



Diabetes Mellitus

Owner's Guide to Pet Care

Provided as a courtesy by Hill's Prescription Diet and your veterinarian

Diabetes Mellitus Treatment:

Treatment requires a commitment of time and management from you, the owner. There is no cure for diabetes mellitus but it can be controlled with long term daily insulin injections, diet change and exercise management. With such therapy, your pet can lead a happy, comfortable life.

Once your pet has been diagnosed with diabetes mellitus, specific insulin requirements need to be determined. To determine his/her specific needs, your veterinarian will perform a glucose curve where insulin injections and glucose levels will be taken at regular intervals throughout the day. These results are used to determine your pet's initial insulin requirements. Periodic reevaluation may be necessary over the next few weeks to adjust the insulin dose as changes in diet, exercise and environmental stressors take place.

Insulin Dose

When regulating a diabetic animal's blood glucose level, the goal is to keep the glucose level between 80 and 150mg/dl; when at home, keep the glucose between 100-200mg/dl. The type of insulin prescribed and the daily dose are tailored to meet the needs of each animal. To adjust the dose, your veterinarian will continue to test and regulate your pet by occasionally testing blood and urine glucose levels. Once control is achieved, further evaluation should be completed every 2-4 months or as otherwise directed by your veterinarian.

Home Care

Consistency is key! Consistent, scheduled feedings are necessary in the management of diabetes. You must feed your pet at the same time every day. After feeding, be sure your pet consumes at least $\frac{1}{2}$ to $\frac{3}{4}$ the amount offered prior to giving the insulin injection. It is important that the injections are also given at the same time every day. If your pet does not eat enough or at all, various methods to entice your pet to eat may be used (ask your veterinarian for tips). NO insulin should be given if your pet does not eat enough, or if your pet vomits up his/her meal. **IF IN DOUBT, GO WITHOUT (insulin).**

Handling Insulin and Syringes

Insulin should be kept cool at all times in the refrigerator. The syringes and needles should be stored in protective wrappers or bags. These syringes and needles are disposable or "single use" only. After injecting your pet with insulin, place the needle guard over the needle and dispose of it in an empty milk jug or pop bottle. Once full, you may take the container to your veterinary clinic for proper disposal.

Drawing Up the Insulin

1. Set out the syringe with needle attached, and mix the insulin bottle by gently rolling between your hands. **DO NOT SHAKE** the insulin bottle.

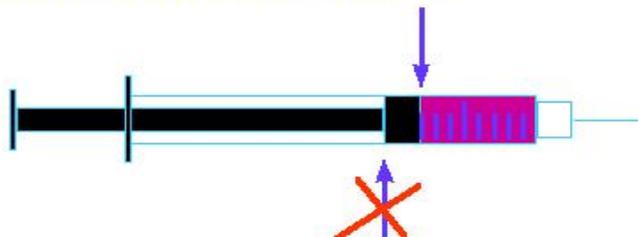


Never shake the bottle Just "Roll"

2. Remove the needle guard from the needle and draw back the plunger to the desired dose level (only air)
3. Insert the needle into the insulin bottle.
4. Inject the air in the syringe into the bottle to prevent a vacuum from forming in the insulin vial.
5. Withdraw the plunger, filling the syringe with the correct amount of insulin. Before injecting the pet with insulin, check to be sure there are no air bubbles in the syringe. If you see an air bubble, draw up slightly more insulin than the exact dose. Now, withdraw the needle from the bottle, tap the syringe barrel with your finger to move the air bubble to the nozzle of the syringe, then, gently expel the air bubble by pushing the plunger upwards. Now, check to see you have the correct amount of insulin in the syringe. The correct dose of insulin is measured from the needle end, or “0” on the syringe barrel, to the end of the plunger nearest the needle.



CORRECT: measure at this side of rubber plunger
example: 8 units are measured here



INCORRECT: do not measure at this side of rubber plunger

Giving the Injection

1. Sterilizing the injection site with an alcohol swab is not necessary.
2. Hold the syringe how it is most comfortable to you.
3. Have someone hold your pet as you pick up a fold of skin along the pet's back with your free



hand (pick a different spot each day). This is called “skin tenting”.

4. Push the very thin needle through the pet's skin quickly. This should be easy and painless using an insulin needle. Take care to push the needle through one fold of skin and not both layers of skin.
5. Pull back gently on the plunger to make sure no blood fills the syringe. If blood fills the syringe, pull out and try a different spot.
6. If no blood appears once pulling back on the plunger, use your a finger to push the plunger to the end of the syringe.
7. Withdrawl the needle from the pets skin and immediately cover the needle with the needle guard.
8. Praise your pet; a reward of your affection quickly creates a cooperative pet for future insulin injections.

Trouble Shooting Low Blood Sugar Reactions:

Anyone caring for a diabetic must know insulin treatments may occasionally result in low blood sugar levels. This is most likely to happen 3-7 hours after an insulin injection, especially when less food is consumed, pet vomits after eating and/or with strenuous exercise. **The most common signs of low blood sugar include weakness, loss of balance, incoordination, blindness, collapse, muscle twitches and/or seizure activity.** If you are concerned about your pet's behavior, call your veterinarian right away while doing the below tasks.

1. If your pet seems weak but is conscious and alert, offer him/her a bowl of food.
2. If your pet will not eat or if your pet is unconscious or seizing, drip a sugar containing syrup (i.e. Karo syrup, maple syrup) on the gums.

*Note: Please be cautious when handling your pet when seizing, as your pet may accidentally bite you during the course of a seizure.

The best way to avoid low blood sugar reactions is to abstain from administering insulin when you are not sure whether or not to give it. Do not give insulin in the following situations:

1. You are not sure if your pet received his/her insulin dose
2. You think you gave the wrong amount of insulin
3. Your pet moved during the injection and some of the insulin may not have been injected
4. Your pet eats less than half the meal offered
5. Your pet vomits after eating

References:

1. Ettinger, SJ. The Textbook of Veterinary Internal Medicine: Diseases of the Dog and Cat
2. MidWest Specialty Hospital: Diabetes Mellitus Handout