Chronic Obstructive Pulmonary Disease (COPD)

What is chronic obstructive pulmonary disease (COPD)?
COPD is a term that refers to a group of lung diseases that can interfere with normal breathing. According to the American Lung Association, more than 13 million Americans suffer from COPD. It is the third leading cause of death in the U.S.

What are the different types of COPD?
The two most common conditions of COPD are chronic bronchitis and emphysema. Some doctors agree that asthma should be classified as a chronic obstructive pulmonary disease, while others do not. A brief description of asthma is included below:

What is chronic bronchitis?
Chronic bronchitis means long-term inflammation of the bronchi (the breathing passages in the lungs), which results in increased production of mucus, as well as other changes. These changes may result in breathing problems, frequent infections, cough, and disability.

What is pulmonary emphysema?
Emphysema is a chronic lung condition in which alveoli (the air sacs in the lungs) may become:
- Destroyed
- Narrowed
- Collapsed
- Stretched
- Overinflated
This can cause a decrease in respiratory function and breathlessness. Damage to the air sacs is irreversible and results permanent "holes" in the lung tissue.

What is asthma?
Asthma is a chronic, inflammatory lung disease involving recurrent breathing problems. The characteristics of asthma include the following:
- The lining of the airways becomes swollen and inflamed.
- The muscles that surround the airways tighten.
- The production of mucus is increased, leading to mucus plugs.

What causes COPD?
The causes of COPD are not fully understood. It is generally agreed that the most important cause of chronic bronchitis and emphysema is cigarette smoke. Other important causes include occupational exposure to dust and chemicals, air pollution, lower respiratory tract infections, and genetic factors.
Are there rehabilitation programs for COPD?

The goals of COPD rehabilitation programs include helping the patient return to the highest level of function and independence possible, while improving the overall quality of the person’s physical, emotional, and social life. Attaining these goals help people with COPD live more comfortably by improving endurance, providing relief of symptoms, and preventing progression of the disease with minimal side effects.

In order to reach these goals, COPD rehabilitation programs may include the following:

- Medication management

- Exercises to decrease respiratory symptoms and improve muscle strength and endurance
- Respiratory treatments to improve breathing ability
- Assistance with obtaining respiratory equipment and portable oxygen
- Methods to increase independence with activities of daily living (ADLs)
- Exercises for physical conditioning and improved endurance
- Stress management, relaxation exercises, and emotional support
- Smoking cessation programs
- Nutritional counseling
- Patient and family education and counseling
- Vocational counseling

Who is on the COPD rehabilitation team?

COPD rehabilitation programs can be conducted on an inpatient or outpatient basis. Many skilled professionals are part of the pulmonary rehabilitation team, including the following:

- Pulmonologist
- Respiratory therapist
- Physiatrist
- Internist
- Rehabilitation nurse
- Dietitian
- Physical therapist
- Occupational therapist
- Social worker
- Psychologist/psychiatrist
- Recreational therapist
- Case manager
- Chaplain
- Vocational therapist