



Types of Insulin Shots and How They Work

You may need insulin shots if your blood sugar is still high after changing your diet, losing weight, or increasing your exercise.

All insulin shots help your body to take sugar out of your blood. There are four main types of insulin, depending on how *fast* they start working and how *long* they last. The information on this page shows differences between the main types of insulin shots. When you take insulin shots, your doctor uses the blood sugars that you write down each day to adjust the timing and dose of your shots until your blood sugar is between 70 and 130 before meals.

Fast acting

Fast acting insulin starts working in less than 15 minutes. It works hardest 30 to 90 minutes after injection. It works for 3 to 5 hours. This category includes **insulin aspart** (**Novolog**), **insulin lispro** (**Humalog**) and **insulin glulisine** (**Apidra**).

Short acting

Short acting insulin starts working in 30 to 60 minutes. It works hardest 2 to 3 hours after injection. It works for 3 to 6 hours. This category includes **insulin regular (Humulin R, Novolin R)**.

Middle acting

Middle acting insulin starts working in 1 to 2 hours. It works hardest 4 to 12 hours after injection. It works for 10 to 18 hours. This category includes **insulin NPH (Humulin N, Novolin N)** and **insulin lente (Iletin)**.

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Long acting

One long-acting insulin is **insulin detemir (Levemir).** It starts working in 3 to 4 hours, peaks at 3 to 9 hours, and lasts 6 to 23 hours. Another long acting insulin is **insulin glargine (Lantus)**. It starts working after 3 to 4 hours and works for about 24 hours.

Fast and short-acting insulin shots keep your blood sugar down AFTER you eat. If your doctor asked you to use one of these types of insulin before meals, you should eat within 10 minutes of taking a fast-acting insulin shot or 30 minutes after taking a short-acting insulin shot to avoid a low blood sugar.

Middle and long-acting insulin shots work to keep your blood sugar down between meals and when you sleep. These insulin shots are not helpful when quick results are needed.

Many people take "combination" insulin shots. These shots have 2 different types of insulin mixed together to control your blood sugars both at night AND after meals. Some common "combination" insulin shots are insulin 75/25, insulin 70/30, and insulin 50/50.

Keep your insulin cool

Insulin doesn't work well after it gets too warm. Keep it in your fridge until a day or two before you use it. Then you can keep it at room temperature for 28 days. Do NOT freeze your insulin and keep it away from heat and sun.

Insulin expires

Most insulin is only good for 28 days after you start using that bottle, pen or cartridge. Ask your pharmacist how long until your insulin expires.

Source: American Diabetes Association