



Active cycle of breathing technique (ACBT)

Information for patients from the Respiratory Physiotherapy Team

This leaflet has been produced with grateful acknowledgement to Kent Community Health NHS Foundation Trust.

It is intended to remind you what you have been taught by your physiotherapist or nurse and is general guidance. Other changes may have been suggested by your physiotherapist. Please follow their advice as this will be tailored to your individual needs.

What is the active cycle of breathing technique?

The active cycle of breathing technique (ACBT) is a simple pattern of breathing, which can be used by people who have problems with sputum. It is designed to:

- loosen and clear secretions
- improve ventilation.

Why should I use this treatment?

Continual coughing can be very tiring and over time can lead to damage to the stomach and pelvic floor muscles, which can cause muscular pain and incontinence. This technique requires less effort than coughing and will clear the sputum more quickly and easily.

How long should I spend doing it?

There is no limit to how many times per day this technique can be used. If you have chronic lung disease and produce a lot of sputum daily, but are well, you should aim to use it at least once or twice a day, or at the time of day when you are usually most productive.

When experiencing an exacerbation, infection or when your cough is more productive than usual – whether or not you have a respiratory condition – this technique should be used for more frequent but shorter sessions.

The ACBT Cycle

- **Breathing control**

This is normal gentle breathing using the lower chest. It helps to relax the airways between the deep breathing and the huffing.

Breathe in and out at your own rate. Put one hand on your upper chest and the other on your belly just above your waist. As you breathe in, you should be able to feel the hand on your belly moving out. The hand on your chest shouldn't move. You should be able to feel the hand on your belly moving in as you exhale (breathe out).

Breathe in through your nose and out through your mouth if possible. If this is difficult, just using your mouth is fine.

Breathing control is helpful to reduce feelings of fear or panic when breathless.

- **Deep breathing**

These assist in expanding your lung tissue and moving your secretions. Take three slow deep breaths in through your nose, if you are able. Relax and sigh the air out through your mouth.

To make the technique more effective, you may wish to:

- keep your shoulders relaxed
- hold each breath for up to three seconds
- sniff air in through your nose quickly at the end of the deep breath in (inspiration)
- combine the above techniques.

- **Huffing**

Huffing helps to move secretions along the airways to a point where you can cough them up.

To huff, blow air out quickly through an open mouth, like steaming up a mirror. Use your stomach muscles to help. Try not to do this technique too hard as it can cause wheezing. When using this technique you may feel the sputum rattling on your chest, this means it is moving.

- **Small-long huff** helps to move sputum that may be lower down in your lungs. Take a small to moderate breath in, then huff until your lungs feel empty.
- **Big-short huff** helps to move sputum higher up in your airways. Only do this when the sputum feels ready to be cleared. Take a big breath in, then huff quickly – this should clear the sputum into your mouth without the need to cough.

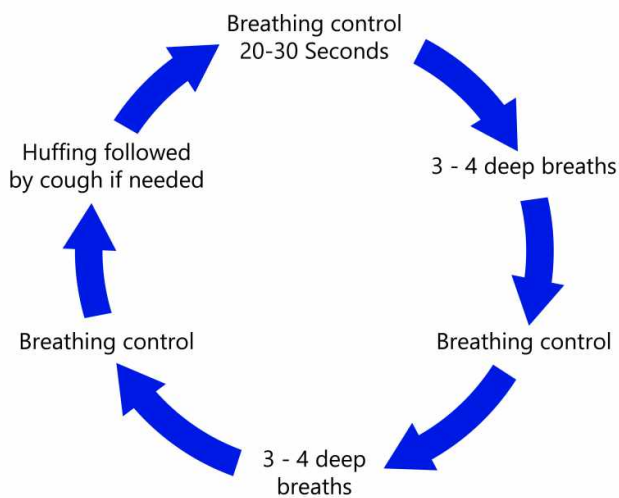


Diagram showing the stages of ACBT

• **Coughing**

- Following huffing, a small cough should now be sufficient to clear your secretions.
- Do not cough unless secretions are ready to be cleared.
- Continue the cycle until your lungs feel clear, but for no longer than 20 minutes.
- If you cannot clear your secretions the first time, return to the start of the cycle and begin again.
- If you cough during the cycle, return to the start.

How should I prepare?

- Find a comfortable position or use the position you find helps to clear the most secretions. For example, this may be sitting in a chair, lying on your side or propped up with pillows in bed.
- Relax your head, upper chest and shoulders.

This leaflet has been produced with and for patients.

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