Patient information factsheet

Bronchiectasis

What is bronchiectasis?
Air is carried into your lungs through a series of branching tubes called bronchi. The bronchi contain tiny glands that produce a small amount of mucus. This helps keep your airways lubricated and traps the dust and germs that you breathe in.

When your bronchial tubes get damaged, they can’t clean themselves. Mucus builds up and your tubes are more likely to be infected by bacteria. The causes inflammation (swelling) and leads to damage called bronchiectasis.

Causes
There are several known causes for bronchiectasis. These include:

- **underlying genetic disease**, such as cystic fibrosis
- **blockage caused by scarring.** When damaged bronchial tubes heal, they can be scarred. This can happen if you’ve had infections such as whooping cough, measles or pneumonia as a child.
- **food blocking the bronchial tubes**, such as peanuts
- **lack of immunity to infection.** This can happen from a lack of antibodies, which occasionally results from picking up a viral infection as an adult.
- **heartburn**; but this is rare.

However, about half the people with bronchiectasis in the UK have no obvious cause for it.

Symptoms
The most common symptom is coughing up phlegm, often in large amounts every day. This can be very tiring and embarrassing.

One in five people with bronchiectasis also have a wheeze or shortness of breath. One in three have long-term sinusitis.

Less common symptoms are coughing blood, chest pain and joint pain.
**Treatment**
- **Surgery**: if the bronchiectasis is only present in one small part of your lung, then an operation may be possible. However, this is very rare.
- **Exercise**: regular exercise, such as walking or swimming, can help loosen the secretions and make it easier to cough.
- **Physiotherapy**: daily chest physiotherapy is essential to reduce the number of infections and keep your chest clear.
- **Anti-asthma treatment**: this can improve air flow through your bronchial tubes.
- **Hydration**: staying well hydrated by drinking lots of water will help keep your secretions thin and easy to cough.

**Physiotherapy**

**Active cycle of breathing technique**
The active cycle of breathing technique (ACBT) is a simple pattern of breathing to:
- loosen and clear secretions
- improve ventilation.

The ACBT is divided into three parts:

1. **Breathing control**
   This is normal gentle breathing using the lower chest, with relaxation of the upper chest and shoulders. It helps you to relax between the deep breathing and huffing.

2. **Deep breathing**
   These are slow deep breaths in, followed by a three second hold with a relaxed breath out. Three to four deep breaths are enough.

3. **Huffing**
   This is a medium sized breath in, followed by a fast breath out through an open mouth, using the muscles of the chest and stomach to force the breath out.
   This will move secretions along the airways to a point where you can cough them up.
   Huffing is a less tiring way of clearing your secretions than coughing.

4. **Coughing**
   This should follow two to three huffs OR a deep breath in. Don’t cough unless secretions are ready to be cleared.

Your physiotherapist will tell you which position you should be in to complete your breathing exercises. You should aim to complete 20 minutes a day of breathing exercises.
Postural drainage positions
1. If it's the bottom of your lungs that are affected, you need to complete your physiotherapy lying on each side.
2. If it's the top of your lungs affected, complete your physiotherapy in sitting position.
3. If only one lung is affected, you'll be asked to complete your physiotherapy lying on your side with your affected lung facing up.

Acapella
Some people may be given an Acapella device to help clear secretions if they’re unable to clear them with just the breathing exercises.

What is an Acapella?
The Acapella is a small, hand held device which causes a vibration as you breathe out. This vibration helps move secretions.

The Acapella settings range from one to five. Level one is the easiest and five is the hardest. Your physiotherapist will prescribe your settings at your appointment.

How to use the Acapella
Use the Acapella during the deep breaths of your ACBT. Take a breath in, hold for two seconds, then breathe out through the Acapella generating steady vibrations. The breath out should last three to four seconds and you should feel the vibrations in your chest.

How to look after your Acapella
The Acapella should be cleaned after every treatment. All parts can also be washed in the dishwasher. The Acapella should be taken apart and cleaned thoroughly with warm tap water and a little washing up liquid. It should be rinsed under warm running water and allowed to drain off. Reassemble the Acapella when dry.

Further information
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