

What if I miss a dose?

Use the missed dose as soon as you remember. Skip the missed dose if it is almost time for your next dose.

Do not double the dose.

How to store?

♥ Store in a cool, dry place and away from direct heat and light.

♥ Precaution of storage of metered-dose inhaler

- The metal canister should not be stored separately from the plastic holder.
- The metal canister contains compressed gas. Do not puncture and keep away from heat to avoid hazard.

♥ Keep out of reach of children.

♥ Discard all medications that are expired or no longer required.

♥ Do not share the medication with other people.

Common mistakes when using metered-dose inhalers:

Common mistakes	Consequences
● Not shaking your inhaler before use	● Insufficient amount of medication is released from the inhaler
● Not holding the inhaler in upright position during use	● Insufficient amount of medication is released from the inhaler
● The mouthpiece is blocked by teeth or tongue during use	● Insufficient amount of medication is inhaled into the lung
● Not breathing in steadily and deeply when pressing down the top of the inhaler	
● Not holding your breath (for about 10 seconds) after inhalation	● There is not enough time for the medication to exert therapeutic effect in the lung

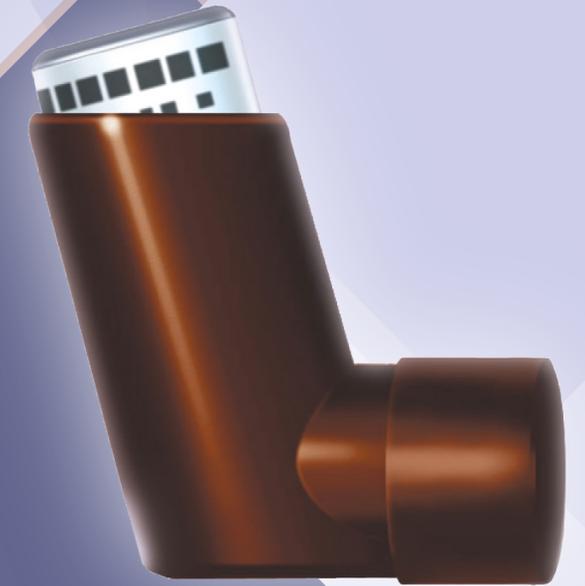
Pharmacist's advices

1. To control asthma effectively, you should:
 - Use the medications as directed. Do not stop using the medications or change the dose or frequency unless directed by your doctor.
 - Learn how to use the inhalation medications correctly (please refer to the relevant leaflets).
 - Avoid contact with common asthma triggers which make asthma worse, such as pollen or cold air.
2. If you have been prescribed with both bronchodilator and corticosteroid inhaler, you should use the bronchodilator first as it helps dilate the airway and allow the corticosteroid to reach the lungs more effectively.
3. Without medical advice, patients with severe asthma should avoid using aspirin or non-steroidal anti-inflammatory drugs because these medications may trigger an asthma attack. Please consult your doctor or pharmacist before using any other medications.
4. If you have history of drug allergy, consult your doctor or pharmacist before using the medications.
5. Tell your doctor and pharmacist if you are pregnant, planning to become pregnant, or breastfeeding.
6. Consult your doctor before using any other medications, including health supplements, Traditional Chinese Medicine, Proprietary Chinese Medicines and over-the-counter medications.
7. Please consult your doctor or pharmacist if you encounter any difficulties in using the medications.
8. Please consult your doctor if symptoms persist or worsen after using the medications.

**? For any query,
please seek advice from your doctor,
pharmacist or other healthcare
professionals.**

S/N: 008Ev1 (10/2017)

Medications for Asthma – Metered-dose Inhalers



藥劑職系及服務統籌委員會
COC-Grade (Pharmaceutical Services)



醫院管理局
HOSPITAL
AUTHORITY

What is asthma?



Asthma is a chronic respiratory disease which is caused by hypersensitivity of the airway. Inflammation of the airway causes swelling of the airway muscle and excessive mucus secretion which leads to narrowing of airway and shortness of breath. Although asthma cannot be cured, there are many medications that can prevent and control the symptoms. Therefore, patients should use their medications as directed.

How is asthma treated



There are two main types of medications for the treatment of asthma:

- (i) Long-term control medications "Preventer" – long-term use is required for these medications to be effective. A common example is inhaled corticosteroid which is used to prevent asthma attack by reducing airway inflammation.
- (ii) Quick relief medications "Reliever" – used to relieve symptoms of asthma. Owing to the rapid effect on relieving wheezing or breathlessness by short-acting bronchodilator, patients may think that asthma can be controlled solely by using this type of medications. In fact, overreliance on this type of medications may neglect the importance of long-term control medications and lead to poor asthma control. Hence, patients should use their long-term control medications regularly as directed to prevent asthma attack.

Most medications for asthma are delivered via inhalation, allowing the medications to reach the bronchi directly, rendering rapid therapeutic effect while reducing side effects. On the other hand, oral medications take longer to demonstrate therapeutic effect and side effects are more common. Oral medications are generally used in patients with intermittent attacks or inability to use inhalation devices effectively. In severe disease, oral medications can also be used along with inhalation medications to optimise the therapeutic effect.

Use of metered-dose inhaler for asthma medications:

There are a variety of inhalation devices, including dry-powder inhaler, metered-dose inhaler, nebulizers, etc. Metered-dose inhaler is the most commonly used inhalation device. These inhalation devices deliver medications to reach the bronchi directly, rendering rapid therapeutic effect while reducing side effects. Common side effects of inhaled corticosteroids include dry mouth, hoarseness and sores or white patches in the mouth or throat. Rinse mouth with water after use can reduce these side effects.

Medications used in metered-dose inhalers include:

(Please refer to the relevant leaflets for other types of inhalers.)

Quick relief medications "Reliever"	Long-term control medications "Preventer"
<ul style="list-style-type: none"> ● Beta-agonists (Short-acting inhaler) e.g. Salbutamol ● relieve symptoms of asthma only ● Rapidly dilate the airway and soothe breathing ● If you need to use this inhaler frequently, please inform your doctor, as it may indicate your condition has not been controlled effectively ● Carry with you at all times 	<ul style="list-style-type: none"> ● There are two types, namely: <ol style="list-style-type: none"> i) Inhaled corticosteroids e.g. Budesonide, Beclomethasone, Fluticasone. It can relieve airway inflammation and prevent asthma attack ii) Beta-agonists (Long-acting inhaler) e.g. Salmeterol, Formoterol. It can dilate the airway up to 12 hours and usually use together with inhaled corticosteroid. ● You should not stop using these medications even your symptoms improve

How to use?

Note: You must use the inhalers properly in order to control asthma effectively. Improper use of inhalers can result in underdosing or overdosing.

Your metered-dose inhaler must be primed before using for the first time:

- (a) Follow step (1) to (3), remove the mouthpiece cover and shake the inhaler well
- (b) Release 2 sprays into the air, shake well before each spray *

* the "priming" method may vary among inhalers, please refer to the instruction of individual inhaler

1. Remove the mouthpiece cover



2. Hold the inhaler in upright position (with the mouthpiece down)
3. Shake the inhaler well

4. Breathe out as far as is comfortable

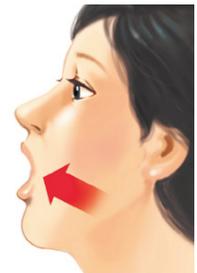


5. Place the mouthpiece in your mouth between your teeth and close your lips around it
6. Just after starting to breathe in through your mouth, press down on the top of the inhaler to release the medication while still breathing in steadily and deeply



7. Hold your breath for ten seconds

8. Exhale slowly through your mouth



If you need to take more than 1 puff:

9. Wait about half a minute and repeat steps (3) to (8)



10. Replace the mouthpiece cover by snapping the cap into position

Rinse mouth with water after using inhaled corticosteroids to reduce side effect.