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*Consultant Pharmacist Continuing Education Series*

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# Breathlessness in older adults

Breathlessness is common among older people but is often under-reported or hidden as a normal part of ageing. More than 9% of Australian adults report breathlessness. Many older people may have limited or blunted perception of their breathlessness and may develop various coping strategies to minimise the burden on daily activities. The terms breathlessness and dyspnoea are often used interchangeably.

## Definitions

Dyspnoea is defined as a "subjective experience of breathing discomfort". Breathlessness or shortness of breath (SOB) is more commonly used to describe breathing difficulty or discomfort. Other words commonly used include chest tightness, air hunger or unsatisfied inspiration.

Breathlessness is now classed as a disease, defined by duration of symptoms: acute (hours to 3 weeks), subacute (3-8 weeks), chronic (more than 8 weeks). Chronic breathlessness is breathlessness at rest or with low levels of exertion that persists despite optimal treatment of underlying conditions.

Breathlessness may also be described as activity-related (shortness of breath on exertion [SOBOE]) or non-exertional.

Further definitions describe different types of breathlessness. Orthopnoea is shortness of breath on lying flat. Trepopnoea is shortness of breath while lying on one side but not on the other. Bendopnoea is shortness of breath experienced within 30 seconds of bending over at the waist. Bendopnoea is often associated with heart failure.

Paroxysmal nocturnal dyspnoea (PND) is attacks of severe shortness of breath and coughing that occur on lying down. It usually awakens the person from sleep.

## Causes

The causes of breathlessness in older adults are multiple, including:

- chronic obstructive pulmonary disease (COPD)
- asthma
- lung cancer
- pulmonary hypertension
- interstitial lung disease
- heart failure
- obesity
- anxiety and depression
- severe kidney dysfunction
- anaemia
- sarcopenia
- frailty

Over 80% of patients with COPD experience some degree of breathlessness. Chronic breathlessness in COPD is a predictor of mortality and is associated with severe disability.

Breathlessness and dyspnoea are common symptoms of asthma, together with wheeze, chest tightness, cough and night waking. Some symptoms of breathlessness from stress may overlap with asthma-induced breathlessness.

Obesity is associated with exertional dyspnoea, possibly because of its effect on respiratory function and exercise capacity. The National Breathlessness Survey found that obesity accounts for around one quarter of breathlessness symptoms in Australian adults.

Anxiety and depression caused by breathlessness can further increase the perception of breathlessness. Anxiety increases respiratory rate and can cause muscle tension, further increasing the work of breathing and respiratory demand.

There is also an association between breathlessness and sarcopenia. Dyspnoea limits physical activity that causes disuse atrophy and weakness of skeletal muscles in particular the leg muscles, followed by muscle deconditioning. This can create a vicious cycle of increasing breathlessness.

In addition, frailty and poor performance in a single chair stand test is often associated with exertional dyspnoea. The single chair stand test assesses leg strength and endurance, with the person standing up from a chair five times without using arms or stopping in between.

## Assessment

The modified Medical Research Council breathlessness scale (mMRC) is used widely to assess the functional impact or severity of breathlessness during daily activities, particularly in relation to COPD. The mMRC scale is composed of four statements describing the range of disability because of breathlessness from grade 1 to 4:

| | |
|---|---|
| **0** | I only get breathless with strenuous exercise |
| **1** | I get short of breath when hurrying on level ground or walking up a slight hill |
| **2** | On level ground, I walk slower that people of the same age because of breathlessness, or I have to stop for breath when walking at my own pace on the level |
| **3** | I stop for breath after walking 100 metres or after a few minutes on level ground |
| **4** | I am too breathless to leave the house or I am breathless when dressing or undressing |

A score of 2 or more indicates clinically important breathlessness. Clinically important breathlessness is associated with poor quality of life, depression and anxiety.

In an acute situation, red flags for further medical assessment include central chest pain, stridor or marked breathing effort with fatigue, new confusion or increased drowsiness, signs of hypoxaemia (e.g., shortness of breath, rapid breathing, fast heart rate) and haemoptysis (coughing up blood).

## Management

Optimisation of treatment of heart and respiratory conditions is important. A pharmacist-conducted Residential Medication Management Review (RMMR) in collaboration with prescribers can help with this.

Other non-drug interventions shown to be helpful include:

- use of walking aid
- breathing training
- mindfulness exercises and relaxation
- distraction techniques with music
- singing
- hand-held fan
- oxygen/air during activity

Pulmonary rehabilitation programs that include exercise training, education, and behaviour change components are the cornerstone of the management of chronic breathlessness, even in the residential aged care setting. In people living with COPD, pulmonary rehabilitation reduces breathlessness, increases exercise capacity, and improves emotional well-being and quality of life.

A hand-held fan is a portable strategy for managing acute episodes of breathlessness. It can be used for 4-5 minutes about 15 cm from the face and across the lower part of the face. Patients tend to recover quicker from episodes of breathlessness. The feeling of facial airflow and cooling may modify the perception of breathlessness. Use of the hand-held fan is also a distraction and may lead to relaxation and less anxiety. It may reduce the requirement for reliever medications.

Breathing techniques are known to improve breathlessness. Some people find breathing in through the nose and out through narrowed lips helps to ease their breathlessness. Pursed lips breathing helps to support the airways to open, therefore allowing the air to leave the lungs more easily.

Use of anxiolytics and benzodiazepines is not appropriate for the management of chronic breathlessness. Low-dose morphine and benzodiazepines may be appropriate for managing distressing breathlessness in palliative care and end-of-life care.


## Summary

**Breathlessness is a common and often burdensome condition in older persons. People describe breathlessness as one of their most important and distressing symptoms. Breathlessness can cause a great deal of anxiety and panic. Proactive assessment and observation of residents may identify people suffering from breathlessness, potential underlying causes and the need for specific breathlessness interventions.**


## Further information

https://lungfoundation.com.au/patients-carers/after-your-diagnosis-title/breathlessness/


***References***

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