



## Asthma Medications

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There are many safe and effective medications that can help keep your asthma under control. To get the full benefit of these medications, it is important to take them as prescribed. Knowing how each medication works to improve your asthma symptoms is important too. Learning how to use your medications properly helps ensure that they are working the way they should. This guide will help you understand the different medications, how they work and how to use them.

### Asthma medications at a glance

There are two main types of asthma medications—controllers and relievers. Controller medications are usually used on a daily basis to control and prevent asthma symptoms. Reliever medications are taken as needed to quickly relieve asthma symptoms. Many asthma medications come as sprays or powders in inhaled delivery devices.

These devices are also called inhalers or puffers. Knowing how to use your inhaler correctly is important to make sure the medication is working as it should.

Inhalers are the best way to deliver medication directly to the lungs where they are needed. Inhaled medications have been shown to be very effective and have less side effects than pills with the same type of medication. The pills and shots (injections) that are used in asthma treatment are safe and effective. It is important to talk

to your healthcare team if you are not sure how to use your inhaler, or if you have any questions about how your asthma medication works.

Your healthcare team will want to check in with you when any change is made to your medications. Changes includes increasing or decreasing a strength or dose of inhaler.

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### Are there tools available to help me learn how to use inhalers properly?

- There are a number of inhaler demonstration videos available that have step by step instructions on how to use an inhaler properly. Inhaler demonstration videos can be watched at the [Canadian Lung Association](https://www.lung.ca).
- There are also a number of inhaler teaching sheets that have pictures and step by step instructions on how to use inhalers properly. Inhaler teaching sheets are available for download at: <https://www.lungsask.ca/healthcare-providers/resptrec-resources>.

## CONTROLLER INHALED CORTICOSTEROID MEDICATIONS

WHAT THEY DO	MEDICATION	DEVICE
<p>Inhaled corticosteroids (ICS) make the airways less sensitive to triggers by calming the airways' overactive reaction to triggers. They prevent the airway swelling and mucus and the muscles around the airway from going into spasm.</p>	<p><b>Aermony</b><sup>®</sup> - contains fluticasone propionate. It comes in more than one strength.</p>	<p><b>Respiclik</b><sup>™</sup> - dry powder inhaler</p>
	<p><b>Alvesco</b><sup>®</sup> - contains ciclesonide. It comes in more than one strength.</p>	<p>Metered dose aerosol inhaler</p>
	<p><b>Arnuity</b><sup>®</sup> - contains fluticasone furoate. It comes in more than one strength.</p>	<p><b>Ellipta</b><sup>®</sup>- dry powder inhaler</p>
	<p><b>Asmanex</b><sup>®</sup> - contains mometasone furoate. It comes in more than one strength.</p>	<p><b>Twisthaler</b><sup>®</sup> - dry powder inhaler</p>
	<p><b>Flovent</b><sup>®</sup>- contains fluticasone propionate. It comes in more than one strength and device.</p>	<p>Metered dose aerosol inhaler <b>Diskus</b><sup>®</sup> dry powder inhaler</p>
WHEN TO USE IT		
<p>Inhaled corticosteroids (ICS) are used on a daily basis for children and adults with asthma symptoms more than twice a week. They are used once or twice a day. The strength of the medication is determined by symptoms and age. Metered dose aerosol ICS inhalers should be used with a spacer.</p>	<p><b>Pulmicort</b><sup>®</sup> - contains budesonide. It comes in more than one strength.</p>	<p><b>Turbuhaler</b><sup>®</sup> - dry powder inhaler Inhalation suspension liquid for nebulization.</p>
	<p><b>Qvar</b><sup>™</sup> - contains beclomethasone. It comes in more than one strength.</p>	<p>Metered dose aerosol inhaler</p>
	<p><b>Budesonide</b> generics come in more than one strength.</p>	<p>Inhalation suspension liquid for nebulization</p>
	<p><b>Fluticasone</b> generics come in more than one strength.</p>	<p>Metered dose aerosol inhaler</p>

## COMBINATION INHALED CORTICOSTEROID AND LONG-ACTING BRONCHODILATOR MEDICATIONS

WHAT THEY DO	MEDICATION	DEVICE
<p>Combination inhalers have two medications in them, an ICS and a long-acting bronchodilator (LABA). ICS control asthma symptoms by making the airways less sensitive to triggers.</p> <p>LABAs control asthma symptoms by keeping the small muscles that wrap around the airways relaxed.</p>	<p><b>Advair®</b> - contains flutacsome propionate and salmeterol. Comes in more than one ICS strength with the same LABA strength.</p>	<p>Metered dose aerosol inhaler <b>Diskus®</b> dry powder inhaler</p>
	<p><b>Arbesda®</b> - contains flutacsome propionate and salmeterol. Comes in more than one ICS strength each with the same LABA strength.</p>	<p><b>Respiclick®</b> - dry powder inhaler</p>
	<p><b>Breo®</b> - contains fluticasone furoate and vilanterol. Comes in more than one strength of ICS each with the same ICS strength. Used once daily in adults only.</p>	<p><b>Ellipta®</b>- dry powder inhaler</p>
	<p><b>Symbicort®</b> - contains budesonide and formoterol. Comes in more than one strength of ICS each with the same LABA strength. Used for people aged 12 years old older.</p>	<p><b>Turbuhaler®</b> - dry powder inhaler</p>
WHEN TO USE IT		
<p>These combination inhalers are used in children (4 years and older) and adults who have asthma symptoms have asthma symptoms or flare-ups even with daily ICS.</p> <p>(See specific medications for age ranges that are different.) Most are taken twice a day.</p>	<p><b>Wixela™</b> - contains flutacsome propionate and salmeterol. Comes in more than one ICS strength each with the same LABA strength.</p>	<p><b>Inhub®</b> - dry powder inhaler</p>
	<p><b>Zenhale</b> - contains mometasone furoate and formoterol. It comes in more than one strength of ICS each with the same LABA strength.</p>	<p>Metered dose aerosol inhaler</p>
	<p>Generic combination flucsome propionate and salmerol. Comes in more than one ICS strength each with the same LABA strength.</p>	<p>Metered dose aerosol inhaler Dry powder inhaler</p>

## CONTROLLER ORAL LEUKOTRIENE

WHAT THEY DO	MEDICATION	DEVICE
Antileukotriene pills block the action of leukotrienes to make the airway less sensitive. They do not work as well as inhaled corticosteroids.	<b>Singulair</b> - contains montelukast. It comes in more than one strength.	Dissolvable granules for small children. Chewable tablets for older children. Tablets for adolescents and adults.
<b>WHEN TO USE IT</b>	Generic montelukast. Comes in more than one strength.	
Antileukotriene medications are taken once a day to prevent asthma symptoms. They are not as effective as ICS. Some people with mild asthma and allergy take them instead of ICS.		

## RELIEVER BRONCHODILATOR INHALERS

WHAT THEY DO	MEDICATION	DEVICE
Reliever inhalers start working within minutes by relaxing the muscles that surround your airways, allowing your airways to widen or open up. This makes it easier for you to breathe.	<b>Airomir</b> <sup>®</sup> - contains salbutamol	Metered dose aerosol inhaler
	<b>Bricanyl</b> <sup>®</sup> - contains terbutaline	<b>Turbuhaler</b> <sup>®</sup> - dry powder inhaler
	<b>Ventolin</b> <sup>®</sup> - contains salbutamol	<ul style="list-style-type: none"> <li>• Metered dose aerosol inhaler</li> <li>• <b>Diskus</b><sup>®</sup> dry powder inhaler</li> <li>• Solution for nebulizer.</li> </ul>
<b>WHEN TO USE IT</b>		
Relievers are used to provide quick relief from symptoms such as coughing, difficulty breathing, chest tightness, and wheezing. They should not be taken regularly. If you need a reliever inhaler more than twice a week to stop symptoms, speak to your healthcare team.	Generic salbutamol	Metered dose inhaler. Solution for nebulization

## CONTROLLERS BIOLOGIC INJECTIONS

WHAT THEY DO	WHEN TO USE IT	MEDICATION	DEVICE
<p>Biologic medications work to block specific allergy related antibodies (IgE), molecules (IL-5, IL-4, IL-14 , or cells (eosinophil) that cause airway inflammation and asthma symptoms.</p>	<p>This medication is used for those aged 6 and older who</p> <ul style="list-style-type: none"> <li>• have positive skin allergy test and</li> <li>• asthma is not controlled with ICS</li> </ul>	<p><b>Xolair®</b> (Anti-IgE medication) – dose and frequency based on blood levels of IgE. It comes in different strengths.</p>	<p>Injection/shot</p>
	<p>This medication is used for adults with asthma and high blood eosinophil count.</p>	<p><b>Cinquir™</b> (IL-5 inhibitor) – dose is based on weight. Given every month.</p>	<p>Intravenous (IV)</p>
	<p>This medication is used for adults with asthma and high blood eosinophil count.</p>	<p><b>Fasenra®</b> (Anti-eosinophil) single dose given every four weeks initially then every 8 weeks.</p>	<p>Injection Self-injection</p>
	<p>This medication is used for people with asthma who have high blood eosinophil count and are:</p> <ul style="list-style-type: none"> <li>• children (ages 6-17) with moderate asthma that is not controlled with combination inhaler, or</li> <li>• adults with severe asthma not controlled with combination inhaler.</li> </ul>	<p><b>Nucala™</b> (Anti-eosinophil) – dose depends on age (6-11: 40mg; 12 and older: 100mg). Given monthly.</p>	<p>Injection Self-injection</p>
	<p>This medication is used for people aged 12 and older who cannot control their asthma symptoms with combination inhalers and who have with high blood eosinophil count. It is also used to treat nasal polyps and eczema.</p>	<p><b>Dupixent®</b> (Anti-IL4/IL13) – dose depends on age. Given every two weeks.</p>	<p>Injection Self-injection</p>

## OTHER MEDICATIONS

WHAT THEY DO	WHEN TO USE IT	MEDICATION	DEVICE
Combination inhaler containing an ICS and LABA.	This inhaler can also be used as a reliever as its LABA works quickly, unlike the others. No other combination inhaler can be used as a rescue inhaler.	<b>Symbicort®</b> - contains budesonide and formoterol. Comes in more than one strength of ICS each with the same LABA strength. Used for people aged 12 years old and older.	<b>Turbuhaler®</b> - dry powder inhaler
This long-acting muscarinic (LAMA) medication slowly opens the airways to help control asthma. It continues to work for 24 hours.	This LAMA is used once a day when asthma is not controlled by a combination inhaler.	<b>Spiriva®</b> - contains tiotropium. Comes in one strength.	<b>Respimat®</b> - metered dose aerosol inhaler
Corticosteroid medications are used to reduce the inflammation and prevent asthma symptoms. They have many side effects if used for long periods.	Corticosteroid medications are sometimes taken for a few days at high doses to treat a moderate to severe asthma flare-up. A few people need to take it at a low dose every day or every other day for severe asthma.	These medications come in pills of and oral liquids various strengths.	Dexamethasone, methylprednisolone and prednisone pills for older children and adults. Oral liquid dexamethasone and prednisolone for younger children.

### References:

- 1. Yang CL, Hicks EA, Mitchell P, et al. Canadian Thoracic Society 2021 guideline update: Diagnosis and management of asthma in preschoolers, children and adults. *Can J Respir Crit Care Sleep Med.* 2021. DOI:
- 2. Yang CL, Hicks EA, Mitchell P, et al. 2021 Canadian Thoracic Society Guideline – A focused update on the management of very mild and mild asthma. *Can J Respir Crit Care Sleep Med.* 2021;5(4). doi:10.1080/24745332.2021.1877043.
- 3. Loughheed MD, Lemiere C, Dell SD, et al. Canadian Thoracic Society Asthma Management Continuum – 2010 Consensus Summary for children six years of age and over, and adults. *Can Respir J.* 2010;17(1):15-24.
- 4. Taking Control: A Guide to Living with Asthma