

DIABETES MELLITUS

WHAT YOU NEED TO KNOW

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Have you ever wondered, “What is diabetes mellitus?” Diabetes mellitus is one of the most common endocrine disorders afflicting people and companion animals alike. Put simply, diabetes mellitus is a disease in which the body cannot properly use glucose. Glucose is a simple sugar that serves as the main energy source for most of your body’s cells. The body regulates glucose levels very tightly, as both too much and too little glucose can prove life-threatening. There are numerous mechanisms for regulating blood glucose levels, but without question the hormone insulin plays perhaps the most important role in glucose metabolism. Insulin is a hormone produced by the pancreas that serves as a kind of mediator to enable cells to use glucose. Without this hormone, the body’s cells would have no means of utilizing glucose, essentially starving the body of energy.

The exact cause of diabetes mellitus is complex and varies between species. In dogs, diabetes is almost always associated with a relative deficiency in insulin.

In people, this type of diabetes is often referred to as type 1 or insulin-dependent diabetes. In cats, diabetes usually develops as a result of the body’s cells inability to properly respond to insulin, a phenomenon referred to as insulin resistance.

This type of diabetes is most often recognized in people and is known as type 2 diabetes. There are many factors that can predispose to the development of type 2 diabetes but just like in people, obese cats are at a significantly higher risk of developing this disease.

The clinical signs of diabetes mellitus can vary, but the two most common signs recognized in all

diabetic patients are weight loss and increased thirst and urination. Other common signs include vomiting, poor appetite, and lethargy. A diagnosis of diabetes mellitus can easily be made by having your veterinarian measure your pet’s blood glucose levels.

If your dog or cat is confirmed to have diabetes, your veterinarian will recommend treatment with some type of insulin. The type of insulin selected depends on

the species of your pet. Once a type of insulin is chosen, appropriate follow-up is imperative to determine if any dose adjustment is necessary. Follow-up usually entails performing a “glucose curve” in which your veterinarian will check your pet’s blood glucose readings every few hours over the course of a day. This will allow your veterinarian to determine if the type of dose of administered insulin needs to be adjusted. These “curves” are typically performed 7-10 days after insulin is started or if any dose adjustment is made.

Another important factor in the treatment of diabetes mellitus is diet. Because dogs have an absolute dependence upon insulin, the type of food they eat is not as important as in cats. Dogs do, however, need to be fed on a regimented schedule, usually twice daily before they are given their insulin. Cats on the other hand can usually be fed free choice, but the type of food they receive should be limited in carbohydrates. With proper diet and insulin administration, upwards of 50% of cats can eventually go into remission and their disorder can sometimes be managed with diet alone. Unfortunately, this is not the case for dogs.

With appropriate treatment and vigilance, many dogs and cats afflicted with diabetes can do well. If you notice any symptoms suggestive of this disorder please contact your veterinarian as soon as possible.

