

What is Bronchiectasis?

FACT SHEET prepared by The Asthma and Respiratory Foundation NZ

In Bronchiectasis the airways become damaged, scarred and permanently enlarged. Extra mucus is produced in these abnormal airways which can easily become infected. The main symptom is a cough which produces a lot of sputum. Bronchiectasis is not contagious. It is not caused by and does not cause asthma – though many people with Bronchiectasis may also have asthma.

What happens in Bronchiectasis?

In the lining layer of healthy lung airways, tiny hairs called cilia work continuously to 'sweep' mucus (sputum/phlegm) up to the larger airways so that it is easily coughed out. In Bronchiectasis, these cilia have become damaged or destroyed and are unable to clear the mucus from the lungs. This leads to an increased risk of developing a lung infection. Repeated lung infections cause further damage to the airway walls, more airways become affected and more mucus is produced. The lung tissue surrounding the airways can also become inflamed and damaged.

What causes it?

In many cases of Bronchiectasis, the original cause is not clear. Sometimes people who have inherited diseases, such as cystic fibrosis, have difficulty in coughing up mucus and can develop the condition.

The majority of Bronchiectasis is not due to inherited conditions, but is acquired, meaning that something has caused damage to the airway walls. Many cases of Bronchiectasis are thought to begin with pneumonia due to viruses such as Influenza and Measles or bacteria such as Whooping cough or Tuberculosis. Bronchiectasis can also be the result of foreign bodies (such as food) getting stuck in the airways, inhalation of noxious chemicals or damage from another lung condition.

Smoking is not a significant cause of Bronchiectasis — many people with this condition have never smoked.

Who gets it?

Bronchiectasis can develop at any age but is more likely to begin in early childhood. In New Zealand, bronchiectasis is more common in Maori and Pacific Island children than other ethnicities.

Childhood immunisations, appropriate use of antibiotics, improved living conditions and better nutrition have all helped to reduce the occurrence and the severity of Bronchiectasis. However, Bronchiectasis is still more common in New Zealand than in many other developed countries, with approximately one new case of Bronchiectasis being diagnosed every ten days.

What are the symptoms of Bronchiectasis?

Coughing up lots of sputum every day is the main symptom – the amount varies depending upon the extent of the disease. This sputum is often yellow-green in colour and foul smelling. It is very tiring to cough up large amounts of sputum every day. Sometimes the sputum can contain small amounts of blood from inflamed airways. This is more common in adults.

Recurring chest infections are a common feature of bronchiectasis. Wheezing and shortness of breath when exercising are also common symptoms.

How is it diagnosed?

If your doctor suspects you have bronchiectasis from your symptoms, medical history and physical examination the diagnosis needs to be confirmed by a CT scan. Other tests may include chest x-ray, blood tests, sputum tests (to identify bacteria present) and lung function tests (spirometry). For further information about spirometry see the fact sheet "What is Spirometry?" or visit our website asthmaandrespiratory.org.nz

How is Bronchiectasis treated?

Bronchiectasis is a chronic (long term) condition and requires lifelong treatment. The goal of treatment is to clear mucus from your chest and to prevent further damage to your lungs. This includes:

Antibiotics to treat chest infections – a change in colour of your sputum to green and feeling unwell indicates you have a chest infection. It is essential that you treat these infections early

If you have asthma as well as bronchiectasis this may need to be treated with regular asthma inhalers

Daily physiotherapy is the most important tool in the management of bronchiectasis. A physiotherapist will be able to show you how to clear mucus from your lungs and will provide exercises to keep your lungs clear

A yearly influenza vaccine and a vaccine against pneumococcal infection is recommended

Regular daily physical exercise will help to keep your body in good condition to fight infections and will also help in clearing mucus from your lungs

Good nutrition is important

Stop smoking and avoid second-hand smoke and other noxious fumes.

What is the outlook for someone with Bronchiectasis?

Bronchiectasis is usually caused by an episode of damage to the lungs. The damage is permanent but not usually progressive. The concern is that frequent infections may make the damage worse, but if these can be avoided by good techniques to clear mucus and treated promptly if they do occur, further damage can be avoided. Although people with Bronchiectasis sometimes fear that they will become quite debilitated in the long term, this is not necessarily the case. With good management, the majority of people will remain stable for many years.

The Asthma and Respiratory Foundation NZ can help you

The Asthma and Respiratory Foundation NZ is New Zealand's not-for-profit sector authority on asthma and other respiratory illnesses. We advocate to government and raise awareness of respiratory illnesses, fund research for better treatments and educate on best practice.

Check out our comprehensive website at asthmaandrespiratory.org.nz