

Active cycle breathing technique

Information and advice for patients

Physiotherapy

The active cycle breathing technique (ACBT) is used to help clear your airways. It is used for patients that have a large amount of mucus built up in their airways. Therefore, clearing your chest with ACBT helps to improve your breathing. You should use ACBT daily if you have phlegm in your chest, or more often if directed by your physiotherapist. If you are unwell you might need to clear your chest more often using ACBT

What are the benefits of the exercises?

The benefit of doing ACBT is it is a more effective way of clearing phlegm from your chest than coughing alone. Your physiotherapist has asked you to complete the ACBT because it will help you:

- Reduce your risk of getting a chest infection
- Open up your airways and make your breathing easier by improving lung volume

What are the risks of the exercises?

There are no risks associated with the ACBT breathing technique. You should only try the ACBT breathing technique if you have been instructed to by your physiotherapist and have been shown how to do it.

What are the risks of not having the treatment/operation/test?

By not using the ACBT breathing technique, the mucus in your windpipe will not be cleared. As more of it builds up, your breathing will become more difficult and your chance of developing infections will increase. The technique also helps you to maintain your lung health. If you do not use the technique regularly and as instructed, it will be less effective.

Are there any alternatives to these exercises?

Whilst there are other therapies, such as airway oscillating devices (AOD) and high frequency chest compression (HFCC) devices, that can be used to help improve breathing, it has been found that ACBT is preferred by patients over these therapies. If an alternative breathing technique is appropriate, this will be explained to you and you will be given a separate leaflet about it.

Preparing to do the active cycle of breathing technique

- Set aside enough time to perform the exercise in full
- Ensure that you are in a relaxed position before starting
- Do not use the technique straight after eating.
- ACBT is most effective 20 minutes after taking your inhalers or nebulisers.
- Your physiotherapist will advise you on how often you should do these exercises.

Active cycle breathing technique

Information and advice for patients

Physiotherapy

How to perform the exercises

Keeping your chest clear is a vital part of keeping well. If you are unsure about this technique, contact your physiotherapist.

There are 3 stages to the ACBT chest clearance technique

1. Relaxed breathing - This helps to avoid tiredness and breathlessness and prevents your airways from tightening.

- Breathe in through your nose and out through your mouth.
- Rest your hand on your tummy; feel it rise and fall.
- Keep shoulders and arms relaxed.
- Continue this phase for 30 – 60 seconds, or longer if you still feel breathless.

2. Deep breaths - This helps to move air into all your lungs. Holding your breath moves the air behind the phlegm to loosen it.

- Take a slow deep breath in through your nose.
- Breathe out slowly and gently through your mouth.
- Repeat 4 times; hold the in-breath for 3 seconds but less if dizzy.

Repeat relaxed breathing and deep breaths 2-3 times.

3. Huff - This moves the secretions from the upper airways to the back of your throat.

- Take a breath in through your nose.
- Make an "O" shape with your mouth, breathing out forcefully from your stomach like steaming up a mirror.
- Do a maximum of 2 huffs at once.
- If you have any phlegm to clear, cough once.

Symptoms to report

If you experience sudden sharp chest pain or cough up any blood, contact the Community Respiratory Service or go to your nearest Emergency Department (ED) immediately.

If you experience any of the below symptoms, you should return to breathing control until your symptoms pass:

- Wheezing while you breath
- Chest tightness
- Feeling light-headed

If you continue to experience any of these symptoms, you should contact your physiotherapist.

Active cycle breathing technique

Information and advice for patients

Physiotherapy

Follow-up

Your physiotherapist will review your exercises. Should you have any concerns, you should discuss these with our physiotherapist. You can obtain contact details for your physiotherapist from your ward.

Further information

For more information about our hospitals and services please see our websites www.swbh.nhs.uk and follow us on Twitter @SWBHnhs and like us on Facebook www.facebook.com/SWBHnhs.

Sources used for the information in this leaflet

- Cochrane review, McKoy N.A. et al, 'Cystic fibrosis and the ACBT', 2012
- Respiratory Medicine, Lewis. L. et al, 'The active cycle of breathing technique: A systematic review and meta-analysis' , 2010
- Paediatric Respiratory Reviews, McIlwaine. M., 'Chest physical therapy, breathing techniques and exercise in children with cystic fibrosis', 2007
- Pryor. J.A., 'Physiotherapy for airway clearance in adults. Chest physiotherapy. No.5.', 1999
- COPD – Journal of Chronic Obstructive Pulmonary Disease, 'Airway clearance in COPD: need for a breath of fresh air? A systematic review', 2011
- National Institute for Health and Clinical Excellence, CG101 'Chronic obstructive pulmonary disease: Management of chronic obstructive pulmonary disease in adults in primary and secondary care', June 2010
- The British Thoracic Society, 'BTS Guidelines for non-CF bronchiectasis – Quick Reference Guide', July 2010
- Journal of Cardiopulmonary Rehabilitation, Issue 1, 'A comparison of autogenic drainage and the active cycle of breathing techniques in patients with chronic obstructive pulmonary diseases', 2000

If you would like to suggest any amendments or improvements to this leaflet please contact the communications department on 0121 507 5495 or email: swb-tr.swbh-gm-patient-information@nhs.net



A Teaching Trust of The University of Birmingham
Incorporating City, Sandwell and Rowley Regis Hospitals
© Sandwell and West Birmingham Hospitals NHS Trust

ML4726

Issue Date: October 2014
Review Date: October 2016