

BRONCHIECTASIS

What is Bronchiectasis?

Bronchiectasis is a condition in which damage to the large airways causes them to widen and become flabby and scarred. The airways are tubes that carry air in and out of your lungs.

Bronchiectasis is usually the result of an infection or other condition that injures the walls of the airways or prevents the airways from clearing mucus. Mucus is a normal substance that the airways produce to help remove inhaled dust, bacteria and other small particles. In Bronchiectasis your airways slowly lose their ability to remove mucus. If mucus can't be cleared it builds up and creates an environment for bacteria to grow. This then leads to repeated lung infections.

Over time your airways become more damaged and it becomes increasingly difficult to move air in and out the lungs.

What causes it?

An injury to the walls of airways usually causes Bronchiectasis. A lung infection may cause this injury. For example severe pneumonia, whooping cough or measles, tuberculosis, or fungal infections can injure the airways and lead to Bronchiectasis.

People who have Bronchiectasis have an underlying condition that damages airways and increases their risk of lung infection:

- Cystic fibrosis
- Immunodeficiency disorders
- Allergic broncho-pulmonary aspergillosis which is an allergic reaction to a fungus called Aspergillus
- Disorders that affect the cilia which are small hair like structures that line the airways. They normally clear mucus out of your airways

If the condition is present at birth it is called Congenital Bronchiectasis. This is a result of a problem with how the lungs formed as a foetus.

If the condition develops later in life it is called Acquired Bronchiectasis.

How is it diagnosed?

Your doctor will diagnose Bronchiectasis based on your sign and symptoms as well as perform some other tests:

- Chest X ray: The chest X-ray may show areas of abnormal lung and thickened irregular airway walls
- Chest CT scan: The image may show how much of your airways are damaged and where the damage is
- Blood tests: Can show whether you have an underlying condition that can lead to Bronchiectasis or whether you have an infection or low levels of certain infection fighting blood cells
- Sputum culture: Can show whether you have bacteria and fungi in your sputum

What are the symptoms?

The initial airway damage that leads to Bronchiectasis often begins in childhood. Signs and symptoms may not appear until months or years after you start having repeated lung infections.

The most common signs and symptoms of Bronchiectasis are:

- A daily cough, over months or years.
- Daily production of large amounts sputum.
- Shortness of breath and wheezing
- Chest pain
- Clubbing of fingers (the flesh under your fingernails gets thicker)
- Weight loss
- Bluish skin colour.
- Coughing up blood
- Fatigue

How can Bronchiectasis affect my health?

Bronchiectasis is a condition in which damage to the airways causes them to widen and become flabby and scarred.

It is usually the result of an infection or condition that injures the walls of the airways or prevents the airways from clearing mucus. In Bronchiectasis your airways slowly lose their ability to clear mucus. The mucus builds up and creates an environment for bacteria to grow. This leads to repeated lung infections.

The infections cause more damage to your lungs and eventually the lungs lose their ability to move air in and out. This can prevent oxygen from reaching your vital organs. Bronchiectasis can lead to serious health problems such as possible respiratory failure and heart failure.

Treatment

Bronchiectasis is treated with medicines, hydration and chest physical therapy. The goals of treatment are:

- To treat any underlying conditions and lung infections
- Help remove mucus from your lungs. Maintaining good hydration helps with the removal of mucus
- Prevent complications

Medicines:

- Antibiotics are the main treatment for repeated lung infections that Bronchiectasis causes. Normally oral antibiotics are used but for hard-to-treat infections your doctor may give the antibiotic through an intravenous line into your arm

- Bronchodilators open the airways by relaxing the muscles around them. Inhaled bronchodilators work quickly because the medicines go directly to the lungs
- Sometimes expectorants or mucus thinners are used to help get rid of mucus

Chest physical therapy:

Physiotherapy involves pounding the chest and back to help loosen the mucus in your lungs so that you cough it up.

Surgery:

Surgery may be used if no other treatments have helped and only one part of your airway is affected. If you have major bleeding your doctor perform surgery to remove the bleeding part or your airway.

Your role in managing this condition

The main objective in Bronchiectasis is to prevent the lung infections and lung damage that are caused by Bronchiectasis.

- Keep your chest as clear as possible by removing mucus daily
- Be aware of the symptoms of a possible lung infection and see your doctor to ensure the infections are promptly treated
- Childhood vaccinations against measles, whooping cough and an annual influenza vaccination help prevent infection with these illnesses. Pneumonia vaccine is usually only required once
- Follow a healthy diet
- Stay hydrated. Drinking plenty of fluids especially water, helps to prevent airway mucus from becoming sticky and thick
- Be as physically active as possible. Activities such as swimming and walking help loosen mucus
- Do not smoke
- Take your medication as your doctor has prescribed and not allowing them to run out
- Avoid toxic fumes, gases or substances that can harm your lungs
- Avoid visiting people who are unwell with the flu, cold or chest infection
- Have an annual check-up with your doctor

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