



COPD Awareness



What is COPD?

Chronic obstructive pulmonary disease (COPD) is a chronic inflammatory lung disease that causes obstructed airflow from the lungs. Symptoms include breathing difficulty, cough, mucus (sputum) production and wheezing. It's caused by long-term exposure to irritating gases or particulate matter, most often from cigarette smoke. People with COPD are at increased risk of developing heart disease, lung cancer and a variety of other conditions.

Emphysema and chronic bronchitis are the two most common conditions that contribute to COPD. Chronic bronchitis is inflammation of the lining of the bronchial tubes, which carry air to and from the air sacs (alveoli) of the lungs. It's characterized

by daily cough and mucus (sputum) production. Emphysema is a condition in which the alveoli at the end of the smallest air passages (bronchioles) of the lungs are destroyed as a result of damaging exposure to cigarette smoke and other irritating gases and particulate matter.

COPD is treatable.

With proper management, most people with COPD can achieve good symptom control and quality of life, as well as reduced risk of other associated conditions.

What causes COPD?

The main cause of COPD in developed countries is tobacco smoking. In the developing world, COPD often occurs in people exposed to fumes from burning fuel

for cooking and heating in poorly ventilated homes. Only about 20 to 30 percent of chronic smokers may develop clinically apparent COPD, although many smokers with long smoking histories may develop reduced lung function. Some smokers develop less common lung conditions. They may be misdiagnosed as having COPD until a more thorough evaluation is performed.

How your lungs are affected

Air travels down your windpipe (trachea) and into your lungs through two large tubes (bronchi). Inside your lungs, these tubes divide many times — like the branches of a tree — into many smaller tubes (bronchioles) that end in clusters of tiny air sacs (alveoli). The air sacs have very thin walls full of tiny blood vessels (capillaries). The oxygen in the air you inhale passes into these blood vessels and enters your bloodstream. At the same time, carbon dioxide — a gas that is a waste product of metabolism — is exhaled. Your lungs rely on the natural elasticity of the bronchial tubes and air sacs to force air out of your body. COPD causes them to lose their elasticity and overexpand, which leaves some air trapped in your lungs when you exhale.

Causes of airway obstruction include:

Emphysema. This lung disease causes destruction of the fragile walls and elastic fibers of the alveoli. Small airways collapse when you exhale, impairing airflow out of your lungs. Chronic bronchitis. In this condition, your bronchial tubes become inflamed and narrowed and your lungs produce more mucus, which can further block the narrowed tubes. You develop a chronic cough trying to clear your airways.

In the vast majority of cases, the lung damage that leads to COPD is caused by long-term cigarette smoking. But there are likely other factors at play in the development of COPD, such as a genetic susceptibility to the disease, because only about 20 to 30 percent of smokers may develop COPD. Other irritants can cause COPD, including cigar smoke, secondhand smoke, pipe smoke, air pollution and workplace exposure to dust, smoke or fumes.

COPD can cause many complications, including:

Respiratory infections. People with COPD are more likely to catch colds, the flu and pneumonia. Any respiratory infection can make it much more difficult to breathe and could cause further damage to lung tissue. An annual flu vaccination and regular vaccination against pneumococcal pneumonia can prevent some infections.

Heart problems. For reasons that aren't fully understood, COPD can increase your risk of heart disease, including heart attack. Quitting smoking may reduce this risk. Lung cancer. People with COPD have a higher risk of developing lung cancer. Quitting smoking may reduce this risk.

High blood pressure in lung arteries. COPD may cause high blood pressure in the arteries that bring blood to your lungs (pulmonary hypertension).

Depression.

Difficulty breathing can keep you from doing activities that you enjoy. And dealing with serious illness can contribute to development of depression. Talk to your doctor if you feel sad or helpless or think that you may be experiencing depression.

COPD Can Be Prevented.

Unlike some diseases, COPD has a clear cause and a clear path of prevention. The majority of cases are directly related to cigarette smoking, and the best way to prevent COPD is to never smoke — or to stop smoking now. If you're a longtime smoker, these simple statements may not seem so simple, especially if you've tried quitting — once, twice or many times before. But keep trying to quit. It's critical to find a tobacco cessation program that can help you quit for good. It's your best chance for preventing damage to your lungs. Occupational exposure to chemical fumes and dust is another risk factor for COPD. If you work with this type of lung irritant, talk to your supervisor about the best ways to protect yourself, such as using respiratory protective equipment.

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