



Respiratory Care WA

Asthma | COPD | Respiratory Health

Living well with COPD



About COPD

COPD is a common chronic condition that causes chronic inflammation of the airways and obstructed breathing.

What are the main symptoms of COPD?



Breathlessness



Coughing



Mucus Production



Wheezing

COPD stands for **C** Chronic **O** Obstructive **P** Pulmonary **D** Disease

The lung damage caused by COPD makes it more difficult to take in air and harder to breathe.

Although COPD is a progressive disease, with proper management many people can control their symptoms and improve their quality of life, as well as reducing the risk of related conditions.



COPD in Australia

- 1 in 4 Australians over the age of 65 has COPD
- COPD is the second leading cause of avoidable hospitalisations
- Around 50% of people with COPD symptoms do not know they have it
- Indigenous Australians are 5.6 times more likely to have COPD

Emphysema, chronic bronchitis and asthma

Emphysema, chronic bronchitis and asthma are commonly associated with COPD. These conditions may occur together and can vary in severity among individuals diagnosed with COPD.

- **Chronic bronchitis:** the airways in the lungs become narrower with swelling and mucus due to inflammation (usually from infections or viruses).
- **Emphysema:** the air sacs (alveoli) at the end of your airways become damaged.
- **Asthma:** the airways are sensitive to different triggers leading to inflammation, swelling and mucus, and reversible narrowing of the airways.

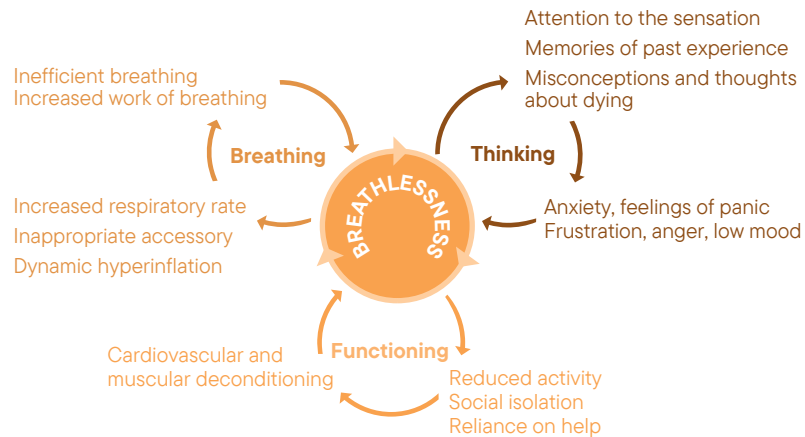
What can cause COPD?

People are more likely to develop COPD due to:

- **Smoking** - this can include being a current smoker, a past smoker or being exposed to passive smoking;
- **Long-term exposure to lung irritants** including smoke, gas, chemical fumes, biomass exposure or air pollution;
- **A genetic disorder known as alpha-1-antitrypsin deficiency (AATD)**, which can trigger emphysema even if no other risk factors are present; and
- **Asthma** - poorly controlled or severe asthma may contribute to the development of COPD later in life. Approximately 1 in 5 people who have asthma also have COPD.

Breathlessness

Breathlessness can be a difficult symptom but there are ways to reduce the impact on everyday life.



In conditions such as COPD there is not enough time for the lungs to empty when breathing and the next breath in starts before the lungs have fully emptied, which results in breaths stacking up on each other. The chest then over expands and makes breathlessness worse, resulting in an increased effort to breathe and longer recovery.

Often breathlessness can cause anxiety and this feeling can increase breathlessness. This cycle can lead to panic and increased muscle tension, which in turn, increases the effort of breathing.

To avoid the unpleasant and frightening feeling of breathlessness it is natural to try and reduce activity levels, but this can lead to all the muscles becoming weaker. These weakened muscles use oxygen less efficiently and are not able to do the job as well, making breathlessness worse. Breathlessness caused by being active is not harmful and can improve breathlessness over the longer term.

To improve breathing, cooling face with a fan with a portable breath of fresh air, learning how to relax, gradually slowing breathing, finding a calm state of mind and/or finding a comfortable position are all helpful.

Tips for managing breathlessness

Here are some tips to help recover more quickly from breathlessness after activity, and help breathing to settle. If breathing gets worse, or there is new breathlessness, seek advice from a health professional.



Breathing Techniques

- **Breathing Control/Tummy Control**
Take slow, deeper breaths from the tummy. Rise the tummy when breathing in, relax the breath out. Rest and wait for the next breath to come.
- **Pursed Lip Breathing**
Breathe through the nose (smell the roses), breathe out, as if through a straw (blow out the candles)
- **Blow as you go**
Breathe in before exerting effort, breathe out while making the effort
- **Paced breathing**
Breathe in for a few counts, breath out for a few counts
- **Breathe around the rectangle**
Follow the side of a rectangle with the eyes, with tummy breathe. Gradually slow the speed of the eyes moving around the edge of the shape to slow breathing.

Distraction and Meditation

Focus on things that bring pleasure or calmness, such as mindfulness or meditation. Cognitive Behavioural Therapy (CBT) also has a role in managing breathlessness.

Physical Activity

Regular activity should be done in moderation. A step counter can help monitor activity. Additionally, ask to be referred to a local Pulmonary Rehabilitation Program.

Positions to ease breathlessness



Resting positions

Relaxing down onto pillows with legs apart may help with breathlessness or tiredness.



Positions to ease breathlessness following activity

Lean forward with arms resting on knees or the sides of a chair and position knees slightly apart. With all positions try to relax hands, wrists, shoulders, neck, and jaw as much as possible.



Use of walking aids

Lean forward with arms resting on a surface. A Gutter Frame, wheely frame or walking stick may help to maintain a forward lean position of ease while walking.

There is no one position which that suits everyone, so it is best to try a variety of positions to find the one that works for you. Most positions involve leaning forward, as this improves the movement of the diaphragm - the main muscle used for breathing. Placing arms in a supported position also makes it easier for muscles to help with breathing.

Oxygen and airway clearance

Oxygen

- Breathlessness is often caused by difficulty moving air in and out during breathing, rather than by a low oxygen level. Oxygen Therapy may be prescribed for some people with COPD.
- It is important to remember oxygen does not help breathlessness in people whose oxygen level is not low.
- Oxygen levels are measured in the blood. If levels are low it can result in the vital organs being deprived of oxygen, causing damage over time.
- For those who measure low oxygen levels in the blood, oxygen may be prescribed by their specialist or GP.
- Home oxygen delivered via nasal prongs can make everyday activities easier, such as showering.

Airway Clearance

- Many people who have COPD produce very little or no sputum, and generally do not need to do any regular airway clearance techniques.
- Some people who have COPD develop a moist cough when they have an infection. These people may need to do a few simple airway clearance techniques when this occurs.
- A small number of people with COPD who cough up sputum every day may need to use an airway clearance technique regularly.



Airway clearance should be discussed with a respiratory physiotherapist, who will help find a technique that works best.

This may include:

- Breathing exercises, active cycle of breathing.
- Airway clearance devices, such as PEP and bubble.
- Huffing and effective coughing.



Diagnosis of COPD

How is COPD diagnosed?

A doctor will review the signs and symptoms and discuss family history and medical history, as well as any exposure a person may have had to lung irritants, including smoking. If a doctor suspects COPD, a referral will be made for spirometry to confirm the diagnosis, as COPD cannot be diagnosed based solely on history and/or imaging (such as a chest X-ray). Additional tests may include DLCO, FeNO, X-rays, CT scans, and blood and sputum tests.

Spirometry test

Spirometry is the most accurate way to confirm a diagnosis of COPD. Spirometry measures the airflow into and out of your lungs. The simple test indicates peak flow, as well as how much air is breathed in and blown out and how much air can be blown in the first second. It is important to note, a normal or near normal spirometry does not exclude COPD.

DLCO

DLCO is the Diffusing Capacity of the Lungs for Carbon Monoxide. DLCO is a measurement to assess the lung's ability to transfer gas from inspired air to the bloodstream. In this test, a person breathes in air containing a very small amount of carbon monoxide and a tracer gas, such as methane or helium. The breath is held for ten seconds, then rapidly blown out. The exhaled gas is tested to determine how much of the tracer gas was absorbed during the breath.

FeNO

A FeNO test measures the amount of inflammation in the lungs to help diagnose asthma and COPD. During a FeNO test, people breathe into a mouthpiece connected to a device that measures how much of this gas is in the air when exhaled (breathe out). When combined with other information, this test can confirm whether a person has asthma or whether the asthma needs more treatment.

Diagnosis / Self-Management

When someone is first diagnosed with COPD, it can feel overwhelming. Not all people with COPD experience the same symptoms, so it is important to talk to a healthcare provider about treatment options.

There is no current cure for COPD, but early treatment is important to improve quality of life, to slow disease progression, and to keep the condition well managed. This will assist in reducing the risk of a flare up or other complications.


COPD exacerbation

What is it?

An exacerbation or flare-up is when symptoms worsen, and a person can start to feel unwell. This can happen quickly, over a few days, and may be caused by a virus or triggered by air pollutants or other irritants. Identifying symptoms early and seeking treatment as soon as possible is important as it may reduce the severity of the flare-up and lessen the likelihood of hospitalisation.

People experiencing a COPD flare-up may experience:

- Increased breathlessness
- Increased cough
- Increased sputum production, a change in colour or thickness
- Less energy and feeling more fatigued
- Fever
- Generally feeling unwell



GO DIRECTLY TO HOSPITAL OR CALL AN AMBULANCE IF YOU EXPERIENCE ANY OF THE FOLLOWING:

- Inability to talk in full sentences
- More difficulty completing your normal daily tasks
- Increased shortness of breath, making it difficult to sleep
- Feeling drowsy or confused

Tips to feel better:

- Taking prescribed medication every day
- Being aware of changes in symptoms and following the personalised COPD action plan
- Keeping vaccinations up to date
- Knowing the triggers and avoiding them if possible
- Avoiding contact with people who are sick
- Practicing good hand hygiene

Treatment of COPD



Keep fit and active

When experiencing shortness of breath, it is tempting to reduce activity levels. However, less physical activity leads to the heart and muscles becoming less and less efficient; they need to work harder, leading to fatigue and breathlessness. Regular exercise can help the heart, lungs and muscles work more efficiently, allowing a higher level of activity with the same effort.

Regular exercise will:

- Help maintain a healthy weight.
- Strengthen bones and the body's ability to fight off infection.
- Increase energy levels.
- Boost mood.
- Help maintain or regain independence.
- Reduce symptoms of breathlessness.
- Make it easier to clear sputum.

Exercise does not have to be intimidating, but sometimes people with COPD need extra help finding ways to exercise safely. A doctor or healthcare team can help with the most appropriate amount and type of exercise for an individual.



Eating well and maintaining a healthy weight

Being overweight makes it harder for people with COPD to breathe and move, so it's important to eat a balanced diet and maintain a healthy weight. A GP is the best source of information about maintaining a personalised healthy weight. They may refer to a dietician for further help, if necessary.

Losing too much weight because breathlessness is making eating, shopping and preparing meals a problem can be an issue, so try to eat little and often. Ask a doctor about nutritional support and/or referral for assessment to check eligibility for home care support for meals and shopping.

Remember, any amount of exercise is better than no exercise and small steps are better than no steps.



Care for your emotional health

When experiencing COPD, emotional health is just as important as physical health. Learning how to deal with stress and anxiety and seeking assistance from a health care team and family members can make a huge difference in feeling better mentally.

A doctor, respiratory specialist or respiratory educator are all well placed to offer emotional support. Many people feel reassured once they are able to discuss how they feel with their health professional.



Quit Smoking or Vaping

Congratulations for those who have already quit smoking! It is the best thing possible that can be done to improve health and slow the progression of COPD. After a diagnosis of COPD, it's even more important to try to quit. People often feel once they have COPD, there is no point in quitting, but that is not true.

Quitting prevents additional lung damage and makes it less likely there will chest infections, cough and mucus build-up.

Peer support for COPD

Connecting with others that have COPD is an effective way of accessing peer support. Some peer support networks in WA include:

- **Huffers and Puffers Royal Perth Hospital:** Respiratory Medicine, Royal Perth Hospital
- **Lung Information and Friendship for Everyone (LIFE):** resphealth.org.au
- **Bunbury Heart and Lung Group:** Bunbury Regional Hospital

Management of COPD

COPD Action Plan

A COPD Action Plan is a written document that assists in recognising when symptoms change and what course of action should be taken.

- It is essential this is developed with a health practitioner.
- The action plan should be reviewed regularly, or after an exacerbation or change in respiratory medications.
- Regular respiratory medication and flare-up medication, if prescribed, should be documented on the COPD Action Plan.

My COPD Action Plan

was written on _____ is due to be reviewed on _____

Stay up-to-date with your vaccinations

Keeping up to date with vaccinations is recommended to help support the immune system and reduce the risk of a COPD exacerbation and other illnesses.

- An annual influenza vaccine has been shown to reduce risk of exacerbations from influenza.
- Pneumococcal vaccine can reduce the risk of exacerbations and reduce the incidence of community acquired pneumonia.
- COVID-19 vaccines can reduce severe illness and hospitalisations. Your Doctor may recommend other vaccines to help keep you well.

I have had my flu vaccination this year I have had my Pneumococcal vaccine

Feeling unwell?

It is important to act quickly to avoid the potential for a hospital visit. Action steps include:

- Contact a doctor or healthcare professional as soon as possible;
- Adjust level of activity;
- Complete airway clearance techniques, as prescribed by the respiratory physiotherapist;
- Use Pursed Lip Breathing and Forward Lean recovery positions to relieve shortness of breath;
- Eat small amounts of nourishing food;
- Drink extra fluids, if not on a fluid restriction diet; and
- Use additional medicine as prescribed and written on the COPD Action Plan.



COPD Medications and Devices

Medications that help open the airways, called bronchodilators, are a mainstay of treatment for COPD. Bronchodilators help to keep airways open and may decrease the amount of mucus in the lungs.

There are a number of devices that can be used to take inhaled medicines.

The main devices are:

- 1 MDI (metered inhalers).** These are the most common type of inhaler. They work by pressing the top of the inhalers to release the medicine in a short sharp puff. They should be used with a spacer – a plastic tube with a mouthpiece – which is attached to the inhaler, making it easier to breathe in and inhale more of the medicine.
- 2 DPI (dry-powder inhalers).** This technique differs according to the device, but always involves breathing in deeply to release the medicine.
- 3 Nebulisers.** These are small machines that turn liquid medicine into an aerosol or fine mist, which is breathed in through a mouthpiece or mask. Using a spacer and inhaler has sometimes been shown to be as effective as using a nebuliser.



It is recommended that device techniques be checked regularly by a respiratory health nurse/educator, or a GP. If there are issues with using the device, or with remembering when to take the medication, it is important this is raised with a healthcare professional. If an inhaler isn't working as expected, a GP may refer on to a specialist.

My device technique was checked on _____

Device _____

By _____ From _____

About spacers

A spacer gets the right dose of puffer medication into the lungs and reduces side effects. Adults as well as children should use a spacer; depending on age and ability, the spacer may need to be fitted with a mask. Spacers are designed for single person use and should be washed once a month and after any illness.

How to care for your spacer

- 1** Dismantle spacer.
- 2** Wash in clean warm soapy water using kitchen detergent.
- 3** Do not rinse or wipe dry. Allow to air dry, as wiping dry with a towel will create static
- 4** Wipe mouthpiece clean of detergent before use.



Maintenance medications

Maintenance medications are for long term regular use to control usual symptoms and help prevent flare-ups. 'Long-acting' bronchodilator medications help control symptoms over time. Each medication comes with specific instructions for how to use it and how often to take it.

1 Oral Corticosteroids

Corticosteroids are a class of medication with anti-inflammatory properties. They are also called steroids, but are very different from the steroids used by athletes. Corticoids can be taken in different forms, including with an inhaler, as a pill, or through an IV, which is a thin tube that goes into a vein.

If symptoms are not completely controlled with bronchodilators alone, or in the case of frequent flare ups, inhaled corticosteroids can be used for long-term symptom control in combination with a long-acting bronchodilator. Several such combinations are available; a health professional will be able to provide the best advice.

2 Flare-up medications

These medications can be used in the short-term, during flare-ups of COPD symptoms. They should be documented in the COPD Action Plan.

3 Antibiotics

In the instance of multiple flare-ups and/or a bacterial chest infection, a health professional may prescribe antibiotics. For regular or concurrent chest infections, a GP may recommend regular antibiotics.

4 Mucolytics

Mucolytics break down the phlegm and mucus produced in the lungs, making it easier to cough up the phlegm. A GP may advise to take a mucolytic if there is a persistent, phlegm-producing cough. As well as helping with a cough, mucolytics may help to reduce the number of flare-ups.



Some medications are not recommended for people with COPD, including cough suppressants. Suppressing a cough may increase the risk of developing an infection.

Managing your COPD & keeping well

There are many ways to manage COPD and continue to live a quality life.



Follow and understand the written COPD Action Plan developed with your doctor.



Join a Pulmonary Rehabilitation program



Know your medications

Understand what they are, what they do and when to take them.



Learn how to use your inhaler and spacer

Contact Respiratory Care WA to book a free session on inhaler and spacer technique.



Keep your vaccinations up-to-date

Vaccinations help prevent infections that can cause flare-ups and are provided free by a GP. Get the flu vaccination yearly, and check you are up to date with pneumococcal and COVID-19 vaccines.



Get the right COPD tests

Different tests are used to diagnose and treat COPD, and to show the severity of COPD. It's important to ask a doctor to check if you have had all the tests needed to properly diagnose and treat COPD.



Don't smoke tobacco or vape

Quitting smoking is one of the most powerful things to keep well but it doesn't have to be done alone. Call Quitline on 13 78 48.



Visit your healthcare team regularly

GPs, nurses, physiotherapists and lung health educators are all part of a strong healthcare team. Regular appointments, visits and reviews will help maintain lung function and enhance your quality of life. Write a list of things you would like to discuss with your healthcare team and book yourself a longer appointment if needed



Learn your triggers and lung irritants and track them with a symptom diary (see Respiratory Symptoms Diary on page 19).

There are many things besides smoking and vaping that are known to irritate and damage your lungs. Common irritants include second-hand smoke, smoke from fires, vehicle exhaust, smog and dust, chemical fumes, strong smelling cleaning products and strong perfume.



Look after your mental health

Many people with COPD experience low mood, anxiousness and depression. If any of these are experienced, seek help from a health professional as soon as possible. Let family and loved ones know what is happening. The key to managing these feelings is to talk about them early and seek help. Understanding and learning about COPD will also help manage symptoms.



**Call Respiratory Care WA on (08) 9289 3600
to speak to a member of our Respiratory Health Team
or to book a free consultation.**

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