

## **DIABETES MELLITUS**

Your pet has been diagnosed with diabetes mellitus, a disease characterized by inadequate production of insulin from the pancreas, leading to elevated blood glucose levels. The exact cause is generally unknown. Consequently, treatment and resolution of this illness will usually depend upon your replacing the insulin by injection on a daily basis.

Diabetes can be a very rewarding disease to treat, but can also at times be very difficult to control in certain animals. We have found that the more you know about this condition, the more success we have had in helping you resolve or improve your pet's condition. The classic signs of diabetes include:

- 1. Weight loss
- 2. Excessive water consumption
- 3. Increased urine volume

On some occasions, uncontrolled diabetes can lead to an acute and severe illness called ketoacidosis, which may require emergency care.

Regulation of diabetes involves close communication with your doctor, and frequent evaluations at the beginning in an attempt to tailor insulin type and dosage to your pet's needs. This may involve your dog or cat staying in the hospital for 12 to 24 hours while we check blood glucose values periodically.

Your doctor will show you how to handle measure and inject the insulin under your pet's skin before he/she goes home.

## ONLY CHANGE THE INSULIN REGIMEN AS PER YOUR DOCTOR'S INSTRUCTIONS! Helpful Hints:

- 1. Insulin should always be stored in the refrigerator, and should be discarded for a new bottle every two months.
- 2. It is wise to check the expiration date of every bottle you purchase. Be sure to obtain the EXACT TYPE of insulin your doctor has prescribed; there are many different types and each is different.
- 3. Your pet should be fed prior to receiving his/her injection, and appetite should be monitored with each meal.
- 4. Remember to gently roll the bottle between your hands to re-suspend the insulin before injecting.
- 5. Although diabetic control is aided by frequent feedings, for most people it is practical to feed twice daily. SEMI-MOIST FOODS ARE HIGH IN SUGAR AND SHOULD NOT BE FED TO DIABETICS. Only after eating should the injection be given.
- 6. If your pet does not eat a meal, reduce the insulin dose in half. If two consecutive meals are not eaten, you should see your doctor and DO NOT GIVE ANY MORE INSULIN.

If too much insulin is administered, a drop in blood glucose may occur 8-12 hours after the injection. Some signs of this would include:

- 1. Weakness
- 2. In-coordination
- 3. Dullness or lethargy
- 4. Seizures

You should always have some Karo syrup, honey, or suitable sugar solution at home. If you observe any of these signs, or have any doubts about whether these signs are present, rub the sugar solution on the gums immediately. If the problem is due to low blood sugar, you should see an immediate improvement.

We feel that keeping a daily log of urine glucose and ketones has been helpful in diabetic dogs. Keto-Diastix is readily available at any pharmacy for this purpose. Most of our well controlled diabetic patients run from trace to 1/2% on the glucose stick. An occasional aberration from this is not worrisome, but persistent 1-2% glucose or any persistent ketones in the urine is abnormal and warrants attention. Please bring this log with you when you bring your pet in for evaluations.

When you drop off your pet for a re-evaluation of diabetes, we will want to record your observations at home regarding appetite and water consumption. Body weight will also be recorded. As we try to simulate the home environment, please feed and give the morning insulin injection at home prior to your trip to the hospital, unless specifically directed otherwise. The earlier we start glucose monitoring, the better. It is also a good idea to bring some of your pets food, in case he or she needs to stay overnight. Initially most diabetics need to be seen every week or two until they are regulated. After this, a reevaluation every 3 months is advised.

Some other important bits of advice:

- 1. It is helpful to keep your pets diet as consistent as possible. This will help with Diabetes regulation and will minimize problems with pancreatic inflammation, This can be a problem in some diabetics.
- 2. Any female diabetic should be neutered. This helps with regulation.
- 3. Cataracts are a common consequence of diabetes in the dog, even when blood glucose control has been satisfactory. These can lead to blindness. Fortunately, surgery can be performed to restore vision in many cases.

Although diabetes is a serious illness which requires a prolonged commitment, treatment is often very rewarding, as your pets health is dependent upon your care and attention.

Barry Kipperman, D.V.M. Diplomate, ACVIM