

# Managing Breathlessness.

## How breathing works

Breathing involves two phases:

**Inspiration** – air moves into the lungs

**Expiration** – air moves out of the lungs

The main muscle for inspiration is the diaphragm. When the diaphragm contracts it flattens and pulls down. The diaphragm pulls the bottom of the lungs down with it so the lungs expand and air flows into the lungs. The muscles between your ribs (intercostals muscles) also work to expand your rib cage and allow more air into the lungs.

Expiration should be relaxed. The diaphragm relaxes and goes back up to its original position. The intercostal muscles between your ribs relax which reduces the space inside your chest. This pushes air back out of the lungs.

## Breathing with COPD

Airway obstruction makes it harder to get air in and out of the lungs.

A loss of lung elasticity also prevents the lungs from fully emptying and air can become trapped. Because it is harder to get air in and out, your muscles have to work harder:

- As you breathe in, the muscles in your neck and upper chest start to pull to try and expand your upper chest more.
- As you breathe out, the muscles between your ribs and your stomach muscles work to try to push more air out.

Breathing is harder work when you have COPD so when your body needs you to breathe deeper or faster (for example when you are walking) you develop shortness of breath and feel like you can't breathe enough air in to satisfy the body's demand.

## Reducing shortness of breath

Being short of breath can be a very frightening experience, leading to anxiety and panic. There are techniques you can use to control your breathing and not let it control you.

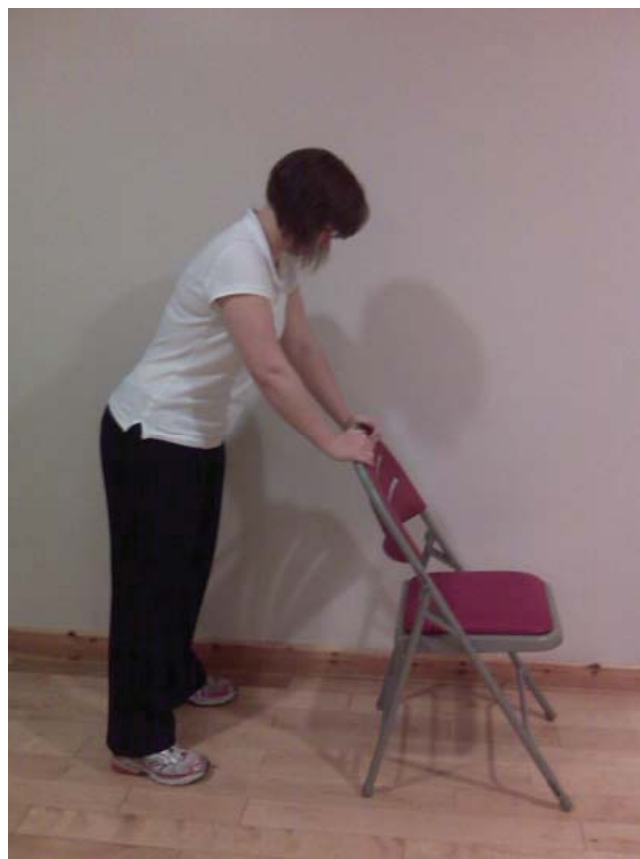
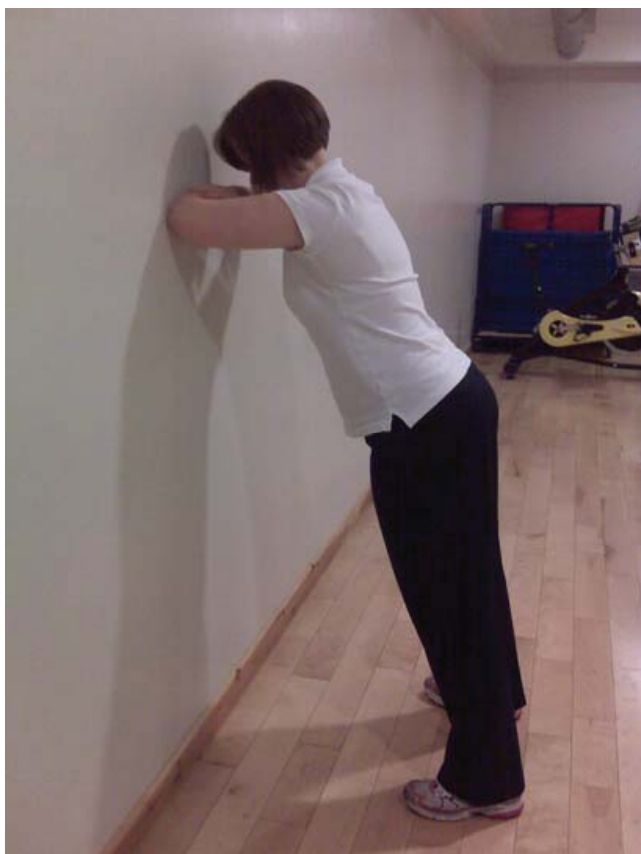
Your medications can help reduce airway obstruction and air trapping. It is important to use them regularly, as they have been prescribed.

Certain breathing techniques and body positions can also help control your shortness of breath.

## Positions of Ease

Changing your body position while sitting or standing can allow the diaphragm, neck and upper chest muscles to work more efficiently and help you breathe better.

Leaning forward and resting onto your arms is helpful. The following pictures show positions which may ease breathlessness.





## Pursed-lip breathing

- Inhale through the nose.
- Purse your lips as you would if you were whistling.
- Exhale slowly through pursed lips

## Sigh Out Slowly (SOS)

- Focus on exhaling slowly.
- Breathe out for a longer time than you breathe in. You can count this, for example 'in for two, out for three' or if your breathing rate is faster 'in for one, out for two'.
- Don't force your lungs to empty

At first, practice these breathing techniques when you are resting and do not feel breathless. Once you have mastered them it will become easier to start using them when you do feel breathless.

## Steps to use in an attack of shortness of breath

1. Find a comfortable position of ease.
2. Inhale and exhale through your mouth however you need to and as fast as you need to.
3. Introduce pursed-lip breathing – blow out through your mouth.
4. Introduce SOS – try to concentrate on breathing out for longer.
5. Try to relax your shoulders.
6. Start to slow your breathing down.
7. Start to inhale through your nose.
8. Continue the breathing control techniques until your breathing has fully settled.

## Other tips

- Some people find keeping a hand-held fan with them can help if they are breathless.
- Opening a window for fresh air may also feel beneficial.