

## **Chronic Obstructive Pulmonary Disease (COPD)**

Chronic obstructive pulmonary disease is due to damage to the breathing tubes (bronchioles) and the alveoli (the small air sacs in the lungs where oxygen goes into the blood stream and waste gases are extracted to be exhaled). Some common causes of COPD are emphysema and chronic bronchitis. The damage caused to lung tissue in COPD can cause high blood pressure in the lungs. This can lead to pulmonary cardiopathy, a heart disease caused by a lung disease. In pulmonary cardiopathy, the muscle on the right side of the heart begins to fail because it continually pumps against the high pressure that the scar tissue exerts and the lung inflammation. The goal of treatment is to symptom relief, since it has no cure. The symptoms of COPD may range from chronic cough and sputum production to significant shortness of breath. In some people, chronic cough and sputum production are the first signs that the person is at risk of air flow becoming obstructed and beginning to be short of breath, both things characteristic of COPD. In others, shortness of breath may be the first sign of the disease. In the U.S., the most significant risk factor for COPD is tobacco use (cigarette smoking). Other environmental factors, such as industrial chemical substances and contaminants in the air, also increase the risk of contracting COPD. What is most important for preventing COPD is avoiding smoking.

### The diagnosis of COPD

Your doctor may suspect that you have COPD if you have a history of chronic cough, have smoked cigarettes or have symptoms of shortness of breath. He may also hear abnormal sounds upon listening to your chest while you breathe during the physical examination. The diagnosis of COPD is confirmed with the presence of obstruction of the respiratory airways upon performing a spirometry. Spirometry is a test in which the amount of air that the lungs can contain is measured and how fast the patient can inhale and exhale. The diagnosis can also be confirmed with a chest X-ray or computerized tomography.

At this time, no cure for COPD is known. The treatment generally consists of relieving the symptoms and improving quality of life. Check with the doctor to find out what the best course of action in your case is. With continuous exposure to cigarette smoke or harmful particles, the disease progresses more quickly, and people with COPD increasingly lose their ability to breathe. Acute infections or certain weather conditions can momentarily aggravate the symptoms, which sometimes requires hospitalization.

