Chapter 7 Review

• Create a flowchart or diagram showing the path of oxygen through the respiratory system.
• Explain how each of the major respiratory structures function.
• What is cellular respiration?
• Compare and contrast a normal lung with smoker’s lung.
• Identify three respiratory diseases. Briefly describe their symptoms and how they are diagnosed.

Chapter 7 Summary

• Respiration enables the body to take oxygen from the external environment and process it for delivery to the cells and, at the same time, rid itself of carbon dioxide.

Concept Organizer

Chapter 7 Summary

• Oxygen is delivered to the cells and carbon dioxide is removed from the cells and the body in a number of exchanges.
• Inspiration (breathing in, inhaling) and expiration (breathing out, exhaling) exchange air between the environment and the lungs.
• External respiration exchanges oxygen and carbon dioxide between the air in the lungs and the blood.
• Internal respiration exchanges oxygen and carbon dioxide between the blood and the body’s tissue cells.
• Cellular respiration is the final step, when the oxygen delivered to the cells is used to provide the energy for all cellular activities; carbon dioxide is the waste product of cellular respiration.
Chapter 7 Summary

• The respiratory tract is the passageway for air to move from the external environment into the lungs.
• The upper respiratory tract begins at the nostrils and includes the nasal passages, pharynx, larynx, and trachea.
• These passageways all clean and warm the air as it passes through.
• The lower respiratory tract consists of two bronchi that each lead to a lung.
• Within the lungs are small, fine tubes called bronchioles, where the air continues to be cleaned and warmed.
• The exchange of gases takes place in a cluster of tiny sacs at the end of each bronchiole, called alveoli, where the oxygen diffuses through the membranes of the alveoli into the capillaries of the circulatory system.

Chapter 7 Summary

• A number of disorders of the respiratory tract can impair the delivery of oxygen to the cells, including bronchitis, pneumonia, pleurisy, emphysema, cystic fibrosis, asthma, and lung cancer.
• These are all disorders of the lower respiratory tract.
• Infections of the upper respiratory tract, such as tonsillitis and laryngitis are short term infections that do not obstruct breathing.