

Living Well with COPD

A Patient's Guide to
Chronic Obstructive
Pulmonary Disease
(COPD)





COPD & YOU

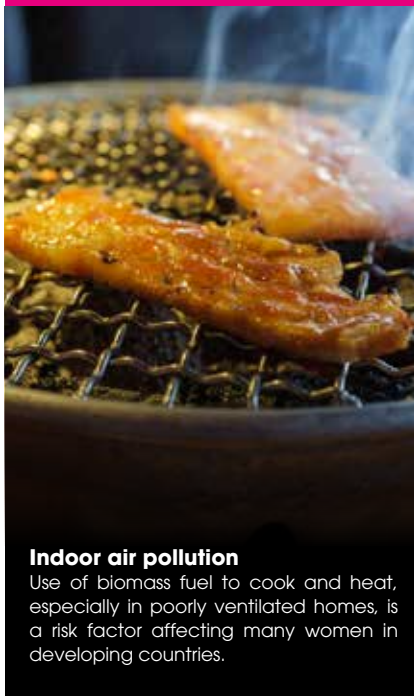
If you have been diagnosed with chronic obstructive pulmonary disease (COPD), it means that you have a respiratory disorder that blocks the airflow in your lungs and makes breathing difficult.

There is no cure for COPD. The damage caused by this disease on your lung tissues cannot be reversed. Fortunately, with the right medication and a healthy lifestyle, you can slow down the process and have a fairly normal life.

What causes COPD?

Tobacco smoke causes 90% of all COPD cases.

- If you are a smoker, your first priority is to stop smoking.
- You will enjoy the positive benefits of your medications and a healthy lifestyle only after you quit smoking.
- If you have friends and family members who smoke, it's time to help them quit as well!



Indoor air pollution

Use of biomass fuel to cook and heat, especially in poorly ventilated homes, is a risk factor affecting many women in developing countries.



Occupational dusts and chemicals

Intense and prolonged exposure to vapours, irritants and fumes can increase your risk of COPD.



Outdoor air pollution seems to have a relatively small impact on your risk of COPD. However, it can contribute to the lungs' total burden of inhaled particles. You should minimise your exposure whenever possible.

Do you know?

The World Health Organization (WHO) estimated in 2004 that:

- There were 64 million people who had COPD.
- 3 million had died of COPD.
- COPD would become the third leading cause of death worldwide by 2030.

While the numbers may seem alarming, there are actually many people with COPD who are living active lives, thanks to proper medication and healthy lifestyle.

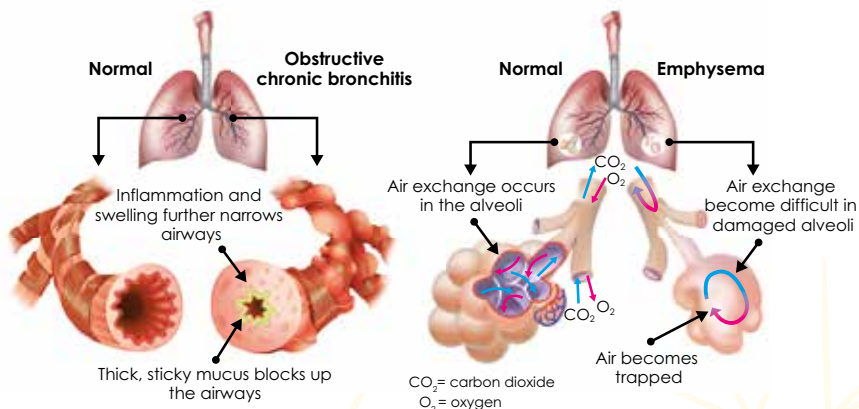
You, too, can be one of these people. This booklet contains important information and tips that will help you live well with COPD.

How COPD affects you

In COPD, air pollutants such as those found in tobacco smoke cause damage to your lungs. Your body responds by increasing the production of neutrophils, macrophages and lymphocytes (cells that help destroy foreign materials in your body). The resulting inflammation affects your ability to breathe by causing changes such as:

- Excessive secretion of a mucus-like substance called sputum (phlegm).
- Narrowing of small airways, making it difficult for air to travel in and out of the lungs.
- Damage to the air sacs (alveoli) in your lungs, causing the walls to break down. This condition is called emphysema. As a result, less oxygen is absorbed from the lungs into the blood circulation.
- Narrowing of lung blood vessels, giving rise to pulmonary hypertension (a type of high blood pressure that affects the arteries in your lungs and the right side of your heart). This can affect your heart function.
- As COPD progresses, your lungs cannot empty fully due to increasingly narrow airways. Gas remains trapped in the lungs, causing over-expansion of the lungs and making breathing more difficult.

Obstructive chronic bronchitis and/or emphysema



What you may experience when you have COPD

- Shortness of breath, especially during physical activities*
- Persistent (chronic) cough that produces thick sputum that is clear, white, yellow or green*
- Tight feeling in your chest
- Wheezing and having to clear your throat first thing in the morning
- Blueness around your lips or in the beds of your fingernails (cyanosis) when your COPD deteriorates
- Frequent infections of your airways and lungs

*If you have these two symptoms, you should consult a doctor. A lung function test (spirometry) will be performed to confirm a diagnosis of COPD.

Is there a cure?

Unfortunately, there is no cure. This disease causes permanent narrowing and damage to your airways, and the symptoms may become worse with time if you continue to be exposed to air pollutants and smoke. (This is why, if you smoke, you need to quit the habit!)

Don't lose hope, however. You can make changes in your lifestyle that, together with your medications, would help you live a fairly healthy life while slowing down or halting the progress of the disease.

This guide will help you understand your condition and make those changes to improve your quality of life.

COPD or asthma?

COPD may seem similar to asthma, but the two conditions are actually very different. The following features differentiate COPD from asthma.

COPD	Asthma
COPD patients experience permanent damage to their airways and lungs.	Permanent damage to the lungs is very rare.
Caused primarily by air pollution. Tobacco smoking is responsible for 90% of all COPD cases. Other factors include age and genetics.	Genetics and exposure to allergens are thought to be the main causes of asthma.
COPD flare-ups usually occur as a result of respiratory tract infection.	Asthma attacks are usually triggered by exposure to allergens such as dust and pollens.
Usually occurs in people over 40 years old. Occurrences in younger people are uncommon.	Usually diagnosed during childhood.
This is often a progressive disease, so the symptoms will get worse with time. Medications can help to reduce these symptoms.	With the right lifestyle adjustments and medication, the asthma sufferer can get the disease under control.



Although COPD has no cure, you can still lead a fairly healthy life if you follow your medication plan properly and make appropriate changes to your lifestyle.

Tobacco smoke can worsen COPD, so your top priority is to quit smoking. Ask your doctor for advice if you have problems quitting on your own.

Understanding your medications

Taking your medications as prescribed by your doctor is important, as they will help reduce symptoms of COPD. The following information will help give you a better understanding of your medications.

1. Inhaled bronchodilators

A. Long-acting bronchodilators offer sustained relief from COPD symptoms and improve lung function. There are two types: long-acting β_2 -agonist (LABA) and long-acting anticholinergic (LAAC).

Long-acting β_2 -agonist (LABA)



Formoterol (Oxis)



Indacaterol (Onbrez Breezhaler)

Long-acting anticholinergic (LAAC)

Tiotropium bromide (Spiriva)



B. Short-acting bronchodilators provide short-term relief from sudden attacks of breathlessness.

Short-acting β_2 -agonists (SABA)



Salbutamol (*Ventolin*)



Fenoterol (*Berotec N*)



Terbutaline (*Bricanyl*)

Short-acting anticholinergic (SAAC)

Ipratropium bromide (*Atrovent*)



2. Inhaled corticosteroids (ICS)

These help to reduce inflammation, decrease mucus production and reduce flare-ups. They should be taken along with bronchodilator medication.



Fluticasone (*Flixotide*)



Budesonide (*Pulmicort*)

3. Combination therapies

Your doctor may offer a combination of drugs such as:

- SABA + SAAC. Example: *Berodual*
- LABA + LAAC. Example: *Ultibro*
- LABA + ICS. Examples: *Symbicort* and *Seretide*.

Such combinations may have an additive beneficial effect to your lung function.



Ipratropium + fenoterol (*Berodual N*)



Indacaterol + glycopyrronium (*Ultibro*)



Fluticasone propionate + salmeterol
(*Seretide*)



Budesonide + formoterol
(*Symbicort*)

4. Phosphodiesterase-4 (PDE4) inhibitors

A relatively new class of drug, for example roflumilast (*Daxas*), that may be added on to bronchodilators to control frequent flare-ups in COPD.

5. Methylxanthines

Theophylline (*Nuelin*, *Retafyllin CR*) may be given if inhaled long-acting bronchodilators and ICS do not show desired effects and you still have persistent symptoms.

6. Mucolytic agents

They help to break up sputum in order to loosen and clear mucus that blocks airways. Examples of mucolytic agents are: N-acetylcysteine (*Fluimucil*), bromhexine hydrochloride (*Bisolvon*), ambroxol hydrochloride (*Mucosolvan*).

Home oxygen therapy

For very advanced COPD, continuous oxygen treatment at home may help to relieve breathing difficulties and improve the quality of life. Your doctor will make a thorough assessment regarding your condition and recommend such treatment if necessary.

Good habits to adopt

As you continue to take your medication, the following tips can help you improve your quality of life.

- **Quit smoking.** If you smoke, it is very important that you quit. Talk to your doctor or join a support group.
- **Get your vaccinations.** Get the flu vaccination every year, and the maximum two doses of pneumococcal vaccine (with 5 or more years between each shot).
- **Be active for at least 30 minutes every day.** There are four types of exercises worth considering:
 - Stretching exercises will strengthen your muscles and increase your flexibility.
 - Aerobic exercises improve the function and endurance of your heart and lungs as well as help your body use oxygen more efficiently.
 - Strengthening exercises for the upper body increase the strength of the muscles involved in breathing and hence improve your breathing ability.
 - Breathing exercises strengthen your lung muscles, improve oxygen intake and reduce the effort needed to breathe.

Discuss with your doctor the type of exercises that are suitable for you. He will also advise you on proper breathing techniques to be applied during exercising.

- **Monitor your weight once or twice a week.** Consult your doctor if you have unexplained weight gain or loss over a week.



Preparing for emergencies

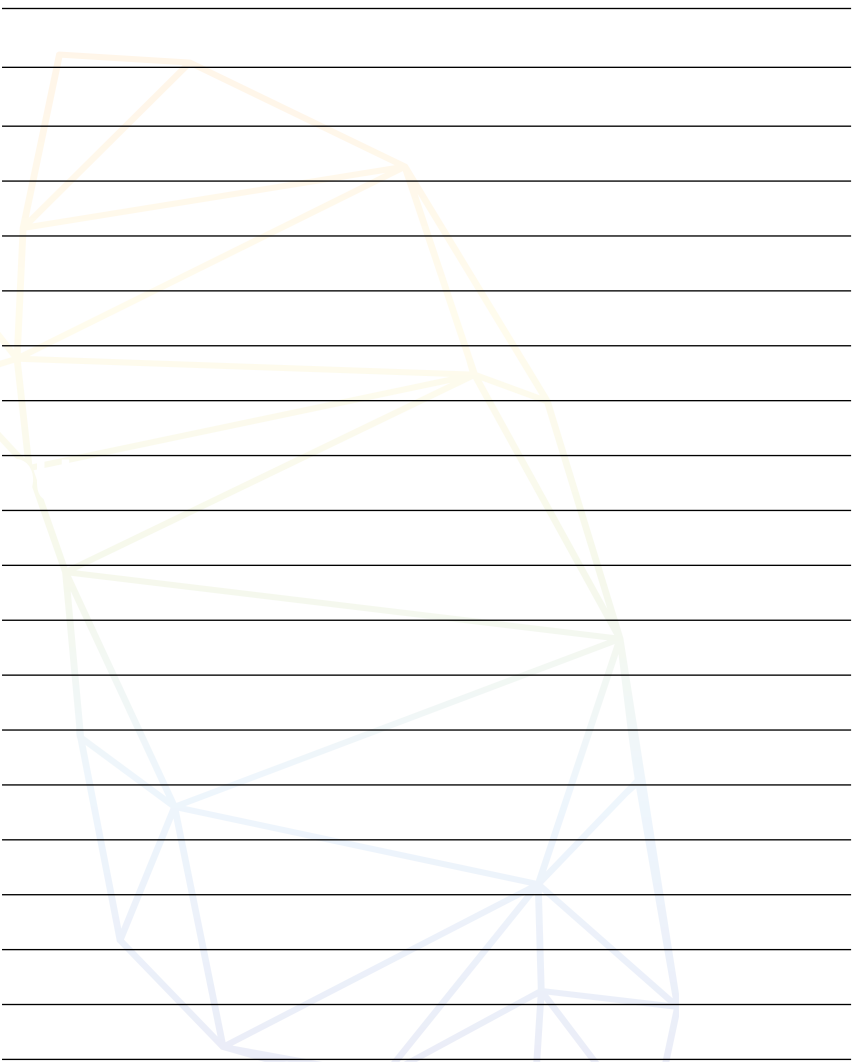
Both you and your caregiver should recognise the signs of a sudden COPD attack (called flare-up), so that you can receive medical attention as soon as possible. These signs include:

- Having difficulty in breathing or talking.
- Your lips and fingernails turn blue (because of lack of oxygen in your blood).
- You feel sluggish and have problems staying alert.
- Your heartbeat is very rapid.

When a flare-up occurs, have your caregiver bring you to a doctor for medical attention.

Keep important details (phone numbers, medications and dosages, and such) within easy reach. This way, if you are unable to speak, your caregiver will still know where to bring you for medical attention and what to tell the doctor.

Notes



A series of horizontal lines for writing notes, overlaid with a large, faint, abstract geometric pattern in shades of orange, yellow, and blue.

This publication was made possible through a grant from the Lung Foundation of Malaysia's Patient Education Fund established in 2011.



www.lfm.org.my
Every Breath Matters

This guide is meant for educational purposes only. It is not meant to replace professional medical advice. Please consult your doctor if you need medical advice or attention. While every effort has been made to ensure the accuracy, completeness and reliability of the information in this booklet, the Lung Foundation of Malaysia cannot be held liable for any unintentional consequences arising from its use.