

# Chronic Obstructive Pulmonary Disease

## Overview

### What is chronic obstructive pulmonary disease?

Chronic obstructive pulmonary disease (also called COPD) is a chronic lung disease that includes two main illnesses: chronic bronchitis and emphysema (say: "em-fa-see-ma"). There is no cure for COPD.

Your lungs have 2 main parts: bronchial tubes (also called airways) and alveoli (also called air sacs). When you breathe, the air moves down your trachea (or wind pipe) through your bronchial tubes and into your alveoli. From the alveoli, oxygen goes into your blood while carbon dioxide moves out of your blood.

If you have chronic bronchitis, the lining in your bronchial tubes gets red, swollen and full of mucus. This mucus blocks your tubes and makes it hard to breathe.

If you have emphysema, your alveoli are irritated. They get stiff and can't hold enough air. This makes it hard for you to get oxygen into and carbon dioxide out of your blood.

## Symptoms

### What are the symptoms of COPD?

COPD can cause a variety of symptoms, including:

- Chronic, persistent cough
  - Increased mucus
- Shortness of breath, especially during physical activity
  - Wheezing
- A tight feeling in the chest

## Causes & Risk Factors

### Who gets COPD?

About 12 million people in the United States have COPD. The disease develops over many years. It is almost always caused by cigarette smoking. The best way to prevent or keep COPD from getting worse is to quit smoking. Other irritants can also cause COPD. These include cigar smoke, secondhand smoke and air pollution. You may also be at risk if the air you breathe at work contains an excessive amount of dust, fumes, smoke, gases, vapors or mists. Workers who smoke are at a much greater risk if they are exposed to substances in the workplace that can cause COPD.

## Diagnosis & Tests

## **How can I find out if I have COPD?**

Talk to your doctor if you experience any symptoms of COPD. Your doctor will ask you if you smoke or if you have been exposed to excessive amounts of dust, fumes, smoke, gases, vapors or mists over a long period of time.

Your doctor might give you a pulmonary function test. This is a special test to see how well your lungs are working. In this test, you take deep breaths and then blow into a machine. The machine measures how deeply you can breathe and how fast you can move air in and out of your lungs. You might also have a chest X-ray. The X-ray can show signs of COPD. Your doctor may also suggest a blood test or a special test that analyzes your mucus.

## *Treatment*

### **How is COPD treated?**

If you have COPD, the most important thing you can do is to stop smoking. This can stop or at least slow the damage to your lungs. Talk to your doctor about how to stop smoking. If you quit smoking soon, you have a better chance of living longer and being healthier.

Your doctor may also have you take some medicines to make you feel better and breathe more easily. These medicines can include antibiotics and some medicines that you inhale (breathe in). You might need to take steroids and antibiotics if you get a respiratory infection.

Some people with more advanced COPD need to use oxygen. You breathe the oxygen through tubes that you put in your nose or through a mask that goes over your mouth and nose.

Patients with very serious COPD might have surgery. They might have a lung reduction operation or a lung transplant. These surgeries are usually done only in people who have not done well with other treatments.

### **How do I take inhaled medicines?**

To take inhaled medicines, you might use a small handheld canister or you might use a nebulizer machine to deliver a specific amount of medication to your lungs. A nebulizer machine turns liquid medicine into a vapor (like a cloud) that you can breathe. This machine is often used to treat people with more serious COPD. It also helps people who have trouble using handheld inhalers.

Your doctor will tell you how to take your medicine. It is important to follow your doctor's instructions carefully so that your lungs receive the right amount of medicine.

## *Complications*

### **What are the complications of COPD?**

If you have COPD, you might be more likely to get colds and flu. Because your heart can be strained, it will get bigger. You might have high pressure in the vessels that bring blood to your lungs.

You should have a flu shot every year. You should also have a pneumonia shot. You are less likely to get flu or pneumonia if you have these shots. Rehabilitation and exercise programs specifically for people who have COPD may also be helpful.

Modified from material provided by [familydoctor.org](http://familydoctor.org)