## INSTRUCTIONS FOR YOUR DIABETIC PET

Insulin is a hormone that will lose its effectiveness if exposed to direct sunlight or high temperatures. It should be kept in the refrigerator, but it should not be frozen. If you have any doubt about your pet's insulin and how it was stored, it is safer to replacing it instead of risking using ineffective insulin. Insulin is safe as long as it is used as directed, but it should be kept out of the reach of children. If you leave the insulin out by accident overnight, just put it back in the fridge and it should be fine, as long as it has remained at room temperature and has not gotten hot to the touch, sitting in the sun.

## How should I draw up the Insulin?

Have the needle and syringe, insulin bottle, and dog ready. Then, follow these steps:

- 1. Before using the insulin, mix the contents. Be sure to roll it gently between your hands, not shake it. The reason for this is to prevent foam formation, which will make accurate measuring difficult. Some types of insulin used in dogs have a strong tendency to settle out of suspension. If it is not shaken properly, it will not mix well and dosing will be inaccurate. Therefore, the trick is to shake it vigorously enough to mix it without creating foam. When you have finished mixing the insulin, turn the bottle upside down to see if any white powder adheres to the bottom of the bottle. If so, more mixing is needed.
- 2. Remove the cap from the needle, and draw back the plunger to the appropriate dose level. Carefully insert the needle into the insulin bottle.
- 3. Inject air into the bottle. This prevents a vacuum from forming within the bottle.
- 4. Withdraw the correct amount of insulin into the syringe.
- 5. Before injecting your dog with the insulin, check that there are no air bubbles in the syringe. If you get an air bubble, draw twice as much insulin into the syringe as you need. Then withdraw the needle from the insulin bottle and tap the barrel of the syringe with your fingernail to make the air bubble rise to the tip of the syringe. Gently and slowly expel the air bubble by moving the plunger upward.
- 6. When this has been done, check that you have the correct amount of insulin in the syringe. The correct dose of insulin can be assured if you measure from the needle end, or "0" on the syringe barrel, to the end of the plunger nearest the needle.

## How do I inject the Insulin?

The steps to follow for injecting insulin are:

- 1. Hold the syringe in your right hand (switch hands if you are left-handed).
- 2. Have someone hold your dog while you pick up a fold of skin from somewhere along your dog's back in the "scruff" region with your free hand. Try to pick up a slightly different spot each day.



- 3. Quickly push the very sharp, very thin needle through your dog's skin, all the way to the hub. It should be easy and painless to do this. Take care not to push the needle all the way out through the other side of the skin, so that injecting pushes the insulin onto your dog's haircoat or onto the floor. The needle should be directed slightly downward toward the dog.
- 4. To inject the insulin, place your thumb on the plunger and push it all the way into the syringe barrel. Do not have your thumb on the plunger as you place the needle into the skin, as you can easily inject prematurely by mistake, and then you may not know if the insulin went into your pet.
- 5. Withdraw the needle from your dog's skin. Immediately place the needle guard over the needle and discard the needle and syringe.
- 6. Stroke and praise your dog to reward it for sitting quietly. Some owners like to give the insulin injection while the pet is eating they often hardly notice it.

It is neither necessary nor desirable to swab the skin with alcohol to "sterilize" it. Due to the nature of the thick hair coat and the type of bacteria that live near the skin of dogs, brief swabbing with alcohol or any other antiseptic is not effective. Because a small amount of alcohol can be carried through the skin by the needle, it may actually carry bacteria with it into the skin. The sting caused by the alcohol can make your dog dislike the injections. If you have accidentally injected the insulin on the surface of the skin, you will not know it.

Although the above procedures may at first seem complicated and somewhat overwhelming, they will very quickly become second nature. Your dog will soon learn that once or twice each day it has to sit still for a few minutes. In most cases, a reward of stroking results in a fully cooperative dog that eventually may not even need to be held. Many diabetic pets learn to ask for their insulin, because they learn that it makes them feel better, and it is given when they eat a meal.

# Disposal of Needles

Be aware that some communities have strict rules about disposal of medical waste material so don't throw the needle and syringe into the trash until you know if this is permissible. It is usually preferable to take the used needles and syringes to your veterinary clinic or local pharmacy for disposal. The UltiMed syringes have a built in sharps disposal receptacle.

## What if I give too much insulin by mistake?

This can occur because the insulin was not properly measured in the syringe or because two doses were given. You may forget that you gave it and repeat it, or two people in the family may

each give a dose. A chart to record insulin administration will help to prevent the dog being treated twice.

The most likely time that a dog will become hypoglycemic is the time of peak insulin effect (5-8 hours after an insulin injection). When the blood glucose is only mildly low, the dog will act very tired and weak. If this happens, encourage your dog to eat a snack. Most of the time, within a few hours, the blood glucose will rise, and your dog will return to normal. Since many dogs sleep a lot during the day, this important sign is easily missed. Watch for any subtle signs of hypoglycemia. It is the first sign of impending problems. If you see it, please bring your dog in for blood glucose testing.

If your dog is slow to recover from this period of lethargy, you should give it corn syrup (one tablespoon by mouth). If there is no response within fifteen minutes, repeat administration of the corn syrup. If there is still no response, contact your veterinarian immediately for further instructions.

If severe hypoglycemia occurs, a dog may have seizures or lose consciousness. Ultimately, untreated hypoglycemia will lead to coma and death. This is an emergency that can only be reversed with intravenous administration of glucose. If it occurs during office hours, take your dog to the veterinarian's office immediately. If it occurs at night or on the weekend, call your veterinarian's emergency phone number for instructions.

#### SUMMARY OF INSTRUCTIONS

Read and reread your handouts so that you understand the specifics of proper regulation and how to recognize and treat hypoglycemia.

Purchase the supplies for treatment. Your prescription will specify the type of insulin and syringes.

Insulin should be given twice daily, when the dog is fed. Ideally, it should be given no more often than every 10 hours and no longer than every 14 hours. If more than 14 hours passes since the last dose, it is sometimes easier to just skip that dose and get back on track when the next dose is due. Skipping 1 dose of insulin once or twice a month will almost never cause any serious problems other than increased water drinking. However, you should never skip two doses in a row – that could result in serious illness.

Feeding Plan:	
Recommended Diet:	Amount to Feed:
Permitted Snacks:	
Your insulin dose to be given twice daily:	units. Your insulin:
Your Syringes are: U40 red capped _	U100 orange capped
	an 9:00 a.m., on Feed your dog bring it to the hospital. Bring the insulin with you.
Return for regular recheck on for this recheck.	(date). A routine appointment should be fine
References:	

1. Ward, Ernest. Lifelearn Handouts.