

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 chronic condition characterised by airway narrowing that is not fully reversible and usually worsens over time.
- COPD can include chronic bronchitis and emphysema. Chronic bronchitis involves inflammation and swelling of the lining of the airways that leads to narrowing and obstruction of the airways, while emphysema is a condition where there is damage to the smaller airways and air sacs of the lungs due to exposure to harmful gases or particulate matter such as cigarette smoke.

What are the Medications Used to Treat COPD?

- COPD is a progressive condition with no current cure. However, medications can control symptoms, reduce the risk of complications and improve quality of life.

Medication Class	Medication Name	Mode of Action
Short-acting bronchodilator inhalers	<ul style="list-style-type: none"> • <i>Short-acting beta-2 agonist</i>: Salbutamol • <i>Anticholinergic</i>: Ipratropium (Atrovent) • <i>Short-acting beta-2 agonist/ anticholinergic</i>: Fenoterol/ ipratropium (Berodual) 	<ul style="list-style-type: none"> • These medications work to relax the airway muscles, thus widening the airways. • Short-acting bronchodilators are recommended as first line therapy to relieve symptoms of breathlessness.
Long-acting bronchodilator inhalers	<ul style="list-style-type: none"> • Tiotropium (Spiriva Respimat) 	
Methylxanthines	<ul style="list-style-type: none"> • Theophylline 	<ul style="list-style-type: none"> • Long-acting bronchodilators may be added to the treatment regimen when symptoms are not controlled with short-acting inhaled bronchodilators alone.

Steroids	<ul style="list-style-type: none"> • Beclomethasone (Becotide, Becloforte) • Budesonide (Pulmicort) 	<ul style="list-style-type: none"> • Steroids have anti-inflammatory properties. • Inhaled steroids are recommended if your symptoms are not completely controlled with bronchodilators. • Oral steroids are sometimes used for short-term management for acute flare of COPD.
Oral steroids	<ul style="list-style-type: none"> • Prednisolone 	
Mucolytics	<ul style="list-style-type: none"> • Acetylcysteine • Bromhexine 	<ul style="list-style-type: none"> • Mucolytics are often used to loosen up the mucus, hence making it easier to cough out the phlegm.
Combination products	<ul style="list-style-type: none"> • Salmeterol/Fluticasone (Seretide Evohaler/ Accuhaler) • Budesonide/Formoterol (Symbicort Turbuhaler) • Indacaterol/ Glycopyrronium (Ultibro Breezhaler) • Tiotropium/Olodaterol (Spiolto Respimat) 	<ul style="list-style-type: none"> • Inhalers containing both bronchodilator and steroids are recommended for those who require both components for maintenance treatment for COPD.
Oxygen	-	<ul style="list-style-type: none"> • People with advanced COPD can have low oxygen levels in the blood. Oxygen therapy can improve shortness of breath and may prolong life.

How are the 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. Never take a double dosage to make up for the missed dose.

Can the Medications be Administered / Taken With Other Medications?

- It is important that you inform the doctor, pharmacist or nurse about other medications – including over-the-counter medications, supplements and traditional/herbal remedies – that you are currently taking, as they may affect the way you benefit from your COPD medications.

What are the Important 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 Effects	Management
Beta-2 agonist	<ul style="list-style-type: none"> • Fine tremors (particularly in the hands) • Nervous tension • Headache • Muscle cramps • Palpitations 	<ul style="list-style-type: none"> • These effects should go away over time. • Inform your doctor if these side effects become severe or bothersome.
Anticholinergic	<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 bothersome.
Methylxanthines	<ul style="list-style-type: none"> • Nausea and gastro-intestinal disturbances • Headache • Insomnia 	<ul style="list-style-type: none"> • If stomach upset is severe, medication can be taken after meals. • Seek medical attention immediately if you

	<ul style="list-style-type: none"> Irregular/ rapid heartbeat Potential for toxicity with signs of vomiting, rapid or irregular heart beat or seizures, if not used as prescribed 	<p>experience vomiting, rapid or irregular heart beat or seizures.</p> <ul style="list-style-type: none"> Do not exceed 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 mouth with water after inhalation to prevent oral fungal infection. Spit out and do not swallow the water after rinsing your mouth.
Oral steroids	<ul style="list-style-type: none"> Gastrointestinal irritation Mood changes <p><u>For long-term or high dose steroids:</u></p> <ul style="list-style-type: none"> Increased susceptibility to infections with signs of persistent sore throat, fever, mouth ulcers or flu-like symptoms Increased blood pressure and blood glucose Weight gain, “moon face” (rounded appearance of the face due to fat deposits on the sides of the face) Osteoporosis 	<ul style="list-style-type: none"> Take oral steroids after food to minimise gastric side effects. Inform your doctor if these side effects are persistent, severe or bothersome. Clinical parameters e.g. blood pressure, blood glucose, weight and bone mineral density will be monitored regularly if you are taking long-term oral steroids.

If you develop rashes, facial swelling or shortness of breath after taking the medication, 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 damage done to the airways cannot be reversed, smoking cessation slows the progression of the disease. Please speak to your doctor or pharmacist if you need help to quit smoking.
- Vaccination. People with COPD are at risk for worsening symptoms as a result of respiratory infections. Infections may be avoided with vaccination against influenza and pneumococcal pneumonia. Please speak to your doctor for more information, or if you are keen to receive vaccinations.
- Exercise. Regular exercise helps to ease symptoms and improve your breathing as well as your quality of life.

How do I Store These Medications?

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

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

Please keep all medications out of reach of children.

