

Patient information

Dysfunctional breathing

Breathing control

What is dysfunctional breathing?

Dysfunctional breathing is a term that relates to a change in your breathing pattern, from an efficient to a less efficient pattern. It is to do with your breathing pattern and does not always relate to a specific lung condition.

This change can feel sudden or can build up over time; there isn't always an obvious trigger. Some of the common triggers include:

- Anxiety or stress
- Acute illness eg chest infection, pneumonia
- Long term respiratory condition eg COPD, asthma
- Traumatic event – physical or emotional
- Pain – especially in abdomen or lower back
- Digestive issues eg reflux, hiatus hernia

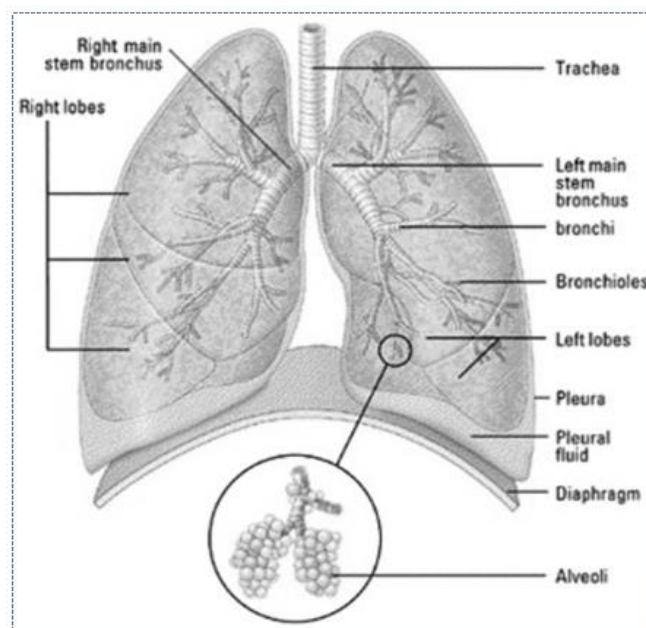
If this change continues, your body can start to get used to this altered inefficient pattern without you even realising.

What is efficient breathing?

- Nose breathing
- Subconscious and automatic process
- Effortless, relaxed and quiet
- Rhythmical, steady pattern (12 - 20 breaths per minute)
- Tummy movement
- Breath in slightly shorter than the breath out
- Able to talk in full sentences

In normal breathing 70 - 80% of the work is done by the diaphragm (the main muscle of breathing which sits under the heart and lungs) and this is the most energy-efficient and relaxing way to breathe.

How does this happen?



When you breathe in air is sucked into the lungs ideally via your nose, but can be through the mouth.

How does oxygen get sucked into the lungs?

When the brain knows how much oxygen is needed, it sends messages to the diaphragm which then moves to allow the lungs to fill with air.

The diaphragm is a thick double dome-shaped muscle which separates the lungs from the abdominal cavity.

As the diaphragm contracts, or works, it moves down into your abdomen, pulling air into your lungs, and pushing your belly forwards, as it relaxes back into its dome shape, the air passes out of your lungs and your belly sinks back down.

Breathing with your diaphragm ensures we use the bottom part of our lungs, which allows the body to move more oxygen in to the blood and uses less energy per breath. It is also known as tummy breathing as this is where we see the movement.

Breathing out is a more passive action than breathing in, and hence takes a little longer. The diaphragm relaxes, allowing the lungs to return to their normal resting size.

What is inefficient breathing?

- Mouth breathing
- Short, shallow breaths
- Quick and erratic
- Noisy
- Raised shoulders
- Movement at the top of the chest

What are the common symptoms of dysfunctional breathing pattern?

- Breathlessness
- Persistent coughing
- Excessive yawning or sighing
- A feeling of not being able to take a deep breath

You may also experience symptoms that do not seem to relate to your breathing including dizziness, poor concentration, pins and needles, bloating, fatigue, and lethargy.

Breathlessness

Everybody feels out of breath from time to time, especially if they have exerted themselves (eg during exercise).

At times like these the increased pace of breathing and the increase in heart rate occurs because our body requires more oxygen to supply our vital organs. Breathlessness in this situation is expected and controllable and usually settles down quickly if we rest.

However, if you have a lung condition, struggle with anxiety, or have an altered breathing pattern, then breathlessness can often seem to come on at the slightest exertion or for no apparent reason at all. Your breathing can often feel difficult or laboured and seem out of proportion to the activity you have carried out. This can lead to you feeling out of control, frightened and exhausted.

Tasks which can cause breathlessness

- Walking on the flat
- Walking on inclines
- Going up stairs
- Bending down
- Doing up shoelaces
- Making the bed
- Hanging out the washing
- Lifting
- Hoovering
- Dusting
- Ironing
- DIY
- Gardening
- Eating
- Drinking

What can you do about it?

- Nose breathing
- Breathing control (tummy breathing)
- Window breathing
- Understanding your triggers eg managing anxiety, reflux, pain etc
- Shoulder relaxation / postural correction
- Continue to stay active

You may be referred to a respiratory physiotherapist for further management.

Nose breathing: Benefits of nose breathing are:

- Humidification
- Cleans the air
- Warms the air
- Reduce cough reflex
- Encourages air flow to the lower parts of the lungs

Breathing control (tummy breathing)

With a 'normal' breathing pattern you should see your tummy rising and falling as you breathe in and out.

Practicing your 'tummy breathing' can help to improve the effectiveness of your breathing and strengthen your diaphragm muscle:

1. Find a comfortable, well supported position, your physiotherapist will advise you which position to start in. They will then guide you through the positions pictured below as your diaphragm strength improves.
2. Place one hand on your chest, just below your chin, and the other hand gently on your tummy just beneath your ribs - don't press too hard.
3. Make sure that your breathing is as steady and relaxed as possible - not deep or fast breaths.
4. You should feel the hand on your tummy rise as you breathe in and lower as you breathe out - these are indications that your diaphragm is working properly. The hand on your chest should stay still.

Breathing control video: Click on this link to see a video of the breathing control exercise <https://www.physiotherapyforbpd.org.uk/self-help/#videos>

Try and practice this exercise 3 - 4 times per day for 3 - 4 minutes.

Don't practice this when you are feeling very short of breath as you will find it very difficult.

Functional positions of breathing control

Position 1: Lying flat with hands behind head (beach pose)



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Position 2: Lying flat



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Position 3: Reclined long sitting



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Position 4: Long sitting



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Position 5: Supported sitting



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Position 6: Unsupported sitting



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Position 7: Supported standing



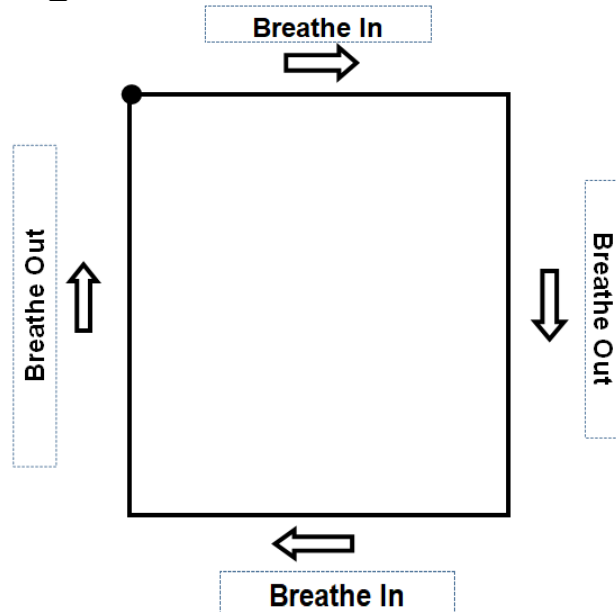
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Window breathing



- Place your finger on the 'dot' in the top left of the rectangle
- Trace your finger along the short edge of the rectangle as you breath in through your nose
- At the same pace trace your finger along the long edge of the rectangle as you breath out through your nose as you
- Continue around the rectangle following the instructions

This breathing technique is helpful for getting your breathing back into a more rhythmical pattern. The breath in slightly is shorter than your breath out.

It is also very helpful as a distraction technique for when you have an episode of breathlessness or anxiety.

When to use window breathing:

- at first signs of increased breathlessness
- use with breathing control (tummy breathing)

Pace yourself

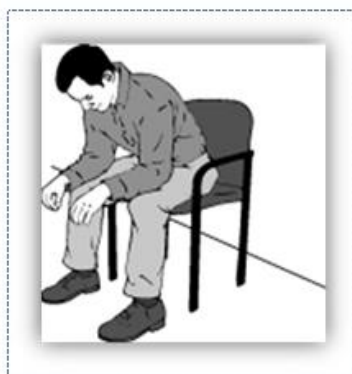
People who are breathless will often rush to get a task done before they get breathless, **this is counter-productive.**

Pacing yourself allows you to be more in control of your breathing and enables you to continue to manage independently for longer:

- **Plan your day:** Don't try to fit too much in - allow plenty of time to carry out tasks so that you don't have to rush.
- **Pace yourself:** Cut bigger tasks down into smaller manageable parts. Use your 'positions of ease' when you get breathless. Allow for plenty of rest periods between each task.
- **Prioritise tasks:** Which tasks can wait until you feel less breathless?
- **Adapt tasks:** Can you sit down to complete the task? Is there a simpler way to complete the task?
- **Delegate:** Can someone help you with the task?

Positions of ease

During a period of breathlessness, you may find some of these resting positions helpful to maximise the efficiency of your breathing and help you relax.



During an episode of breathlessness, you may find some of these techniques help you to manage your breathlessness.

- **Hand held fan:** This technique can help to reduce the feelings of breathlessness and give the sensation of getting more air in, thus aiding relaxation. The air produced by the fan stimulates small nerve receptors in the face which in turn stimulate the brain to slow down the rate of breathing. The fan should be held approximately 15cm from the face.
- **Pursed lip breathing:** This technique helps you to breathe in through your

nose and out through 'pursed' lips. Many breathless people will adopt this method of breathing without even realising it. Breathing using this technique helps to keep your airways splinted open and therefore reduces 'air trapping'.

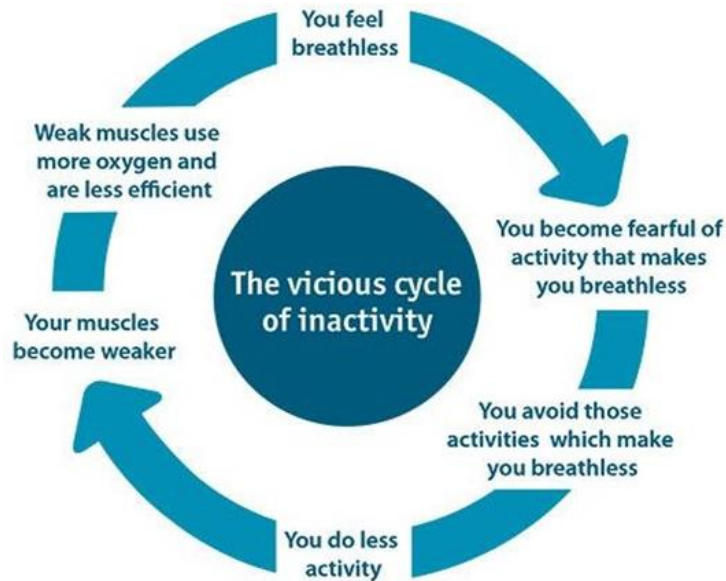
- **'Smell the rose and blow the candle':** This technique helps you to breathe in through your nose and out through your mouth. This can help you to pace the speed of your breathing.
- **Relaxation:** There are many relaxation methods from cd's, to classes, to self-help DVD's and Apps for your phone. It is important to find one that works for you. Alternatively, you can be referred for relaxation sessions at the West Suffolk Hospital. Please speak to your GP, respiratory nurse or physiotherapist for details.

Importance of staying active

The symptoms associated with dysfunctional breathing can be debilitating both physically and emotionally.

Symptoms such as breathlessness, fatigue and anxiety can lead to inactivity and isolation.

This can lead to a cycle of inactivity:



Being active can help you to:

- Breathe more efficiently
- Improve your fitness levels and your tolerance to exercise
- Improve your mood and emotional well-being
- Improve your overall quality of life

Ask your physiotherapist if you are eligible to be referred on to Abbeycroft Leisure Centre for 12 - 24 weeks of free access to classes and gym membership.

What can physiotherapy do help to?

- Increase awareness and education about abnormal breathing patterns
- Provide reassurance that things can improve
- Teach you how to use nose breathing in rest
- Teach you about pacing / mobilising using nasal breathing
- Help retrain breathing in progressively taxing postures
- Provide education about proper use for medications where applicable
- Provide education about underlying respiratory diagnoses and how they affect your breathing pattern
- Provide further recognition of triggers
- Incorporating relaxation methods into everyday life
- Help with the control of symptoms during an episode
- Provide manual therapy techniques
- Encourage and support you in staying active or increasing activity levels

Resources and contacts

West Suffolk Well-being service: www.wellbeingnands.co.uk

Physiotherapy for breathing pattern disorders: Abbeycroft Leisure centre Active Living Scheme; www.physiotherapyforbpd.org.uk

Respiratory Exercise Group (REG), West Suffolk Hospital

Physiotherapy Department
West Suffolk NHS Foundation Trust
Hardwick Lane
Bury St. Edmunds
Suffolk
IP33 2QZ

Telephone: 01284 713300

If you would like any information regarding access to the West Suffolk Hospital and its facilities please visit the website for AccessAble (formerly DisabledGo)

<https://www.accessable.co.uk>



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