
What is a dry powder inhaler (DPI)?

A dry powder inhaler (DPI) is a device that delivers medicine to the lungs in the form of a dry powder. It is used to treat certain breathing problems like asthma. DPIs can be used instead of a metered dose inhaler (MDI) for some long-term control medicines.

- Do not use a DPI as a rescue medicine. It will not help with breathing problems or during an asthma attack.
- DPI medicines are long-term control medicines called inhaled corticosteroids. They include
 - Advair Discus
 - Flovent Discus
 - Flexhaler (Pulmicort)
 - Twisthaler (Asmanex)
 - RediHaler (QVAR)

How do DPIs work?

- DPIs work by reducing swelling, which reduces mucus build-up in the airways.
- Advair Discus also contains a medicine that helps to relax the muscles around the airways.

How should I use a DPI?

Your respiratory therapist or doctor can teach you how to use a DPI. Some guidelines for using different types are listed below.

- To use a DPI, breathe in (inhale) strongly and deeply. This is the best way to get the powdered medicine from the inhaler to the lungs.
- A shallow breath causes less medicine to get into the lungs. For this reason, DPIs are most often used in older children and adults.
- Keep the DPI dry at all times. **Do not store it in a wet or humid place like the bathroom.**

To use a Diskus (Advair and Flovent)

1. Hold the Diskus level with 1 hand.
2. Place the thumb of the other hand on the thumb grip.
3. Push your thumb away from you until the Diskus cover opens all the way. This will open the Diskus, so you can see the mouthpiece.
4. Hold the Diskus level, and slide the lever away from you until the Diskus clicks. This will load the medicine. Keep the Diskus level, so you do not lose the medicine.
5. Hold the Diskus level and away from your mouth. Breathe out all the way. Never breathe out into the Diskus.
6. Seal your lips around the mouthpiece.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Dry powder inhaler (DPI), continued

7. Breathe in quickly and deeply. Take a full, deep breath.
8. Hold your breath for 5 to 10 seconds. This gives the medicine time to get into the airways.
9. Breathe like normal.
10. Close the Diskus by placing your thumb on the thumb grip. Pull your thumb toward you until the Diskus cover closes. This hides the mouthpiece and resets the lever.
11. Rinse your mouth, and then spit out the water.
12. Wipe the mouthpiece with a DRY, clean cloth as needed.

To use a Flexhaler (Pulmicort)

1. Unscrew the cap from the Flexhaler.
2. Hold the Flexhaler with the mouthpiece up. This lets the medicine load the right way.
3. Turn the bottom all the way to the right and back to the left. You will hear it click. This will load the medicine.
4. Hold the Flexhaler away from your mouth, and breathe out all the way.
5. Turn the Flexhaler so that it lays flat (horizontal).
6. Seal your lips around the mouthpiece.
7. Breathe in quickly and deeply. Take a full, deep breath.
8. Breathe like normal.
9. Repeat steps 1 thru 7 if your doctor wants you to take more than 1 puff.
10. Rinse your mouth, and then spit out the water.
11. Wipe the mouthpiece with a DRY, clean cloth as needed.
12. Keep the Flexhaler cap on when not in use. This will keep it clean and dry.

To use a Twisthaler (Asmanex)

1. Hold the inhaler upright with the pink base on the bottom.
2. Keep the inhaler in an upright position. Grip the base, and twist the white cap to the left (counterclockwise).
3. As you lift the cap, the dose counter counts down by 1. The arrow on the white mouthpiece should point to the dose counter.
4. Before breathing the medicine in, breathe out all the way.
5. Seal your lips around the mouthpiece.
6. Breathe in quickly and deeply while holding the mouthpiece flat (horizontal).
7. Remove the inhaler from your mouth, and hold your breath for 5 to 10 seconds.
8. Replace the cap, and twist it to the right (clockwise) until it clicks. Close the cap tightly to load the next dose.
9. Check to make sure the arrow is lined up with the dose counter.
10. Repeat steps 1 and 2 every time you take a dose.
11. Rinse your mouth, and then spit out the water.
12. Wipe the mouthpiece with a DRY, clean cloth as needed.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Dry powder inhaler (DPI), continued

To use a RediHaler (QVAR)

Be sure the white cap is closed to prepare the inhaler before each dose. Otherwise, you will not get the medicine. Do not open the cap until you are ready to use it.

When you are ready to use it:

1. Hold the inhaler upright.
2. Open the white cap that covers the mouthpiece.
3. Breathe out all the way.
4. Place the mouthpiece in your mouth. Make sure your hand does not cover the air vent on the top of the inhaler. This can block the airflow through the inhaler.
5. Seal your lips around the mouthpiece.
6. Breathe in deeply.
7. Remove the inhaler from your mouth, and hold your breath for 5 to 10 seconds.
8. Breathe out slowly.
9. Close the white cap.
10. Repeat steps 1 thru 9 if your doctor wants you to take more than 1 dose. Do not take extra doses or stop taking this medicine without talking with your doctor first.
11. Rinse your mouth, and then spit out the water.

Should I avoid taking other medicines?

Check with your doctor or pharmacist before taking any other medicines. This includes over-the-counter medicines, vitamins, herbal products or other home remedies.

Should I avoid any foods?

No, you can eat any foods that you normally eat while taking these medicines.

What else do I need to know?

- Talk with your doctor if your condition does not improve or gets worse while using these medicines.
- **Before taking these medicines**, tell your doctor if:
 - You are or may be pregnant.
 - You are breastfeeding.
 - You are taking birth control pills. DPIs may change how they work. Talk with your doctor about using other forms of birth control while taking these medicines.

What are some possible side effects?

You may have 1 or more of these:

- Acne or skin blemishes

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Dry powder inhaler (DPI), continued

- Decreased smell or taste
- Increased appetite
- Coughing. Coughing just after using the inhaler is OK. Call your doctor if it continues.
- Sore throat, hoarse voice or dry mouth
- Mild weight gain and fluid retention

When should I call the doctor?

Call your doctor if you have any of these:

- Sores or white patches in your mouth or throat
- A rash with severe (very bad) itching
- Coughing or wheezing that does not go away after using the DPI

When should I call 911?

Call 911 or go to your nearest emergency department (ED) **right away** if you have any signs of severe allergic reaction, such as:

- Hives
- Swelling of the mouth, eyes or face
- Breathing problems
- Chest tightness
- Wheezing
- Feeling faint

Also call 911 if you have any urgent concern or emergency.

What medicine safety tips should I know?

- Always read the label 3 times before you take any medicine.
- Keep all medicines in their labeled container where young children cannot get to them. If possible, store all medicines in a locked cabinet.
- Throw away all medicines after their expiration date on the container or when you finish the prescribed dose.
- Tell your doctor, dentist and the emergency department about any medicines that you are taking. Take the medicines with you.
- Call the Georgia Poison Control Center at 800-222-1222 or call 911 **right away** if someone takes too much medicine or has a bad reaction to medicine.

This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.