Introduction
Bronchitis is an inflammation of the bronchial tubes, the airways that carry air to the lungs. It causes shortness of breath, wheezing and chest tightness as well as a cough that often brings up mucus.

Bronchitis is a very common condition. Millions of cases happen every year. Elderly people, infants and young children are at a higher risk for acute bronchitis than people in other age groups.

There are two main types of bronchitis: acute and chronic. Acute bronchitis may get better within several days but the cough can last for several weeks after the infection is gone. Chronic bronchitis is a long-term condition that keeps coming back or never goes away completely.

Acute bronchitis could lead to pneumonia. Pneumonia is dangerous particularly for young children and elderly people. Early diagnosis of bronchitis is important for early treatment and recovery.

This reference summary will help you understand both the acute and chronic types of bronchitis. It discusses the causes, symptoms, diagnosis, treatment and prevention of bronchitis.

Anatomy of the Lungs
The lungs allow us to fill our blood with oxygen. The oxygen we breathe is absorbed into our blood in the lungs.

When we breathe in, the air goes through our mouth and our nose. From there it goes to the pharynx then the larynx. The pharynx and larynx are commonly called the throat. It then goes into the windpipe or trachea.
From the windpipe the air we breathe goes into a bunch of little passages called bronchial tubes. These are located on each side of the lungs. The smallest tubes are called bronchioles. In bronchitis, it is the bronchial tubes that get infected.

All along the insides of our bronchial tubes, we have a special substance called mucus. The mucus helps trap dirt from the air we breathe. The mucus comes out when we cough.

Very small brushes called cilia protect the respiratory tract. The cilia constantly push the mucus out of the lungs. Most of the time, it is pushed out automatically. If there is too much mucus, we cough it out.

**Acute vs. Chronic Bronchitis**

Bronchitis is a condition in which the bronchial tubes become inflamed. These tubes carry air to your lungs.

People who have bronchitis usually have a cough that brings up mucus. Mucus is a slimy substance made by the lining of the bronchial tubes. Bronchitis may also cause wheezing, or a whistling or squeaky sound when you breathe, chest pain or discomfort, a low fever and shortness of breath.

There are two main types of bronchitis: acute and chronic. Acute bronchitis may get better within several days but the cough can last for several weeks after the infection is gone. Chronic bronchitis is a long-term condition that keeps coming back or never goes away completely.

People who have chronic bronchitis go through periods when symptoms become much worse than usual. During these times, they may also have acute viral or bacterial bronchitis.

People of all ages can develop chronic bronchitis. But it happens more often in people who are older than 45. Also, many adults who develop chronic bronchitis are smokers.

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This document is for informational purposes and is not intended to be a substitute for the advice of a doctor or healthcare professional or a recommendation for any particular treatment plan. Like any printed material, it may become out of date over time. It is important that you rely on the advice of a doctor or a healthcare professional for your specific condition.
Causes
The same viruses that cause colds and the flu are the most common causes of acute bronchitis. These viruses are spread through the air when people cough. They are also spread through physical contact. For example, on hands that have not been washed.

Sometimes bacteria cause acute bronchitis. Antibiotics can treat bacterial bronchitis. They cannot treat viral bronchitis.

There are many things that can increase your risk for acute bronchitis. These are known as risk factors. They include:
- Tobacco smoke including secondhand smoke.
- Dust.
- Fumes or smoke.
- Vapors.
- Air pollution.

Avoiding these irritants may lower your risk for acute bronchitis.

Smoking is the main cause of chronic bronchitis. Repeatedly breathing in air pollution and dust or fumes from the environment or workplace can also lead to chronic bronchitis.

Symptoms
Acute bronchitis caused by an infection usually happens after you already have a cold or the flu. Symptoms of a cold or the flu include:
- Sore throat.
- Fatigue.
- Fever.
- Body aches.
- Stuffy or runny nose.
- Vomiting.
- Diarrhea.
The main symptom of acute bronchitis is a persistent cough, which may last 10 to 20 days. The cough may produce clear mucus. If the mucus is green or yellow, you may have a bacterial infection as well. Even after the infection clears up, you may still have a dry cough for days or weeks.

Other symptoms of acute bronchitis include wheezing, low fever and chest tightness or pain. If your acute bronchitis is severe, you may also have shortness of breath, especially with physical activity.

Chronic bronchitis causes coughing, wheezing and chest discomfort. The coughing may produce large amounts of mucus. This type of cough often is called a smoker's cough.

**Complications**
Most people with acute bronchitis get better without having complications. But there are some complications that can happen during an episode of acute bronchitis.

Acute bronchitis could lead to repeated episodes of bacterial acute bronchitis if you are regularly exposed to smoke or have an immune system problem, such as HIV, cancer or cystic fibrosis.

Acute bronchitis could lead to pneumonia. Pneumonia is an infection that affects all of the lungs, not just the breathing tubes. Pneumonia may cause increased tiredness, shortness of breath, high fever or chest pain. Pneumonia is dangerous particularly for children and the elderly.

Chronic respiratory diseases, such as asthma, can complicate acute bronchitis and make it more difficult to treat.

Children and older adults are affected by complications of bronchitis more than others. If a child has an ongoing problem with acute bronchitis, he or she may need to be evaluated by a health care provider. The health care provider will look for any foreign object in the air passage of the child.
A child with reoccurring acute bronchitis may also be evaluated for respiratory tract problems, like:

- Adenoiditis. Adenoiditis is the inflammation of the adenoid tissue. The adenoids are located in the back of the mouth. Adenoiditis can be treated using medicines. But in recurring cases it may require an adenoidectomy, or removal of the adenoids.
- Allergies.
- Asthma.
- Bronchiectasis. Bronchiectasis is an abnormal widening of the bronchi or their branches, causing a risk of infection.
- Cystic fibrosis. Cystic fibrosis is a hereditary disorder affecting the exocrine glands. It causes the production of abnormally thick mucus, leading to the blockage of the bronchi, the pancreatic ducts, and intestines often resulting in respiratory infection.
- Sinusitis. Sinusitis is an inflammation of the sinuses.

**Diagnosis**

Your health care provider will diagnose bronchitis based on your signs and symptoms. He or she may ask questions about your cough, such as how long you've had it, what you're coughing up and how much you cough.

Your health care provider will also ask:

- About your medical history.
- Whether you've recently had a cold or the flu.
- Whether you smoke or spend time around others who smoke.
- Whether you've been exposed to dust, fumes, vapors or air pollution.

Your health care provider will use a stethoscope to listen for wheezing or other unusual sounds in your lungs.

To diagnose bronchitis, your health care provider may also:

- Look at your mucus to see whether you have a bacterial infection.
- Test the oxygen levels in your blood using a sensor attached to your fingertip or toe.
- Recommend a chest x-ray, lung function tests, or blood tests.
Treatment

If you have acute bronchitis, your health care provider may recommend rest, plenty of fluids and aspirin or acetaminophen to treat fever. Aspirin should only be used by adults.

Viruses are the most common cause of acute bronchitis. Because antibiotics do not work against viruses, medication is not usually prescribed for acute bronchitis. But if your health care provider thinks you have a bacterial infection, he or she may prescribe antibiotics.

A humidifier or steam can help loosen mucus and relieve wheezing and limited air flow. If your bronchitis causes wheezing, you may need an inhaled medicine to open your airways. You take this medicine using an inhaler. This device allows the medicine to go straight to your lungs.

Your health care provider also may prescribe medicines to relieve or reduce your cough and treat your inflamed airways.

If you have chronic bronchitis and also have been diagnosed with COPD or emphysema, you may need medicines to open your airways and help clear away mucus. These medicines usually can be inhaled or taken in pill form. COPD is also known as chronic obstructive pulmonary disease.

If you have chronic bronchitis, your health care provider may prescribe oxygen therapy. This treatment can help you breathe easier, and it provides your body with needed oxygen.

You can also take steps to control your symptoms. Lifestyle changes and ongoing care can help you manage chronic bronchitis. One of the best ways to treat acute and chronic bronchitis is to remove the source of irritation and damage to your lungs. If you smoke, it is important to quit.

Talk with your health care provider about programs and products that can help you quit smoking. Try to avoid secondhand smoke and other lung irritants, such as dust, fumes, vapors and air pollution.
If you have chronic bronchitis, see your health care provider regularly and take all of your medicines as prescribed. Also, talk with your health care provider about getting a yearly flu shot and a pneumonia vaccine.

If you have chronic bronchitis, you may benefit from pulmonary rehabilitation. Pulmonary rehabilitation is a program that helps improve the well-being of people who have chronic breathing problems.

People with chronic bronchitis often breathe fast. Talk with your health care provider about a breathing method called pursed-lip breathing. This method decreases how often you take breaths and helps keep your airways open longer, giving you more air flow in and out of your lungs.

To do pursed-lip breathing:
1. Breathe in through your nostrils.
2. Slowly breathe out through slightly pursed lips, as if you're blowing out a candle.
3. Exhale two to three times longer than you inhale. Count to two while inhaling to four or six while exhaling.

Prevention
You can't always prevent acute or chronic bronchitis. But you can take steps to lower your risk of getting bronchitis. The most important step is to quit smoking or not start smoking.

Also, try to avoid other lung irritants, such as secondhand smoke, dust, fumes, vapors and air pollution. For example, wear a mask over your mouth and nose when you use paint, paint remover, varnish or other substances with strong fumes. This will help protect your lungs.

Wash your hands often to lower your risk for a viral or bacterial infection. Also, try to stay away from people who have colds or the flu. See your health care provider right away if you have signs or symptoms of a cold or the flu. Your health care provider may advise you to get a yearly flu shot and a pneumonia vaccine.
A healthy diet and physical activity are also important for your general health. A healthy diet includes a variety of fruits, vegetables, whole grains, lean meats and fat-free or low-fat dairy products. It is also low in saturated fat, trans fat, cholesterol, salt and added sugar.

Summary

Bronchitis is an inflammation of the bronchial tubes, the airways that carry air to your lungs. It causes coughing accompanied by mucus, shortness of breath, wheezing and chest tightness.

There are two main types of bronchitis: acute and chronic. Acute bronchitis may get better within several days but the cough can last for several weeks after the infection is gone. Chronic bronchitis is a long-term condition that keeps coming back or never goes away completely. Infections or lung irritants cause acute bronchitis. The same viruses that cause colds and the flu are the most common cause of acute bronchitis. Sometimes bacteria cause acute bronchitis.

Chronic bronchitis happens when the lining of the bronchial tubes are constantly irritated and inflamed. Repeatedly breathing in fumes that irritate and damage lung and airway tissues causes chronic bronchitis. Smoking is the main cause of chronic bronchitis.

For acute bronchitis, your health care provider may recommend rest, plenty of fluids, and aspirin or acetaminophen to treat fever. Only adults should take aspirin. Your health care provider also may prescribe medicines to relieve or reduce your cough and treat your inflamed airways.

If you have chronic bronchitis and have also been diagnosed with COPD or emphysema, you may need medicines to open your airways and help clear away mucus.