

Better Living with Chronic Obstructive Pulmonary Disease

A Patient Guide

Second Edition
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THE
AUSTRALIAN
LUNG
FOUNDATION



**Queensland
Government**

Queensland Health

"When you can't breathe...nothing else matters"™

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Breathlessness, breathing control and energy conservation

This chapter will help you to understand:

- What the causes of breathlessness are.
- How to better control or reduce your breathlessness.
- Why energy conservation is important.
- How you can conserve your energy.

What are the causes of breathlessness?

Who becomes breathless?

Breathlessness (or dyspnoea) is common in people with lung or heart conditions, as well as in people who are overweight or unfit.

People who are overweight or unfit will have to work harder during everyday activities and, as a result, will fatigue more quickly.

As people get older, their lung function declines owing to changes in their lungs, their chest wall and the strength of their breathing muscles. These changes contribute to older people becoming more breathless when performing activities.

Those with lung diseases like COPD will experience breathlessness as the disease affects the breathing tubes or airways and the lungs. The feelings of breathlessness may increase as the disease progresses.

How do people feel about their breathlessness?

In mild forms of lung disease, breathlessness may occur when walking up hills or stairs. As the disease becomes more severe, breathlessness can occur on minimal exertion such as when walking slowly along flat ground or even at rest.

Daily activities become more difficult as the lung condition gets worse. It is not surprising that people

who have COPD can become frustrated, anxious and depressed. These emotions can make breathing problems worse.

Importantly, for people who have lung conditions, such as COPD, there are things they can do to make life easier. It is important not to stop doing things altogether but to try to stay as active as possible.

When do you notice your breathing change?

We are not usually aware of our breathing, but there are times when we do become aware.

The breathing centre in the brain is constantly receiving signals from your body about the amount of oxygen that is needed.

The oxygen requirements of your body will depend on many factors, such as:

1. **The severity** of your lung condition and the ability of oxygen to pass through your lungs into your blood stream for use by the body.
2. **The level of activity** you are currently doing will affect the amount of oxygen your body will need. For instance, when you are resting quietly, the oxygen demand is less than when performing strenuous activities, such as walking up stairs or hills.
3. **Your fitness or conditioning** will also affect your oxygen requirements during an activity. A person

with a better fitness level will generally be more efficient in moving oxygen around their body, and their muscles will require less oxygen to do the same activity than a person who is unfit.

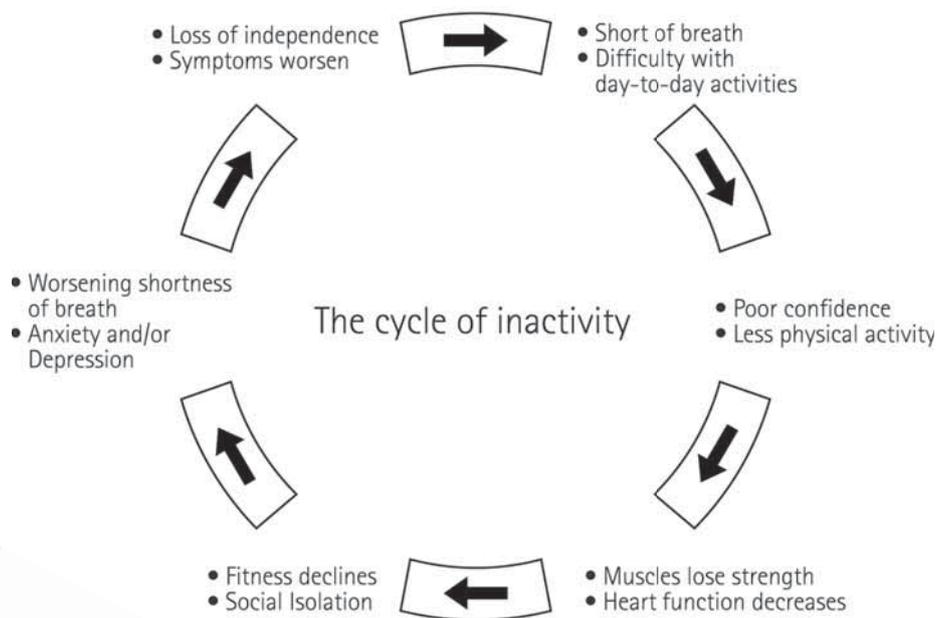


4. **Stress or anxiety**, or a low mood, can affect your breathing rate. These mood states can make you focus on your breathlessness and make you more aware of your breathing.
5. If you are **unwell** more effort is required to breathe.

COPD and breathlessness

COPD affects both the lungs and the body. As a result, breathlessness can be caused by a combination of reasons:

1. In COPD, the lungs lose their natural elasticity as they become damaged and over-expanded. This can make it harder for someone who has COPD to breathe air out fully.
2. As a result of being unable to breathe air out fully, the 'trapped' air leads to an over-expansion of the lungs. This is often called a barrel chest (hyperinflation). Hyperinflation changes the way your muscles and chest wall work. The breathing muscles of a person who is hyperinflated will have to work harder and as a result, will fatigue more quickly. Other muscle groups can be used to help people breathe; these muscles are known as **accessory muscles**. The neck muscles are an example of these accessory muscles.
3. The muscles used for breathing, like all muscles in the body, require oxygen to be able to work. A person who has COPD may have a **higher oxygen requirement** just to continue breathing.
4. The **narrowing or swelling of the breathing tubes or airways**, in combination with producing larger amounts of sputum, can restrict the flow of air in



The cycle of inactivity

and out of the lungs. Airway clearance techniques can help to keep the breathing tubes or airways clearer and assist in making breathing easier (see chapter 13).

- When you are living with COPD, you may be unable to continue your normal level of activity, which can result in a cycle of inactivity (see the previous diagram). Frequently, this will lead you to reduce your physical activities, causing you to become unfit or poorly conditioned. Being **unfit or poorly conditioned** makes your movements less efficient and requires greater effort to complete everyday activities.
- People who have COPD often experience **increased anxiety** about becoming breathless or short of breath. This anxiety can lead to a fear of undertaking activities.

In summary, people with COPD need to work harder than others to breathe.

How do you better control or reduce your breathlessness?

There are many treatment options and management strategies that can help you control or reduce your breathlessness.

1. Medication

Using your reliever, maintenance and preventer medication can assist in controlling breathlessness. It is important that medications are used correctly to ensure their effectiveness.

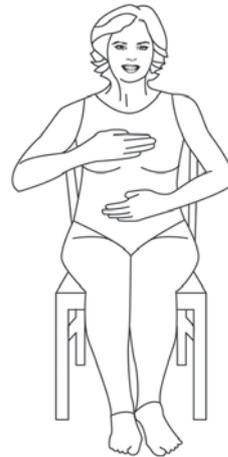
For more details on medications and inhalation devices, refer to chapter 7 'Knowing your medication' and chapter 8 'Using your inhalation devices'.

2. Relaxed breathing

People who have COPD have more difficulty breathing out fully. The body's normal reaction when breathlessness occurs is to breathe faster and shallower. However, faster and shallow breathing is not an effective way to regain control of your breathing.

You could practice relaxed breathing any time you are trying to catch your breath. For example, relaxed breathing may be useful after coughing or exercising.

Aim to breathe out slowly and without force. As you breathe out, let your shoulders and neck muscles relax. Most of your breathing should occur by the lower ribcage expanding and relaxing, rather than in the upper chest.



Relaxed breathing technique

By breathing out fully, you will be able to breathe in better. You may find it useful to practice relaxed breathing when you are at rest so that you are familiar with the technique.

To practice relaxed breathing, place one hand on your chest and one hand on your stomach at the level of your navel while sitting. When you take a deep breath in, the hand on your stomach, rather than the hand on your chest, should move first. Practice breathing so that the hand on your stomach moves first.

3. Prolonged expiration breathing

The purpose of prolonged expiration breathing is to try to reduce the amount of air trapped in the lungs and reduce airway collapse by prolonged breathing out (unforced expiration). Breathing out should take longer than breathing in.

Breathing out through pursed lips is an example of this technique. Pursed lips (lips that are closer together than usual, as if you were whistling or kissing somebody) create a smaller opening for the air to flow through.

4. Recovery positions

Good posture is very important. The more you slump, the more you squash your lungs and stomach, and the harder it is to breathe.

Try taking a deep breath while slumped. Now try again while standing or sitting fully upright with a tall spine. Can you notice a difference?

A comfortable recovery position is important. Typically, recovery positions are upright with your arms supported. Common examples of recovery positions are shown in the images on the following page.



Resting against a sign



Resting against a tree

5. Pace yourself

This is a very important skill and is often overlooked. If you have breathing problems and are noticing that you are more short of breath than previously, you will need to slow down to get your tasks done.

If you rush and try to beat the shortness of breath, you will spend longer trying to catch your breath. If you go slowly and pace yourself, you will go a lot further before needing a rest. For example:

- While walking, try to establish a pattern of breathing that matches your steps and that you can maintain easily. For example, you may breathe with every step or over a number of steps depending on your level of breathlessness and fitness.
- If you change your pace of walking, you will need to adjust your breathing pattern.
- Before you begin climbing stairs or walking up hills, it is important to gain breathing control.
- Do not hold your breath and rush through the task to 'get it over with' as this will only make you more short of breath.

- Aim to find a rate of breathing that matches your effort. If you find an activity too hard to do, simply stop and recover before restarting the activity at a slower pace.

6. Improve your fitness

Better fitness levels or improved tolerance to exercise will enable a decrease in the effort required to perform everyday activities.

7. Manage your anxiety

Learning how to manage or control your anxiety, or situations that cause your anxiety, can assist your breathing control (see chapter 18 'Managing stress, anxiety and depression', page 76).



Why do you need energy conservation?

With lung disease, the body is no longer as efficient in meeting the body's demand for oxygen.

When the body receives less oxygen, energy supplies become limited. This can cause fatigue, shortness of breath and possible anxiety or panic with everyday activities.

By learning to conserve energy with everyday tasks, you will be able to perform many activities with less effort and less shortness of breath.

Along with exercise, keeping active in normal daily activities is an important part of maintaining your fitness.

Before stopping an activity, consider whether you could make it easier by using the following energy saving techniques.

By learning to conserve energy with everyday tasks, you will be able to perform many activities with less effort and less shortness of breath.



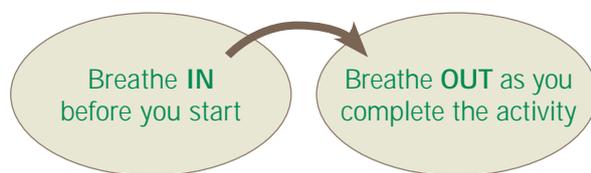
1. Control and coordinate your breathing with daily activities

People with lung disease use more energy simply to breathe. Therefore, it is important to coordinate your breathing with all activities. Even the simplest tasks use energy.

Standing Up: Breathe in before you move. Breathe out as you rise up from your seat.

Lifting an object above your head: Breathe in before you lift. Breathe out as you lift your arms above you.

Putting on shoes: Breathe in before you move. Breathe out as you bend down to put on your shoe.



- If you go slowly and pace yourself, you will go a lot further before needing a rest. If you rush and try to beat the shortness of breath, you will spend longer trying to catch your breath.
- When you are feeling short of breath, use recovery positions to help regain control of your breathing.

2. Reduce strenuous movements

Keep your arms and body close to the activity you are performing:

- Carry objects close to your body.
- Organise equipment or food to be within easy reach.
- Keep most activities between waist and shoulder level:
 - Store commonly used items on middle shelves between your waist and shoulders.
 - Work at benches that are at waist height.
 - Use long handled equipment (for example, long handled reachers, long handled pruning shears, a broom, a dressing stick, a sock aid and a bathing brush).

Bring your feet to you (for example, rest your foot on your knee to towel dry, put on socks, and tie up your laces).

Avoid heavy lifting:

- Use trolleys; push rather than pull; slide rather than lift.
- Let your bigger muscles do the work – squat with your legs, avoid bending your back.
- Ask for help.
- Divide the load eg. groceries, half fill the kettle.

3. Sit when possible to perform activities

- Standing uses more energy than sitting.
- When possible, consider sitting while ironing, washing dishes, showering, chopping vegetables, gardening, making a phone call or working in the shed.
- Keep a high stool or chair for you to use in your kitchen or at your work bench.

4. Take frequent rest breaks

Continuing to work until you are out of breath may then take you longer to recover. So take regular breaks to rest and recover while working. Don't wait until you need a break.

5. Plan and prepare before you perform tasks

- High expectations can lead to frustration, so be patient with yourself and set achievable goals.
- Challenge old habits. Ask yourself *'Is it essential that this task be performed in the usual way?'*
- Plan for rest breaks and interruptions.
- Break jobs into smaller steps. For example, rather than cut the entire lawn in one go, do it in two or three goes.
- Prepare and prioritise.
- Use a diary or calendar to plan daily, weekly and monthly tasks.
- Put items where they can be found easily and quickly.
- Keep most frequently used items between waist and shoulder level.
- Use equipment that makes the job easier, eg. light weight crockery, long handled reachers, long-handled garden equipment, stools, trolleys, velcro shoes, buttonless shirts and clothes that don't need ironing.

6. Pace yourself:

- Use slow, rhythmic movements.
- Alternate light and heavy activities
- Spread heavier tasks throughout the day, week and month.
- Learn to ask for help, or get someone else to do the task, such as family members, community services, neighbours, volunteers or friends. Asking for help does not mean you are dependent, it means you are using your energy to its best advantage.

7. Avoid extremes of temperature

Hot or cold environments place greater demand on the body which may increase feelings of breathlessness, fatigue, discomfort and anxiety.

- Avoid strenuous tasks, particularly in hot weather.

- Where possible, control the temperature in your environment.
- Use fans, air conditioners, heaters.
- Avoid extremes in temperature.
- Reduce steam – open doors, windows.

8. Avoid activity after a meal

Avoid strenuous activity after meals.

9. Relax

- When you feel worried, anxious or uptight your body uses a greater amount of energy. This can add to feelings of being tired or breathless.
- Relaxation can help restore energy.
- Concentrate on relaxing your muscles and slowing down your breathing.

When breathlessness or fatigue limits your ability to commence, continue or complete an activity remember to **PLAN, PREPARE, PACE & PAUSE**

PLAN how you will carry out the task.

PREPARE all the items you will need to complete the task.

PACE yourself and slow down during the task.

PAUSE and rest whenever needed.

