

The symptoms are rather striking; the family pet is suddenly drinking a lot of water and urinating all over the place. Some pets will even loose their house breaking that's been solid for years. Along with all the excess thirst and voluminous urine, these pets (if their disease is not too advanced) are also very hungry, but loosing weight in the face of this great appetite. So what's the likely problem? While symptoms alone don't diagnose a problem, if a pet is drinking, urinating, and eating excessively and at the same time losing weight, Diabetes Mellitus (often shortened to just "Diabetes") should be at the top of the list.

Many pet owners are surprised to learn that their pet can suffer from the same illness that's so common in people. But there's more, their surprise frequently turns to disbelief when we tell them that they will likely need to give insulin injections to their pet to control the problem. And the fun doesn't stop there, you should see their expression when we tell them those insulin injections will probably be needed twice daily for the rest of the pet's life! Before I convey the wrong idea here about Diabetes in pets lets take a step back and look at what Diabetes is and how in most cases, with a moderate amount of effort, a pet with diabetes can enjoy a very good quality of life.

The problem lies within the delicate organ called the Pancreas. This abdominal organ sits next to the stomach and upper small intestines. In the normal animal the pancreas is responsible for several metabolic functions, not the least being the production and release of a hormone called insulin. Insulin in turn has many functions as well; but most notably it enables glucose ("sugar") to leave the blood stream and enter cells where it can be used for energy. Herein lies the problem. Patients with Diabetes have a reduced or complete lack of ability to produce and release insulin from their pancreas. So while the blood stream has plenty of sugar to go around, without insulin the cells of the body cannot get any of that sugar. In Diabetes, the cells of the body effectively are "starving". This is why a Diabetic pet is often exhibiting an increased appetite.

A common question is "What causes Diabetes?" Or more specifically "What causes the pancreas to stop producing insulin?" There are many possible reasons the pancreas may fail to produce insulin. Sometimes there has been long-standing inflammation of the pancreas (pancreatitis) resulting in scarring and reduced function of the insulin producing tissue. Sometimes patients are genetically predisposed to reduced insulin production. Certain drugs such as corticosteroids, like prednisone, have been implicated in causing Diabetes. In other cases the patient's own immune system attacks and damages the pancreas resulting in reduced insulin production. The truth of the matter is, in most of our patients, we never know the exact reason why Diabetes has developed.

Regardless of the cause, most dogs and cats with diabetes will require supplemental insulin. Without treatment, pets with Diabetes do not do well. Currently dogs and cats get the same kind of insulin that people take. In fact I send families to their regular pharmacist to pick up their pet's insulin and, of course, the syringes needed to administer that insulin. Most pet owners at first are quite intimidated about giving injections to their pet. But with careful instruction and encouragement most find that it really is quite easy.

Once the family is comfortable with the routine of regular injections we start the process of diabetic regulation. This refers to the process of determining the correct dose of insulin for each individual pet. There is no one dose of insulin that works, or is safe, for every animal. The correct dose must be determined by starting with a low (safe) dose and then very gradually increasing the amount of insulin until blood sugar levels stabilize. If too much insulin is given, in an overzealous attempt to quickly control the pet's diabetes, dangerously low blood sugar levels can occur. This hypoglycemia (low blood sugar) can be life threatening. I am very frank with pet owners about this concern - when regulating diabetes we cannot be in a hurry.

While insulin injections form the cornerstone of therapy for or animal diabetics other factors can play a role. Most diabetics need to be on a fairly consistent diet. My preference is to transition them to a high fiber/low fat diet. This has been well documented to improve the chances for successful control of Diabetes in dogs and cats. This means very limited "dog biscuit" treats and certainly no people food or table scraps. Regular pet consistent exercise each day can help as well. Many diabetics are prone to infections of many kinds. The pet owner and veterinarian need to be always on the lookout for developing urinary

tract infections, or skin infections, and treat them aggressively. Underlying infections of any kind can have serious consequences in the diabetic patient and can complicate diabetic regulation.

Thankfully, most of you will never need to treat your pet for Diabetes. But if your veterinarian does one day bring up the “D-word” about your pet, try to stay calm and understand that with a little effort and a lot of patience your pet (and you) will likely do very well.

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