



LUNG FOUNDATION

AUSTRALIA

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

Chronic Obstructive Pulmonary Disease (COPD)

COPD is a lung disease that affects 14% (or one in seven) Australians aged 40 or over.¹ This figure increases to 29% in Australians aged 75 or over.¹

7.5% of Australians 40 years old or over have COPD that has progressed to where symptoms may already be present and affecting daily life. Half of these people will not know they have COPD.²

COPD is the second leading cause of avoidable hospital admissions.³

In 2013, COPD was the fifth leading cause of death in Australia. In that year 6,462 people died from COPD (4.4% of all deaths).²¹

Despite falling death rates, COPD is still a leading cause of death and disease burden after heart disease, stroke and cancer.⁴

COPD is diagnosed by Spirometry.⁵

While there is currently no cure for COPD, there are things people can do to be more active with less troublesome breathing, keep out of hospital and have better quality of life.⁵

Important features of the management of COPD:

- ***Early diagnosis***
- ***Optimise medications***
- ***Pulmonary rehabilitation***

Pulmonary rehabilitation is a highly effective evidence-based intervention for people with COPD. Pulmonary rehabilitation programs have been shown to help people breathe easier, improve their quality of life and stay out of hospital.

A Cochrane review²⁵ identified that pulmonary rehabilitation reduces hospital admissions and average length of stay, with the numbers needed to treat (NNT) with pulmonary rehabilitation to avoid one hospital admission, just four. NHMRC Level I & II²⁴ evidence, which is the highest levels of evidence, supports the benefits of pulmonary rehabilitation, which:

- ***Reduces hospital admissions and length of stay***
- ***Reduces re-admissions post exacerbation***
- ***Reduces mortality***
- ***Improves symptoms of anxiety and depression***
- ***Increases quality of life and functional exercise capacity***

What is COPD?

- Chronic Obstructive Pulmonary Disease (COPD) is an umbrella term for lung diseases that includes emphysema, chronic bronchitis and chronic asthma which isn't fully reversible.
- COPD is typically associated with:
 - Shortness of breath
 - A repetitive cough with phlegm / mucus most days
 - History of cigarette smoking or exposure to other occupational or environmental pollutants (smoke, fumes or dust)
- While COPD currently has no cure, there are things that people can do to be more active, breathe more easily, keep out of hospital and improve their quality of life.⁵

Many people with COPD have other conditions (heart disease, hypertension, diabetes, osteoporosis, depression, lung cancer, and many more). These can be a source of confusion for patients and health professionals, and complicate management.

How does a person with COPD feel?

Symptoms for an individual with COPD tend to come on gradually over years. Breathlessness may lead those with the condition to cut back on physical activities, and their fitness levels suffer. This gradual decline continues until simple daily activities like showering, dressing or even making a cup of tea, become almost impossible. Depression and anxiety often affect those with COPD.

What causes COPD?

- In the western world, cigarette smoking is the single largest cause of COPD.⁵ However, despite being the highest risk group for COPD, regular smokers are less likely than the rest of the population to consider themselves at risk of developing COPD.⁶
- Some 20% of COPD occurs in never smokers⁷.
- Other known risk factors are passive smoking, especially during infancy when the lungs are still developing, as well as exposure to environmental agents, such as indoor and outdoor air pollutants including occupational fumes, dusts and chemicals.⁵
- Women may be at greater risk than men of COPD from exposures at work and may be more susceptible to COPD due to smaller lungs and airways and perhaps more sensitive airways.⁸
- Chronic asthma may evolve into COPD in later life, especially in those who have smoked and when appropriate medicines have not been taken properly.⁵

Prevalence of COPD

- Lung Foundation Australia estimates that approximately 1.45 million Australians have some form of COPD (GOLD Stages I-IV).^{1,9} This represents approximately one in seven Australians aged 40 and over.¹
 - Of those with COPD currently, Lung Foundation Australia estimates that over 750,000 Australians^{1,9} have COPD that has progressed to a stage at which symptoms such as breathlessness or cough may already be present and affecting their daily lives. Half of these

people do not have a doctor's diagnosis of COPD and are therefore not taking the important steps to slow down the progression of the disease.²

- Another 700,000 Australians^{1,9} have a mild form of COPD where symptoms may not yet be present. Many of these will go on to develop more severe COPD.
- People who unknowingly have COPD may mistake their symptoms as signs of ageing, lack of fitness or asthma – a simple spirometry test organised through a GP can diagnose COPD.
- Self-reported COPD rates among Aboriginal and Torres Strait Islander Australians are 2.5 times higher compared with non-Indigenous Australians.²³

The Burden of COPD

- In Australia, despite falling death rates, COPD is still a leading cause of death and disease burden after heart disease, stroke and cancer.⁴
- In 2014 nearly 7,000 deaths were attributable to COPD and emphysema combined, compared to 411 from asthma.²⁷
- Even with under-reporting, the rate of death from COPD is increasing as opposed to the rate of death from heart disease which has decreased over the last few decades. In 2014, COPD accounted for 4.5% of all deaths compared to 3.7% in 2005.²⁷
- COPD was the 3rd leading cause of death worldwide in 2010.¹⁰
- Australia ranks 4th in OECD countries for COPD and asthma adult hospitalisations (2013 or nearest year).²⁰
- COPD is the second leading cause of avoidable hospital admissions in Australia.²⁶ In 2013–2014, the average length of hospital stay for COPD including same-day hospitalisation was 5.7 days.²⁶
- In 2013–14, the age-standardised rate for COPD was 239 hospitalisations per 100,000 people nationally.²⁶
- \$929 million was spent on COPD in 2008–09 (last year for which reliable data are available). That is 1.3% of all direct expenditure on diseases.²²
 - The greatest proportion of expenditure was due to hospital costs for admitted patients. COPD expenditure consisted of:
 - 57% admitted patient costs
 - 23% prescription medicines
 - 19% out-of-hospital medical services.

COPD diagnosis and treatment

- COPD is treatable⁵.
- While there is currently no cure for COPD, there is evidence to show that early diagnosis, combined with disease management programs at the early stages of the disease, can reduce the burden of COPD, improve quality of life, slow disease progression, reduce mortality and keep people out of hospital.⁵
- Hospitalisations can be avoided if COPD patients receive appropriate and timely management for their condition out of hospital.²⁶

Treatment

The key aims of COPD treatment are to reduce symptoms and reduce the risk of sudden major events. Interventions can improve quality of life, increase the capacity for exercise and ultimately, keep people well and reduce the need for hospital admission. There are a number of steps people with COPD can take to breathe more easily and improve their quality of life.

- **Stop smoking** – slows the rate the disease progresses and improves symptoms.^{5,15}
- **Pulmonary rehabilitation** –reduces breathlessness, fatigue, anxiety and depression, improves exercise capacity, emotional function and health-related quality of life and enhances patients’ sense of control over their condition. Pulmonary rehabilitation reduces hospitalisation and has been shown to be cost-effective.⁵ Anyone diagnosed with COPD who is experiencing symptoms should undertake pulmonary rehabilitation.
- **Inhaled medicines** – reduce symptoms, improve quality of life, reduce activity limitation and prevent exacerbations associated with hospital admissions.⁵
- **Regular vaccinations** against influenza and pneumococcal infection.⁵
- **Support groups/services** – as COPD worsens and patients feel less able to carry on their normal activities, patients become increasingly isolated. Support groups/services can help meet the emotional and social needs of people with the condition, helping them realise that they are not alone. Lung Foundation Australia has a list of these groups.
- **Oxygen therapy** – helps those people with advanced lung disease who are unable to absorb sufficient oxygen to supply their vital organs.⁵
- People aged 35 and over with a history of cigarette smoking should speak with their GP to request a **lung health check** (and potentially a spirometry test), if they exhibit any of the following:
 - Cough several times on most days
 - Bring up phlegm or mucus on most days
 - Are short of breath compared with others their age

Lung Foundation Australia

- Lung Foundation Australia is the only national charity supporting all lung diseases in Australia; providing clinical and support group representation nationwide.
- Lung Foundation Australia produces a range of clinical resources to support evidence-based diagnosis and management of COPD as well as a wide range of other respiratory diseases resources.
- Lung Foundation Australia partners with The Thoracic Society of Australia and New Zealand and other professional organisations to ensure health professionals receive timely updates to what treatment options are available.
- Lung Foundation Australia offers a national network of patient support groups for people with COPD and other lung conditions. Patients can also be supported with information via:
 - Our website (www.lungfoundation.com.au);
 - LungNet News (a quarterly health education newsletter)
 - Toll free Information and Support Centre hotline (**1800 654 301**).

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