

Chronic Obstructive Pulmonary Disease (COPD)



Lung
Foundation
Australia

when you can't breathe... nothing else matters®

Overview

Chronic Obstructive Pulmonary Disease (COPD) is a progressive lung condition that causes narrowing of the bronchial tubes in the lungs (sometimes called *bronchi* or *airways*), making it difficult to breathe. Sometimes air gets trapped in the lungs causing the feeling of breathlessness. When the condition occurs it is chronic (long-term) in nature, and therefore the airflow obstruction is usually permanent or irreversible.

COPD is an umbrella term for a group of lung conditions including:

- Emphysema
- Chronic bronchitis
- Chronic asthma

Around 20% of people with COPD also have asthma, which is described as asthma-COPD overlap (also called asthma-COPD overlap syndrome, or ACOS)¹. Asthma-COPD overlap is not a disease on its own and may have several different causes. People with asthma-COPD overlap need different treatment from people with just asthma or COPD alone.



Who gets COPD?

COPD is a common lung condition affecting both men and women. Around 1 in 7 Australians aged 40 years and over have some form of COPD² however around half of the people living with COPD symptoms do not know they have the condition³. Indigenous Australians are 2.5 times more likely to have COPD than non-Indigenous Australians⁴. COPD is not a contagious disease however we do know that it is the second leading cause of avoidable hospital admissions in Australia⁴.

Causes

There are many causes of COPD, which may include:

- **Smoking:** this includes if you smoke, have smoked in the past, or are exposed to passive smoking.
- **Environmental factors:** working or living in areas where there is dust, gas, chemical fumes, smoke or air pollution.
- **Genetic:** a small number of people have a form of emphysema caused by a protein disorder called alpha-1 antitrypsin deficiency (AATD). This is where the body finds it difficult to produce one of the proteins (Alpha-1) which protects the lungs.

Symptoms

The first symptoms of COPD tend to come on slowly, and can be very mild. People often mistake their symptoms as signs of ageing, lack of fitness or asthma. You may cough up mucus in the mornings or feel more short of breath than usual. In the early stages, you may not have symptoms all the time. As COPD progresses, you may gradually find it harder to do your normal daily activities such as gardening, hanging out the washing, or carrying groceries without feeling short of breath.

Common symptoms of COPD include:

- Shortness of breath (breathlessness)
- A repetitive cough that doesn't get better (this is due to a buildup of mucus in the airways)
- Increased phlegm or mucus production which is often thick and white or brownish in colour
- Feeling tired
- More frequent chest infections
- Taking longer to recover from a cold or chest infection.

Experience

It's important to know that each person experiences COPD differently. In the early stages of the condition, there may not be much impact on your life or emotions. As COPD progresses you may need more help to be independent, particularly during an exacerbation (flare-up of symptoms). It is also common to experience changes in your mood such as depression or anxiety, but it is important to remember that there are support services available. Programs like pulmonary rehabilitation and peer support groups can help you learn about your condition, and improve your wellbeing.



No one knows what it's like to have COPD, not doctors or nurses or even our friends, really. People with COPD are the only ones who can speak from experience. Speaking to others with COPD helps you realise that you're not alone and you can still enjoy a good life.

Meredith, lives with COPD



Access emotional support

Anxiety and depression are not uncommon in COPD and it's important to access support. It can be difficult to know if you feel down because of your physical health or if you have symptoms of depression or anxiety. Talk to your doctor or contact Lung Foundation Australia for referral to appropriate support services.

Diagnosis

While there is currently no cure for COPD, research shows that early diagnosis, combined with disease management programs at the early stage of the condition, can improve quality of life, slow disease progression, reduce mortality and keep people out of hospital. Diagnostic tests can include:

- **Lung function tests** (breathing tests)
Spirometry is the most common breathing test used to confirm a diagnosis of COPD. The test involves blowing



as long and hard as you can into a tube connected to a (spirometry) machine. The machine assesses how well your lungs work by measuring how much air you can inhale, how much you can exhale and how quickly you can exhale. The results will let your doctor know if you have COPD or another lung condition such as asthma.

Other tests may include:

- **Chest X-ray:** takes pictures of the tissues in the lungs and surrounding organs
- **CT scan:** takes more detailed pictures than an X-ray to look at the lungs and surrounding organs.
- **Arterial blood gas analysis:** a blood test that measures how well your lungs bring oxygen into your blood and remove carbon dioxide.
- **Laboratory tests:** these are not used to diagnose COPD, but may be used to rule out other conditions or to work out the cause of your symptoms.



If I was short of breath, I told myself I was out of shape and getting older. When it took me longer to return to a normal breathing pattern, I told myself that my age was a major contributing factor.

Ian, lives with COPD



Treatment

Although there is no current cure for COPD, early treatment is important to help improve how you feel, slow the progression of symptoms, and keep your COPD well managed, including reducing the risk of flare-ups.

Self-management treatment options:

There is a lot you can do to slow down the worsening of your symptoms, improve your fitness and prevent flare-ups:

Quit smoking

Not all people with COPD have smoked, however, if you do smoke, quitting is the single most important thing you can do to improve your health and lung function. If you continue to smoke, this will affect your health and respiratory symptoms. The sooner you quit, the better your chances of living well and improving your lung function.

Most smokers say they would like to quit, and may have tried at least once. Some are successful the first time but many others try a number of times before they finally give up for good. A quit plan can help you reflect on why you smoke, your motivations for quitting and help you choose your preferred quit tools.

Stay active and healthy

Studies have shown that people with chronic lung conditions use 25 – 50% more energy than healthy people⁵. This is due to the increased work of breathing and fighting chest infections or flare-ups, which are more common in people with COPD. There are lots of things you can do to make sure you stay healthy and have energy to do the things you enjoy, including:

- Stay within a healthy weight range*
- Eat a healthy, nutritious diet
- Be physically active
- Get enough rest and good quality sleep
- Look after your wellbeing by enjoying friends, family and hobbies. Practising relaxation techniques can also help reduce feelings of stress or anxiety.

*An Accredited Practising Dietician (APD) can help you understand what your healthy weight range is. They can also help you set goals and develop healthy eating plans to ensure you are getting the right nutrition.



Exercise

COPD research has shown that regular exercise can help maintain your fitness and wellbeing as well as improve your symptoms and quality of life.

• Pulmonary rehabilitation

Pulmonary rehabilitation is an exercise and education program provided by specially trained health professionals. It teaches you the skills you need to exercise safely, manage your breathlessness and to stay well and out of hospital.



“Pulmonary rehabilitation made such a difference for me that my doctor took me off the waiting list for lung reduction surgery, and I am now back at work two days a week.”

John, lives with COPD



• Lungs in Action

After you finish pulmonary rehabilitation, it is important to continue exercising to help maintain your physical fitness and lung health.

Lung Foundation Australia’s Lungs in Action program is a safe and fun community-based exercise class designed to help people with a chronic lung disease maintain the benefits achieved through pulmonary rehabilitation.

Ensure your vaccinations are up-to-date

Talk to your doctor about seasonal influenza and pneumonia vaccinations. These can help support your immune system and reduce the risk of flare-ups.

Other treatment options:

In addition to self-management treatment options, pharmacological (or medicine-based) treatments can also help manage your COPD symptoms.

COPD medicines and inhalers

There are a number of medicines that COPD patients can take to help improve their breathing. Some work by helping to open your airways, while others relax the muscles around your airways to make breathing easier. These medicines are most commonly taken using an inhaler device (sometimes called a ‘puffer’).

Some people may need to take more than one medicine. It is important to take your medicines each day as prescribed by your doctor, even if you feel well.

1. **Reliever medicines:** for quick relief of increasing symptoms of breathlessness.
2. **Maintenance medicines:** for long term regular use, to control your usual symptoms and help prevent flare-ups.
3. **Flare-up medicines:** for short-term use during an acute flare-up of your COPD symptoms.

Oxygen therapy

In severe cases of COPD or when your oxygen levels are very low, home oxygen may be prescribed by your doctor or specialist. This can reduce damage to your vital organs however it is not prescribed to stop breathlessness. Some patients may need continuous oxygen while others may only require oxygen during physical activity (i.e. walking or exercising). While oxygen therapy may relieve breathlessness in some people, in many cases it does not.



COPD flare-ups

A COPD flare-up or *exacerbation* (pronounced *ex-ass-er-bay-shon*) is when your symptoms worsen quickly, usually over a few days. It may be caused by an infection (often due to a virus) or triggered by air pollutants or irritants. Flare-ups are more common during the winter months and can make everyday activities more difficult. It is important that you can identify the early signs of a flare-up so you can start treatment as soon as possible.

Common symptoms of a flare-up include:

- Coughing more than usual
- Finding it harder to breathe (increased breathlessness)
- Changes in sputum (more or thicker sputum)
- Being more tired than usual (less active).

If your symptoms change significantly, you may need to go to hospital for treatment. Call an ambulance on 000 if you have any of the following symptoms:

- You find it hard to talk
- You find it hard to walk
- You can't sleep because of shortness of breath
- You feel drowsy or confused
- Your lips or fingernails have turned grey or blue
- Your heartbeat or pulse is very fast or irregular.

Up to 90% of people with COPD do not know how to use their inhaler device correctly, so it is important for a trained health professional (such as your doctor, nurse or pharmacist) to show you how to use your inhaler and assist you to get the technique right. Correct use of your inhaler device is important and will ensure you get the most benefit from your medicine.

Our COPD Action Plan helps you recognise when your symptoms change. It also provides instructions on actions to take to reduce severity and length of symptoms. Talk to your doctor about making a COPD Action Plan at your next appointment.



FURTHER INFORMATION AND SUPPORT

Contact Lung Foundation Australia for more information and to access our support services. You can also join our mailing list for regular updates and the latest news.

Lung Foundation Australia Services

- Information and support line
- Lung disease information resources
- Education seminars and webinars
- Lung cancer support nurse
- Support groups
- Peer-to-peer connections
- Referral to pulmonary rehabilitation and Lungs in Action exercise programs
- Newsletter

External Links

Dieticians Association of Australia

daa.asn.au

Quit Victoria

quit.org.au or 137 848

Lifeline Australia

lifeline.org.au or 13 11 14

Lungfoundation.com.au | Freecall 1800 654 301 | enquiries@lungfoundation.com.au

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References:

1. National Asthma Council & Lung Foundation Australia. Asthma-COPD overlap. National Asthma Council Australia. Melbourne, 2017.
2. Toelle B, Xuan W, Bird T, Abramson M, Atkinson D, Burton D, James A, Jenkins C, Johns D, Maguire G, Musk A, Walters E, Wood-Baker R, Hunter M, Graham B, Southwell P, Vollmer W, Buist A, Marks G. Respiratory symptoms and illness in older Australians: The Burden of Obstructive Lung Disease (BOLD) study. *Med J Aust* 2013;198:144-148
3. Xuan W, Toelle B, Bird T, Abramson M, Graham B, James A, Johns D, Maguire G, Wood-Baker R, Marks G. Prevalence of respiratory symptoms, illnesses and spirometric diagnoses in the Australian BOLD study. *Respirology* 2011; 16: 51
4. Australian Bureau of Statistics (ABS) 2013. Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012-13. ABS cat. no. 4727.0.55.001. Canberra: ABS.
5. The State of Queensland (Queensland Health) & Lung Foundation Australia. Better Living with Chronic Obstructive Pulmonary Disease: A Patient Guide. Brisbane, 2016.