

# COPD: Chronic Obstructive Pulmonary Disease

## What is COPD?

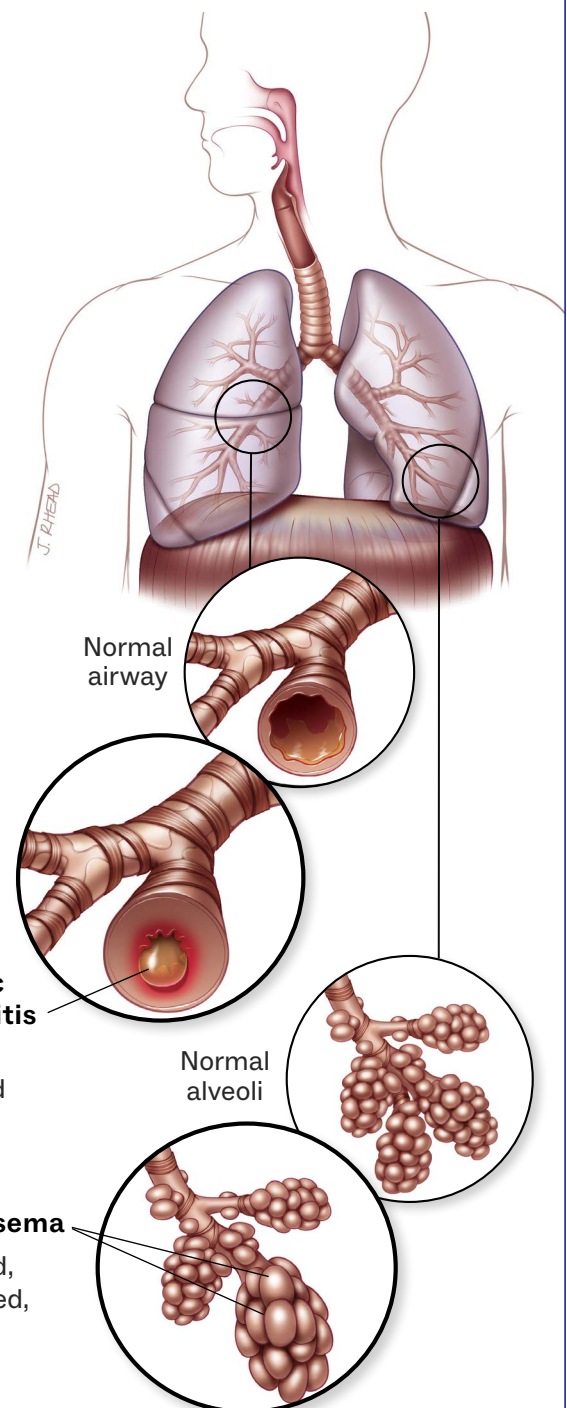
**Chronic obstructive pulmonary disease (COPD)** is a serious lung disease that makes it hard to breathe. COPD is a chronic (long-lasting) condition that affects more than 12 million Americans, both men and women.

The 2 most common types of COPD are **chronic bronchitis** and **emphysema** (it's possible to have both). Here's what happens with each:

- With **chronic bronchitis**, the airways in your lungs become inflamed and produce too much mucus. The swelling and excess mucus narrow the airways making breathing difficult.
- With **emphysema**, the small airways (bronchioles) and air sacs (alveoli) become damaged. As the alveoli [al-VEE-uh-lie] weaken or break, it becomes harder to breathe, and the lungs aren't able to get enough oxygen into the bloodstream.

The lung damage that happens with COPD cannot be repaired, and the disease cannot be cured. However, by working with your healthcare team, you can do a lot to reduce your symptoms and improve your life.

## The lungs and airways



## What are the symptoms of COPD?

COPD takes many years to develop, and in its early stages, you may not notice symptoms. As COPD worsens, your symptoms may include:

- **Chronic coughing**, often with lots of **mucus**
- **Shortness of breath**, especially when you're active
- **Wheezing** (a faint whistling sound when you breathe)
- **Swelling in the ankles, legs, and feet**
- **Fatigue** or a feeling of constant tiredness
- **Poor concentration** (due to the low oxygen and high carbon dioxide levels in your body)

COPD symptoms tend to sneak up on people. Without being aware of it, people with COPD gradually do less and less, limiting their daily activity so they can avoid becoming out of breath. Most people only seek medical help later in life, at age 50 or more, when their breathing problems are difficult to ignore.

## What causes COPD?

Most people develop COPD after many years of breathing in a substance that damages the lungs and airways. Some common causes include:

- **Smoking.** Cigarette smoking is the most common cause of COPD. More than 8 out of 10 people develop COPD due to smoking or exposure to secondhand smoke.
- **The environment.** Over time, problems in the air we breathe at home, school, and work can cause COPD. Air pollution, dust, and fumes from paints, fuels, and other chemicals are some examples of environmental causes.
- **Genetics.** For some people, COPD can be caused by a genetic disorder called **alpha-1 antitrypsin deficiency**. The condition is hereditary (passed from parent to child).

## How is COPD diagnosed?

Breathing problems can come from many different conditions. Before diagnosing COPD, your doctor will check your lungs and overall health in various ways:

- **Medical history.** The doctor asks questions about your symptoms, family history, and your lifestyle. Questions might include:
  - How long have you had this problem?
  - Does anyone in your family have this problem?
  - Have you ever smoked?This conversation gives the doctor clues about what may be causing the breathing problem or making it worse.
- **Physical exam.** The doctor examines your body for signs or symptoms of health problems. The doctor will watch and listen as you breathe.
- **Imaging tests.** Your doctor may order imaging tests (for example, a chest x-ray) to get pictures of the inside of your chest and lungs. The images can't be used to diagnose COPD, but they may reveal other problems, such as a lung infection.
- **Lung function tests (pulmonary function tests).** Lung function tests are the only way to diagnose COPD. They're also used to monitor your response to treatment and measure your condition over time. Common types of lung function tests are:
  - **Breathing tests** measure how well your lungs are working. The simplest breathing test is **spirometry** [spy-ROM-eh-tree] which can be done in your doctor's office or in a hospital. Your doctor may also order more complex lung tests to get additional information about your lungs.
  - **Oxygen level tests** see how well your lungs deliver oxygen to your bloodstream. **Pulse oximetry** [ox-HIM-eh-tree] uses a special light clipped to your finger to measure oxygen in your blood. An **arterial blood gas** test measures the oxygen from a blood sample.
  - **Exercise tests**, such as the **6-minute walk test**, help your doctor know how your heart and lungs respond to physical activity. They can help your doctor determine how severe the condition is as well as recommend exercises for therapy.

## What are the stages of COPD?

At the time of your diagnosis, your doctor will determine the severity of your COPD. COPD is a progressive illness, and your treatment may change as your symptoms change. COPD severity is classified in stages based on your breathing test results:

- **Stage I: Mild COPD.** You may not notice any symptoms, but breathing tests reveal lung damage.
- **Stage II: Moderate COPD.** You have shortness of breath when you're active. You may notice persistent coughing or mucus.
- **Stage III: Severe COPD.** Shortness of breath begins to limit your daily activity. You feel tired and may have flare-ups (**exacerbations**) during which your symptoms are worse than usual.
- **Stage IV: Very Severe COPD.** Shortness of breath limits your activities. A flare-up or lung infection may be life-threatening.

While it can seem discouraging to consider these stages, realize that they only tell part of the story. **You have a lot of power to manage your symptoms and learn to breathe better, do more, and live well with COPD.**

## How is COPD treated?

Treatment for COPD depends on the severity of your disease, your daily habits, and your overall health. Generally, treatment includes:

- **Quitting smoking.** This is the most powerful step you can take toward better health. See [page 4](#) for more information.
- **Medications.** Nearly everyone with COPD can be helped by medication. COPD medications include:
  - Quick-relief, or “rescue,” medications that you inhale to help you breathe better right away.
  - Long-acting, or maintenance, medications that help control symptoms and prevent flare-ups.
- **Lifestyle changes.** Exercising, practicing breathing techniques, lowering stress, and eating well can help you feel better. Your healthcare team can give you information and plans to care for yourself at home.
- **Oxygen therapy.** If your COPD is mild, you may not need oxygen. As COPD progresses, oxygen can be vital for helping you feel better and stay active. Studies have shown that oxygen therapy can extend your life as well.
- **Surgery.** A small number of people with COPD may be helped by lung volume reduction surgery. This surgery removes damaged lung tissue and creates more space for the diaphragm to move. A lung transplant may also be an option for treatment of severe COPD.

Your doctor can explain the plan for your treatment. Be sure to ask questions, and consider attending pulmonary rehabilitation for support.

### Pulmonary rehabilitation (rehab)

Your doctor may recommend a pulmonary rehab program. Pulmonary rehab is an exercise and education program for people with COPD and other breathing problems. Studies show that pulmonary rehab programs make a big difference for people at all stages of lung disease.

#### The program can help:

- Ease your shortness of breath
- Build your capacity for exercise and activity
- Reduce anxiety and depression caused by lung disease
- Help you stay out of the hospital
- Improve your quality of life

Your doctor can refer you to a program in your area. Most health insurance companies will cover the cost for at least 12 weeks.



## How can I prevent COPD?

If you smoke or have regular contact with a lung irritant (such as airborne gases, dust, chemical fumes, or smoke) then you're at risk for COPD. To prevent this, you must:

- **Stop smoking.**
- **Avoid lung irritants, including second-hand smoke.** (If your work environment exposes you to lung irritants, protect your lungs by wearing personal protective equipment.)

Completely avoiding irritants is the only way to prevent irreversible lung damage. With smoking, this means quitting, not just "cutting back."

## "I already have COPD. What's the point of quitting smoking?"

The point is to help you live better and longer. Quitting now will help you:

- **Prevent further damage to your lungs.** Every cigarette you don't smoke is damage you don't do.
- **Slow the progression of COPD.** Quitting is one of the most important steps you can take to slow down the progression of the disease and help keep your lungs from getting worse.
- **Improve your symptoms.** Your coughing, sinus congestion, fatigue, and shortness of breath will all decrease.
- **Lower your chance of stroke, heart disease, and lung cancer.** Smoking hurts your health in many ways. Quitting improves your health in every way.
- **Stay out of the hospital.** Studies show that people who quit smoking have fewer episodes of severe breathing problems or flare-ups.

## Resources to Help You Quit

### Tobacco cessation programs

#### Way to Quit

[waytoquit.org](http://waytoquit.org)

In English: 800-QUIT-NOW (800-784-8669)

En Español: 855-DÉJELO-YA (855-335-3569)

#### Quit for Life program

[quitnow.net](http://quitnow.net)

In English: 866-QUIT-4-LIFE (866-784-8454)

En Español: 866-784-8454 (y oprima 2)

### National organizations

#### American Lung Association (ALA)

800-548-8252 Lung HelpLine

[lung.org/quit-smoking](http://lung.org/quit-smoking)

#### American Cancer Society (ACS)

800-227-2345

[cancer.org](http://cancer.org)

#### American Heart Association (AHA)

800-242-8721

[heart.org](http://heart.org)

### Online programs

#### Freedom from smoking

[freedomfromsmoking.org](http://freedomfromsmoking.org)

#### BecomeAnEx

[becomeanex.org](http://becomeanex.org)

#### smokefreetxt

[smokefree.gov/smokefreetxt](http://smokefree.gov/smokefreetxt)

### More helpful websites

[cdc.gov/tobacco](http://cdc.gov/tobacco)

[nicotine-anonymous.org](http://nicotine-anonymous.org)

[smokefree.gov](http://smokefree.gov)

[thetobaccotalk.org](http://thetobaccotalk.org)

[surgeongeneral.gov](http://surgeongeneral.gov)

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