



Levemir vs. Lantus: Similarities and Differences

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Diabetes and insulin

Levemir and Lantus are both long-acting injectable insulins that can be used for long-term management of diabetes.

Insulin is a hormone that is naturally produced in the body by the pancreas. It helps convert the glucose (sugar) in your bloodstream into energy. This energy is then distributed to cells throughout your body.

With diabetes, your pancreas produces little or no insulin or your body is unable to use the insulin correctly. Without insulin, your body can't use the sugars in your blood and can become starved for energy. The excess sugar in your blood can also damage different parts of your body, including your blood vessels and kidneys. Everyone with type 1 diabetes and many people with type 2 diabetes must use insulin to maintain healthy blood sugar levels.

[Levemir](#) is a solution of insulin detemir, and [Lantus](#) is a solution of insulin glargine. Insulin glargine is also available as the brand [Toujeo](#).

Both insulin detemir and insulin glargine are basal insulin formulas. That means that they work slowly to lower your blood sugar levels. They're both absorbed into your body over a 24-hour period. They keep blood sugar levels lowered for longer than short-acting insulins do.

Although the formulations are slightly different, Levemir and Lantus are very similar drugs. There are only a few differences between them.

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Use

Children and adults can use both Levemir and Lantus. Specifically, Levemir can be used by people who are 2 years or older. Lantus can be used by people who are 6 years or older.

Levemir or Lantus can help with daily management of diabetes. However, you may still need to use short-acting insulin to treat spikes in your blood sugar levels and diabetic ketoacidosis (a dangerous buildup of acids in your blood).

[Learn more: All about diabetic ketoacidosis »](#)

Dosage

Administration

Both Levemir and Lantus are given through injection in the same way. You can give the injections to yourself or have someone you know give them to you. The injection should go under your skin. Never inject these drugs in a vein or muscle. It's important to rotate the injection sites around your abdomen, upper legs, and upper arms. Doing so helps you avoid lipodystrophy (a buildup of fatty tissue) at the injection sites.

You shouldn't use either drug with an insulin pump. Doing so can result in severe hypoglycemia (low blood sugar). This can be a life-threatening complication.

[Related reading: How to give a subcutaneous injection »](#)

Strength and forms

Your initial dose of either drug depends on the specifics of your diabetes. The solution for injection for Levemir and Lantus is 100 units/mL. Both are available in 10-mL vials. They're also available in 3-mL injection devices. The solution is clear and colorless.

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The injection devices are more convenient because the solution is already in the device that injects it. The device also has clear numeric marks that help make incorrect dosing less likely.

Frequency

Levemir: You can take Levemir once or twice per day depending on how quickly your body clears the drug. You should monitor your blood sugar levels closely when you first start taking it. Report these numbers to your doctor so they can make adjustments to your dosage if necessary. If you take Levemir once per day, you should take it with dinner or when you're ready for bed. If you take Levemir twice per day, separate the doses by 12 hours.

Lantus: You usually take Lantus once per day. Your doctor will time your Lantus dose and choose the number of units you use according to your blood sugar level control target.

Absorption

The rate at which Levemir absorbs into your body depends on your dose. It also depends on whether you take your daily dose all at once or at two different times. Levemir generally reaches a peak concentration in your blood six to eight hours after you take it. The concentration of Levemir in your blood can remain close to peak levels for up to 24 hours.

On the other hand, Lantus has no clear peak. It absorbs into your body more slowly and steadily than Levemir. It maintains a fairly constant concentration for about 24 hours.

That said, absorption of either product may vary. It's important for you check your blood sugar level regularly.

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Effectiveness

Both Levemir and Lantus appear to be equally effective in the daily management of blood sugar levels in people with diabetes. A 2011 [study review](#) found no significant difference in the safety or effectiveness of Levemir versus Lantus for type 2 diabetes.

Side effects

There are some differences in side effects between the two drugs. One [study](#) found that Levemir resulted in less weight gain. Lantus tended to have fewer skin reactions at the injection site and required a lower daily dose.

Other side effects of both drugs can include:

- low blood sugar level
- low blood potassium level
- increased heart rate
- tiredness
- headache
- confusion
- hunger
- nausea
- muscle weakness
- blurry vision

Any medication, including Levemir and Lantus, can also cause an allergic reaction. In rare cases, [anaphylaxis](#) can develop. Tell your doctor if you develop swelling, hives, or skin rash.

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Talk to your doctor

There are differences between Levemir and Lantus, including:

- the formulations
- the time after you take it until peak concentration in your body
- some side effects

Otherwise, both drugs are very similar. If you're considering one of these drugs, discuss the pros and cons of each for you with your doctor. No matter which form of insulin you take, review all package inserts carefully and be sure to ask your doctor any questions you have.

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