

## Chapter Two:

# What is Chronic Obstructive Pulmonary Disease (COPD)?

Conditions which obstruct the flow of air from traveling easily through the respiratory system are called “**Chronic Obstructive Pulmonary Disease**” or **COPD**. The two conditions most frequently referred to when discussing COPD are **emphysema** and **chronic bronchitis**. In each, when the flow of air is blocked, or obstructed, it makes it harder to get enough oxygen to meet the body’s needs.

### **EMPHYSEMA**

There are countless air sacs in the lung. Through the air sacs, oxygen from the air can be delivered to the red blood cells located in the thinnest vessels. Red blood cells can then push out carbon dioxide. Normally, this ability of the lung works continuously, so that enough oxygen can be supplied to the body. Emphysema damages the lung such that air sacs become very large and weak. Due to this damage, pressure in the lung elevates. Consequently, part of the heart is weakened. This condition cannot be cured but patients can have improvement in symptoms with the help of medication.

### **Symptoms**

- Shortness of breath with exercise
- Increased breathing difficulty through time

### **Causes:**

- Chronic bronchitis
- Long time smoking
- Heavy exposure to second-hand smoke
- Genetic (rare)

### **Treatment:**

- Medications such as inhaled steroids, bronchodilators and antibiotics
- Quit smoking
- Avoid stress to the lung
- Severe cases may require continuous oxygen therapy

### **Prevention:**

- Avoid smoking and being around others who smoke
- Early diagnosis and treatment
- Non-strenuous exercise
- Avoid pollution
- See your physician right away at time of code or any new respiratory symptoms

### **CHRONIC BRONCHITIS**

Bronchitis is an inflammation of the smooth muscle in the large airways. There are acute and chronic types of bronchitis. Acute bronchitis may occur when the body’s immune system is weak. When the bronchi are inflamed due to infections, clusters of thick mucus are formed. Acute bronchitis is not a threat to average healthy adults, but it can easily become a severe condition for infants or elderly. See a doctor right away for symptoms such as gasping or wheezing. The major problem of bronchitis is thick mucus blocking the bronchi. Chronic bronchitis occurs more often in smokers, older people, asthmatics, and people working in dusty environments.

Untreated chronic bronchitis can result in emphysema, heart failure, and pneumonia.

## Symptoms

- Prolonged coughing with mucus. Coughing may be worse in the morning, in the evening, in areas of dampness or when the weather is cold
- Breathing with gasping sounds
- Shortness of breath after exercise or at rest
- Frequent episodes of acute bronchitis
- Body discomfort with slight chest pain

## Causes:

- Pollutants from the air, factories, cars and wood stove
- Smoking
- Uncontrolled asthma

## Treatment:

- Inhaled steroids, /bronchodilators and antibiotics
- Quit smoking
- Severe cases may require continuous oxygen therapy

## Prevention:

- Avoid smoking or second-hand smoke
- Seek treatment immediately if a cold or any new respiratory symptom develops
- Follow a nutritious diet
- Seek a balanced lifestyle, with adequate rest and exercise
- Ask your doctor about preventive shots for influenza and pneumonia
- Altering the environment may be necessary
- Avoid contacting people with the flu or cold

