

BREATHING DIFFICULTIES? YOU MAY HAVE COPD

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Chronic Obstructive Pulmonary Disease (COPD) is a very common lung disease, and presents with breathing difficulties caused by inflammation and partial obstruction of the airways. It is a major cause of hospitalization and the fourth leading cause of death in the United States. COPD develops slowly over the years and may not be noticed until a person reaches middle age.

COPD has become more common during the past several decades. It poses to become a direct financial burden to our society as medical expenses increase and an indirect burden to our economic structure as worker productivity is reduced due to recurrent illness.

Cigarette smoking is the most common cause of COPD. People who have been exposed to other kinds of lung irritants like pollution, dust or chemicals over a long period of time may also suffer from COPD. Rarely, it is caused by a genetic defect called alpha 1 antitrypsin deficiency. Passive smoking over a long period of time can also lead to this disease.

COPD is a general term used for three main categories of lung diseases: emphysema, chronic bronchitis and chronic bronchial asthma, the results of which are similar in that they all cause destruction of air sacs (alveoli) in the lungs where oxygen from the air is exchanged for carbon dioxide in the blood.

The walls of the air sacs are thin and damage to the air sacs causes irreversible and permanent “holes” in the tissues of the lungs. As air sacs are destroyed, the lungs are able to transfer less and less oxygen to the bloodstream, causing shortness of breath. The lungs also lose their elasticity, which makes it difficult to keep airways open. Hence, the patient experiences great difficulty breathing out.

Symptoms of COPD include shortness of breath, initially on exertion. Later in life, even at rest patients will have shortness of breath, cough, coughing up thick yellowish sputum, recurrent respiratory tract infections and weight loss.

Diagnosis is usually made by history, physical examination, chest x-rays and by performing pulmonary function tests. CT scans may also help in aiding the diagnosis. A pulmonary function test is the gold standard test which helps in making a definitive diagnosis.

None of the existing medications or treatment for COPD has been shown to modify the long-term decline in lung function. The goal of treatment for COPD is to provide relief of symptoms and prevent complications and/or progression of the disease. Bronchodilator medications (prescription drugs that relax and open air passages in the lungs) are key to the symptomatic management of COPD. They can be inhaled as aerosol sprays or taken orally. Other treatment modalities include antibiotics, oxygen therapy and systemic steroids. The efficacy of inhaled steroids has been demonstrated with numerous multi-center studies. Systemic steroids (oral and intravenous) involve the risk of serious side effects, therefore, these are used mostly for acute exacerbations.

Prevention is the key to COPD and it is strongly recommended that smokers quit smoking as soon as possible. Smoking cessation programs with nicotine patches and medications like Wellbutrin® (zyban) have proven to be helpful for people who are trying to quit smoking. Willpower and determination are very important for successful smoking cessation.

It is also recommended that people who suffer from COPD receive a pneumonia vaccination every five years and an annual influenza vaccination to possibly prevent life-threatening respiratory infections. Pulmonary rehabilitation helps in improving one's ability to exercise. But, there are no proven studies showing improvement of lung function with pulmonary rehabilitation. There is a role for lung reduction surgeries and lung transplantation especially in younger patients who suffer from COPD. These surgeries are associated with high morbidity and mortality and hence, recommended by pulmonologists only for a selected group of patients.

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