

Step-by-Step Patient Injection Guide

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How your insulin works

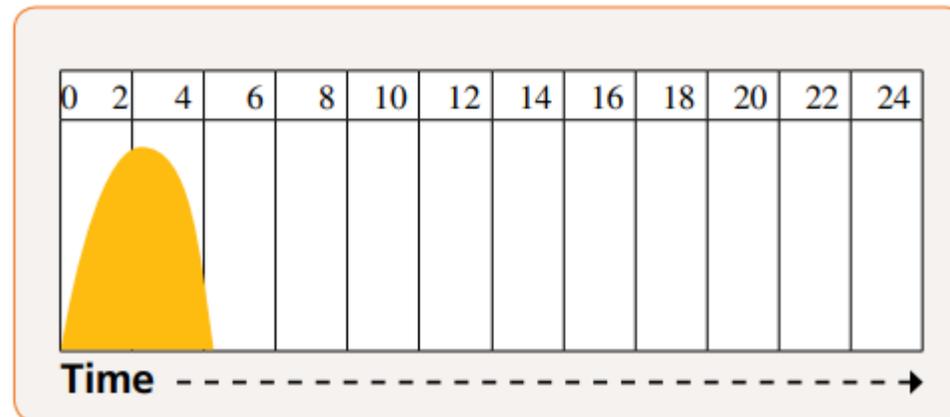
Definitions to Review:

- **Onset of action:** The length of time before insulin reaches the bloodstream and starts working.
- **Peak of action:** The time insulin is at its maximum strength or working the hardest to lower blood glucose.
- **Duration:** How long the insulin continues to work in the body.
- **Basal:** Steady and long-acting insulin that works between meals and throughout the night.
- **Bolus:** Rapid burst of insulin that works to match food or lower high blood glucose.
- **Basal-bolus therapy:** Also called “flexible therapy” because it allows for greater flexibility throughout the day. Meals do not have to be eaten at the same time every day and insulin can be taken prior to meals, whenever those meals are scheduled.

How your insulin works

Rapid-acting insulin: Starts to work very quickly, but lasts only a few hours. Injection is usually taken before a meal. This is a type of bolus insulin.

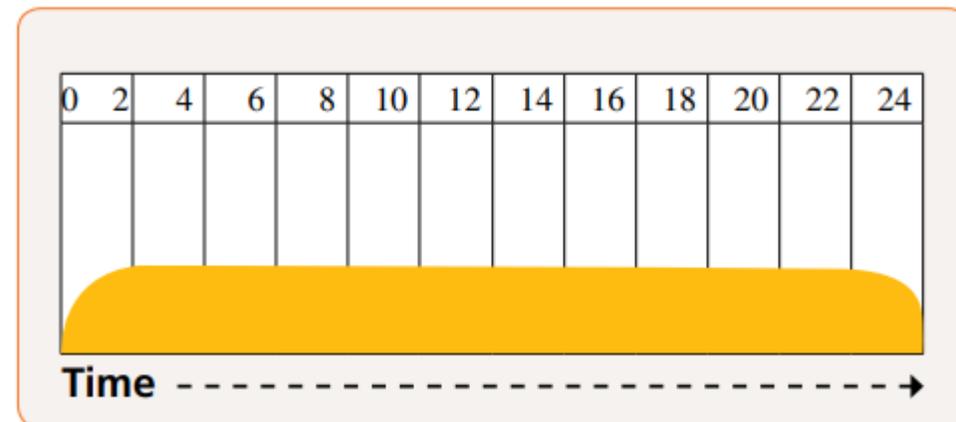
- **Type of insulin:** Humalog[®], NovoLog[®], Apidra[®]
- **Onset of Action:** Within 15 minutes
- **Peak Action:** 1 to 2 hours
- **Duration:** 3 to 4 hours



How your insulin works

Long-acting insulin: Provides 24-hour insulin coverage and may be given 1 to 2 times per day. Injection is usually taken before bedtime and/or in the morning. This is a type of basal insulin.

- **Type of insulin:** Lantus[®], Levemir[®]
- **Onset of Action:** 2 to 4 hours
- **Peak Action:** No peak, stable
- **Duration:** 20 to 24 hours



Learning about pen needles

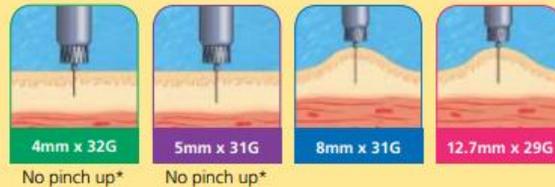
1

Choosing a pen needle is a matter of preference, technique and comfort.



2

Not all pen needles require pinch up.



3

When using either the 8mm x 31G or 12.7mm x 29G pen needle, be sure to use proper pinch-up technique.



Correct Technique



Incorrect Technique

*Some children as well as very thin or muscular teens and young adults, may want to use the pinch up technique if injecting into areas with minimal fat below the skin (i.e. legs, arms, abdomen) to further reduce the risk of intra-muscular injection.

Preparing and injecting with a reusable pen



Remove the pen cap.



Remove the cartridge holder from the pen body.



Insert the insulin cartridge into the cartridge holder.



Reattach the holder to the pen body. Wipe stopper with BD™ Alcohol Swab.



Take out new pen needle.



Position the needle along the axis of the pen.



Pierce the center of the cartridge.



Screw on the needle.



Pull off the outer and inner shield.



Follow the pen manufacturer's directions to prepare or prime your particular pen.



Wipe injection site with BD™ Alcohol Swab. Select insulin dose.



Perform the injection using the recommended technique.

Site selection and rotation

Diabetic injection sites



How to rotate sites:

Each new injection should be about a finger's width away from the last injection.

The shaded areas may be used for insulin injections. Injection sites should be rotated. Insulin is absorbed more rapidly when injected into the abdomen as compared with the arms or legs.

Proper use and disposal

- To maintain healthy injection sites, only use pen needles one time.

Needle reuse contributes to the build-up of scar tissue, which may interfere with insulin absorption. Insulin may not work as expected, if injected into that area. Please remember that syringes and pen needles are sterile products that are designed for single use only and they are no longer sterile after one use.

- Properly dispose of your syringes and pen needles.
- Needles should be disposed of responsibly without risk to others

