Emphysema

Emphysema is a disease of the air sacs (alveoli), the stretchy clusters of tissue at the ends of bronchial tubes. Normally, the elastic air sacs expand as you breathe in and relax as you breathe out, like a balloon being blown up and deflated. With emphysema, the air sacs lose their elastic quality and they can no longer relax and let air out. They work like a paper bag blown up with air. When the bag is blown up, it stays full of air. The air is forced out by squeezing or pushing.

The break down of the air sacs causes air to be trapped in the lungs, making them over inflated. This over inflation keeps the diaphragm from moving freely, which causes shortness of breath. Pushing this trapped air out of the lungs causes coughing and makes it difficult to clear mucus. The pressure caused by trying to force air out of the lungs causes the bronchial tubes to collapse. In time, emphysema may cause the lungs and the heart to enlarge.

Cause

The main cause of emphysema is smoking. However, emphysema can occur in people who have never smoked. Scientists believe that family history can make a person prone to getting emphysema. Environmental pollutants also can cause this disease.
Symptoms
A person who has emphysema often has:

- Shortness of breath
- Chronic cough
- Wheezing
- Decreased ability to exercise
- Fatigue
- Anxiety
- Weight loss

Treatment
As a part of your treatment to manage your emphysema, you may need to:

- Stop smoking
- Do breathing exercises
- Do physical exercise
- Get proper nutrition
- Learn to relax
- Manage excess mucus
- Prevent respiratory infections
- Do pulmonary rehabilitation
- Take medicines
- Use oxygen
- Limit your exposure to elements that may bother your breathing such as cold, humidity, smoke, air pollution, vapors, dust, allergens, etc.
- Have a lung transplant

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.