

Insulin Handling, Storing & Administering

How is insulin stored and handled?

- Must be stored in the refrigerator.
- Do not use the insulin beyond its expiration date unless directed by your veterinarian.
- Do not use insulin that has been frozen.
- Do not expose the insulin to direct light or heat.

How is a dose of insulin measured?

The concentration of insulin is measured in units, and is typically available in concentrations of 40 and 100 units/ml. There are corresponding syringes to use for the two concentrations of insulin. If using insulin with 40 U/ml, you must measure and administer it with a U-40 syringe; using a U-100 syringe would result in the wrong amount of insulin being given, with perhaps a fatal outcome. There may be several sized of syringes available, manufactured to deliver low or high doses.



An insulin syringe has 4 basic parts: the barrel, plunger, needle, and needle cap. Most brands of syringes have the needle permanently attached to the syringe barrel so it cannot be removed.

1. Prior to removing a dose of insulin from the vial, mix and warm the contents by gently rolling the vial between the palms of your hands. **DO NOT SHAKE INSULIN** as that will damage the insulin molecule.

2. Remove the needle cap from the insulin syringe, and insert the needle of the syringe into the vial through the rubber stopper.

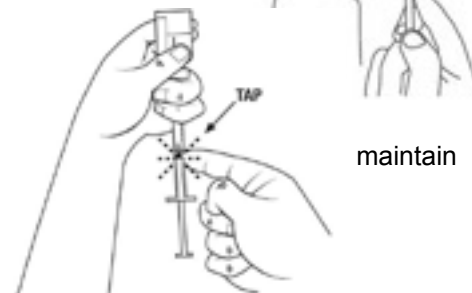
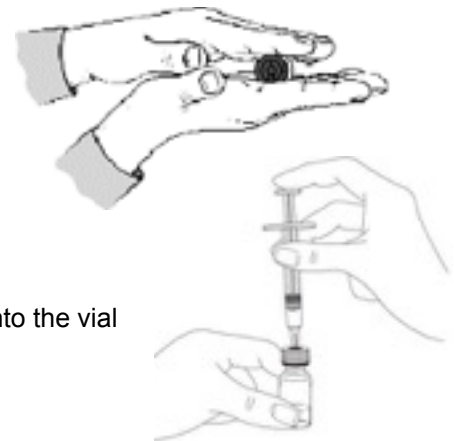
3. Pull back on the plunger of the syringe to draw the proper dose of insulin into the syringe. If air enters the syringe, you can expel it back into the vial by keeping the vial upside down while tapping on the syringe with your finger. The bubbles will rise to the top to the syringe near the needle, then push the plunger to force the bubbles back into the vial.

4. Recheck that you have withdrawn the proper amount of insulin.

5. Remove the syringe from the vial and replace the needle guard. Remember to a sterile needle by not allowing it to touch anything.

6. Return the insulin to the refrigerator.

7. You are now ready to administer the insulin.



How is an insulin injection given?

To be sure your pet gets her insulin, and does not receive extra doses, record the time of each injection on a designated calendar or notebook.

1. Always ensure that your pet has eaten a meal prior to insulin administration.
2. When giving your pet an insulin injection, you may, at first, want someone to help you hold and/or distract them while you are giving the injection. Usually pets do better if they are not held tightly. Scratching them on the head, getting their attention with a toy, or placing an enticing treat near their nose may help focus their attention away from the injection. The needle is extremely thin, and the injection almost painless.
3. Remove the needle cap from the syringe filled with the appropriate dose of insulin. If you are right-handed, hold the syringe in your right hand. With your left hand, pick up a fold of skin along your pet's back or shoulders (use a different area of skin every time).
4. Push the needle through the skin at about a 45° angle. Be careful not to push the needle through the entire fold of skin and out the other side, or accidentally into your finger.
5. Pull back slightly on the syringe plunger to be sure the needle is not in a blood vessel (if it is, blood will enter the syringe as you pull back the plunger), and then administer the insulin by pushing the plunger with your thumb.
6. Withdraw the needle from the skin, and replace the needle guard. Reward your pet by scratching her head or giving some of their kibble.
7. Place the needle and syringe in a puncture-resistant container. Designated sharps containers are available for purchase from our clinic or your local pharmacist. Follow your local regulations regarding disposal. Some trash disposal companies may allow the needles and syringes to be placed within a heavy plastic container, such as a laundry detergent bottle.
8. If your pet does not receive the entire dose of insulin, (e.g., some leaked out of the injection site, the needle went through the entire fold of skin and the dose was injected into the air, etc.) do NOT give more insulin. Wait to give more insulin until the next scheduled dose. Occasional missed doses are easily tolerated, an overdose can be fatal.

