



Patient information: Inhalers (The Basics) Written by the doctors and editors at UpToDate

What are inhalers? — Inhalers are devices that put medicine into a form that you can inhale – or breathe in. Different inhalers have different types of medicine. In general, inhalers are used to treat lung conditions that can make it hard to breathe, such as asthma and chronic obstructive pulmonary disease (COPD). Doctors also sometimes prescribe inhalers to treat a cough caused by a lung infection called bronchitis.

If you are prescribed an inhaler, it will contain medicine to treat your specific lung problem. Some inhalers have medicines called "bronchodilators" that relax the muscles around the airways to open them up. Some have a medicine that treats inflammation.

You might need to use more than one inhaler to treat your condition. Or you might need an inhaler that has 2 medicines.

New inhaler medicines are being developed. For example, drug-makers are working on an inhaler containing an antibiotic to treat a condition that affects the lungs called cystic fibrosis.

Are there different types of inhalers? — Yes. There are 3 main types of inhaler devices, which use different technologies to deliver medicine. The 3 main types are:

- Metered dose inhalers (<u>picture 1</u>)
- Dry powder inhalers (<u>picture 2</u>)
- Soft mist inhalers (picture 3)

How do inhalers work? — Inhalers work by putting the medicine into a form that a person can breathe in. The different types of inhalers do this in different ways. Plus, inhaler technology is changing all the time, so new devices become available often.

Most metered dose inhalers spray medicine when a person presses down on the top of the canister.

Dry powder inhalers release medicine when a person takes a deep breath in from the inhaler.

Soft mist inhalers spray medicine when a person presses down on a button on the side of the inhaler.

How do I use an inhaler? — The directions for the different types of inhalers are different. Your doctor or nurse will show you how to use your inhaler.

It's important to follow all your doctor's directions when you use your inhaler, so that the medicine gets into your lungs.

One important point about metered dose inhalers is that they need to be "primed" the first time they are used. Priming involves shaking the inhaler and spraying it into the air, away from your face. The number of priming sprays is different from one inhaler to another, but 4 priming sprays are most common.

Dry powder inhalers must be kept away from humidity, so don't store them in a bathroom with a shower or bathtub.

When should I use my inhaler? — Your doctor or nurse will make a treatment plan that tells you when to use your inhaler. Some inhalers are used right away when symptoms start, to treat those symptoms. Other inhalers are used every day, to help control symptoms long-term and prevent future symptoms.

If you have any questions about when or how to use your inhaler, talk with your doctor or nurse.

More on this topic

Patient information: How to use your metered dose inhaler (adults) (The Basics)

Patient information: How to use your dry powder inhaler (adults) (The Basics)

Patient information: How to use your child's metered dose inhaler (The Basics)

Patient information: How to use your child's dry powder inhaler (The Basics)

Patient information: Medicines for asthma (The Basics)

Patient information: Medicines for chronic obstructive pulmonary disease (COPD) (The Basics)

<u>Patient information: Asthma in adults (The Basics)</u>
Patient information: Asthma in children (The Basics)

Patient information: Chronic obstructive pulmonary disease (COPD), including emphysema (The Basics)

<u>Patient information: Asthma inhaler techniques in adults (Beyond the Basics)</u>
Patient information: Asthma inhaler techniques in children (Beyond the Basics)

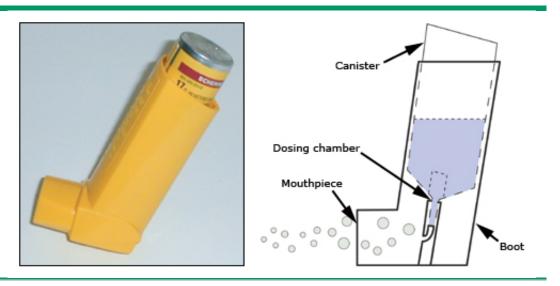
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GRAPHICS

Metered dose inhaler



Medicine is stored in the canister. When a person presses down on the top of the canister, the medicine travels through the dosing chamber and sprays out of the mouthpiece.

Graphic 61575 Version 4.0

Dry powder inhalers

Single-dose devices









Multiple-dose devices









These are pictures of different dry powder inhalers. The inhalers shown are: (A) Aerolizer, (B) HandiHaler, (C) Neohaler, (D) Tobi Podhaler, (E) Flexhaler, (F) Diskus, (G) Twisthaler, and (H) Breo Ellipta. There are two main types of dry powder inhalers, called single-dose inhalers and multiple-dose inhalers. The Aerolizer, HandiHaler, Neohaler, and Tobi Podhaler are single-dose inhalers. The others in the picture are multiple-dose inhalers.

Panels A, B, E, F, and G: Courtesy of Dean Hess, RRT, PhD.

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Soft mist inhaler



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