

# Living with a Diabetic Pet

By Virginia Clemans, DVM

Is your pet drinking a lot of water? Eating a lot, but losing weight? Having to urinate frequently? If the answer is yes, the problem could be a very common disease seen in dogs and cats, diabetes mellitus or “sugar diabetes.” The literal translation of diabetes mellitus is “sweet urine,” because dogs and cats with this disease have glucose (sugar) in their urine. This happens as a result of a series of abnormalities in the way the animal metabolizes sugars in the diet.



Insulin is an important hormone in the body that is produced in the pancreas. Without enough insulin or when insulin doesn't work properly, the glucose in the bloodstream cannot enter the cells, where it is needed for energy and cell repair. If the glucose cannot enter the cells, the blood glucose level climbs to abnormally high levels. Since the cells aren't receiving enough glucose, they send the body a message that not enough energy is present and that the body is basically starving. That is why one of the main symptoms of diabetes mellitus is an increase in appetite. The animal consumes more food, but still loses weight because the nutrients aren't entering the cells.

At the same time, the kidneys (the body's filtration system) are overwhelmed by the massive amounts of glucose in the blood. The kidneys allow this excess glucose to exit the body with the urine (“sweet urine”). Trying to dilute the amount of glucose in the urine, the kidneys produce more and more urine, causing “accidents” in the house and/or a soaked litter box. Producing all this extra urine causes an increase in thirst, which means an increase in the quantity of water consumed.

As the disease progresses, dogs can develop cataracts and lose vision (this is unusual in cats, however). Both dogs and cats become more susceptible to infections, especially of the skin and urinary tract. If diabetes is left untreated, another toxin (called ketones) can build up in the blood. When this happens, these animals can rapidly slip into a diabetic coma and die.

Diagnosis of diabetes mellitus is made based on a simple blood test together with a urinalysis. Since there are other diseases that can cause the same symptoms, the only way to know for sure is to test the blood and urine. Your veterinarian can interpret the blood and urine test results and design the right treatment for your dog or cat.

Treatment is twice-daily insulin injections for dogs, and once or twice daily insulin injections for cats. The injections are not hard to give and most people can be easily trained to do them. Caring for a diabetic pet is not difficult, but you must be conscientious about taking your pet in for regular checkups, carefully monitoring his weight and blood glucose levels, and keeping a consistent schedule of insulin injections and feedings.

*Dr. Virginia Clemans was Best Friends' chief veterinarian from 2001 to 2004. She now resides in Salt Lake City, where she is chief of staff for the Utah County Fix, a low-cost, high-volume spay/neuter and vaccine clinic sponsored by No More Homeless Pets in Utah, Maddie's Fund and Best Friends Animal Society.*