# DIABETES AND YOUR DOG By Brooke Crosier, DVM

### WHAT IS DIABETES?

Diabetes is a condition where insulin, needed to move blood sugar into the cells of the body, is not produced or does not work properly. In dogs, diabetes is most similar to Type I diabetes in people, where the pancreas does not produce insulin. Because of this, the dog's body wastes the sugar it eats. The result of this is that in spite of a good appetite and drinking more, the diabetic dog continues to lose weight and can get very sick.

### HOW IS DIABETES TREATED?

The two mainstays of treatment of diabetes in dogs are diet and insulin. The ideal diet for a diabetic dog is high in fiber, particularly non-digestible (insoluble) fibers, and low in fats. Ideally, this is accomplished with a prescription diet such as Hills W/D, which can be purchased through our office.

Since insulin is given twice a day, it's very important that a diabetic dog eats twice a day, as well. Because of this, we recommend that your dog eats two measured meals per day, rather than letting him graze on a constantly full food bowl. Keep in mind that as his diabetes is better controlled, he will also need less food to maintain his body's needs, since his body will no longer be wasting the sugar he ingests.

Insulin is the other mainstay of diabetes treatment. The only effective forms of insulin available for pets at this time are injections given under the skin. For dogs, there are several different types of insulin available, including Humulin-N, Prozinc, and Vetsulin. Your veterinarian will help you choose the right one for your pet. All insulin types with the exception of Vetsulin are designed for human use, so may be purchased at a human pharmacy, such as CVS or Wal-mart.

### HOW IS INSULIN GIVEN?

Diabetic dogs are started at the label dose of insulin, given under the skin as close to 12 hours apart as possible. Store the insulin in the refrigerator when it is not being used. When you go to give the insulin, roll the insulin gently between your hands (do not shake the bottle) to constitute it. The only exception to this is Vetsulin, which needs to be shaken to achieve a uniform milky appearance when constituted. Turn the bottle upside down, and use the appropriate insulin syringe to draw up the appropriate amount of insulin. Then, inject the insulin under your dog's skin. The scruff of the neck between the shoulder blades usually works well. The insulin needles are very tiny, and most dogs will not object to the injection.

## HOW DO I MONITOR MY DOG WITH DIABETES?

Especially at the beginning, it is very important to watch your dog closely to make sure that he is not getting over- or underdosed with insulin. Signs of an overdose include acting drunk, wobbly, or "out of it." He may even vomit or have diarrhea. If this occurs, rub something sweet on his gums right away, such as maple syrup or karo syrup, then call a veterinarian immediately.

When your dog's blood sugar is high, you will likely see the same things that made you bring him into the office in the first place, including increased thirst, urination, and appetite in the face of weight loss. This may mean that he needs more insulin, or that there is something else going on in his body or with the insulin administration that is making the insulin less effective. Please call us before changing the insulin dose on your own to avoid making your dog sicker.

### WHEN DO I GIVE INSULIN?

The most important point to note about giving insulin is that it must only be given when your dog is eating, ideally during or immediately after his meal. If he is not eating or he is vomiting, he should not get insulin. The insulin administered needs to work on sugar in the blood, which is provided by food. If the sugar in his blood is low and insulin is given, it will drive the blood sugar even lower, making your dog very sick.

If you are not sure if you gave the insulin dose correctly, or if your dog moved while injecting the insulin, it is best to skip that dose, and wait until the next dose is due. Remember, it is always better to not give enough, versus giving too much insulin, since low blood sugar is an emergency.

### WHEN SHOULD MY DOG COME BACK FOR A RECHECK?

When a dog is first diagnosed with diabetes, he may have to spend quite a bit of time at our clinic. This is because we don't know what his ideal dosage is right away, and may require adjustment. We will have you come back a few weeks after starting insulin to have a blood glucose curve performed, where we draw a drop of blood every 1-2 hours to see how is blood sugar is responding to the insulin. From this test, we can make recommendations regarding his insulin dose and future testing visits.

### SUMMARY:

Diabetes, while a difficult diagnosis to hear, is a very treatable disease. A low-sugar diet and insulin given every 12 hours are the mainstays of treatment. Diabetics do require a lot of monitoring of blood sugar, especially early after the diagnosis is made.

Remember, it is always better to have blood sugar that is a little too high, versus blood sugar that is too low. Because of this, if your dog isn't eating or is vomiting, he should not receive insulin. Also, if he moves during injection or if you are not sure you got the insulin into him correctly, just skip that dose, and resume your normal routine for the next dose.

If you have any questions or concerns, we are always happy to help. We know that this diagnosis can seem overwhelming and scary, but diabetes is also very manageable. We want to do everything we can to ensure that you are comfortable monitoring and treating your diabetic dog.