

Leaflet 1: The breathing, thinking, functioning (BTF) approach

Breathlessness Intervention Service

The information given below is designed to help you manage your stable long-term (chronic) breathlessness. If your breathing is getting worse, or you are experiencing breathlessness as a new feeling, it is important to seek medical advice from your GP.

The breathing, thinking, functioning (BTF) approach

Breathlessness affects the daily lives of many people with long-term health conditions, like lung or heart disease. It can be a disabling and frightening symptom and often persists despite best possible treatment of the disease. Breathlessness can be a difficult symptom to live with, but there are ways you can reduce its impact on your life. An important first step is to make sense of what is happening, which will help you find ways to improve your breathing.

What is the BTF model?

The control of breathing is complex, and we do not fully understand it. We know that our thoughts, the way we breathe, and how we go about our daily activities can impact on how breathless we feel. When people experience daily breathlessness, these normal and instinctive feelings and behaviours can sometimes lead to downward cycles, contributing to the feeling of breathlessness.

The breathing, thinking, functioning model

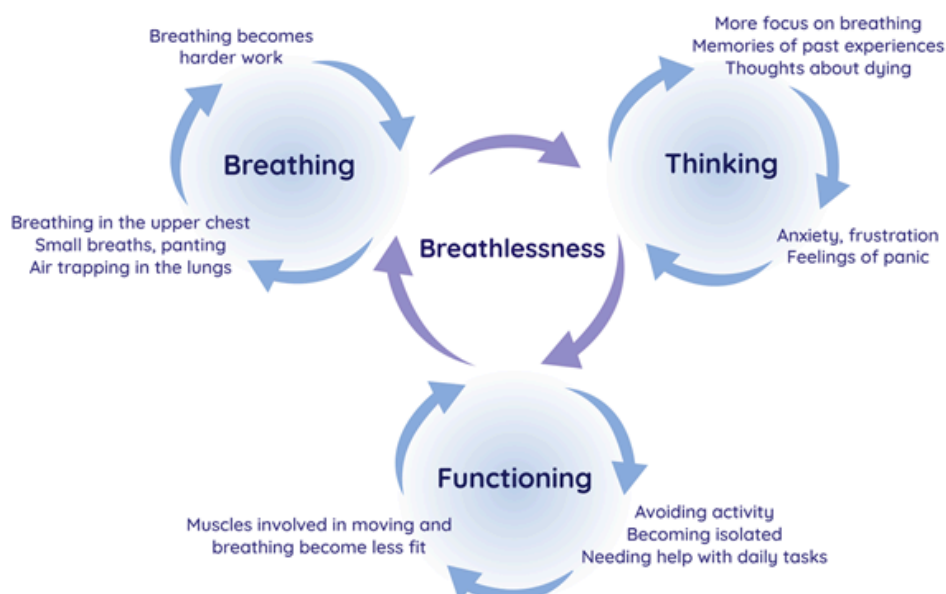


Diagram showing the three areas: breathing, thinking, functioning (BTF)

How do we manage breathlessness?

Breathlessness is managed by treating the underlying lung or heart condition as well as possible. However, alongside this, breathlessness can be improved by noticing when one or more of these cycles is happening, and practising simple techniques at home that can break the cycle.

The rest of this leaflet will go through each of these cycles with suggestions of things that can help.

1. Breathing

Being breathless can often lead to the development of an inefficient breathing pattern. We feel like we need to 'get more air' so take big breaths in. We may pant, breathing mostly with the top part of our chest, with shoulders hunched. The muscles that support breathing, particularly around the neck and shoulders, can be overused in an attempt to pull more air in. This can increase the effort of breathing, making it less efficient and worsening the breathlessness.

In conditions like chronic obstructive pulmonary disease (COPD) there may not be enough time for the lungs to empty when breathing fast. The next breath starts before the lungs have fully emptied. This causes breaths to stack on top of each other, over-expanding the chest and making the breathing feel even less comfortable.

There are approaches that can help break this cycle and improve the breathing. These include cooling the face with a fan or cold flannel, and simple breathing techniques that, for example, lengthen the out breath and relax the shoulders (see [Leaflet 3](#)

Link: <https://www.cuh.nhs.uk/patient-information/breathing-techniques-to-ease-breathlessness/>).

2. Thinking

Feelings of breathlessness can lead to a sense of anxiety. The areas of the brain involved in the feelings of breathlessness also process our emotions. However, feeling anxious or frightened can make the breathlessness feel even worse. This well-recognised cycle can lead to faster breathing and sometimes feelings of panic. When we are anxious, muscles get more tense, which makes breathing more difficult.

Things that can be helpful include learning to relax, gradually slowing your breathing, and finding a calm state of mind. You can try the relaxation techniques in [Leaflet 6](#)

Link: <https://www.cuh.nhs.uk/patient-information/leaflet-6-relaxation-and-mindfulness/> or [on our website](#)

Link: <https://www.cuh.nhs.uk/our-services/breathlessness-intervention-service/>

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3. Functioning

Breathlessness is an unpleasant feeling. Therefore, it is natural to try to avoid it by reducing our activity levels. However, this leads to our muscles becoming weaker. These weakened muscles use oxygen less efficiently and are not able to do their job as well, which makes the breathlessness worse. Our family and friends try to help by doing the activities that we might otherwise have done, which further reduces our activity.

It can help to understand that choosing to make yourself moderately breathless by being active is not harmful. In fact it can improve breathlessness and general health over the longer term by increasing fitness. Simple things, like slowly building up the number of steps you take around your house, can really help the breathing (see [Leaflet 7](#)

Link: <https://www.cuh.nhs.uk/patient-information/leaflet-7-physical-activity-and-exercise/>).

How does the BTF model help?

By understanding which cycle(s) you are mostly experiencing, the model can help you focus on practicing the techniques that can make the most difference to you. This approach shows it is possible to improve breathlessness even when the underlying lung or heart condition cannot be improved any further. A small change that breaks a cycle has potential to make a big difference by turning a downward cycle into a cycle of health improvement.

Contacts and further information

[Other leaflets in this series](#)

Link: <https://www.cuh.nhs.uk/patient-information/?department=&service=202&keyword=> go through these techniques in more detail.

For further help or advice contact the [Breathlessness Intervention Service](#)

Link: <https://www.cuh.nhs.uk/our-services/breathlessness-intervention-service/> on 01223 274404 – 09:00 (9am) to 17:00 (5pm) Monday to Friday.

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