

# Pills and Puffers

**Bronchodilators:** This group of medications helps to open up the airways. There are two main types: **beta-agonists** and **anticholinergics**.

## Beta-Agonists

Short Acting	Long Acting
<ul style="list-style-type: none"><li>• Rescue medication, reliever</li><li>• Acts within 5 minutes</li><li>• Lasts 4-6 hours</li></ul>	<ul style="list-style-type: none"><li>• Maintenance medication</li><li>• Lasts 12-24 hours</li></ul>
Examples: Ventolin®, Bricanyl Turbuhaler®	<ul style="list-style-type: none"><li>• Examples: Onbrez Breezhaler®, Oxeze Turbuhaler®, Foradil Aerolizer®, Serevent Diskus®</li></ul>
Side Effects: ask your health care professional for a full list	
<ul style="list-style-type: none"><li>• rapid heart beat</li><li>• shaky hands</li><li>• irritability</li></ul> <p>These side effects are especially noticeable when you use rescue inhalers multiple times a day.</p>	

## Anticholinergics

Short Acting	Long Acting
<ul style="list-style-type: none"><li>• Acts within 15 minutes</li><li>• Lasts 4-6 hours</li><li>• Can be used with Ventolin® to help relieve shortness of breath</li></ul>	<ul style="list-style-type: none"><li>• Acts within 20 minutes</li><li>• Lasts 12-24 hours</li></ul>
Example: Atrovent®	Examples: Spiriva Handihaler®, Spiriva Respimat®, Incruse Ellipta®, Seebri Breezhaler®, Tudorza Genuair®
Side Effects: ask your health care professional for a full list	
<ul style="list-style-type: none"><li>• dry mouth</li><li>• constipation</li><li>• urinary retention</li></ul>	

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**Anti-Inflammatories:** These medications reduce inflammation in the lungs when taken regularly.

## Corticosteroids

Inhaled Corticosteroids	Examples
<ul style="list-style-type: none"><li>Used to improve symptoms and lung function in asthma</li><li>Used to prevent/reduce symptoms for those with severe disease or frequent flare-ups</li></ul>	Alvesco®, Arnuity Ellipta®, Flovent®, Pulmicort Turbuhaler®, QVAR®
Side Effects: ask your health care professional for a full list	
<ul style="list-style-type: none"><li>sore mouth</li></ul>	<ul style="list-style-type: none"><li>hoarse voice</li><li>thrush</li></ul>
Rinse mouth after use to prevent/minimize side effects.	

**Combination Inhalers:** There are now many combinations of inhalers available on the market to make medication taking more convenient. The right inhaler for you is chosen based on your clinical history.

## Combination Inhalers

Steroid with long acting beta-agonist		
<ul style="list-style-type: none"><li>Advair Diskus®</li><li>Advair Metered Dose Inhaler®</li></ul>	<ul style="list-style-type: none"><li>Breo Ellipta®</li><li>Symbicort Turbuhaler®</li></ul>	<ul style="list-style-type: none"><li>Zenhale Metered Dose Inhaler®</li></ul>
Long acting beta-agonist with long acting anticholinergic		
<ul style="list-style-type: none"><li>Inspiralto Respimat®</li><li>Anoro Ellipta®</li></ul>	<ul style="list-style-type: none"><li>Duaklir Genuair®</li><li>Ultibro Breezhaler®</li></ul>	
Short acting beta-agonist and short acting anticholinergic		
<ul style="list-style-type: none"><li>Combivent Respimat®</li></ul>		
Combination steroid with long acting beta-agonist and long acting anticholinergic		
<ul style="list-style-type: none"><li>Trelegy Ellipta®</li></ul>		

# Pills and Puffers

## Which inhaler do I use first?

- In general, use short-acting inhalers first (example: Atrovent®, Ventolin®) as this will open up your airways and allow your next inhaled medication to get deeper into the lungs.
- Use long-acting inhalers next.
- Use inhalers containing a steroid last (example: Advair®, Flovent®).

## How long between puffs?

- Wait 30–60 seconds between puffs if you are using a metered dose inhaler (example : Atrovent®, Ventolin®, Zenhale®).
- Wait 5 minutes when switching to a different inhaler.

Theophyllines		Examples
<ul style="list-style-type: none"><li>• Tablet forms of bronchodilators</li><li>• Add-on therapy when puffers alone are not enough to control symptoms</li><li>• Use limited by side effects, presence of drug interactions, and the need for monitoring via blood levels</li></ul>		Uniphyll® (lasts 24 hours)  Theo-Dur® (lasts 6-12 hours)
Side Effects: ask your health care professional for a full list		
<ul style="list-style-type: none"><li>• nervousness</li><li>• palpitations</li></ul>	<ul style="list-style-type: none"><li>• poor sleep</li><li>• loss of appetite</li></ul>	<ul style="list-style-type: none"><li>• headache</li><li>• agitation</li></ul>
See your doctor if you develop: nausea/vomiting, heart irregularities, seizures		

## Exacerbations

Predisone	Side Effects
<ul style="list-style-type: none"><li>• Always take as prescribed by your doctor</li><li>• Never stop abruptly without your doctor or pharmacist's advice</li><li>• Best to take in the morning with food to minimize impact on sleep and stomach upset</li></ul>	<ul style="list-style-type: none"><li>• Bruising</li><li>• Weight gain</li><li>• Weakening of bones</li><li>• Increased blood sugar</li><li>• Poor wound healing</li><li>• Poor sleep</li></ul>
Antibiotics	
<ul style="list-style-type: none"><li>• Can be added if you have an exacerbation and experience fever, increased sputum, and a change in the color of your sputum</li></ul>	<ul style="list-style-type: none"><li>• Depends on the antibiotic</li></ul>