



[Home](#)

2. Exubera

Exubera

Generic name: [insulin inhalation](#) [*IN-soo-lin-in-hel-AY-shun*]

Drug class: [Insulin](#)

[Medically reviewed](#) by Drugs.com. Last updated on Dec 24, 2024.

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



The Exubera brand name has been **discontinued** in the U.S. If generic versions of this product have been approved by the FDA, there may be [generic equivalents available](#).

What is Exubera?

Insulin inhalation was withdrawn from the U.S. market in 2007 due to lack of consumer demand for the product. No drug safety concerns were cited in this withdrawal.

Exubera is a rapid-acting form of human insulin that is inhaled through the mouth. It works by lowering levels of glucose (sugar) in the blood.

Exubera is used to treat type 1 (insulin dependent) or type 2 (non-insulin dependent) diabetes in adults.

Warnings

Do not use Exubera if you smoke, or if you have recently quit smoking (within the past 6 months). If you start smoking while using Exubera, you will have to stop using this medication and switch to another form of insulin to control your blood sugar.

Before using Exubera, tell your doctor if you have kidney disease, liver disease, or lung disorders such as asthma or COPD (chronic obstructive pulmonary disease).

You should not Exubera if you have a lung disease that is not well controlled with medication or other treatments.

There are many other drugs that can potentially interfere with the glucose-lowering effects of Exubera. It is extremely important that you tell your doctor about all the prescription and over-the-counter medications you use. This includes vitamins, minerals, herbal products, and drugs prescribed by other doctors. Do not start using a new medication without telling your doctor.

If there are any changes in the brand, strength, or type of insulin you use, your dosage needs may change. Always check your medicine when it is refilled to make sure you have received the correct brand and type as prescribed by your doctor. Ask the pharmacist if you have any questions about the medicine given to you at the pharmacy.

If you use Exubera as a meal-time insulin, use it no more than 10 minutes before eating the meal.

Exubera is only part of a complete program of treatment that may also include diet, exercise, weight control, and testing your blood sugar. Follow your diet, medication, and exercise routines very closely. Changing any of these factors can affect your blood sugar levels.

Take care to keep your blood sugar from getting too low, causing hypoglycemia. Know the signs and symptoms of hypoglycemia, which include headache, confusion, drowsiness, weakness, dizziness, fast heartbeat, sweating, tremor, and nausea. Carry a piece of non-dietetic hard candy or glucose tablets with you in case you have low blood sugar.

Before taking this medicine

Before using Exubera, tell your doctor if you have kidney disease, liver disease, or lung disorders such as asthma or COPD (chronic obstructive pulmonary disease).

You should not use Exubera if you have a lung disease that is not well controlled with medication or other treatments.

If you have type 1 diabetes, you should use Exubera in addition to another long-acting type of insulin.

If you have type 2 diabetes, this may be the only medication you use to control your blood sugar, or your doctor may prescribe another long-acting insulin or diabetes medicine you take by mouth.

Exubera is only part of a complete program of treatment that may also include diet, exercise, weight control, and testing your blood sugar. Follow your diet, medication, and exercise routines very closely. Changing any of these factors can affect your blood sugar levels.

If there are any changes in the brand, strength, or type of insulin you use, your dosage needs may change. Always check your medicine when it is refilled to make sure you have received the correct brand and type as prescribed by your doctor. Ask the pharmacist if you have any questions about the medicine given to you at the pharmacy.

FDA pregnancy category C. Exubera may be harmful to an unborn baby. Tell your doctor if you are pregnant or plan to become pregnant during treatment. Exubera can pass into breast milk and may harm a nursing baby. Do not use Exubera without telling your doctor if you are breast-feeding a baby.

 [Exubera pregnancy and breastfeeding warnings](#) (more detail)

How should I take Exubera?

Use Exubera exactly as it was prescribed for you. Do not use it in larger doses or for longer than recommended by your doctor.

Your doctor may occasionally change your dose to make sure you get the best results from Exubera.

If you use Exubera as a meal-time insulin, use it no more than 10 minutes before eating the meal.

To be sure Exubera is not causing certain side effects, your lung function will need to be tested on a regular basis. It is important that you not miss any scheduled visits to your doctor.

Continue using Exubera if you have a cold or flu virus that causes upper respiratory symptoms (cough, sore throat, nasal congestion). Check your blood sugar carefully during a time of stress or illness, since this can also affect your glucose levels.

Exubera is a powder that is supplied in "dose blisters" on cards that are packaged in a clear plastic tray. This tray is sealed inside a foil pouch that also contains a moisture-absorbing preservative packet. The 1-milligram (mg) dose blisters are supplied on a card printed with green ink. The 3-mg dose blisters are supplied on a card printed with blue ink.

Each 1-milligram dose blister of Exubera powder is equal to 3 units of injectable insulin and each 3-milligram dose blister is equal to 8 units of injectable insulin. Using three of the 1-mg dose blisters will not give you the same amount of medicine as one 3-mg dose blister. You may receive too much insulin when using three 1-mg dose blisters together, which could result in hypoglycemia.

If you are combining 1-mg and 3-mg dose blisters to get your correct dose of insulin, always use the least number of blisters possible. For example, if your dose is 4 mg, use a 1-mg blister and a 3-mg blister (a total of two blisters). Do not use four 1-mg blisters or you may receive too much Exubera.

The inhaler unit supplied with Exubera includes a base, a chamber, and a release unit. Each release unit may be used for up to 2 weeks before replacing. You may use the inhaler for up to 1 year before replacing it.

Store the medication at room temperature, away from moisture and heat. Do not refrigerate or freeze. Protect the medicine from moisture and humidity at all times. Do not store the medicine in a bathroom where you shower.

Once you have opened the foil pouch, keep the unused dose blisters in the pouch and use them within 3 months after opening the pouch. Keep the moisture-absorbing preservative packet contained in the foil pouch and do not open the packet or use its contents.

 [Detailed Exubera dosage information](#)

What happens if I miss a dose?

Use the medication as soon as you remember. If it is almost time for the next dose, skip the missed dose and wait until your next regularly scheduled dose. Do not use extra medicine to make up the missed dose.

If you use Exubera as meal-time insulin and you forget to use your dose before a meal, use the insulin when you remember and wait 10 minutes before eating.

What happens if I overdose?

Seek emergency medical attention if you think you have used too much of this medicine.

Symptoms of an Exubera overdose may be the same as signs of low blood sugar: confusion, drowsiness, weakness, fast heartbeat, sweating, tremor, and nausea.

What should I avoid?

Do not smoke while using Exubera. You should not use this medication if you have smoked within the past 6 months. If you start smoking while using Exubera, you will have to stop using the medication and switch to another form of insulin to control your blood sugar.

Avoid letting your blood sugar get too low, causing hypoglycemia. Know the signs and symptoms of hypoglycemia, which include headache, confusion, drowsiness, weakness, dizziness, fast heartbeat, sweating, tremor, and nausea. Carry a piece of non-dietetic hard candy or glucose tablets with you in case you have low blood sugar.

Exubera side effects

Hypoglycemia (low blood sugar) is the most common side effect of Exubera. Watch for signs of low blood sugar, which include headache, confusion, drowsiness, weakness, dizziness, fast heartbeat, sweating, tremor, and nausea. Carry a piece of non-dietetic hard candy or glucose tablets with you in case you have low blood sugar.

Get emergency medical help if you have any of these signs of an allergic reaction: rash, hives, or itching; wheezing, gasping for breath; fast heartbeat; sweating; feeling light-headed or fainting.

Other less serious side effects are more likely to occur, such as:

- cough, sore throat;
- runny or stuffy nose;
- dry mouth; or
- ear pain.

Side effects other than those listed here may also occur. Talk to your doctor about any side effect that seems unusual or that is especially bothersome.

 [Exubera side effects](#) (more detail)

Related/similar drugs

Ozempic

Learn about Ozempic (semaglutide) for type 2 diabetes treatment, weight management, cardiovascular ...

Reviews & ratings

6.6 / 10

[1,504 Reviews](#)

[View more](#)

Rybelsus

Rybelsus tablets are used to improve blood sugar control in adults with type 2 diabetes, and may ...

Reviews & ratings

6.4 / 10

[282 Reviews](#)

[View more](#)

FEATURED

Mounjaro

Mounjaro (tirzepatide) is FDA-

approved to manage type 2 diabetes in adults. It lowers blood sugar ...

Reviews & ratings

8.5 / 10

[1,278 Reviews](#)

[View more](#)

Trulicity

Trulicity is an injectable diabetes medicine that is used together with diet and exercise to ...

Reviews & ratings

5.3 / 10

[970 Reviews](#)

[View more](#)

Lantus

Lantus is a long acting form of insulin used to treat type 1 or type 2 diabetes. Learn about side ...

Reviews & ratings

6.5 / 10

[41 Reviews](#)

[View more](#)

Tresiba

Tresiba (insulin degludec) is used to treat diabetes mellitus. Includes Tresiba side effects ...

Reviews & ratings

4.3 / 10

[152 Reviews](#)

[View more](#)

Victoza

Victoza helps control blood sugar levels and reduce the risk of serious heart problems in people ...

Reviews & ratings

Reviews & ratings

7.6 / 10

[766 Reviews](#)

[View more](#)

Metformin

Metformin is an oral diabetes medicine used together with diet and exercise to improve blood sugar ...

Reviews & ratings

6.8 / 10

[654 Reviews](#)

[View more](#)

Humalog

Humalog (insulin lispro) is used to treat type 1 (insulin-dependent) diabetes in adults. Includes ...

Reviews & ratings

6.8 / 10

[22 Reviews](#)

[View more](#)

Basaglar

Basaglar (insulin glargine) is a long-acting insulin that is used to improve blood sugar control in ...

Reviews & ratings

2.7 / 10

[148 Reviews](#)

[View more](#)

What other drugs will affect Exubera?

There are many other drugs that can potentially interfere with the glucose-lowering effects of Exubera. It is extremely important that you tell your doctor about all the prescription and over-the-counter medications you use. This includes vitamins, minerals, herbal products, and drugs prescribed by other doctors. Do not start using a new medication without telling your doctor.

If you use other inhaled medications, use them before using Exubera.

 [Exubera drug interactions](#) (more detail)

Does Exubera interact with my other drugs?

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

Exubera

+

Enter a drug name

Add

Copyright 1996-2025 Cerner Multum, Inc. Version: 1.04.

More about Exubera (insulin inhalation, rapid acting)

- [Check interactions](#)
- [Compare alternatives](#)
- [Reviews \(4\)](#)
- [Side effects](#)
- [Dosage information](#)
- [During pregnancy](#)
- [FDA approval history](#)
- [Drug class: insulin](#)

Patient resources

Other brands

[Afrezza](#)

Professional resources

Other brands

[Afrezza](#)

Related treatment guides

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

Further information

- Your pharmacist has more information about Exubera written for health professionals that you may read.


Remember, keep this and all other medicines out of the reach of children, never share your medicines with others, and use Exubera 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

 Discontinued

Pregnancy & Lactation

 Risk data available

CSA Schedule*

N/A Not a controlled drug



User Reviews & Ratings

[4 Reviews](#)

Drugs.com Mobile App

Access drug & treatment information, identify pills, check interactions and set up personal medication records.



About

[About Drugs.com](#)

[Advertising policy](#)

[Attribution & citations](#)

Terms & privacy

[Terms of use](#)

[Editorial policy](#)

[Privacy policy](#)

Support

[Help center](#)

[Sitemap](#)

[Contact us](#)





[Subscribe to our newsletter](#) for the latest medication news, new drug approvals and FDA alerts.

Drugs.com provides accurate and independent information on more than 24,000 prescription drugs, over-the-counter medicines and natural products. This material is provided for educational purposes only and is not intended for medical advice, diagnosis or treatment. Data sources include Micromedex (updated 7 Apr 2025), Cerner Multum™ (updated 13 Apr 2025), ASHP (updated 10 Apr 2025) and others.



Ad Choices
ADVERTISEMENT



Copyright © 2000-2025 Drugs.com. All rights reserved.