PATIENT & CAREGIVER EDUCATION

Insulin (Oral Inhalation

This information from UpToDate® Lexidrug™ explains what you need to know about this medication, including what it's used for, how to take it, its side effects, and when to call your healthcare provider.

Brand Names: US

Afrezza

Warning

- Sudden lung problems can happen with this drug in people with chronic lung disease. Do not give this drug if your child has a chronic lung disease like asthma or COPD. Before giving this drug, tell the doctor if your child has ever had any lung or breathing problems.

What is this drug used for?

- It is used to lower blood sugar in patients with high blood sugar (diabetes).

What do I need to tell the doctor BEFORE my child takes this drug?

- If your child is allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell the doctor about the allergy and what signs your child had.
- If your child has low blood sugar.
- If your child has or has had lung cancer.

- If your child has an acidic blood problem caused by diabetes.
- If your child smokes or has recently stopped smoking.

This is not a list of all drugs or health problems that interact with this drug.

Tell the doctor and pharmacist about all of your child's drugs (prescription or OTC, natural products, vitamins) and health problems. You must check to make sure that it is safe to give this drug with all of your child's other drugs and health problems. Do not start, stop, or change the dose of any drug your child takes without checking with the doctor.

What are some things I need to know or do while my child takes this drug?

- Tell all of your child's health care providers that your child is taking this drug. This includes your child's doctors, nurses, pharmacists, and dentists.
- Low blood sugar may happen with this drug. Very low blood sugar can lead to seizures, passing out, long lasting brain damage, and sometimes death. Talk with the doctor.
- Low blood potassium may happen with this drug. If not treated, this can lead to a heartbeat that is not normal, very bad breathing problems, and sometimes death. Talk with the doctor.
- Have your child avoid tasks or actions that call for alertness until you see how this drug affects your child. These are things like riding a bike, playing sports, or using items such as scissors, lawnmowers, electric scooters, toy cars, or motorized vehicles.
- Some diabetes drugs like pioglitazone or rosiglitazone may cause heart failure or make it worse in people who already have it. Using insulin with these drugs may increase this risk. If your child is taking one of these drugs, talk with the doctor.
- It may be harder to control blood sugar during times of stress such as fever, infection, injury, or surgery. A change in physical activity, exercise, diet, or weight may also affect your child's blood sugar.

- Have your child wear disease medical alert ID (identification).
- If your child can drive, do not let your child drive if blood sugar has been low. There is a greater chance of a crash.
- Check your child's blood sugar as you have been told by the doctor.
- Have your child's blood work and other lab tests checked as you have been told by the doctor.
- Alcohol interacts with this drug. Be sure your child does not drink alcohol or take products that have alcohol in them.
- Be sure your child does not smoke.
- In some studies, a few more cases of lung cancer happened in people taking this drug compared to people taking other diabetes drugs. The cause of this is not known. If your child has lung cancer or if you have any questions, talk with your child's doctor.

If your child is pregnant or breast-feeding a baby:

- Talk with the doctor if your child is pregnant, becomes pregnant, or is breast-feeding a baby. You will need to talk about the benefits and risks to your child and the baby.

What are some side effects that I need to call my child's doctor about right away?

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your child's doctor or get medical help right away if your child has any of the following signs or symptoms that may be related to a very bad side effect:

- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat. Rarely, some allergic reactions have been life-threatening.
- Signs of low potassium levels like muscle pain or weakness, muscle cramps,

or a heartbeat that does not feel normal.

- Low blood sugar may happen. Signs may be dizziness or passing out, blurred eyesight, mood changes, slurred speech, headache, feeling sleepy or weak, shaking, fast heartbeat, confusion, hunger, sweating, or seizures. Call the doctor right away if any of these signs happen. Follow what you have been told to do if low blood sugar happens. This may include taking glucose tablets, liquid glucose, or some fruit juices.
- Lung function has gotten worse in some people taking this drug. Have your child's lung function checked while taking this drug. Call the doctor right away if your child has breathing problems that are new or worse after starting this drug.

What are some other side effects of this drug?

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your child's doctor or get medical help if any of these side effects or any other side effects bother your child or do not go away:

- Weight gain.
- Cough.
- Throat pain.
- Throat irritation.
- Signs of a common cold.
- Headache.

These are not all of the side effects that may occur. If you have questions about side effects, call your child's doctor. Call your child's doctor for medical advice about side effects.

You may report side effects to your national health agency.

How is this drug best given?

Give this drug as ordered by your child's doctor. Read all information given to you. Follow all instructions closely.

- For breathing in only by an inhaler into the lungs.
- Your child's doctor will teach you how to give this drug.
- Only use the device that comes with this drug. Do not use any other devices.
- Give at the start of each meal as the doctor has told you.
- If stored in a refrigerator, let the inhaler and cartridge come to room temperature before using it. Leave it at room temperature for at least 10 minutes. Do not heat this drug.
- After a cartridge has been put in, handle the device with care. If the device has been turned upside down, held with the mouthpiece pointing down, shaken, or dropped, replace the cartridge before use.
- Put the cap back on after your child is done using a dose.
- Do not let the inhaler or cartridge get wet. The outside of the inhaler can be wiped if needed with a clean, dry cloth only.
- Each cartridge is for 1 use only. Throw away any part left over after the dose is given.
- If any of this drug spills from the cartridge onto your hands or your child's hands, wash hands right away.
- Have your child follow the diet and exercise plan your child's doctor told you about.
- Be sure you know what to do if your child does not eat as much as normal or if your child skips a meal.

What do I do if my child misses a dose?

- Be sure you know what to do if you forget to give your child a dose.
- If you are not sure what to do if your child misses a dose, call the doctor.

How do I store and/or throw out this drug?

- Follow how to store closely. Read the package insert that comes with this drug. If you have questions about how to store this drug, talk with your pharmacist.
- Do not put an opened blister strip in the refrigerator.
- Be sure you know how long you can store an unused inhaler before you need to throw it away.
- Throw away the inhaler 15 days after first use and get a new one.
- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Throw away unused or expired drugs. Do not flush down a toilet or pour down a drain unless you are told to do so. Check with your pharmacist if you have questions about the best way to throw out drugs. There may be drug take-back programs in your area.

General drug facts

- If your child's symptoms or health problems do not get better or if they become worse, call your child's doctor.
- Do not share your child's drug with others and do not give anyone else's drug to your child.
- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.
- If you think there has been an overdose, call your poison control center or get medical care right away. Be ready to tell or show what was taken, how much, and when it happened.

Consumer Information Use and Disclaimer

This generalized information is a limited summary of diagnosis, treatment, and/or medication information. It is not meant to be comprehensive and should be used as a tool to help the user understand and/or assess potential diagnostic and treatment options. It does NOT include all information about conditions, treatments, medications, side effects, or risks that may apply to a specific patient. It is not intended to be medical advice or a substitute for the medical advice, diagnosis, or treatment of a health care provider based on the health care provider's examination and assessment of a patient's specific and unique circumstances. Patients must speak with a health care provider for complete information about their health, medical questions, and treatment options, including any risks or benefits regarding use of medications. This information does not endorse any treatments or medications as safe, effective, or approved for treating a specific patient. UpToDate, Inc. and its affiliates disclaim any warranty or liability relating to this information or the use thereof. The use of this information is governed by the Terms of Use, available at https://www.wolterskluwer.com/en/know/clinical-effectiveness-terms.

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If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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