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إذا كنت ترغب بالحصول على ترجمة فورية لمضمون هذه الوثيقةالى اللغة العربية، يرجى منك الإتصال باحد مستخدمينا بجناح المصلحة أين يتم إستشفائك. أحد موظفينا سيسعى لترتيب إجراءات الترجمة وإتمامها في الوقت المناسب لك.

Brosürteki bilginin Türkçe tercümesi için tedavi görüyor oldugunuz bolüme bas vurunuz. Bolüm personeli tercümenin gerçeklesmesini en kisa zamanda ayarlacaktir.

Royal Brompton & Harefield NHS Trust

Bronchiectasis

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Who can I contact for further information?

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If you have concerns about any aspect of the service you have received in hospital and feel unable to talk to those people responsible for your care, call PALS on 020 7349 7715 or e-mail pals@rbht.nhs.uk. This is a confidential service.

If I do have bronchiectasis, how can I help myself?

1. If you smoke, stop. There is lots of support to help you kick the habit – your GP can advise you further. Remember also to avoid passive smoke and other air pollutants such as dusts or traffic fumes.
2. Get a flu vaccine every year and a pneumococcal vaccine every 7 to 10 years as recommended by your doctor.
3. Exercise regularly and perform the exercises prescribed by your physiotherapist.
4. Eat a well-balanced diet and drink plenty of fluids.

Following your treatment plan can reduce the effect of your bronchiectasis and may improve your quality of life.

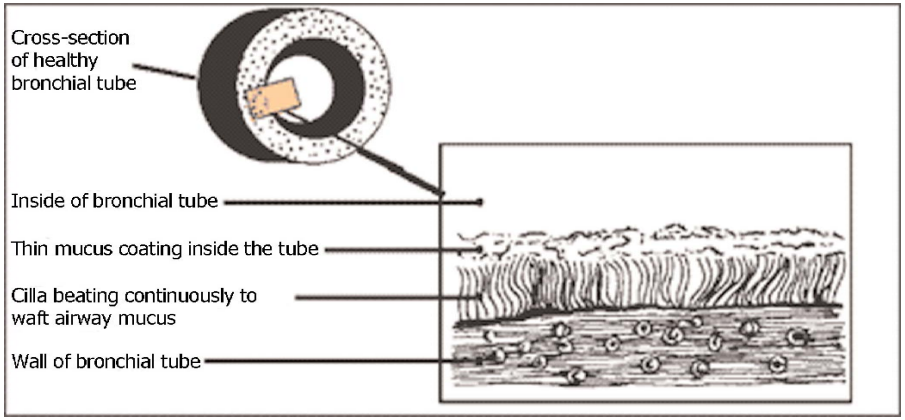
We have written this leaflet to give you information on the lung disease bronchiectasis. It is not intended to replace the information and explanations given to you by our medical and nursing staff but we hope you will find it a helpful insight into this condition, its diagnosis, and its treatment. If you have any questions or need any further information please do not hesitate to ask a member of staff.

What is bronchiectasis?

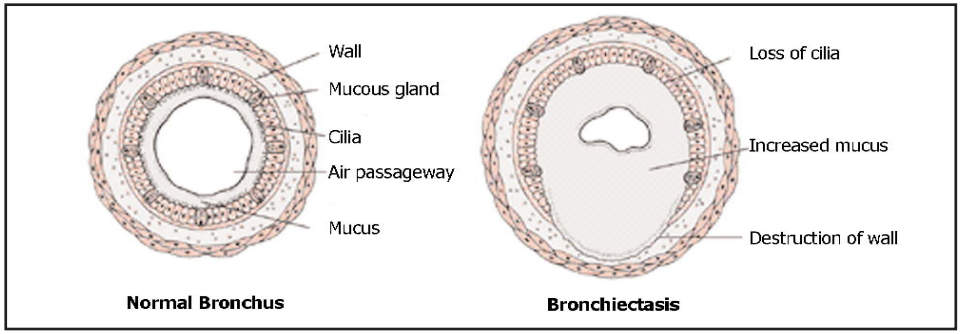
Bronchiectasis is a disease which affects the walls of the "bronchi" in the lung – the tubes which carry air through the lung. Normally these tubes are kept moist by a small amount of mucus. The mucus traps any dust or germs we might breathe in, and is then cleared by millions of tiny hairs in the bronchi called cilia. These beat continuously and move the mucus to the back of the mouth to be removed by the body.

In bronchiectasis these tubes become damaged and so are unable to clear mucus properly. If bacteria are inhaled, they multiply, the lung becomes inflamed and infection can occur. The body works to fight the bacteria but, if it does not succeed, inflammation continues and the germs can spread within the bronchial tubes. Long term inflammation can damage the lungs.

The diagrams on the next page show the bronchial lining of the lungs and the difference between healthy bronchi and bronchi in a patient with bronchiectasis.



The bronchial lining of our lungs



Above: A cross section of a healthy bronchus and a patient with bronchiectasis.

If I do have bronchiectasis, how can it be treated?

Physiotherapy

Physiotherapy is an important part of managing bronchiectasis. You may be taught how to perform airway clearance techniques (ACT), which may include postural drainage (PD) exercises – these involve lying on alternate sides and performing breathing exercises which help drain phlegm. You will be advised to carry out the exercises once or twice a day for at least 20 minutes per session. Regular airway clearance means you cough up mucus which might otherwise collect in the lungs. This prevents infection. It also means you are less likely to cough up mucus at other times of the day.

Exercise

Exercise of any sort also helps the lungs clear mucus and improves general fitness.

Medication

Treatment with medication may help. There are several types of drugs which can be used to ease the symptoms of bronchiectasis. “Bronchodilators” expand your airways, making it easier to breathe and reducing any shortness of breath or chest pain. They can also help improve the normal ways the body clears mucus. Nasal sprays or drops can help with a runny nose and sinus pain. Antibiotics are sometimes given to fight lung infections and reduce inflammation in the lungs.

Surgery

Surgery can be helpful in some cases. Unfortunately, bronchiectasis often affects many different areas of the lungs, making surgery inappropriate.

Sweat test: One condition which can cause bronchiectasis is cystic fibrosis, an inherited condition which causes some of the body's glands to produce thicker and stickier mucus than they would otherwise and which can affect the lungs and digestive system. We may perform a sweat test to check that your symptoms are not caused by cystic fibrosis. A sweat test is a simple, painless procedure in which we measure the amount of salt in your sweat. People with cystic fibrosis have more salt in their sweat than those without. This is why the sweat test can be used to diagnose the condition.

Two gel discs are placed on your forearm and a very low electric current passed through them. The current does not cause any harm – it simply encourages sweating. After six minutes, the pads are removed and a collecting duct placed onto your arm. The ducts will need to stay in place for 30 to 60 minutes. Some patients may need a second test called a nasal potential difference. If you do need this test we will explain this to you at the time. Again, it is not painful or strenuous.

Chest and sinus radiography: We may take x-ray pictures of your chest and sinuses in order to examine them more closely.

Computerised tomography (CT) scan: A CT scan is a special x-ray examination which allows us to see the structure of your lungs in slices. You will lie on a bed which moves as you are being scanned. During the scan you will be able to talk to our radiographer via a microphone. The scan usually lasts between five to ten minutes.

What are the symptoms of bronchiectasis?

People with bronchiectasis usually complain of the following symptoms:

- **Cough with mucus (also known as phlegm or sputum) production**: The mucus is often coloured.
- **Wheeze, shortness of breath, and tightness of the chest**
- **Blocked or runny nose**: The discharge may come from the front of the nose or may drain down the back of the throat.
- **Facial discomfort**
- **Chest pain, which can be aching or sharp**
- **Loss of appetite**: In severe cases this can lead to weight loss.
- **Tiredness, difficulty concentrating**: This is common when fighting infection.

What causes bronchiectasis?

There are many possible causes of bronchiectasis. Some people are born with problems with their bronchial walls. Others will have had a severe infection which has damaged the wall. This is especially common in young patients. Some people have problems with their immune system which means they are more likely to get frequent infections which damage the walls of the bronchi. Others have an underlying genetic condition such as cystic fibrosis – in which the mucus in the bronchial tubes is too thick – or primary ciliary dyskinesia, where the cilia lining the tubes do not beat properly.

How common is bronchiectasis?

A recent study conducted by the Department of Health suggested that 1 in every 2,000 hospital admissions in the UK were due to bronchiectasis.

At what age does bronchiectasis develop?

Bronchiectasis can develop at any age. People with the condition range from children to older people but symptoms causing patients to seek treatment usually appear in middle age.

What tests are used to diagnose bronchiectasis?

We use a range of tests to investigate whether you have bronchiectasis. You may have all or some of the following tests during your time with us:

Lung function tests: These measure how well your lungs are working. You will be asked to breathe into a number of instruments, which measure different aspects of your lung function. Our staff will give you full instructions on how to perform each test. Sometimes you may be asked to give a blood sample from your wrist or earlobe to measure oxygen levels.

Ciliary function tests: These show how well the cilia – the small hairs that beat constantly to clear mucus from the airways – are working. The first test we will carry out simply involves blowing into a machine. If this test suggests a problem, we will use a special brush to take a sample of your nose cilia for further investigation.

Nitric oxide test: This test measures your levels of nitric oxide. You simply blow into an instrument. Patients who have cilia that are not working properly have low levels of nitric oxide. High levels of nitric oxide, on the other hand, suggest inflammation in the lung.

Nasal muccociliary clearance (NMCC) test (also known as saccharine test): A small piece of saccharine (a sweet, sugary substance) will be placed just inside your nose. We will then ask you to sit quietly with your head bent forward until you can taste the saccharine, which may take up to an hour. The test measures how well the cilia and mucus in your body are working. If your cilia are working well, you will be able to taste the saccharine.

Shuttle walking test: This test measures your fitness levels. We will ask you to walk a ten metre course, marked by two cones. During the test you will hear a series of bleeps – we will ask you to finish the course before the next bleep sounds. The bleeps become more frequent over time to encourage you to increase your effort. The test ends when you are unable to keep up with the bleeps, become tired, or become breathless. We will ask you to wear comfortable clothing and footwear for this test.

St George's Respiratory Questionnaire (SGRQ): We use this questionnaire to find out about your current health condition. It asks you questions about your illness and the effect it has on your daily life. There are no right or wrong answers: just fill it in fully and honestly.

Blood tests: We will often perform blood tests in the outpatients' department before your stay in hospital. We may ask you to have further blood tests during your stay. Analysing your blood shows us how vulnerable you are to respiratory infections and lets us measure levels of inflammation in the body.

Skin prick test: We test for several common allergies, including animal hair and dust mites. We will put a drop of the substance being tested on your arm and then prick the surface of the skin through the drop. We then watch for any reaction (usually a temporary reddening of the skin).

Sputum (phlegm) collection: We will ask you for several phlegm samples during your stay. One of these will be a sample of all the phlegm you produce in a 24 hour period. We will provide you with sterile containers for this and will use the samples to check the amount, colour and consistency of the phlegm you are producing.