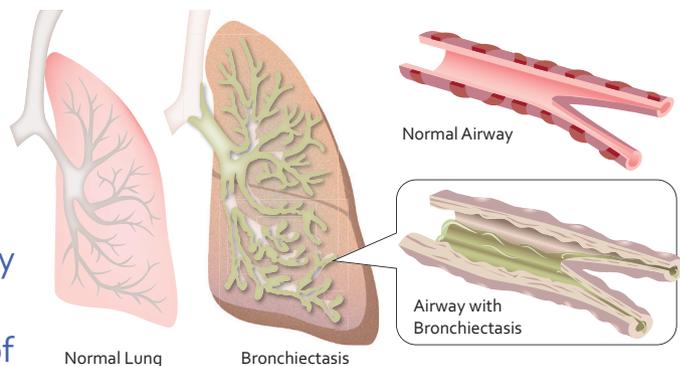


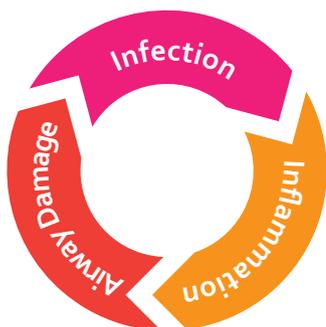
What is Bronchiectasis?

Part 1

Bronchiectasis (bron-kee-eck-tuh-sis) is a lung condition that causes cough, sputum production, and recurrent respiratory infections. The symptoms are caused by abnormal dilation (widening) of the airways of the lung (bronchi). In some cases only one airway is affected. In other cases, many are affected. In very severe cases, dilation of the airways occurs throughout the lungs.



This dilation makes it difficult to bring up secretions (sputum, phlegm, mucus) from the lower airways. These sticky secretions provide an ideal place for many kinds of germs to live and grow. This leads to infection and overgrowth of bacteria which leads to inflammation (swelling and irritation). Infection and inflammation further damage the airways and cause more dilation and worsening bronchiectasis. This process is sometimes called the “vicious cycle hypothesis” of bronchiectasis.



What Causes Bronchiectasis?

There are many causes of bronchiectasis, including:

1. genetic diseases (such as cystic fibrosis and primary ciliary dyskinesia)
2. problems with the immune system (reduced ability to fight infections)

3. past lung infections
4. problems with swallowing causing aspiration of food or fluids into the lungs

In about 40% of cases, however, the cause of bronchiectasis is unknown. These cases are called “idiopathic bronchiectasis.” Your healthcare provider may order certain tests to see if you have a treatable cause of your bronchiectasis. Unfortunately, bronchiectasis is not reversible, but it can be treated to reduce symptoms and try to limit progression. Treatment can keep the bronchiectasis from getting worse, and help stop the vicious cycle of repeated infections. Rarely, in patients with bronchiectasis in only one area of the lung, surgical removal of that portion of the lung can cure the condition.

What are the Symptoms of Bronchiectasis?

The most common symptom of bronchiectasis is cough, which is usually productive of sputum (phlegm). The cough may become worse at times, and a person may also have fever, chills, night sweats, tiredness, and a change in the color and amount of sputum. When this happens it is called an exacerbation (or flare-up) of bronchiectasis.

Other symptoms can include:

- Shortness of breath or air hunger
- Unintended weight loss
- Coughing up blood (hemoptysis)
- Chest pain or tightness



These symptoms usually develop over many years and get worse over time. Many patients with bronchiectasis report a history of recurrent bronchitis or pneumonias since childhood for many years. Some people with bronchiectasis may also have sinus disease which can also contribute to cough at times.

How is Bronchiectasis Diagnosed?

Bronchiectasis is diagnosed by x-ray imaging, almost always with a CT of the chest (CAT scan). The CT scan will show the location and severity of the bronchiectasis, and may give clues about its cause. Your healthcare provider may also order lung function (breathing tests) and cultures of your sputum to look for specific germs. These cultures will help determine which antibiotics will be most effective during exacerbations. In some cases your doctor may order a bronchoscopy (bronnk-ah-sko-pee), in which a long tube with a light and camera on the end is placed into your airways to retrieve mucus. (For more information on lung function testing and bronchoscopy, see the ATS Patient Information series at www.thoracic.org/patients)

What Can You Expect Long Term?

Bronchiectasis is a condition that usually develops over time, and worsens with repeated infections. Therefore the goals of treatment are preventing

infections and exacerbations. It is important to try to help the lungs stay as healthy as possible with good lung function. You should contact your healthcare provider without delay if you develop symptoms of an exacerbation. By sticking with the treatments prescribed by your healthcare provider, you have the best chance of controlling this condition and keeping it from getting worse. Many people can live for years with bronchiectasis. The more involved the lungs are the more risk there is of loss of function and death.

For information on treatment, see Part 2, "Treatment of Bronchiectasis" at www.thoracic.org/patients.

Authors: Colin Swenson MD, Dean Schraufnagel MD, Ruxana Sadikot MD, MRCP (UK)

Reviewers: Mark Metersky MD; Marianna Sockrider MD, DrPH

Rx Action Steps

- ✓ Call your healthcare provider if you have a change in cough, fever, or other new symptoms.
- ✓ Take your medicines and follow the treatment plan you make with your healthcare provider.
- ✓ Avoid things that can make lung disease worse such as smoking and air pollution.
- ✓ Get a yearly flu vaccine, use good handwashing, and avoid ill contacts as possible.

Healthcare Provider's Contact Number:

References:

American Lung Association

<http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/bronchiectasis/learn-about-bronchiectasis.html>

British Lung Foundation

www.blf.org.uk/support-for-you/bronchiectasis

Lung Foundation –Australia

<http://lungfoundation.com.au/wp-content/uploads/2013/12/Bronchiectasis-Sept-2014.pdf>

National Heart, Lung and Blood Institute

<https://www.nhlbi.nih.gov/health/health-topics/topics/brn>

This information is a public service of the American Thoracic Society. The content is for educational purposes only. It should not be used as a substitute for the medical advice of one's healthcare provider.

