



Diabetes Mellitus

Diabetes Mellitus (DM) in dogs and cats has essential similarities to the human disease. Just as in people, there are 2 forms of DM, Type I (Insulin-dependent) and Type II (Non-insulin-dependent). Type I DM is the most common form in dogs and is caused by a lack of insulin production resulting in absolute deficiency of insulin. This is usually caused by autoimmune destruction of the insulin-secreting pancreatic cells. In cats, chronic pancreatitis can lead to Type I DM. However, Type II DM is most common in cats, caused by impaired insulin secretion and/or by insulin resistance. Also similar to people, obesity is a major risk factor for development of DM in cats. Chronic steroid use can also increase the risk of DM in cats.

DM can cause high blood pressure, kidney disease, dehydration, pancreatitis, weight loss, eye cataracts, and neurologic disorders (seizures, incoordination).

Clinical Signs of DM

Classic signs of DM are increases in drinking, urinating, appetite and urinary accidents. Weight loss, decline in coat/skin quality, dehydration, muscle loss, and ocular cataracts are also common as the condition becomes chronic.

Diagnosis

Diabetes mellitus is diagnosed based on labwork findings of high blood glucose level along with the presence of glucose in the urine.

Treatment

For dogs, the treatment is insulin therapy and diet. Prescription diabetic diets and a twice daily regular feeding schedule are important in managing blood sugar levels.

For cats, there are 2 potential treatment options, a daily oral medication (liquid or pill form) or insulin injections. Diet remains very important as in dogs. Cats with type II DM may also go into remission and some cats can be managed with diet alone.

Insulin therapy involves insulin subcutaneous injections 1-2 times per day. Once started, blood sugar levels need to be monitored closely every 1-2 weeks and insulin dose adjustments will likely be needed until the best dose is identified. Because DM is associated with other diseases, regular exams and evaluation of bloodwork, urine and blood pressure will be needed every 3-6 months.

NOTE: DM increases the risk of urinary tract and skin infections. Kidney disease and high blood pressure and severe dehydration can also occur with unregulated DM. Unregulated DM can lead to a life-threatening condition called diabetic ketoacidosis.



At home monitoring is as important as regular vet check-ups. Monitoring of appetite, drinking and urinating, weight, energy level and mobility can catch signs of disruption in blood sugar regulation and/or onset of secondary problems.

Signs of unregulated, high blood sugar include: increased drinking and urinating, urine accidents, lethargy, abnormal gait (especially in cats with dropping down in hind limbs), seizures, increased or decreased appetite, weight loss.

Signs of low blood sugar (insulin overdose or remission) include lethargy, weakness, seizures, coma. If suspected, seek veterinary attention immediately. Application of Karo syrup to the gums can be an emergency treatment.