



COPD HANDBOOK

Introduction

About this Booklet:

Receiving a diagnosis of *chronic obstructive pulmonary disease* (COPD) can be scary. It can take a little while for the news to sink in, especially if you have never heard of the condition before.

This handbook provides information about COPD, from the various symptoms you may experience, to the different types of medication you may be prescribed.

Importantly, this handbook also provides tips and advice about how to manage your condition and live a fulfilling life. The more you learn about your condition, the better equipped you will be to make healthy lifestyle changes and take ownership of your health.

This booklet is also for friends and family of someone with COPD.

Learning about COPD will equip you with the necessary information required to support you and your whānau.

For more resources, check out the COPD pages on:
asthmafoundation.org.nz

**The Asthma and Respiratory Foundation
New Zealand is here to support you
with tools and resources.**



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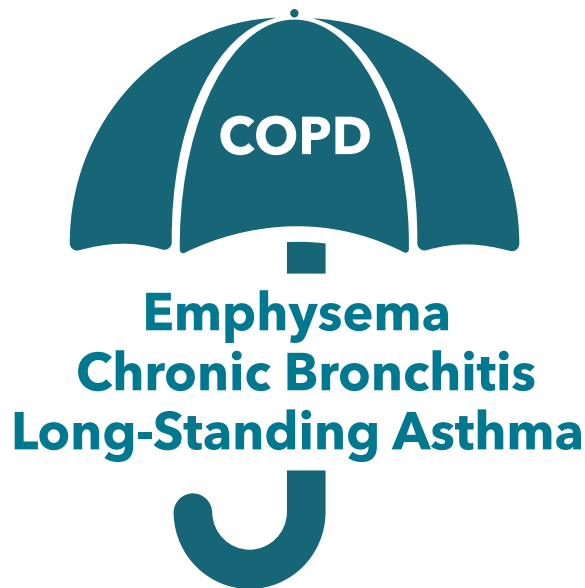


What is COPD?

COPD stands for *chronic obstructive pulmonary disease* and is an umbrella term for the conditions **emphysema**, **chronic bronchitis**, and **long-standing asthma**.

COPD affects hundreds of thousands of New Zealanders, yet most have never even heard of it. Symptoms include coughing, increased mucus, breathlessness, and chest infections.

COPD is a respiratory condition that gets worse over time and the damage in the airways cannot be repaired. However, further damage can be prevented. Treatments can reduce breathlessness, improve quality of life, and help people to live longer.



Most cases of COPD are caused by smoking, and most people are diagnosed when they are aged over 40 years. Even though COPD deaths are under-reported, COPD is still the fourth leading cause of death in New Zealand.

Due to inequities in lack of access to healthcare, poor housing and a higher smoking rate in the Māori population, hospitalisation rates for COPD are 3.5 times higher for Māori compared to other New Zealanders.

In New Zealand, around 15% of adults aged over 45 live with COPD.



Understanding COPD

When we breathe, air travels from our nose and mouth down through our airways to our lungs. In people with COPD, the airways are permanently damaged, making it hard to breathe.

COPD is an umbrella term for the conditions *chronic bronchitis*, *emphysema*, and *long-standing asthma*. While these conditions share similar symptoms, they have different effects on the lungs:

- **Chronic bronchitis** is ongoing inflammation of the bronchi (airways in your lungs). Due to this inflammation, the airways produce extra mucus. This can cause you to cough more and make it hard to breathe.
- **Emphysema** is where the air sacs in the lungs (alveoli) are damaged. Over time, the walls of the air sacs are destroyed, creating larger spaces. This reduces the surface area of the lungs and makes the lungs less efficient.
- **Long-standing asthma** is a term used for those who have had asthma for many years. People with long-standing asthma may have damage of the airways, which means that the airways are narrowed even after taking inhalers. These people may have more persistent symptoms of their asthma, which can include persistent dry cough, inflammation of the airways, and shortness of breath. In the past this has been referred to as “chronic asthma” but as nearly everyone with asthma has chronic inflammation of the lungs, we don’t tend to use that term anymore.

People with COPD will often have a mixture of chronic bronchitis and emphysema, and some will also have long-standing asthma.



What causes COPD?

Smoking, including second-hand smoking, is the main cause of COPD. This means that for most people COPD is a preventable disease. When you are diagnosed with COPD, you will be advised to quit smoking, as this can slow down the damage to your airways.

About 85 to 90 percent of all COPD cases are caused by cigarette smoking

American Lung Association

Other causes:

A small number of people who develop COPD have never smoked. These people may have long-standing asthma or have been exposed to other inhaled pollutants such as industrial dusts in their workplace or air pollution. Alpha-1 antitrypsin deficiency (AATD) is a rare, inherited genetic condition that can contribute to COPD in a small number of people.

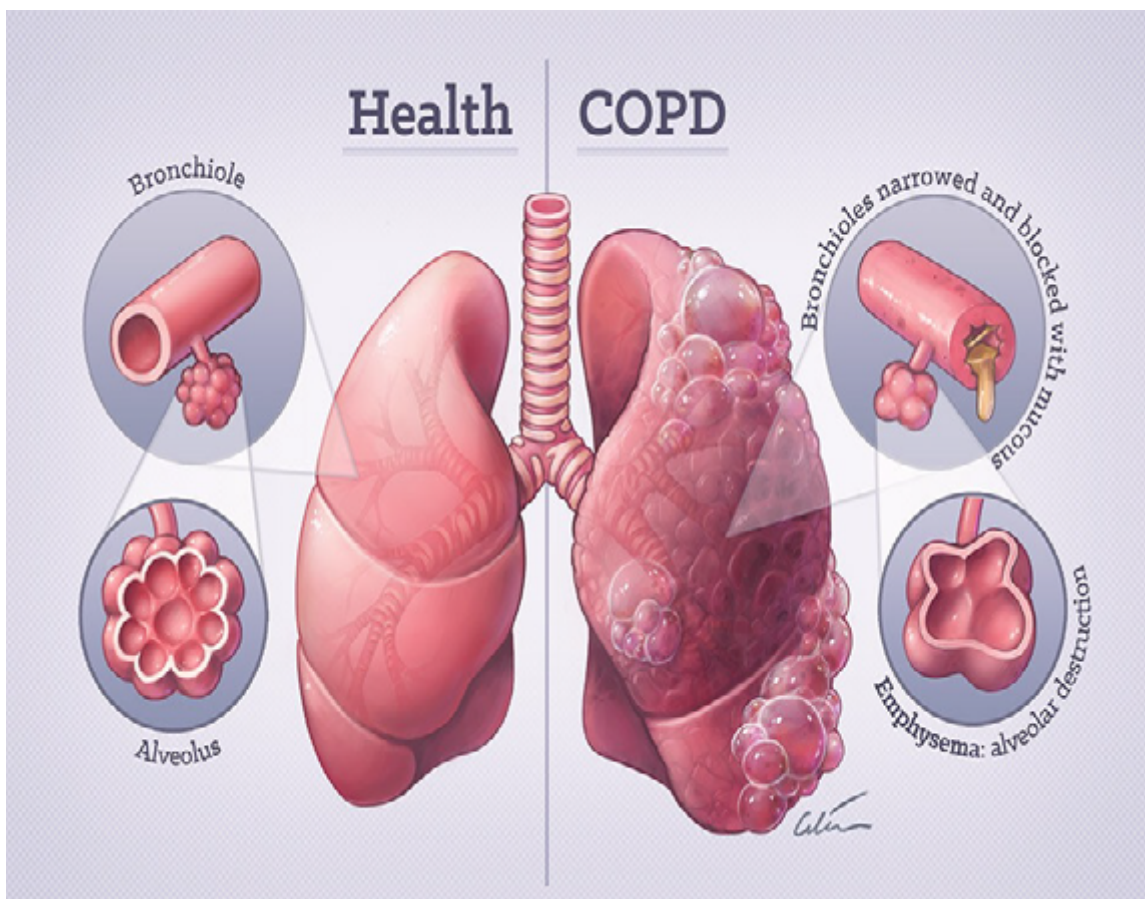


Illustration by Dr Ciléin Kearns, Medical Research Institute New Zealand (MRINZ), Wellington, New Zealand.



COPD Diagnosis

As COPD is a progressive disease, lifestyle changes can slow the progression of your condition. Early diagnosis means you can make those lifestyle changes sooner, which can lead to a better quality of life.

Early indicators of COPD

If you have ongoing symptoms like a cough, mucus production, wheeze, shortness of breath and chest infections, then you might have COPD. Some people will not have all of these symptoms.

If you notice these symptoms, you can contact your healthcare practitioner for a check-up. Keep in mind that COPD mainly affects those over 40 years old and there is usually a history of cigarette smoking.

Spirometry

The most useful test to diagnose and monitor COPD is spirometry. It is also helpful for measuring the severity of COPD. This test will help to guide your healthcare professional when setting your treatment goals and choosing which inhalers might be best for you.



The test itself involves blowing into a mouthpiece connected to a machine called a spirometer. It assesses how fast and for how long you can blow air out of your lungs. You may also be given a bronchodilator (a medicine to relax your airways) during spirometry testing.

Other diagnostic tools that may be used

Chest X-ray

Your healthcare practitioner may arrange a chest X-ray to determine if there is any lung damage and what is likely to be the cause. A chest X-ray is unlikely to show COPD unless the condition is severe.

CT scan

Most people with COPD do not need to have a CT scan but it is sometimes useful when people are being seen in a specialist clinic. A CT scan of your lungs can identify emphysema, which is one of the conditions under the COPD umbrella. It can also detect other signs of COPD, like enlarged arteries (blood vessels) in the lungs.

Pulse oximetry

Pulse oximeters, sometimes known as “sats probes” are used to estimate the oxygen level (oxygen saturation) of your blood. Most people with COPD have normal oxygen levels when they are well but some people have low levels all the time.

Arterial blood gas analysis

Arterial blood gas analysis measures the concentration of oxygen and carbon dioxide in your blood to assess if the oxygen levels are low. This test is usually only done when somebody has been admitted to hospital or if pulse oximetry is consistently low and your healthcare provider is considering whether you need oxygen at home.

Blood tests

Blood tests can be done to determine if you have alpha-1-antitrypsin deficiency. This is a rare inherited disorder that increases the risk of COPD. Blood tests also rule out other conditions, which cause similar symptoms to COPD, and can also help guide your healthcare practitioner on what treatment is best for you.



Symptoms

As COPD is a condition that gets worse over time, the initial stages of the condition may be mild and almost unnoticeable. Once more lung damage has occurred, your COPD will be classed as 'moderate' and you may begin to notice symptoms.

Moderate COPD symptoms include:

- A chronic cough, which may produce mucus.
- Feeling short of breath when walking on ground level.
- Increasing difficulty completing daily activities.
- Recurrent chest infections that take longer to clear.

Eventually, 'moderate' COPD can lead to 'severe' COPD.

In severe COPD, symptoms are likely to impact your quality of life and can make completing daily tasks difficult.

Severe COPD symptoms include:

- Coughing up lots of mucus.
- Feeling short of breath after simply walking across a room, bending down or dressing.
- Feeling tired.
- Recurrent chest infections.
- Flare-ups getting more severe and more frequent.



Manage your COPD

It is important to manage your COPD as effectively as you can. Each COPD flare-up causes further damage to your lungs and reduces lung function. This is why it is crucial that you manage your COPD as effectively as you can and look after your lungs.

The good news is that there are lots of ways you can manage your COPD symptoms and improve your quality of life:

- Follow a [COPD action plan](#) (a self-management plan).
- Use [breathing control techniques](#) and a breathlessness plan.
- [Quit smoking or vaping.](#)
- Keep physically active.
- Ask your healthcare professional to refer you to your local pulmonary rehabilitation programme.
- Maintain a [warm and dry home.](#)
- Maintain a healthy body weight.
- Visit your healthcare team regularly.
- Manage your stress.
- Use energy conservation techniques.
- Take your medicines and inhalers as prescribed by your healthcare team.

Patricia manages her COPD effectively, which allows her to enjoy a busy and fulfilling life.



“Properly managing my COPD allows me to be a swim coach, an umpire for outdoor bowls, a volunteer for multiple community groups and keep up my other interests.”

COPD Action Plan

A COPD action plan guides you on the best ways to manage your symptoms and to slow down the progress of your condition.

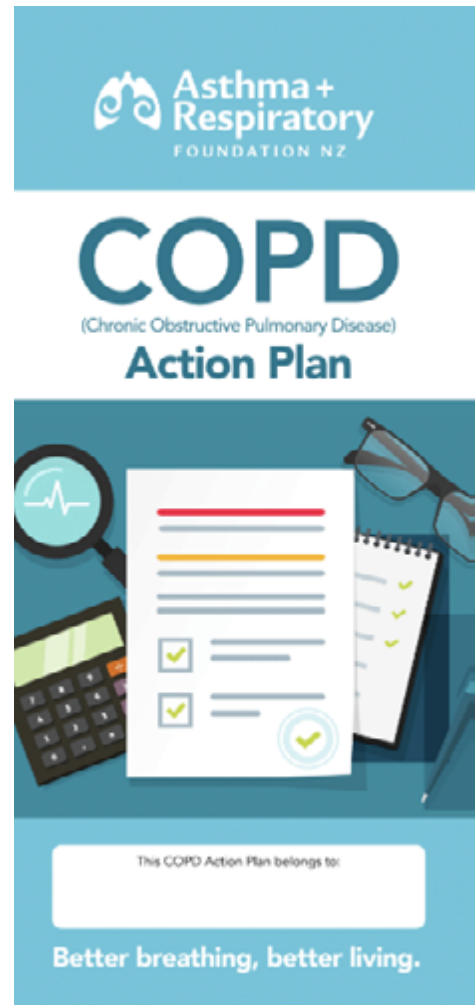
Following an action plan should help you to live a more active life and reduce the need for emergency medical visits and hospitalisation.

A COPD action plan explains what treatment to use to manage your COPD when your symptoms are 'normal', when they worsen, and when you have a COPD flare-up. The action plan details which medication you take and in what dose.

Your COPD action plan should be personalised for you and your symptoms.

You should fill in your action plan with your healthcare practitioner and it should be checked and updated at least once a year, to ensure your plan is still appropriate and your COPD is well managed.

The Foundation's COPD Action Plan is available in multiple translations, and can be found on the ARFNZ website: [Click Here](#).



Learn good breathing control

People who have COPD often have to work harder to breathe and tend to breathe using the muscles in their upper chest, rather than the lower chest. This takes more energy and is tiring. There are many benefits of good breathing control.

Breathing control is useful to manage shortness of breath and for times when you are unwell. Breathing techniques can help you to breathe easier while using less energy. It may take some practice before these techniques feel natural but keep trying!

Tummy breathing

- Place one hand on your tummy, over your navel. Your upper chest and shoulders should be relaxed.
- Breathe in through your nose. You should feel your tummy rise as you breathe in.
- Breathe out gently through your nose. Your tummy will fall as you breathe out.
- Practice tummy breathing first when lying down, when you are relaxed. As you get more used to this breathing pattern, you could try it when sitting too.

Pursed Lip Breathing

- Breathe in through your nose slowly for about two seconds.
- Pucker your lips as if you're about to blow out a candle.
- Breathe out slowly through your mouth for four seconds.

Resources to manage breathlessness can be found on the ARFNZ website:

[Breathlessness Quick Reference](#)
[Breathlessness Strategies for COPD](#)



Giving up smoking and vaping

Become smoke-free

Quitting smoking is the single most important step you can take to improve the outcome of your COPD diagnosis.

It is never too late to stop smoking! No matter how severe your COPD, stopping smoking can slow further decline and damage to your lungs. Smoking other things such as marijuana can also damage the lungs. There is no substance that is safe to smoke.

E-cigarettes and vapes may help you to quit smoking as part of a smoking cessation programme, but they are not risk-free.

If you use an e-cigarette as part of quit smoking programme, you should stop using the e-cigarette as soon as possible after quitting smoking.

Become vape-free

Reports have shown that certain chemicals used for flavouring in vapes are associated with respiratory conditions. Aside from what we already know about the dangers of vaping, there may be other risks associated with long-term vaping which are not yet known.

Go smoke free

Quitting smoking and vaping can be very difficult but there are tools available to help you in your quitting journey:

- **Nicotine replacement therapy (NRT)** products are most commonly skin patches, lozenges or chewing gum which contain nicotine. They can help you manage the nicotine cravings you will experience while you stop smoking.
- **Coaching or counselling** options can be helpful to keep you motivated to quit.
- **Speaking to family, friends and whānau** about your plans to quit smoking and vaping can be a great way to keep you accountable and supported.
- **Your healthcare practitioner** will have information on stopping smoking.
- **Avoid places** you know you will be tempted to smoke and vape and ask family and friends not to smoke or vape around you.

For more information about quitting smoking and vaping or to order a Quit Pack, call Quitline **0800-778-778** or visit their website <https://quit.org.nz/>. Quitline also offer nicotine replacement therapy.



Keep physically active

Exercise is an important tool for managing COPD.

Exercise that makes you 'huff and puff' is good for your lungs and heart. Ideally, you should exercise for about 20-30 minutes per day. You may need to start with 10 minutes of exercise and slowly build this up over time. As you become fitter, your body will adapt, and everyday activities will begin to feel easier. Choose exercise that you enjoy but that makes you puff, and begin at a comfortable pace.

Your healthcare practitioner will be able to advise you about local facilities, and whether your local hospital runs pulmonary rehabilitation classes. Pulmonary rehabilitation programmes are well worth attending for all people with COPD.

Pulmonary rehabilitation programmes

Pulmonary Rehabilitation is a programme of education and exercise which usually runs for 6-12 weeks. Pulmonary rehabilitation reduces breathlessness, improves quality of life and reduces depression in people with COPD.

Everyone with COPD should attend at least one programme, as it will help you to understand all you need to know about COPD and how to manage it. The programmes are usually run by respiratory departments at hospitals, although some areas have community programmes. Ask your healthcare practitioner what is available in your area or look it up [here](#).



Maintain a warm, dry, well-ventilated home

A damp and humid home encourages mould growth. Mould can trigger COPD symptoms and increase the likelihood of a flare-up. To avoid mould growth, keep your home warm, dry and well-ventilated. You can reduce humidity by using a dehumidifier. Placing a dehumidifier in the bedroom may be particularly useful if your COPD symptoms worsen during the night.

If you are living in a damp/mouldy home, you may be able to get help through a healthy homes initiative. See the Foundation's [website](#) for more information.



Maintain a healthy body weight

Although you may lose your appetite if you are breathless, it is important to eat well. With COPD, more energy is required by the body for breathing, so you need to alter your diet to allow for this.

People with chronic lung conditions use 25 – 50% more energy compared to people with healthy lungs.

If you are overweight, your breathlessness may become worse as your body works harder to carry extra weight. Carrying too much weight also places pressure on your heart and lungs and increases your risk of developing type 2 diabetes. To lose weight, you will need to eat fewer fatty and sugary foods and more vegetables, lean meats and poultry.

For more information about managing your diet, ask your healthcare practitioner to refer you to a dietitian.



Visit your healthcare team regularly

There are lots of people who can support you to manage your COPD correctly. It is important to build a partnership with your healthcare practitioner. Following their advice should help you manage your symptoms and increase your quality of life.

One important way to keep yourself well is to be up-to-date with your vaccinations, including against influenza (flu) viruses and pneumococcus (which causes bacterial pneumonia).

The annual flu vaccine is free for people who have a diagnosis of COPD, and is usually available after the 1 April each year: [Click here for more info.](#)

People with COPD are also more at risk of severe illness with COVID-19. It is important for everyone with COPD to get a COVID vaccination and booster doses as recommended by Health New Zealand: [Click here for more info.](#)

Check with your local healthcare provider or community pharmacy about getting these vaccinations.



Managing stress

Stress can be a COPD trigger. It may cause your breathing rate to increase, which can make you feel out of breath. Living with a chronic medical condition can increase how often a person feels stressed.

People with COPD may be stressed about busy or crowded environments, completing unavoidable strenuous tasks, or when they feel that their symptoms are getting worse. After acknowledging that you're feeling stressed, you can do a number of things to calm yourself:

What can you do about stress?

- Try to keep as active as possible. Exercise can reduce stress hormones and increase production of endorphins.
- Share the load with a friend or counsellor.
- Manage your expectations: be realistic about the number and types of activities you can do in a day. You may need to swap jobs in the house which demand too much energy (e.g. cooking instead of gardening).
- Conserve your energy so you still have time to do the things you enjoy.



Energy conservation

People with COPD use more energy to breathe. It is important that you plan activities carefully and do the most energy-consuming activities when you feel most energetic.

There are a number of ways you can complete daily tasks more easily, so you have the energy to take part in activities you really enjoy:

- In the kitchen, store utensils and favourite ingredients within easy reach and between your waist and shoulder height to avoid reaching and stooping.
- Prepare meals in advance or plan some easy, quick and nutritious meals you can make for yourself when you are feeling tired.
- Use a towelling bathrobe after your shower to reduce the work of drying yourself.
- Wear loose clothing, without any buttons or buckles and slip-on shoes to make dressing easier.
- Use a stool or box to sit on while gardening.
- Have a cordless or mobile phone, rather than a fixed landline, so you don't need to get up when the phone rings.
- Consider energy conserving products such as adjustable seating and beds, a walking stick or walking frame. There are other helpful devices available on the market.



COPD medication

Although symptoms from COPD can be greatly helped by lifestyle changes, many people will require medicine to help them to manage their symptoms. The most common medicines used to help with COPD are bronchodilator (airway opening) inhalers.

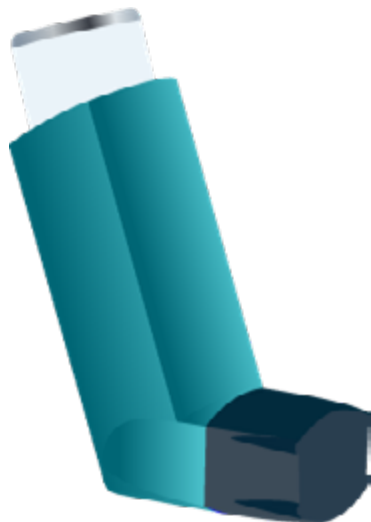
There are two different types, beta-agonists and muscarinic antagonists, but both types of medicine work by causing relaxation of the muscles around the airways to open them up. Both of these medications work to relieve COPD symptoms and make breathing easier.

There are three different types of COPD medicines, which are used in different settings:

1. Reliever (short-acting bronchodilator) inhalers

Reliever (short-acting bronchodilator) medicines provide short-term relief from COPD symptoms. These inhaled medicines begin working quickly and you should find it easier to breathe within a few minutes. They work by relaxing and widening the airways to reduce breathlessness.

Reliever inhalers are used only when you notice you are wheezing, coughing, out of breath or feel a tightness in your chest. Relievers can also be used before exercising or performing a strenuous task. Unless you only need to use your reliever inhaler occasionally, you are likely to benefit from also having a maintenance (long-acting bronchodilator) inhaler.



COPD medication

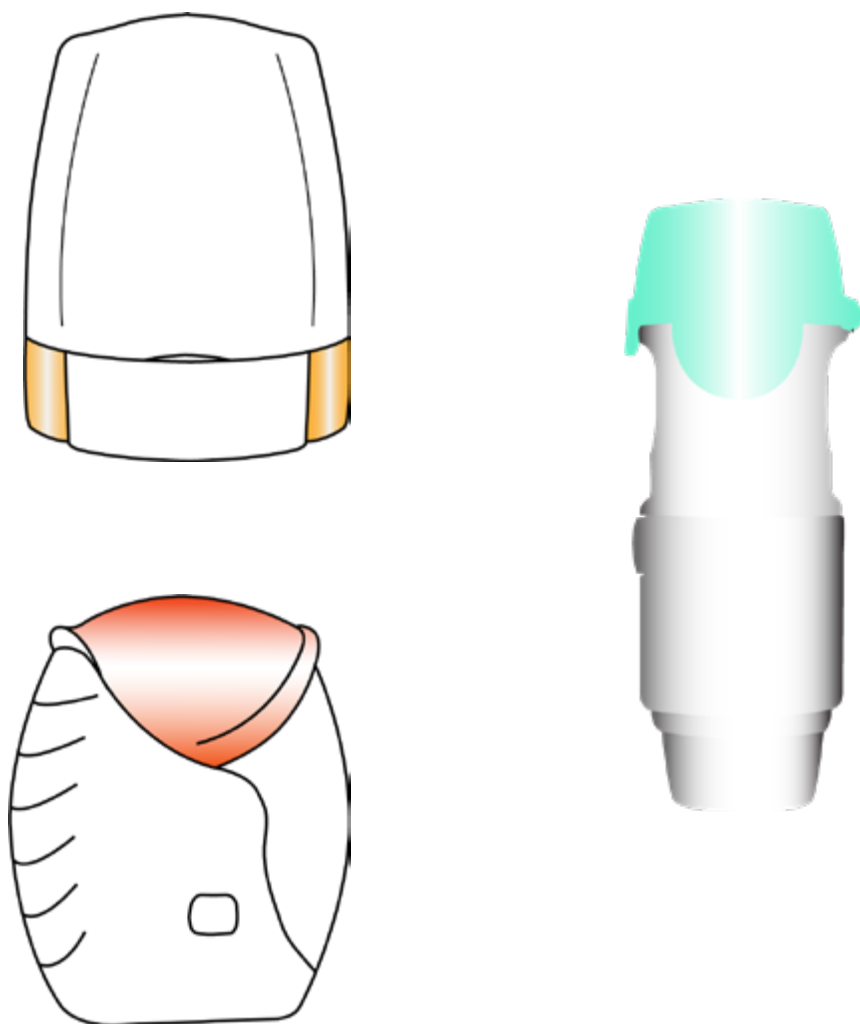
2. Maintenance (long-acting bronchodilator) inhalers

Most maintenance medicines take longer than relievers to begin working. Each dose of a maintenance inhaler lasts for at least 12 hours, compared to four hours with the reliever medicine.

The two types of maintenance medicines are:

- *Long-acting muscarinic antagonists (LAMA)*
- *Long-acting beta agonists (LABA)*

LAMA inhalers are the first recommended maintenance medication for COPD. However, if this is not enough by itself to control breathlessness, or if you are having flare-ups (exacerbations) which require steroid tablets, then a combination inhaler with both a LAMA and LABA can be used.



COPD medication

3. Corticosteroid inhalers

Some people with severe COPD may benefit from having an inhaled corticosteroid (ICS) along with their maintenance inhaler.

An ICS can help some people who are having frequent flare-ups of COPD. Your healthcare practitioner may look at blood test results to help them work out if an ICS is likely to be helpful. An ICS can also help reduce the inflammation in the lungs and will often be given as a combination inhaler along with a maintenance medicine (i.e. an ICS/LABA combination inhaler).

See Inhaler devices for COPD [here](#).

To get the maximum benefit from your medicine, it is important to have the correct inhaler technique. Ask your healthcare practitioner to explain and demonstrate how to use your inhaler, and regularly check your technique with them.



Oxygen therapy

Some people with COPD can benefit from oxygen therapy. Oxygen therapy is not used to treat breathlessness. It is used if damage to the airways has caused a low concentration of oxygen in your blood.

The benefits of oxygen therapy include:

- More energy - oxygen therapy can help you become more active, allowing you to take part in activities you enjoy.
- Reduced risk of damage to the heart.
- Better sleep.
- Fewer hospitalisations.

Considerations:

If you are prescribed long-term oxygen therapy, you will be recommended to use oxygen for at least 16 hours per day.

Oxygen therapy works only while you use it. When you take off your oxygen mask, your blood-oxygen level will drop within a few minutes, so it is important to use the oxygen for the full amount of time recommended by your healthcare practitioner.

Oxygen therapy can only be prescribed to non-smokers and non-vapers, as having oxygen in the house is a fire risk.

Antibiotics

Chest infections can be a problem when you have COPD.

Antibiotic treatment may be necessary if you have increased mucus or your mucus changes colour and you feel generally unwell.

If you are prescribed antibiotics, you must always take the complete course, even if your symptoms improve. This is to prevent relapse and to avoid the development of antibiotic resistance.



Complementary medicine

Complementary medicine refers to products or practices that are not prescribed or considered to be common or mainstream healthcare. There is often a lot of emphasis on the mind-body connection in complementary medicine and treating the body as a whole.

Complementary medicine cannot cure COPD, but some people may find that can provide some relief. It is important to tell your health practitioner about any complementary medicine you plan to use.

Your healthcare provider can check if the complementary medicine is safe and appropriate for your condition and ensure it will not interfere with any other medicine you are using to manage your COPD.

Examples of complementary medicine used for COPD may include:

- Acupuncture
- Massage
- Yoga
- Meditation
- [Rongoā Māori](#)
- Vitamins/supplements



Managing a COPD flare-up

The severity of your COPD symptoms may change from one day to the next, however, if your symptoms worsen quickly over a couple of days you may be having a COPD flare-up. These are also known as **exacerbations**.

Flare-ups can be distressing but knowing the signs of a COPD flare-up and having a management plan will help you stay in control of the situation.

Signs of a flare-up often include:

- Feeling more breathless.
- Coughing more.
- Wheezing sounds when breathing.
- Producing more mucus and/or a change of mucus colour.
- Signs of a fever (hot/cold flushes, temperature).
- Needing your reliever inhaler more often.
- Feeling more tired/lethargic than normal.

If you are having a flare-up, you should see your healthcare practitioner as you may need a short course of steroid tablets (prednisone).

If you think you are having a severe COPD flare-up, it's time to take action:

- Dial 111 for an ambulance or press your medical alarm button.
- Take extra doses of your reliever inhaler as needed until the ambulance arrives.
- Use breathing control techniques.

Avoiding a flare-up:

Flare-ups can be caused by **viral** and **bacterial chest infections**.

To avoid infections, ensure you have good hand hygiene and make sure to get the **flu vaccine** and **COVID-19 vaccine/booster** as recommended by the Ministry of Health each year.

Your health practitioner may also talk to you about getting vaccinated against **pneumococcus** (which causes bacterial pneumonia). You should also try to avoid things that can trigger your COPD symptoms, such as cigarette smoke and car fumes.



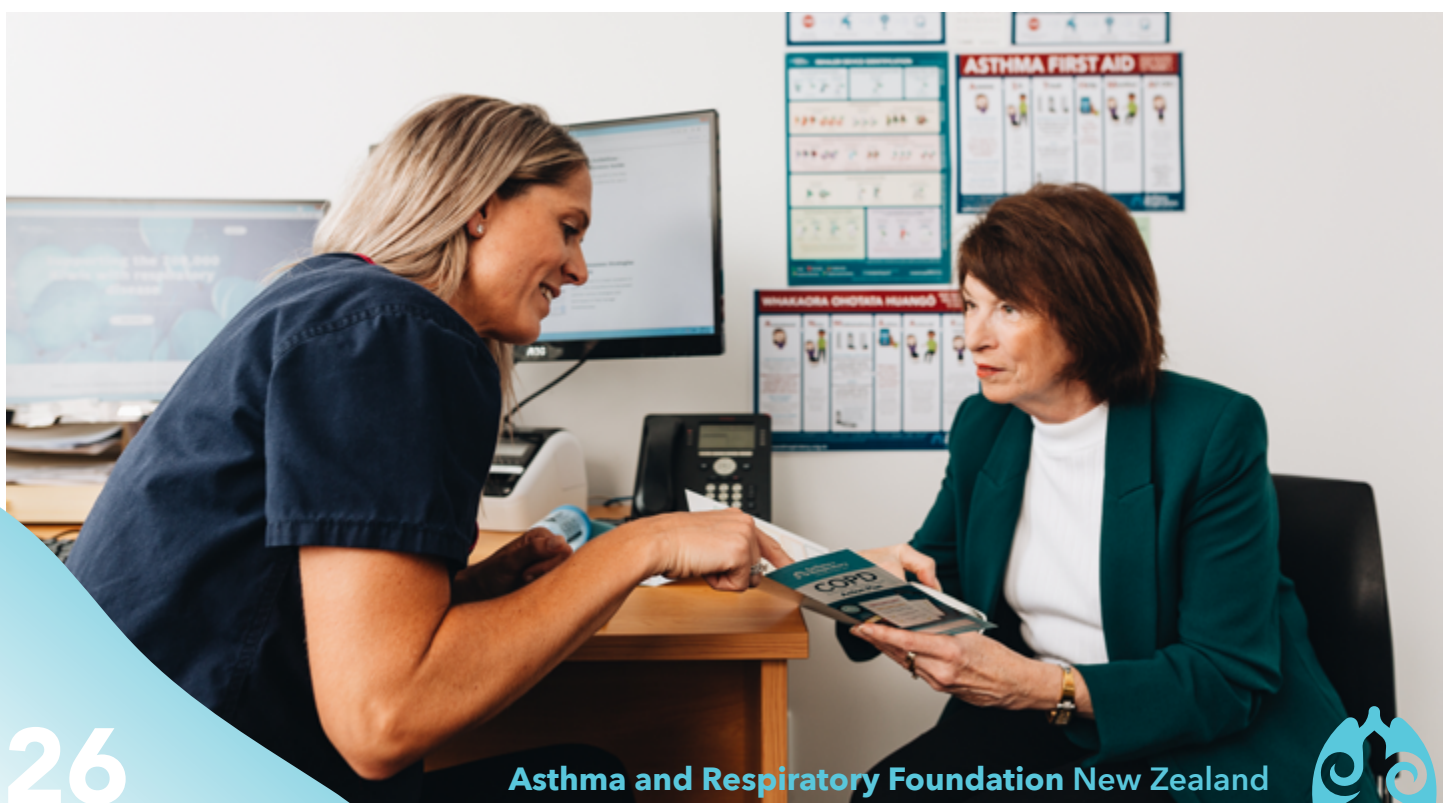
Visiting your healthcare practitioner

You may have to visit your healthcare practitioner for routine COPD appointments, or if you become unwell.

Appointments about your COPD may feel stressful, but it is important that you are able to communicate clearly with your healthcare practitioner, so they can give you the help and advice you may need.

Preparing for your appointment:

- Write down questions you want to ask the healthcare practitioner.
- Write down what you want to tell them: e.g. "I've started feeling more breathless after climbing a flight of stairs than usual. Should I be worried?"
- If you want to, bring a friend or family member; they can also take notes and may remember things that you have missed.
- If you keep a symptom diary, bring it along. This will help your healthcare practitioner have a clear picture of how your COPD changes day to day.
- Remember, it is part of your healthcare practitioner's job to explain things in a way that you understand. *There is no harm in asking your healthcare practitioner to explain something again.*



Recommended resources

Physiotherapy

Visit [physiotherapy.org.nz](https://www.physiotherapy.org.nz) to find a local physiotherapist. Physiotherapy can reduce breathlessness of patients with COPD at different stages of the disease. They can also help with techniques to help clear mucus.

Quitting smoking and vaping

[quit.org.nz](https://www.quit.org.nz) provides guidance on how to quit smoking and vaping.

Giving up smoking is the single most effective step you can take to manage your COPD and prevent further lung damage.

Dietitian

A dietitian can provide education about the best foods to eat for people with a respiratory illness, based upon their medical condition and individual needs. Your healthcare practitioner can refer you to a dietitian. Visit [dietitians.org.nz](https://www.dietitians.org.nz) for information about diet and to locate a dietitian in your area.

Occupational Therapy

An occupational therapist can teach people easy ways to do basic daily tasks that become more difficult for people who are unwell. Speak to your healthcare practitioner for a referral to an occupational therapist.

Health Social Worker

Social workers can provide support to people with COPD and their families by pointing them in the direction of counselling, referrals to community services and support groups. Speak to your healthcare practitioner for a referral to an appropriate social worker.

COPD Support Groups

These are usually informal groups for people who are affected by COPD. They aim to provide a supportive and non-judgemental environment to relieve the isolation that can be felt by people living with COPD.

Click [here](#) for a list of our [regional partners](#) and contact your local branch for information on their COPD support services.

Healthy Homes Initiative

If you are living in a *cold, damp* or *poorly-ventilated* home you may be able to get help through a [healthy homes initiative](#). Visit the Foundation's website to find out more.





Asthma and Respiratory Foundation NZ (ARFNZ) is New Zealand's principal authority for all respiratory conditions, representing the interests of the 700,000 New Zealanders living with respiratory disease.

Our purpose is to lead respiratory health knowledge through research, education, and advocacy, with the goal to reduce respiratory-related hospitalisations, and improve respiratory health outcomes for all.

The Foundation works to achieve this through a combination of activities and campaigns including; developing clinical best practice guidelines, encouraging self-management, improving health literacy, delivering education, and raising the national profile of respiratory disease in New Zealand.

**Produced by Asthma and
Respiratory Foundation NZ**

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