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2. Insulin isophane

Insulin isophane

Generic name: insulin isophane [*IN-soo-lin-EYE-soe-fane*]

Brand names: [HumuLIN N](#), HumuLIN N KwikPen, [NovoLIN N](#), ReliOn/NovoLIN N, Insulin Purified NPH Pork, ... [show all 12 brands](#)

Dosage form: subcutaneous suspension (human recombinant 100 units/mL)

Drug class: [Insulin](#)



[Medically reviewed](#) by Drugs.com on Mar 27, 2025. Written by [Cerner Multum](#).

[Uses](#) [Side effects](#) [Warnings](#) [Before taking](#) [Dosage](#) [Interactions](#) [FAQ](#)

What is insulin isophane?

Insulin is a hormone that works by lowering levels of [glucose](#) (sugar) in the blood. Insulin isophane is an **intermediate-acting** insulin that starts to work within 2 to 4 hours after injection, peaks in 4 to 12 hours, and keeps working for 12 to 18 hours.

Insulin isophane is used to improve blood sugar control in adults and children with [diabetes mellitus](#).

Insulin isophane may also be used for purposes not listed in this medication guide.

Insulin isophane side effects

Get emergency medical help if you have **signs of insulin allergy**: redness or swelling where an injection was given, [itchy skin](#) rash over the entire body, trouble breathing, chest tightness, feeling like you might pass out, or swelling in your tongue or throat.

Insulin isophane may cause serious side effects. Call your doctor at once if you have:

- **fluid retention**--weight gain, swelling in your hands or feet, feeling short of breath; or
- **low potassium**--leg cramps, [constipation](#), irregular heartbeats, fluttering in your chest, increased thirst or urination, numbness or tingling, muscle weakness or limp feeling.

Common side effects of insulin isophane may include:

- [low blood sugar](#);
- weight gain, swelling in your hands or feet;
- itching, mild skin rash; or
- thickening or hollowing of the skin where you injected the medicine.

This is not a complete list of side effects and others may occur. Call your doctor for medical advice about side effects.

You may report side effects to FDA at 1-800-FDA-1088.

 [Insulin isophane side effects](#) (more detail)

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Warnings

You should not use insulin isophane if you are having an episode of low blood sugar.

Never share an injection pen or syringe with another person, even if the needle has been changed.

Before taking this medicine

You should not use insulin isophane if you are allergic to it, or if you are having an episode of [hypoglycemia](#) (low blood sugar).

Do not give insulin isophane to a child without a doctor's advice.

Tell your doctor if you have ever had:

- liver or kidney disease; or
- low levels of potassium in your blood ([hypokalemia](#)).

Tell your doctor if you also take [pioglitazone](#) or [rosiglitazone](#) (sometimes contained in combinations with [glimepiride](#) or [metformin](#)). **Taking certain oral diabetes medicines while you are using insulin may increase your risk of serious heart problems.**

Tell your doctor if you are pregnant or breastfeeding.

Follow your doctor's instructions about using insulin **if you are pregnant or you become pregnant**. Controlling [diabetes](#) is very important during pregnancy, and having [high blood sugar](#) may cause complications in both the mother and the baby.

How should I use insulin isophane?

Follow all directions on your prescription label and read all medication guides or instruction sheets. Use the medicine exactly as directed.

Insulin isophane is injected under the skin. A healthcare provider can teach you how to properly use the medication by yourself.

Insulin isophane must not be given with an insulin pump, or mixed with other insulins. Do not inject into a vein or a muscle.

Do not inject insulin isophane into skin that is damaged, tender, bruised, pitted, thickened, scaly, or has a scar or hard lump.

Read and carefully follow any Instructions for Use provided with your medicine. Ask your doctor or pharmacist if you don't understand all instructions.

Insulin isophane should look cloudy after mixing. Do not use the mixture if it looks clear or has particles in it. Call your pharmacist for new medicine.

Your care provider will show you where on your body to inject insulin isophane. Use a different place each time you give an injection. Do not inject into the same place two times in a row.

If you use an injection pen, use only the injection pen that comes with insulin isophane. Attach a new needle before each use. Do not transfer the insulin from the pen into a syringe.

Never share an injection pen or syringe with another person, even if the needle has been changed. Sharing these devices can allow infections or disease to pass from one person to another.

You may have low blood sugar (**hypoglycemia**) and feel very hungry, dizzy, irritable, confused, anxious, or shaky. To quickly treat hypoglycemia, eat or drink a fast-acting source of sugar (fruit juice, hard candy, crackers, raisins, or non-diet soda).

Your doctor may prescribe a [glucagon](#) injection kit in case you have severe hypoglycemia. Be sure your family or close friends know how to give you this injection in an emergency.

Also watch for signs of high blood sugar (**hyperglycemia**) such as increased thirst or urination.

Blood sugar levels can be affected by stress, illness, surgery, exercise, alcohol use, or skipping meals. **Ask your doctor before changing your dose or medication schedule.**

Insulin isophane is only part of a complete treatment program that may also include diet, exercise, weight control, blood sugar testing, and special medical care. Follow your doctor's instructions very closely.

Keep this medicine in its original container protected from heat and light. Do not draw insulin from a vial into a syringe until you are ready to give an injection. Do not freeze insulin or store it near the cooling element in a refrigerator. **Throw away any insulin that has been frozen.**

Storing unopened (not in use) insulin isophane:

- Refrigerate and use until [expiration date](#); or
- Store at room temperature and use within the number of days specified in the Instructions for Use provided with your medicine.

Storing opened (in use) insulin isophane:

- Store in a refrigerator or at room temperature as directed in the Instructions for Use provided with your medicine. **Do not refrigerate an in-use injection pen.**
- **In-use insulin isophane is stable for only a certain number of days.** Throw away any medicine not used within that time. Follow all storage directions provided with your medicine.

Use a needle and syringe only once and then place them in a puncture-proof "sharps" container. Follow state or local laws about how to dispose of this container. Keep it out of the reach of children and pets.

In case of emergency, wear or carry medical identification to let others know you have diabetes.

 [Detailed Insulin isophane dosage information](#)

What happens if I miss a dose?

Use the medicine as soon as you can, but skip the missed dose if it is almost time for your next dose. **Do not** use two doses at one time.

Get your prescription refilled before you run out of medicine completely.

What happens if I overdose?

Seek emergency medical attention or call the Poison Help line at 1-800-222-1222. **Insulin overdose can cause life-threatening hypoglycemia.** Symptoms include [drowsiness](#), confusion, blurred vision, numbness or tingling in your mouth, trouble speaking, muscle weakness, clumsy or jerky movements, seizure (convulsions), or loss of consciousness.

What should I avoid while using insulin isophane?

Insulin can cause low blood sugar. Avoid driving or operating machinery until you know how insulin isophane will affect you.

Avoid medication errors by always checking the medicine label before injecting your insulin. **Some brands of insulin isophane and syringes are interchangeable, while others are not.** Your doctor and/or pharmacist know which brands can be substituted for one another.

Avoid drinking alcohol. It can cause low blood sugar and may interfere with your diabetes treatment.

What other drugs will affect insulin isophane?

Insulin isophane may not work as well when you use other medicines at the same time. This includes prescription and over-the-counter medicines, [vitamins](#), and [herbal products](#). Some drugs can also cause you to have fewer symptoms

of hypoglycemia, making it harder to tell when your blood sugar is low. Not all possible interactions are listed here. Tell your doctor about all medicines you start or stop using.

 [Insulin isophane drug interactions](#) (more detail)

Does insulin isophane interact with my other drugs?

Enter medications to view a detailed interaction report using our [Drug Interaction Checker](#).

+

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Patient resources

- [Insulin NPH \(InnoLets, Pens, and PenFill Cartridges\) patient information](#)
- [Insulin NPH \(Vials\)](#)

Other brands

[Novolin N](#), [Humulin N](#), [Humulin N Pen](#)

Professional resources

Other brands

[Novolin N](#), [Humulin N](#)

Related treatment guides

- [Type 2 Diabetes](#)
- [Diabetes, Type 1](#)
- [Gestational Diabetes](#)

Further information

Remember, keep this and all other medicines out of the reach of children, never share your medicines with others, and use this medication only for the indication prescribed.

Always consult your healthcare provider to ensure the information displayed on this page applies to your personal circumstances.

[Medical Disclaimer](#)

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DRUG STATUS

Availability

OTC Over the counter

[Pregnancy & Lactation](#)

 Risk data available

CSA Schedule*

N/A Not a controlled drug



User Reviews & Ratings

7.8 / 10

[17 Reviews](#)

Images

Humulin N (insulin isophane) 100 units per mL (U-100)



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