous exercise can cause low blood sugar. Signs include weakness, lethargy, head tilting, seizures, and possible death. Treatment for hypoglycemia should be the immediate ingestion of food, and transport to your veterinarian. If a cat is unable to eat, Karo syrup can be rubbed on the gums, or slowly dribbled into the mouth if the cat can still swallow (do not put your fingers into the cat's mouth - they can be unaware of what is happening, and bite you). Occasionally metabolic changes in the cat itself can lead to a reduction or end for insulin therapy completely, so close blood sugar monitoring is important.

Insulin comes in several different types, and there are alternate oral medications called glipizide or glyburide that may be appropriate for some individuals. Oral glycemic control is difficult, however, and is only effective for a small percentage of cats. There are several different types of injectable insulin, from very short acting (Regular), intermediate (Lente), and very long acting (Ultralente). The type most often used on cats today is a human recombinant type insulin (Humulin Ultralente), a long acting insulin. However, some cats have a reduced ability to absorb insulin, or develop insulin resistance (for a number of different reasons), in which case many different types and protocols must be tried before finding one that works.

Initial treatment for a diabetic animal requires 24-48 hours of hospitalization for glucose monitoring during initial insulin administration. Then, weekly 12-24 hour visits are required to evaluate patient response, lasting 4-6 weeks. Periodic glucose levels need to be monitored, how often depending on how well the patient is responding. In general, diabetes mellitus carries a guarded long term prognosis in cats, with an average survival time between 18-24 months, all depending on the age of onset, and concurrent illness. However, with proper veterinary care by owners, timely evaluations by your vet, and good owner-veterinarian communication, many diabetic cats can live relatively normal lives for several years.