

Some people don't use an insulin syringe to take their insulin. Instead, they use an insulin pen.

Insulin pens look a lot like writing pens except they contain insulin instead of ink, and they use a needle instead of a pen tip.



Disposable insulin pen without needle attached

There are many different types of insulin pens and each type comes with its own special instructions.



If your client uses an insulin pen, your delegating RN will:

- Give you instructions about using it correctly and safely.

General Information About Insulin Pens

Some insulin pens come pre-filled with insulin. These pens are disposable and thrown away when empty. Some insulin pens are re-useable and come with insulin cartridges that you load into the pen and unload when empty.

Insulin pens or their cartridges may contain one single type of insulin or they may contain two types of insulin pre-mixed together.

No matter what type(s) of insulin an insulin pen contains, the insulin comes with a prescription label and an additional medication label on the pen cartridge.

The process of checking for expiration dates and verifying the 5 Rights of Medication Administration is the same for insulin pens as it is for vials.





In fact, many of the rules and concepts you learned about insulin and insulin administration with a syringe are the same whether you are using a pen or a vial. For example, you are already familiar with all of these rules and concepts:

- Insulin in pens will be either clear or cloudy.
- For cloudy insulin in pens, you need to roll the pen gently between your palms 15-20 times to mix it before use.
- Once used, an insulin pen should be used for a maximum of 28 days or until it expires, whichever comes first.
- Insulin pens should not be stored in the freezer, and they should be discarded if frosted.
- Insulin pens should not be exposed to direct heat or light.
- You should have an extra insulin pen or cartridge available in case the one being used gets lost or damaged.
- Insulin units that are measured on an insulin pen match the units for standard U-100 insulin and U-100 syringes.



Insulin pens, however, also have some unique features that you need to know about:

- New or unused pens need to be stored in the refrigerator. Once in use, pens must be stored at room temperature. Insulin pens in use must **NOT** be stored in the refrigerator.
- Insulin pens do not have needles attached to them the way syringes do. Instead, the pen has a protective cap that comes off so you can attach a new, sterile needle each time you inject insulin.
- Disposable needles for insulin pens come in plastic containers so that they remain sterile until use.

New or unused pens need to be stored in the refrigerator.

*Insulin pens in use must **NOT** be stored in the refrigerator.*



Insulin pen with its cap on



Insulin pen with its cap off



Sterile needles in plastic containers for an insulin pen

- With a pen, there is no rubber vial top to clean. Instead, there is a rubber seal on the end of the pen. The rubber seal must be cleaned with a sterile alcohol wipe before a new needle is attached.

Clean the rubber seal with a sterile alcohol wipe before attaching a new needle.



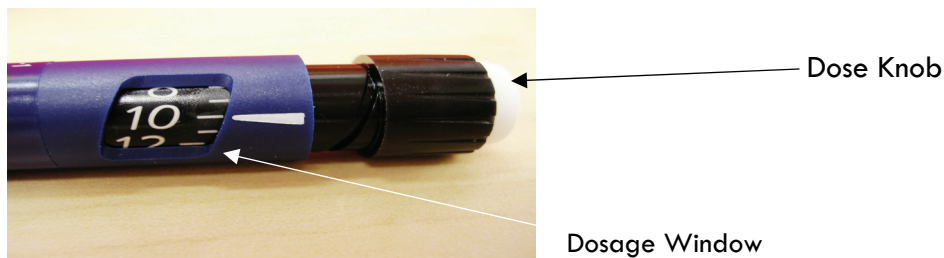
Rubber seal of an insulin pen

- Insulin pens must be primed before they can be used. **PRIMING** means testing the pen by injecting a small sample of insulin into the air—usually two units. Priming has two purposes:
 - ✓ It tells you that the pen is working (insulin comes out when you push the injection button).
 - ✓ It removes air that may be in the cartridge and needle.



To avoid giving a wrong dose, pens must be primed before they are used.

- Instead of using a plunger, insulin pens use a **DOSE KNOB** that you turn to prepare a dose of insulin. The dose usually appears as a number—such as “10”—in a **DOSAGE WINDOW** to indicate how many units of insulin will be injected.



An insulin pen set to give 10 units of insulin

- Many types of insulin pens instruct you to push the injection knob in and hold for five seconds when you are injecting insulin.
- Insulin pens are not stored with a needle attached. Needles must be removed and placed in a sharps container immediately after use. Leaving a needle attached to a pen may cause insulin to leak out or clog the needle or create air bubbles in the cartridge.