

PHARMACY

Drug Information

Medications To Treat Chronic Obstructive Pulmonary Disease (COPD)



What is Chronic Obstructive Pulmonary Disease (COPD)?

- Chronic Obstructive Pulmonary Disease (COPD) is a long-term condition where narrowed airways cannot go back to its normal size. This condition usually worsens over time.
- COPD also known as Chronic Obstructive Lung Disease (COLD) is a term used to refer to chronic respiratory diseases including chronic bronchitis and emphysema. In these conditions, there is obstruction to air flow in the airways of the lungs. This prevents you from breathing normally.
- In chronic bronchitis, there is inflammation of the airways (bronchi) of the lungs over a long period of time. In emphysema, there is damage to the smaller airways (bronchioles) and air sacs (alveoli) of the lungs. Most people with COPD / COLD have a mix of both bronchitis and emphysema.

What are the Medications Used to Treat Chronic Obstructive Pulmonary Disease (COPD)?

Medication Class	Medication Name	Mode of Action
Short-acting beta-agonist inhaler	Salbutamol	<ul style="list-style-type: none"> • Reliever (to quickly relieve shortness of breath). • Can be used when you experience shortness of breath.
Short-acting muscarinic antagonist inhaler	Ipratropium	<ul style="list-style-type: none"> • Reliever (to quickly relieve shortness of breath). • Takes a longer time to feel the effect of medication compared to short-acting beta-agonist inhaler.

Medication Class	Medication Name	Mode of Action
Short-acting beta-agonist / short-acting muscarinic antagonist combination inhaler	Fenoterol / Ipratropium (Berodual®)	<ul style="list-style-type: none"> • Reliever (to quickly relieve shortness of breath). • Can be used when you need to or regularly, depending on how often you experience your symptoms and how serious they are.
Long-acting muscarinic antagonist inhaler	<ul style="list-style-type: none"> • Tiotropium (Spiriva Respimat®) • Umeclidinium (Incruse Ellipta®) 	<ul style="list-style-type: none"> • Controller (to help control symptoms over time). • Improves lung function • Decreases shortness of breath and symptoms of COPD. • Recommended if your symptoms are not controlled well with other medications, such as short-acting bronchodilators.
Long-acting muscarinic antagonist with long-acting beta agonist combination inhaler	<ul style="list-style-type: none"> • Tiotropium / Olodaterol (Spiolto Respimat®) • Umeclidinium / Vilanterol (Anoro Ellipta®) • Indacaterol / Glycopyrronium (Ultibro Breezhaler®) 	<ul style="list-style-type: none"> • Controller (to help control symptoms over time). • Used when your symptoms are not controlled well with one medication.

Medication Class	Medication Name	Mode of Action
Long-acting beta-agonists with inhaled corticosteroid combination inhaler	<ul style="list-style-type: none"> • Salmeterol / Fluticasone (Seretide Evohaler® / Seretide Accuhaler®) • Budesonide / Formoterol (Symbicort Turbuhaler®) • Fluticasone / Vilanterol (Relvar Ellipta®) 	<ul style="list-style-type: none"> • Controller (to help control symptoms over time). • Keeps your airways open and reduces inflammation of your airways.
Methylxanthines	Theophylline	<ul style="list-style-type: none"> • Helps with shortness of breath.
Inhaled corticosteroid inhaler	<ul style="list-style-type: none"> • Beclomethasone (Becotide®, Becloforte®) • Budesonide (Pulmicort®) 	<ul style="list-style-type: none"> • Corticosteroids are a type of steroids that help to prevent inflammation of the airways and decrease production of mucus. Inhaled corticosteroids and oral corticosteroid (in the form of pills) are the two main types used to treat COPD / COLD.
Oral steroids	Prednisolone	<ul style="list-style-type: none"> • Corticosteroid pills are sometimes prescribed when you suddenly experience severe symptoms or if your symptoms worsen.

Medication Class	Medication Name	Mode of Action
Mucolytics	<ul style="list-style-type: none"> Acetylcysteine Bromhexine 	<ul style="list-style-type: none"> Mucolytics helps you cough out your phlegm more easily.
Oxygen	-	<ul style="list-style-type: none"> This may help people with severe symptoms. Your doctor may require you to go for blood tests and lung function tests to determine whether oxygen therapy will be useful for you. If your doctor finds you suitable, regular oxygen therapy can help decrease your symptoms and extend your life. You must not smoke while on oxygen therapy as it can lead to fatal fires.

What are the Important Side Effects of COPD Medications?

- Medications prescribed by your doctor should be beneficial for your condition even though they may result in some side effects.
- Serious side effects are not common, but it is important that you recognise the side effects of your COPD medication(s) and know how to manage them.
- Always inform your doctor if you experience any side effects.

Medication Class	Side Effect	Management
Beta-agonist	<ul style="list-style-type: none"> Hand tremors (trembling that cannot be controlled) Headache Muscle cramps Palpitations (feeling that your heart is racing) 	<ul style="list-style-type: none"> These effects should go away over time. Inform your doctor if these side effects become severe or irritates you.
Muscarinic antagonist inhaler	<ul style="list-style-type: none"> Dry mouth Nausea Constipation Headache 	<ul style="list-style-type: none"> Inform your doctor if these side effects become severe or irritates you.

How Are COPD Medications Administered / Taken?

- If you miss a dose, take the missed dose as soon as you remember. If it is almost time for your next dose, take only the usual dose. Do not double the dosage.

Can COPD Medications be Administered / Taken With Other Medications?

- Please inform your doctor, pharmacist or nurse if you are taking other medications, including supplements, traditional or herbal remedies as they may affect the way you benefit from your COPD medications.

Medication Class	Side Effect	Management
Methylxanthines	<ul style="list-style-type: none"> • Nausea and discomfort in your stomach • Headache • Insomnia (difficulty in falling asleep) • Warning signs of toxicity (if you take more than your dose): vomiting, rapid or irregular heartbeat or seizures 	<ul style="list-style-type: none"> • If discomfort in your stomach becomes severe, you can take this medication after meals. • Seek medical attention immediately if you experience vomiting, rapid or irregular heartbeat or seizures. • Do not exceed your prescribed dose.
Inhaled steroids	<ul style="list-style-type: none"> • Hoarseness of voice, ulcers and fungal infection of the mouth or throat 	<ul style="list-style-type: none"> • Rinse your mouth with water after inhalation to prevent fungal infection in your mouth. Spit out and do not swallow the water after rinsing your mouth.

Medication Class	Side Effect	Management
Oral steroids	<ul style="list-style-type: none"> • Discomfort in your stomach • Mood changes <p><u>If you are taking steroid pills over a long time or at a high dose:</u></p> <ul style="list-style-type: none"> • You may be at greater risk of infections with signs of persistent sore throat, fever, mouth ulcers or flu-like symptoms • You may have higher blood pressure and blood sugar level • Weight gain, "moon face" (rounded appearance of the face due to fat deposits on the sides of the face) • Osteoporosis (weak bones) 	<ul style="list-style-type: none"> • Take oral steroids after food to minimise stomach discomfort. • Inform your doctor if these side effects do not go away after a long time, become severe or irritate you. • Your doctor will monitor your clinical parameters e.g. blood pressure, blood glucose, weight and bone mineral density if you are taking long-term steroid pills.

If you develop rashes, swelling in your face or shortness of breath after taking COPD medications, you could be allergic to the medication. Please seek medical attention immediately.

Are There any Special Precautions That I Need to Take?

- It is important to inform your doctor if you intend to conceive or breastfeed while taking this medication.

What Else can I do to Help My Condition?

- **Stop smoking.** The first and most important part of any COPD treatment plan is to stop smoking. While the damaged airways cannot go back to its healthy state, not smoking slows the progression of the disease. Please speak to your doctor, pharmacist or nurse if you need help to quit smoking.
- **Vaccination.** People with COPD may develop more serious symptoms if they get infections in their lungs. You can avoid infections by taking influenza and pneumococcal pneumonia vaccines. Please speak to your doctor, pharmacist or nurse for more information, or if you are keen to receive vaccinations.
- **Pulmonary rehabilitation.** Pulmonary rehabilitation (or "pulmonary rehab") programs teach you ways to help improve your symptoms. This may involve education about your condition, exercise training, social support, and instruction on breathing techniques. Please speak to your doctor or nurse if you are keen to be enrolled to the pulmonary rehab program.

How do I Store COPD Medications?

- Store your medication in a cool, dry place away from heat, moisture and direct sunlight.

If you have any problems with your treatment, please contact your doctor, pharmacist or nurse clinician.

Please keep all medications out of reach of children.



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