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**University Hospitals of Leicest** 

# NHS Trust

# Breathing pattern disorder

Information for Patients

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### What is a breathing pattern disorder?

Our breathing pattern is set at birth to breathe through the nose, using the diaphragm (a muscle that sits at the base of the chest and separates the belly from the chest). Ideally we should maintain this pattern at rest and during light activity, throughout the rest of our life.

Unfortunately, this pattern can be lost for a number of physical and emotional reasons. These faults can become habits and the new pattern is then accepted as normal. Anyone can develop a breathing pattern disorder at any age. This is often called 'dysfunctional breathing'.

# What happens in dysfunctional breathing?

Dysfunctional breathing often results in 'over breathing', which means breathing more than your body needs. Dysfunctional breathing was previously known as hyperventilation, which literally means 'over breathing'.

It is hard to accept that we can actually breathe too much, but continuous over breathing causes stress on the airways and the body.

The body needs a set amount of carbon dioxide to keep it running smoothly. If this level is changed by breathing too much, the levels of carbon dioxide are reduced. This can cause symptoms in different parts of your body. These symptoms include:

- tingling fingers
- dizziness
- palpitations
- chest tightness

#### Health information and support is available at www.nhs.uk or call 111 for non-emergency medical advice

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# What is a good breathing pattern?

#### The importance of nose breathing:

When you breathe in through your nose the air is filtered, warmed and humidified so it doesn't irritate your lungs. The nose also helps control the amount of air you breathe in and out, and encourages a more efficient breathing pattern using your diaphragm (diaphragmatic or tummy breathing).

 Breathing in (inspiration)
 Breathing out (expiration)

Diaphragm going down

Diaphragm going up

Good breathing means moving air in and out of the chest with the minimum of effort. Diaphragmatic or tummy breathing is the most energy efficient and relaxed way to breathe.

# What is a normal breathing pattern?

- Nose breathing both in and out.
- Gentle tummy (diaphragmatic) breathing with very little upper chest movement.
- Breathing is quiet and with little effort.
- The rate is rhythmical with an average of 10 to 15 breaths per minute at rest.
- Depth of breathing should vary appropriately during activity and rest.
- The aim of re-training your breathing is to achieve this good breathing pattern at rest and with light activity.

# How do I practice a normal breathing pattern?

To help you to regain a good breathing pattern, follow the tips below:

- Make sure you are sitting or lying in a comfortable position.
- Listen to the noise you make as you are breathing.
- Concentrate on quieting this noise by making less effort as you breathe.
- Once you have mastered this, then try to bring in nose breathing, keeping your breathing quiet and slow.
- Time how long you are able to nose breathe for aim to increase this time.
- Try to avoid taking deep recovery breaths to cope with the air hunger.
- When you feel you cannot nose breathe any longer try to go back to quiet breathing through your mouth.
- Progress to practising all of this when you are walking or doing gentle activities.

Use a mirror to watch your own breathing. This will help you to see the pattern of your breathing, to help reduce the amount of upper chest movement.

This will take time but with practise you will start to see symptoms improve as your breathing gets better.

# What is air hunger?

When you are learning the new, better way of breathing, you may experience the short term discomfort of air hunger. This is a feeling that you need to breathe more air in. It can show up as an extra deep breath, a sigh or even a yawn. This happens because your body is used to over breathing and doesn't like the new feeling of breathing at a lower level. With practice and time, your body will be re-tuned into recognising normal as normal, and the feelings of air hunger will slowly go down.

To help you cope with air hunger, various methods are available. Your Physiotherapist will help choose the best method for you, below are some examples:

- A. Allow a deeper breath than normal and then either:
  - pause a few seconds before breathing out gently.
  - lengthen the time you take to breathe out.
  - pause before you take the next breath in.
- **B.** Progress this to allow only a **small** deep breath in when you experience air hunger.
- **C.** Try swallowing to relieve the need to take in a deep breath.

While breathing should be automatic, in the short term it will be important to think about your breathing. This will help you break bad habits and regain a good breathing pattern.

Remember - this can only be achieved with practice but the time and effort will be worth it.

# **Further information**

Further information about dysfunctional breathing is also available at: <a href="https://www.physiotherapyforbpd.org.uk/">https://www.physiotherapyforbpd.org.uk/</a>

### Your techniques to practice

# **Contact details**

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Adult Physiotherapy Department is based at Glenfield Hospital - 0116 258 3595 (Monday to Friday, 8.30am to 4.30pm)

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