



CENTRAL TEXAS ALLERGY & ASTHMA

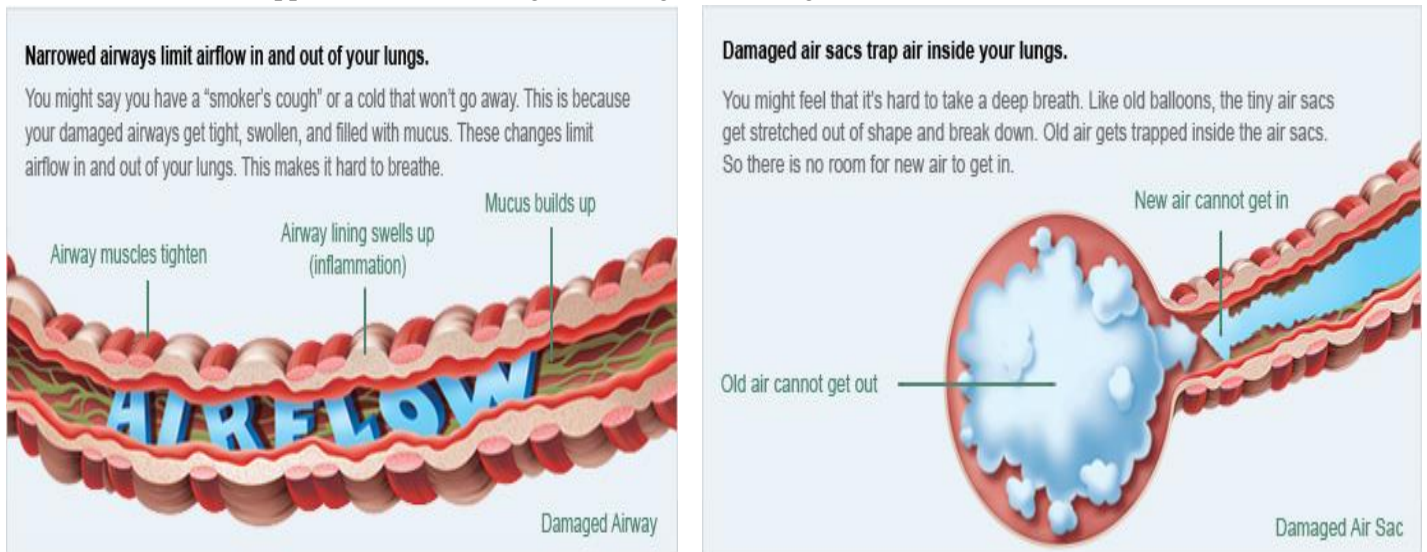
Priyanka Gupta, M.D.

www.CTxAA.com

COPD

Chronic Obstructive Pulmonary Disease

COPD is a lung disease that consists of two main processes: chronic bronchitis and emphysema. An estimated 20 million adults in the United States have COPD. In chronic bronchitis, the lining of the airways is constantly irritated and inflamed. This causes the lining to thicken. Lots of thick mucus forms in the airways, making it hard to breathe. In **emphysema**, the walls between many of the air sacs are damaged, causing them to lose their shape and become floppy. This damage also can destroy the walls of the air sacs, leading to fewer and larger air sacs instead of many tiny ones. If this happens, the amount of gas exchange in the lungs is reduced.



Cigarette smoking is the leading cause of COPD. Most people who have COPD smoke cigarettes (which contain nicotine) or used to smoke cigarettes. Long-term exposure to other lung irritants, (such as air pollution), chemical fumes, dust, and occupational pollutants (cadmium, silica) also may contribute to COPD. In rare cases, nonsmokers who lack a protein called alpha-1 antitrypsin can develop emphysema.

The signs and symptoms of COPD include:

- An ongoing cough or a cough that produces large amounts of mucus (often called "smoker's cough")
- Shortness of breath, especially with physical activity
- Wheezing (a whistling or squeaky sound when you breathe)
- Chest tightness
- Recurrent lung infections (bronchitis)



How Is COPD Diagnosed?

Your physician will diagnose COPD based on your signs and symptoms, your medical history, family history, physical exam and test results.

Your physician may ask whether you smoke or have had contact with lung irritants, such as air pollution, chemical fumes, or dust. If you have an ongoing cough, your physician may ask how long you've had it, how much you cough, and how much mucus comes up when you cough. He or she also may ask whether you have a family history of COPD. Your doctor will examine you and use a stethoscope to listen for wheezing or other abnormal chest sounds.

You also may need one or more tests to diagnose COPD. The main test for COPD is a spirometry or pulmonary function test. Spirometry measures how much air you can breathe in and out, how fast you can breathe air out, and how well your lungs can deliver oxygen to your blood. You may also need a chest X ray or chest computed tomography (CT) scan. These tests create pictures of the structures inside your chest, such as your heart and lungs. The pictures can show signs of COPD.



How Is COPD Treated?

COPD has no cure yet. However, treatments and lifestyle changes can help you feel better, stay more active, and decrease symptoms and complications.

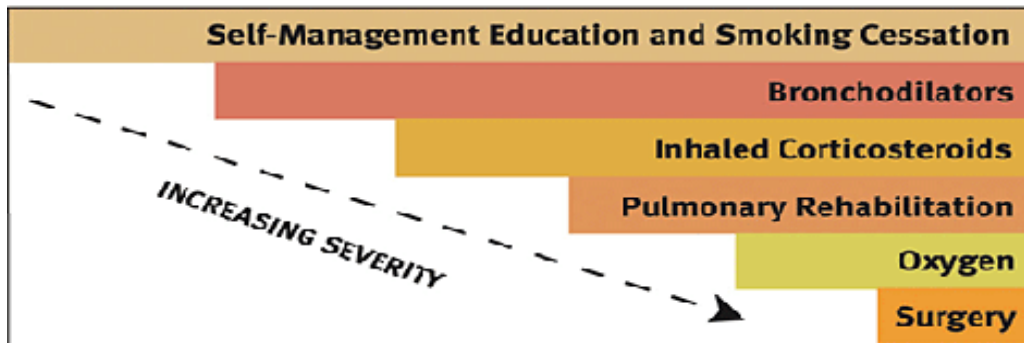
Quitting smoking is the most important step you can take to treat COPD. Talk to your physician about programs and products that can help you quit.

Other treatments for COPD may include medicines, vaccines, pulmonary rehabilitation (rehab), oxygen therapy, surgery, and managing complications of COPD.

The goals of COPD treatment are to:

- Relieve your symptoms
- Slow the progress of the disease
- Improve your exercise tolerance (your ability to stay active)
- Prevent and treat complications
- Improve your overall health

TREATMENT OPTIONS FOR COPD



Medicines

Bronchodilators (Rescue inhalers)

Bronchodilators relax the muscles around your airways. This helps open your airways and makes breathing easier. Depending on how severe your disease is your doctor may prescribe short-acting or long-acting bronchodilators. Short-acting bronchodilators last about 4 to 6 hours and should be used only when needed. Long-acting bronchodilators last about 12 hours or more and are used every day (Salmeterol, Foradil). Regular treatment with long-acting bronchodilators is more effective and convenient than treatment with short-acting bronchodilators.

Inhaled Glucocorticosteroids (Flovent, Asmanex, Pulmicort)

Inhaled corticosteroids may be administered on a regular basis to control symptoms of inflammation and sputum production. Inhaled corticosteroids are also used in combination with long acting bronchodilators (Advair, Symbicort). These medications may be added for moderate or severe COPD.

Anticholinergics (Combivent, Spirivia)

Anticholinergic medications relax the muscles in your lungs causing the narrowed airways to open up (bronchodilation). Anticholinergic medications also help relieve bronchial spasms and reduce air trapping in the lungs. They can last for 6 to 24 hours, and should be taken daily to help maintain control of COPD symptoms.

Oxygen

If your COPD is severe, your doctor might suggest oxygen therapy to help with shortness of breath. You might need oxygen all of the time or just some of the time - your doctor will work with you to learn which treatment will be most helpful.



Pulmonary Rehabilitation

Pulmonary Rehabilitation is a medically supervised program that helps improve the health and well being of people who have lung problems. Rehab may include an exercise program, disease management training, and nutritional and psychological counseling. The program aims to help you stay more active and carry out your day-to-day activities.

Prevention: Get a yearly Influenza (FLU) vaccine. Ask your doctor if a pneumococcal vaccine is appropriate for you. People who have COPD are at higher risk for Flu and pneumonia than people who don't have COPD.

When to get Emergency Help

You find that it is hard to walk or talk

Your heart is beating fast or irregularly

You lips or fingernails are gray or blue

Your breathing is fast and hard, even when you are using your medication.

Managing Complications

COPD symptoms usually slowly worsen over time requiring other interventions. A pulmonologist may be needed if you require oxygen therapy, have moderate-severe COPD and are having frequent exacerbations requiring hospitalization or intubation. You may also need to see a cardiothoracic surgeon if lung surgery is needed.