

COPD

Overview: Chronic obstructive pulmonary disease (COPD) is a chronic inflammatory lung disease that causes obstructed airflow from the lungs. COPD increases a patient's risk of developing heart disease, lung cancer and other serious health conditions. Most patients are diagnosed in their 50's or later when the disease has progressed significantly, but it can begin in the 40's and in rare cases a patient may be diagnosed in their 20's or 30's. Almost 15 million Americans have been diagnosed with COPD (Chronic Obstructive Pulmonary Disease) and it is estimated that another 12 million may have COPD but have not been diagnosed yet.

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 alveoli of the lungs.

Emphysema is diagnosed when the alveoli at the end of the smallest air passages (bronchioles) of the lungs are destroyed because of damaging exposure to cigarette smoke and/or other irritating gases and particulate matter.

Causes: 80-90% of patients diagnosed with COPD have a history of cigarette smoking.

Modifiable causes: exposure to air pollution, secondhand smoke, and occupational dust or chemicals.

Non-Modifiable causes: Heredity can also play a role. Scientists have discovered what's known as an alpha-1-antitrypsin deficiency, which is the cause in about 1 % of patients diagnosed with COPD.

Symptoms:

- Chronic Productive cough
- Shortness of breath with exertion and/or at rest
- Wheezing
- Tightness in the chest
- Fatigue
- More frequent colds or flu
- Weight loss
- Swelling in feet and ankles
- Morning headaches-breathing decreases during sleep, which means less oxygen comes in and more carbon dioxide builds up in the blood, which may cause headaches

Risk Factors: The most significant risk factor for COPD is long-term cigarette smoking or long-term exposure to cigarette smoke. Other risk factors include:

- People with asthma who smoke
- Occupational exposure to dusts and chemicals
- Exposure to fumes from burning fuel
- Age
- Genetics

Treatment: While there is no cure, the goal of treatment is to ease symptoms and slow down the progression of the disease. Treating any complications quickly can improve the patient's overall quality of life.

Treatment plans may include any of the following:

- Bronchodilators to open up the airways.
- Corticosteroids to reduce airway inflammation.
- Antibiotics to fight bacterial infections.
- Daliresp. This drug stops an enzyme called PDE4. It prevents flare-ups in people whose COPD is linked to chronic bronchitis.

- Flu or pneumonia vaccines
- Pulmonary rehabilitation
- Oxygen therapy

How is it Diagnosed: Along with collecting a thorough health history (focusing on the patients smoking history, second hand smoke, air pollution, chemicals or dust exposure), the doctor may also order testing such as Spirometry which measures the amount of air the patient can blow out and how fast they can blow it out.

Other tests: chest X-ray, arterial blood gas test, which measures the oxygen level in your blood and can also tell how well the lungs are able to move oxygen to the blood and remove carbon dioxide from the blood.

Prevention:

- If you smoke, STOP. At any stage of COPD, quitting smoking will lessen your symptoms and slow COPD progression.
- Avoid smoke, fumes, dust, and air pollution as much as you can.
- Take your medications as directed.
- Get regular check-ups.
- Learn breathing exercises.
- Walk or do other light exercises several times a week.
- Eat a healthy diet.

Did you know? COPD is the fourth leading cause of death in the U.S. after heart disease, cancer, and stroke.

Sources:

www.copd.com

www.webmd.com

www.lung.org

www.health.com

www.mayoclinic.org