

# Understanding the Insulin Pen:

## An Educational Resource for People With Diabetes

Using insulin is a good way to manage your blood sugar, and many people with diabetes take insulin. Because insulin doesn't come in a pill form, it must be injected through the skin. The most common ways to inject insulin are through a vial and syringe (needle), a pump, or an insulin pen. If your healthcare provider has talked to you about using an insulin pen, this handout is designed to give you more information. If you have additional questions about insulin pens or insulin use in general after reading this, please seek advice from your healthcare provider.

### What Is an Insulin Pen?

An insulin pen is an injection device that is about the size and shape of a magic marker. It delivers insulin into the fatty tissue below the skin (usually in the arm, thigh, or stomach) via a short, thin disposable needle.



### Advantages and Disadvantages of Insulin Pens

As with pills and other ways of taking medications, there are advantages and disadvantages with using insulin pens.

#### Advantages

- The shorter, thinner needles tend to hurt less than the vial and syringe method; most insulin pen needles range in length from  $\frac{1}{2}$  inch to less than  $\frac{1}{4}$  inch
- There is no need to draw up insulin from the vial—the pen is already pre-filled or uses a pre-filled, self-contained cartridge
- Insulin pens are ready to use, easy to carry, and convenient for injections away from home
- Pens that have been removed from their packaging do not need to be put in the refrigerator after their first use
- Doses can be easily dialed, which may make setting the right dose easier for people who have trouble seeing smaller numbers or who have a difficult time handling a vial and syringe
- Pens can be used for most insulin types

#### Disadvantages

- Insulin in pre-filled pens and cartridges is sometimes more expensive than insulin provided in a vial
- If you need injections of different kinds of insulin, you may have to use more than one pen
- A small amount of insulin is wasted when the pen device is “primed” before injecting, and there will be a few units left in the pen after taking the last full dose
- Not all insulin types are available for use in insulin pen devices
- Not all insurance companies cover the cost of the insulin pen
- Insulin needles are an additional cost

## Insulin Pen Types

There are many different types of insulin pens to choose from, and they are put into one of two groups: reusable and disposable pens.

### Reusable Insulin Pens

You keep the outside “pen” part but replace the inside cartridge that contains the insulin. Each cartridge holds a set amount of insulin. The length of time that a cartridge will last depends on the dose of insulin your doctor determines that you need. When the insulin cartridge is empty or does not have a full dose left, you remove it and put in a replacement cartridge. The outer “pen” part of reusable pens can last for a long time, sometimes for many years.

### Disposable Insulin Pens

These come already filled with insulin and are thrown away when they are empty or do not have a full dose left. Disposable pens hold a set amount

of insulin, and the length of time they will last depends on your personal insulin dose.

### Choosing the Pen That’s Right for You

When trying to decide which pen is best for you, here are some things to consider:

- Your daily schedule and any need to give yourself insulin away from home
- How often you take insulin and the size of your doses
- The hand strength and coordination required for adjusting and injecting insulin
- The size of the text on the pen and your ability to see it clearly
- Options that are available for the type of insulin you need
- Your preference for either disposable pens or reusable pens, and the relative costs of each type
- Your preference for a particular color or material

Brand Name	Type of Insulin	Reusable Options*	Disposable Options*
Apidra®	Insulin glulisine		SoloSTAR®
Humalog®	Insulin lispro	HumaPen® LUXURA™ HD Autopen® Classic	Humalog® KwikPen™
Humalog® mix 50/50	50% insulin lispro protamine susp., 50% insulin lispro inj.		Humalog® KwikPen™
Humalog® mix 75/25	75% insulin lispro protamine susp., 25% insulin lispro inj.		Humalog® KwikPen™
Humulin® N	Human insulin isophane		Lilly Original Prefilled
Humulin® 70/30	70% human insulin isophane susp., 30% human insulin inj.		Lilly Original Prefilled
Lantus®	Insulin glargine		SoloSTAR®
Levemir®	Insulin detemir		FlexPen®
NovoLog®	Insulin aspart	NovoPen® Junior NovoPen® 3	FlexPen®
NovoLog® mix 70/30	70% insulin aspart protamine susp., 30% insulin aspart inj.		FlexPen®

\*Options listed are currently available in the United States. Abbreviations: inj. = injection; susp. = suspension.

This publication is provided by Med-IQ in collaboration with the American Association of Diabetes Educators (AADE).

This CME activity is supported by an educational grant from Sanofi-aventis U.S. Inc., A SANOFI COMPANY