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2. Insulin inhalation, rapid acting

## Insulin (inhalation)

**Generic name:** insulin (inhalation) [ *IN-soo-lin-IN-ha-LAY-tion* ]

**Brand names:** [Afrezza](#), [EXUBERA](#), EXUBERA Combination Pack 12, EXUBERA Combination Pack 15, EXUBERA Kit, ... [show all 11 brands](#)

**Dosage form:** inhalation powder (12 units; 4 units; 4 units- 8 units; 4 units-8 units-12 units; 8 units; 8 units-12 units)

**Drug class:** [Insulin](#)



[Medically reviewed](#) by Drugs.com on Mar 21, 2025. Written by [Cerner Multum](#).

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### What is insulin inhalation?

Insulin is a hormone that works by lowering levels of glucose (sugar) in the blood. Insulin inhalation is a **fast-acting** insulin that starts to work about 15 minutes after inhalation, peaks in about 1 hour, and keeps working for 2 to 4 hours.

Insulin inhalation (inhaled through the mouth) is used to improve blood sugar control in adults with [diabetes mellitus](#).

**If you have type 1 diabetes**, you will also need to use a long-acting injectable insulin.

**If you have type 2 diabetes**, insulin inhalation may be the only medicine you need to control your blood sugar. However, your doctor may prescribe a long-acting injectable insulin or a diabetes medicine you take by mouth.

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

### Insulin inhalation side effects

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

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

- bronchospasm ([wheezing](#), chest tightness, trouble breathing);
- **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 may include:**

- [low blood sugar](#);

- cough; or
- [sore throat](#).

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.

**i** [Insulin inhalation, rapid acting side effects](#) (more detail)

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## Warnings

**Insulin inhalation can cause sudden or serious lung problems.** You should not use insulin if you smoke or have recently quit, or if you have chronic lung disease such as COPD or asthma.

## Before taking this medicine

You should not use this medicine if you are allergic to insulin, or if you are having an episode of [hypoglycemia](#) (low blood sugar). **Insulin inhalation can cause sudden or serious lung problems. Do not use this medicine if you have:**

- chronic lung disease, such as asthma or chronic obstructive pulmonary disease (COPD); or
- [diabetic ketoacidosis](#) (call your doctor for treatment).

Do not use insulin inhalation if you smoke or have recently quit smoking (within the past 6 months).

**In studies with insulin inhalation, lung cancer occurred in a small number of people.** Your doctor will perform lung function tests before and during your treatment with insulin inhalation.

Insulin inhalation is not approved for use by anyone younger than 18 years old.

Tell your doctor if you have ever had:

- asthma, COPD, or other breathing problems;
- [lung cancer](#);
- liver or kidney disease; or
- if you use other inhaled medicines.

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.**

Follow your doctor's instructions about using this medicine **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.

It may not be safe to breastfeed while using this medicine. Ask your doctor about any risk.

## How should I take insulin inhalation?

Follow all directions on your prescription label and read all medication guides or instruction sheets. Your doctor may occasionally change your dose. Use the medicine exactly as directed.

Use insulin inhalation at the beginning of a meal.

**Insulin inhalation is a powder** contained inside a plastic cartridge that fits into the inhaler device supplied with insulin. Only one cartridge can be placed in the inhaler device at one time. You may use each inhaler device for up to 15 days before replacing it with a new one.

Each blue cartridge of insulin inhalation powder is equal to 4 units of injectable insulin. Each green cartridge is equal to 8 units of injectable insulin. **If your dose is more than 8 units, you will need to use more than one cartridge.** Always use the least number of cartridges possible to get your correct dose. For example, if your dose is 12 units, use one 4-unit cartridge and one 8-unit cartridge to equal 12 units. For a dose of 16 units, use two 8-unit cartridges. **Follow the dosing chart provided with this medicine to learn about combining cartridges to get the correct dose.**

Insulin inhalation cartridges are packaged in a plastic blister card that is sealed inside a foil package. Store each unopened foil package in a refrigerator. **An unopened foil package that is not refrigerated must be used within 10 days.**

When you open the foil package, remove only the number of cartridges needed for your dose, put the rest of the blister card back into the foil package and return it to the refrigerator. **Leave the cartridges needed for your dose at room temperature for 10 minutes before using them.**

Once you have opened a foil package, you may store it at room temperature. **After tearing open an individual blister-card strip, you must use the cartridges in that strip within 3 days.**

Your blood sugar will need to be checked often. You may also need to have lung function tests every 6 to 12 months.

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

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

**i** [Detailed Insulin inhalation, rapid acting dosage information](#)

## What happens if I miss a dose?

If you forget to use your dose at the beginning of a meal, use the medicine as soon as you remember. **Do not** use two doses at one time.

## 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 taking insulin inhalation?

Do not smoke while using insulin inhalation. If you start smoking, you will have to stop using insulin inhalation and switch to another form of insulin to control your blood sugar.

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

Avoid drinking alcohol or taking medicines that contain alcohol.

## What other drugs will affect insulin inhalation?

Many other medicines can affect your blood sugar, and some medicines can increase or decrease the effects of insulin. Some drugs can also cause you to have fewer symptoms of hypoglycemia, making it harder to tell when your blood sugar is low. **Tell each of your health care providers about all medicines you use now and any medicine you start or stop using.** This includes prescription and over-the-counter medicines, [vitamins](#), and [herbal products](#).

**i** [Insulin inhalation, rapid acting drug interactions](#) (more detail)

## Does insulin inhalation, rapid acting interact with my other drugs?

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

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insulin inhalation, rapid acting

+

Enter a drug name

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## More about insulin inhalation, rapid acting

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## Patient resources

- [Insulin \(Oral Inhalation\) patient information](#)

## Other brands

[Afrezza](#), [Exubera](#)

## Professional resources

### Other brands

[Afrezza](#)

## Related treatment guides

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

## 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](#)

DRUG STATUS

Availability

Rx Prescription only

Pregnancy & Lactation

 Risk data available

CSA Schedule\*

N/A Not a controlled drug



User Reviews & Ratings

6.4 / 10

[42 Reviews](#)

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