



BRONCHIECTASIS

What is Bronchiectasis?

Bronchiectasis comes from the Greek words "bronckos" (airway) and "ektasis" (widening). In bronchiectasis damage to the airways causes them to become enlarged. Such damage results when the complex cleaning system of tiny hairs called cilia which are part of the cells lining the airways are damaged or destroyed. Mucus cannot then be cleared easily from the lung. This allows infection which leads to damage to the airways. The condition usually affects young people more frequently than adults. It is becoming much less common as treatment programs for infection become more effective.

What Causes It?

Many cases of Bronchiectasis begin with pneumonia due to viruses such as influenza and measles or bacteria such as whooping cough or tuberculosis. Some people whose ability to resist infection is reduced or whose immune system is not working properly, are also prone to this condition. Bronchiectasis may also occur in patients who have difficulty coughing up mucus (eg. cystic fibrosis). Blockage of an airway with any inhaled tiny object such as a peanut will lead to Bronchiectasis if left untreated.

What Are The Symptoms?

Most of the time patients feel well. The main symptom is a cough producing mucus (sputum). The mucus is often foul smelling causing bad breath and occasionally blood may be coughed up as well. Head colds develop easily into pneumonia and many cases have nose and sinus problems. Many adults notice tiredness and weakness and often feel "below par". During times of chest infection, the amount of mucus increases and moist crackling noises may be heard in the chest.

What Tests Do I Need?

A chest x-ray may not always show changes suggestive of Bronchiectasis. Detailed x-rays called CT scans are sometimes needed to make the diagnosis and to show which part of the lung is involved. Testing specimens of sputum may be helpful in identifying which germs are causing infection and allow for a sensible choice of antibiotic. Other tests are used to detect cystic fibrosis and deficiencies in immunity and the ability to resist infections. Your doctor will arrange breathing tests from time to time to help monitor the progress of your condition.

What Problems Can Develop?

Coughing can be embarrassing for teenagers and adults. The cough is usually due to accumulation of sputum within the airways and is most effectively treated with regular physiotherapy. Infection in Bronchiectasis may be caused by many germs but in more longstanding cases, infections with staphylococcus and pseudomonas species may become a problem requiring special antibiotic therapy. Coughing up blood may occur from time to time and usually indicates infection. Coughing up large quantities of blood is frightening although rarely serious. However, medical attention should be sought immediately if this occurs. Patients with bronchiectasis commonly develop chest infections, as a result of minor upper respiratory tract infections such as the common cold. In patients with advanced bronchiectasis breathlessness is a common feature particularly during times of infection.



What Can Be Done About It?

The aim of treatment is to clear mucus from the chest. In the majority of cases, symptoms can be very effectively treated with physiotherapy and exercise programs. An individual program can be developed with a physiotherapist and may include physical exercise, postural drainage of the chest, active breathing, huffing, coughing or other physiotherapy techniques. Exercise can be combined with the inhalation of a bronchodilator – a medicine which helps to open up the airways. If a lot of sputum is being produced, postural drainage, where the body is positioned so that gravity helps to drain sputum from the lungs, can be combined with the breathing exercises. All bronchiectatic patients are susceptible to infections, such as acute bronchitis and pneumonia, during which sputum becomes coloured and blood may be coughed up. Prompt antibiotic treatment is usually required which sometimes needs to be given in hospital. Bronchodilator medicines such as Atrovent™, Bricanyl™, Ventolin™ are sometimes helpful. Inhaled corticosteroid drugs (eg. Aldecin™, Becotide™, Becloforte™, Pulmicort™, Flixotide™) and occasionally corticosteroid tablets may be used. In severe cases, oxygen may also be helpful. Medicines which help to liquefy mucus (mucolytics) cannot clear up pockets of infected mucus. They are not helpful in most cases. For some patients operations may occasionally be necessary.

How Can It Be Prevented?

Children should be vaccinated against measles and whooping cough. Special care should be taken to make sure that infants, children and adults recover completely from any pneumonia. Infants and children should be protected against accidentally breathing in small objects. If anything does happen "to go down the wrong way" and cannot be coughed out, a doctor should be contacted immediately. Adults with bronchiectasis should also be encouraged to have a vaccination against influenza each year and against pneumococcal pneumonia where appropriate.

What Happens Over The Years?

Enjoyment of life with a normal span occurs in most cases. Patients with severe disease can develop breathlessness and low exercise tolerance but the majority remain stable for many years. Cases with cystic fibrosis often have more severe Bronchiectasis. Active physiotherapy and exercise programs improve the quality of life and reduce the number of episodes of infection and hospital admissions. Prompt antibiotic therapy at times of infection and regular review by your doctor are also strongly recommended.

Please Note: This information is intended by The Australian Lung Foundation to be used as a guide only and is not an authoritative statement. Please consult your family doctor or specialist respiratory physician if you have further questions relating to the information provided here.