

BODY STRUCTURE AND FUNCTION
THE RESPIRATORY SYSTEM
Learning Unit XIII

At the end of this Learning Unit, the student will be able to:

1. Identify the organs forming the respiratory passage-way in descending order until the alveoli are reached
2. Describe several protective mechanisms of the respiratory system
3. Describe the makeup of the respiratory membrane and relate its structure to its function
4. Describe the structure and function of the lungs and the pleural coverings
5. Explain the relative roles of the respiratory muscles and lung elasticity in effecting volume changes that cause air to flow into and out of the lungs
6. Explain the functional importance of the partial vacuum that exists in the intrapleural space
7. Describe several physical factors that influence pulmonary ventilation
8. Explain and compare the various lung volumes and capacities. Indicate types of information that can be gained from pulmonary function tests
9. Describe how oxygen and carbon dioxide are transported in the blood
10. Describe the neural controls of respiration
11. Name several physical factors that influence respiratory rate
12. Describe the symptoms and probable causes of Chronic Obstructive Pulmonary Disease and lung cancer
13. Describe normal changes that occur in respiratory system functioning from infancy to old age

Reference:

Thibodeau, G., and Patton, K. (2008). *Structure & Function of the Body*, (13th ed.). St Louis: Mosby. (The Respiratory System)

CIMC (2009). *Body Structure and Function*