

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 scheduled 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.

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.**

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Medications for Asthma



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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.

Medications for Asthma

Classes of medications	Action	Common side effects	Precautions
Long-term control medications "Preventer"			
Corticosteroids Inhalation Beclomethasone, Budesonide, Ciclesonide, Fluticasone Oral Prednisolone	Relieve airway inflammation and prevent asthma attack	Inhalation Dry mouth, hoarseness, sores or white patches in your mouth or throat Oral (long-term use) Weight gain, adverse effect on bone density, blood sugar and blood pressure. Side effects will subside after stopping the medication	Inhalation Rinse mouth with water after use. Oral To be taken in the morning with food. Need to be taken for long-term. Do not stop treatment abruptly to prevent adverse reactions especially if long-term use of high dose therapy.
Beta-agonists Long-acting inhaler Salmeterol, Formoterol, Vilanterol Controlled release oral tablet Terbutaline	Dilate the airway and prevent asthma attack	Inhalation Less severe compared to oral medications Oral Nervousness, severe headache, severe muscle cramps, severe tremors	Inhalation Overdose can increase the risks of side effects. Oral Controlled release tablets must be swallowed whole and not to be chewed.
Xanthine (oral) Theophylline	Dilate the airway and prevent asthma attack	Trouble sleeping, nausea, repeated vomiting, headache, restlessness	* The controlled release formulations of theophylline must not be chewed. * Symptoms of overdose may include nausea, severe vomiting, fast heartbeat, seizure and headache etc.
Leukotriene receptor antagonists (oral) Montelukast	Suppress factors which cause airway inflammation and constriction	Headache, cough	
Quick relief medications "Reliever"			
Beta-agonists (Short-acting inhaler) Salbutamol, Terbutaline	Rapidly dilate the airway and soothe breathing. Relieve the symptoms of asthma attack	Less severe compared to oral medications	* Carry with you at all times. * Overdose can increase the risks of side effects. * If your symptoms do not subside or worsen after using this inhaler, please seek medical attention immediately. * If you need to use this inhaler more frequently than instructed, please check with your healthcare professionals to see if you are using it properly. Please inform your doctor if needed, as it may indicate your condition has not been controlled effectively.
Corticosteroids (oral) Prednisolone	Relieve airway inflammation	Increased appetite, weight gain, high blood pressure, edema, insomnia, affected mood. Side effects will subside after stopping the medication	* To be taken in the morning with food. * For short-term use only.
If you notice any allergic reactions like skin itchiness, face or hand swelling, breathing difficulty etc., consult your doctor immediately.			