



**Good Friends
Animal
Hospital**

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Diabetes

Diabetes mellitus is a condition in which there is a deficiency of the hormone insulin. Insulin is produced in the pancreas and is normally responsible for controlling concentrations in the blood of the body's main fuel—glucose (sugar). Insulin drives glucose into cells so that the cell can use it for energy. In a diabetic state, there is not enough insulin so cells are deprived of energy even though glucose levels are rising in the blood. Over time, the body begins to break down stores of fat and, eventually, protein (muscle) to provide energy to the cells.

Diabetes is more common in older cats and overweight pets. The principal symptom of an animal with diabetes is excessive urination and excessive water consumption. The high glucose levels in the blood spill over into the urine. The urine then draws more water in to dilute the glucose producing large amounts of urine. The pet drinks more to compensate for the amount of urine it is making. Other symptoms may include: weight loss, cataracts, increased appetite, exercise intolerance and recurrent infections. Diabetic animals often develop urinary tract infections as well because the sugar in the urine is a good place for bacteria to grow.

Diet can play a major role in the control of diabetes. Prescription foods are now available for the diabetic pet, and these are very helpful. Some pets, especially borderline ones, will improve with diet alone. If treatment is needed, insulin is the treatment of choice for diabetes in animals. Insulin must be given by injection because it is a protein and would be digested in the intestine if it was given as a tablet. Unfortunately, there is no standard dose for insulin which can be applied to all animals. Each diabetic animal has to have its dose tailored to its individual needs which is done over a period of time.

About a week after starting on insulin, the veterinarian finds it useful to do a blood glucose curve. A glucose curve requires repeated measurements of blood glucose throughout the day—this gives the doctor information about how effective the particular dose of insulin is in regulating the diabetes, as well as helping decide whether it's best to administer insulin once or twice a day.

Animals with diabetes can live a long and active life when the disease is managed by your veterinarian. Early identification will prevent your pet from developing the more serious complications of the disease. Therefore, annual blood and urine tests are helpful for all older pets.