

Breathing and the brain

Neurology Department

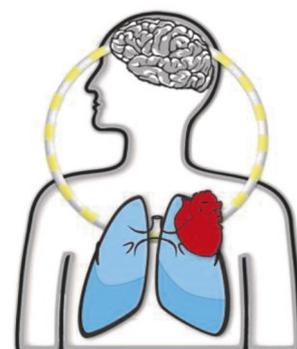
Aim of the leaflet

This leaflet is aimed at people whose neurological symptoms may be influenced by their breathing patterns. It aims to explain how abnormal patterns of breathing can be associated with physical symptoms (attacks), and how this can be managed.

Breathing and physical symptoms

Changes in our breathing patterns can cause physical symptoms in our body and brain. Breathing that is too shallow or deep, rapid or irregular can be associated with some or all of the following symptoms, sometimes called 'functional' symptoms:

- Faintness or dizziness
- Detached or unreal feelings
- Tingling or pins and needles
- Fast heartbeat
- Heat or sickness
- Chest pain or tightness
- Dry mouth or a choking sensation
- Ringing in the ears or muffled hearing
- Anxiety or panic
- Extreme tiredness
- Attacks of blackout or memory loss.



It is possible for such 'bad' breathing to lead to a blackout, without being conscious of any of the above symptoms.

It is not always obvious to an observer when someone's breathing changes. An observer may notice some of these clues:

- Becoming quiet or withdrawn
- Becoming distant, slow and less responsive
- Shakiness, spasms or jerks
- Abnormal speech
- Unsteadiness or weakness

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- **Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available**
- **If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111**
- **Keep the environment clean and tidy**
- **Let's work together to keep infections out of our hospitals and care homes.**

- Looking fearful or anxious
- Struggling to breathe or harsh breaths
- Appearing to stop breathing.

Noticing early signs of bad breathing allows an observer to help someone carry out the first aid tips on page five.

What happens during bad breathing?

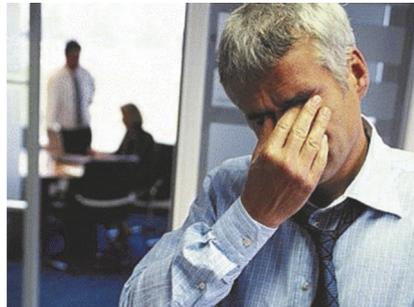
When we breathe irregularly, the body loses much more carbon dioxide than it should. This upsets the balance of gases in the body.

Sometimes the body gradually warns us that this is happening, through some of the symptoms described on page two. Sometimes, symptoms come on very quickly and you can suddenly become unwell. This could be called a breathing-related attack. Such an attack can have different triggers and underlying causes.

What may trigger a breathing-related attack?

Triggers vary from person to person. Common ones include being somewhere busy like a supermarket, and situations in which you feel out of control or very upset. However, attacks can often seem to come 'out of the blue'.

Bad breathing may occur as part of other conditions (see next page). Breathing healthily can also reduce symptoms in these conditions.



Are these panic attacks?

Only some attacks involving bad breathing are panic attacks.

If you mainly have breathlessness and tingling, this is a hyperventilation attack. If there is a feeling something terrible will happen, it is called a panic attack. If there is wheezing, it may be an asthma attack. If you feel shaky, drained or you pass out, it may be a non-epileptic attack.

What causes bad breathing symptoms?

There can be different reasons for experiencing bad breathing symptoms. For example, asthma or chest pain can lead to bad breathing. In other cases, past and present upsetting experiences may be the cause. Bad breathing may occur as part of non-epileptic attacks. People can develop a bad breathing 'habit', which means their breathing easily slips into unhealthy and disordered patterns.

In addition, some people seem to be more sensitive to natural variation in breathing patterns. These people develop symptoms more quickly and severely when they start to breathe badly. Many people experience some symptoms of bad breathing at some time in their lives.

Can it be treated?

Yes. It is possible to learn to control symptoms. The information later on covers techniques which may stop severe symptoms (attacks). These need to be practised regularly. The same techniques can help you get into 'good' breathing habits.

Later pages give tips to help control the underlying causes of symptoms.

What to do

First aid when an attack occurs

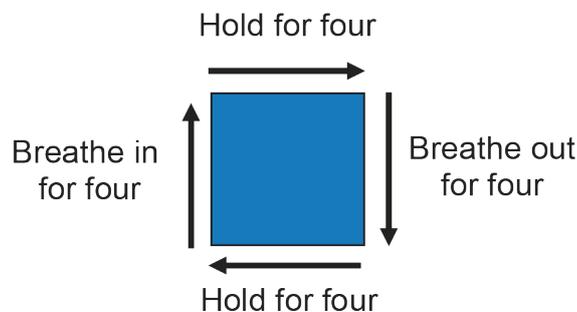
- Sit or lie down as early as possible
- Take a slow, deep breath in, through your nose if possible
- Hold your breath for a count of five
- Blow out slowly through your mouth.

If this seems too hard

- Try cupping your hands over your nose and mouth
- Try not to let air escape around your fingers
- Still try to breathe slowly
- **'Ground yourself' in an attack**
- Press your body or feet against a solid surface
- Say out loud what you can feel e.g. "I feel the hard chair, I feel the cold floor."
- Try to keep your eyes open
- Describe out loud everything you see around you
- Speak slowly, calmly and loudly, as this will help make you breathe more normally.

'Square breathing'

- Imagine a square
- With your finger, draw the four sides of the square as you:
 1. Breathe in for a count of four
 2. Hold for a count of four
 3. Breathe out for a count of four
 4. Hold for a count of four.



What to do

'Breathing from the abdomen'

Practise the following for a few minutes early in the morning or in the evening:

- Take in air through your nose rather than your mouth
- Breathe with the abdomen, allowing the ribs to slightly flare out to the sides, while the shoulders, upper chest and abdomen remain motionless
- Breathe smoothly, allowing no jerkiness or irregularities to disturb the steady flow
- Breathe slowly, but within your comfortable capacity, not straining or getting insufficient air
- Breathe at a comfortable depth; deeply, not shallow, but also not exaggerating the depth

- Allow breath to flow continuously, with no pause allowed between the breaths, either between inhalation and exhalation, or between exhalation and inhalation
- Breathe evenly, so that exhalation and inhalation are of the same duration. Once that is comfortable, allow the exhalation to be twice as long as the inhalation during the practice time.

Preventing symptoms

The following places or situations can trigger changes in breathing patterns in some people:

- Crowded or brightly lit areas like supermarkets or nightclubs
- Being in public or leaving the house
- Confined spaces
- An argument or when upset.

Recognising possible situations means you can take precautions to make an attack less likely to happen, such as:

- Taking friends with you for support
- Spending less time in such situations. However, you should not start avoiding these situations altogether.

Reducing attacks

Step one: Good habits

- Practise the slow deep breaths described on page six several times a day
- Avoid using negative words like can't, hopeless, unwell, tired, weak, and never
- Use positive words and thoughts like yes, good, strong, I'll try.

Step two: Problem solving

- Speak to friends about problems, however small they seem
- Deal with difficult people and situations as they arise. Again use friends for support.

Step three: Coping better

- Consider joining a support group (see back page for more information). It's always good to know that you are not alone and it can be helpful to exchange ideas
- Read self-help books on better breathing, being assertive, making decisions, time management, confidence, and dealing with stress (see back page).

Useful sources of information

Websites

- www.livinglifetothefull.com (for self help)
- www.changingmindscentre.co.uk
- www.buteyko.co.uk (for all breathing disorders)
- www.nonepilepticattacks.info
- www.neurosymbols.org (for functional symptoms)
- www.mind.org.uk (for coping with symptoms)

Recommended Reading

- Breathe well, be well by Robert Fried (educational)
- Self-help for hyperventilation syndrome (and all types of bad breathing) by Dinah Bradley
- Close your mouth, Buteyko breathing clinic (practical)
- Mind over mood by Christine Padesky (anxiety help)
- When perfect isn't good enough by Anthony & Swinson (for anxiety and fatigue).

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。