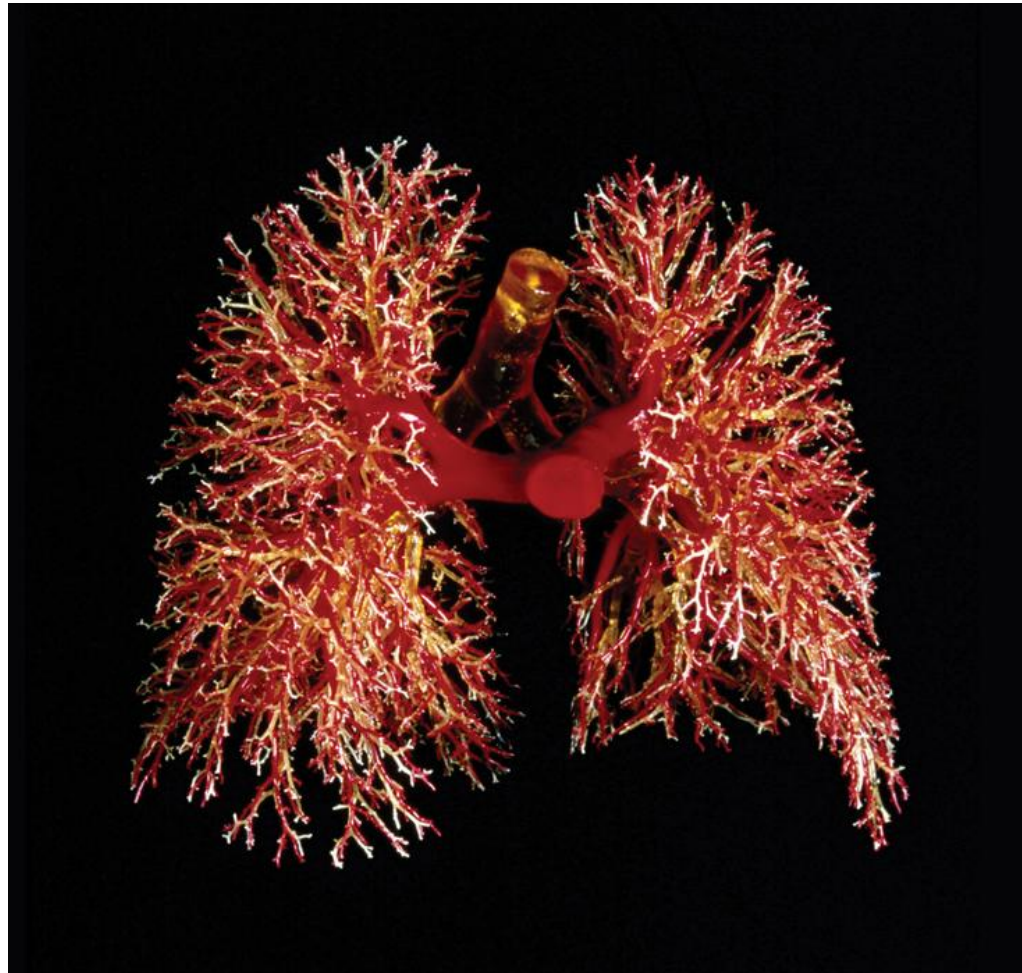


30.1 Respiratory and Circulatory Functions

KEY CONCEPT

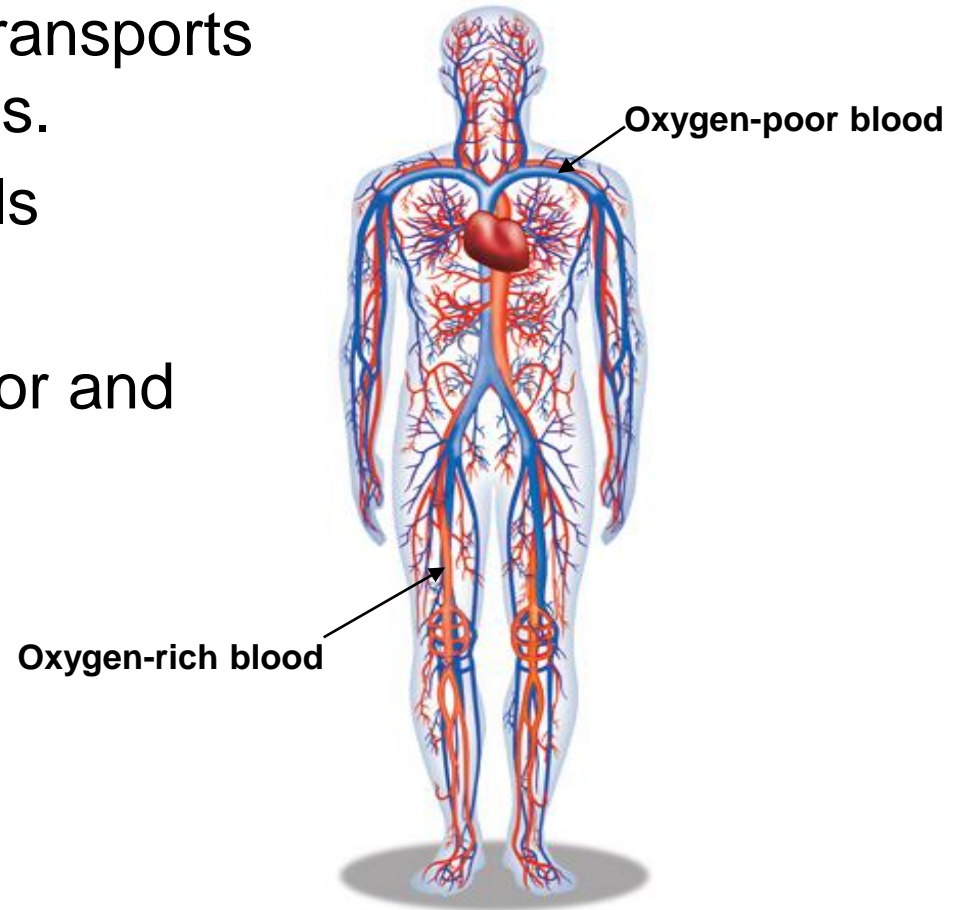
The respiratory and circulatory systems bring oxygen and nutrients to the cells.



30.1 Respiratory and Circulatory Functions

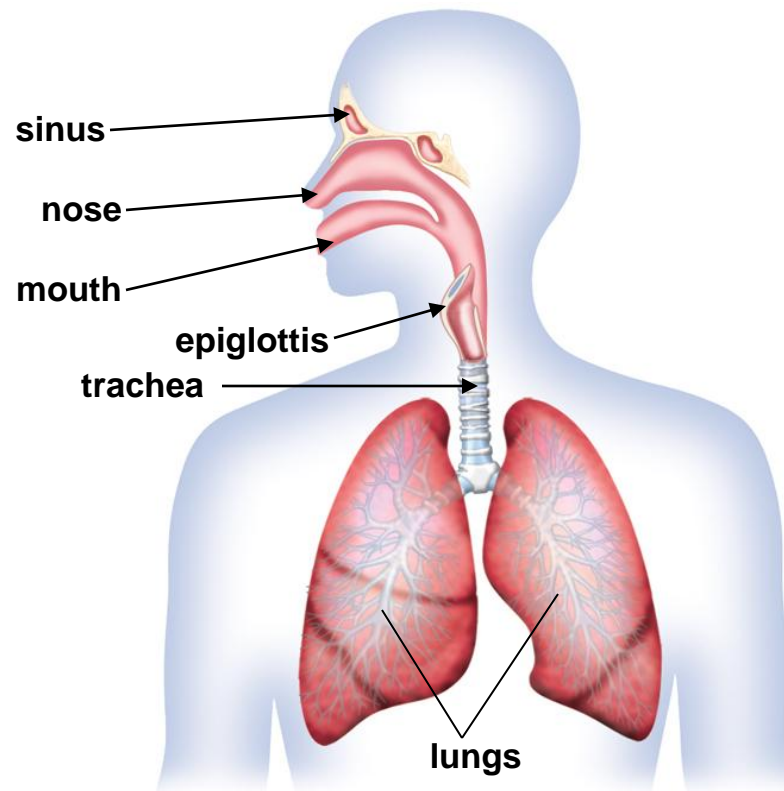
- ▶ **The respiratory and circulatory systems work together to maintain homeostasis.**

- The circulatory system transports blood and other materials.
 - brings supplies to cells
 - carries away wastes
 - separates oxygen-poor and oxygen-rich blood



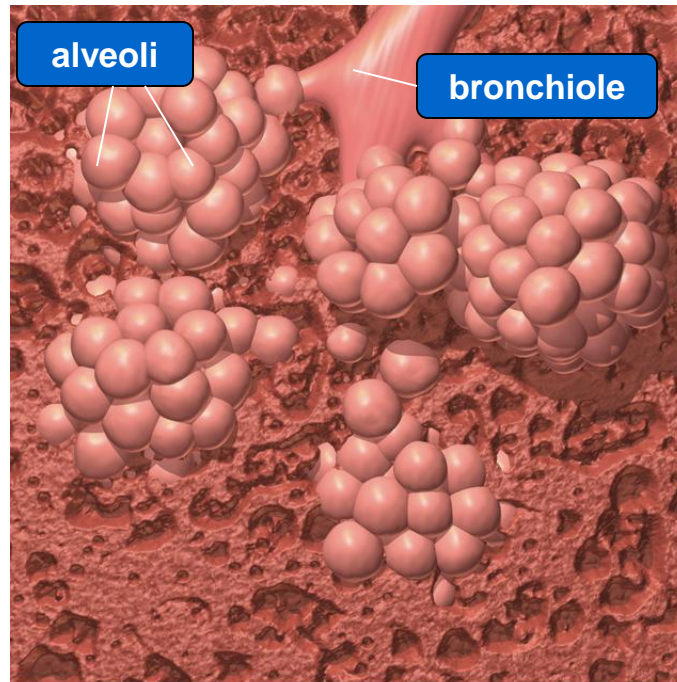
30.1 Respiratory and Circulatory Functions

- The respiratory system is where gas exchange occurs.
 - picks up oxygen from inhaled air
 - expels carbon dioxide and water



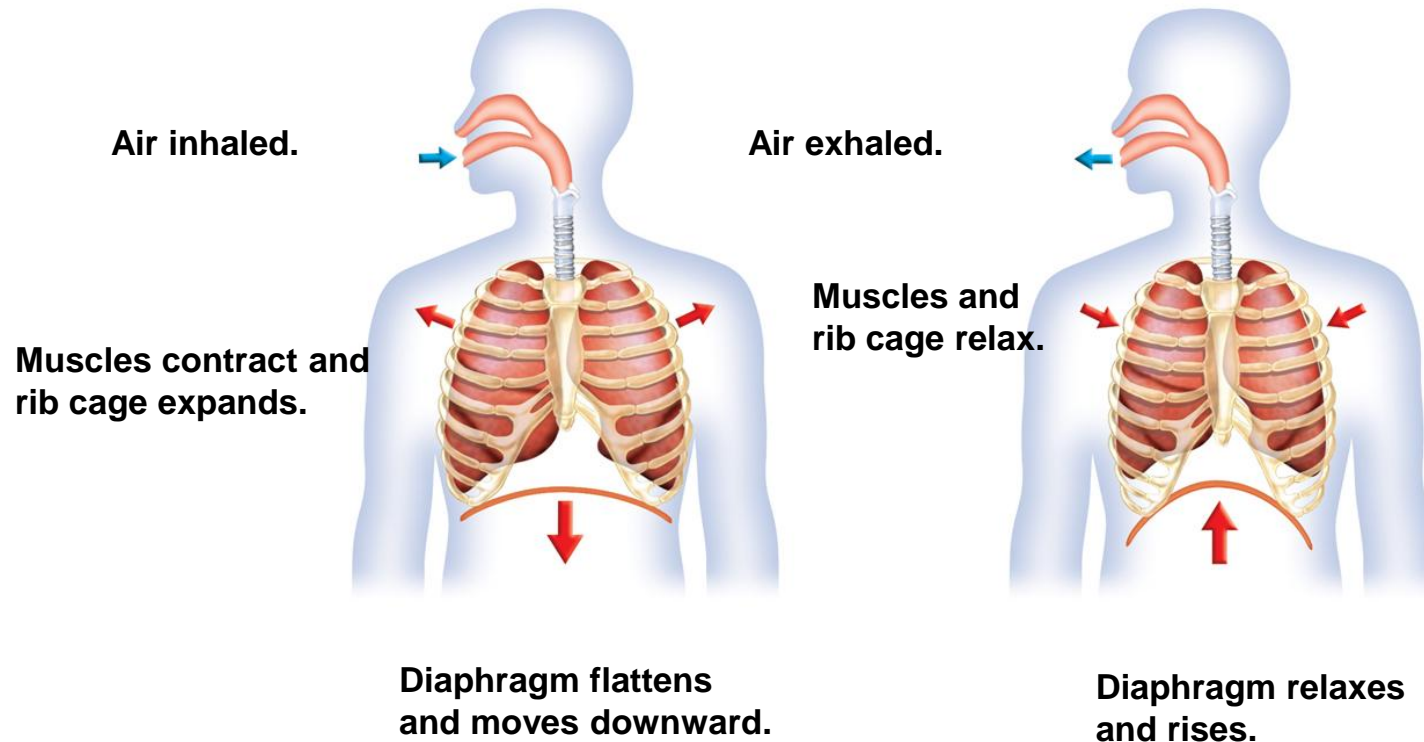
30.1 Respiratory and Circulatory Functions

- ▶ **The respiratory system moves gases into and out of the blood.**
 - The lungs contain the bronchi, bronchioles, and alveoli.
 - Millions of alveoli give the lungs a huge surface area.
 - The alveoli absorb oxygen from the air you inhale.



30.1 Respiratory and Circulatory Functions

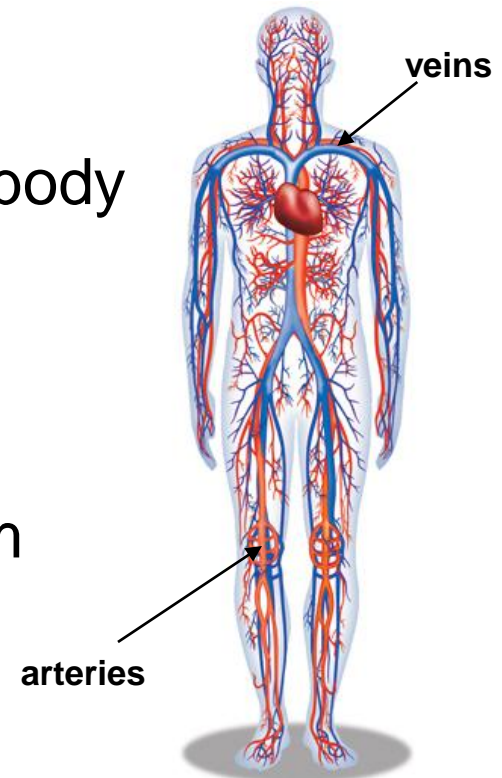
- Breathing involves the diaphragm and muscles of the rib cage.
- Air flows from areas of high pressure to low pressure.



30.1 Respiratory and Circulatory Functions

▶ **The circulatory system moves blood to all parts of the body.**

- The system includes the heart, arteries, veins, and capillaries.
 - heart pumps blood throughout body
 - arteries move blood away from heart
 - veins move blood back to heart
 - capillaries get blood to and from cells



30.1 Respiratory and Circulatory Functions

- There are three major functions of the circulatory system.
 - transporting blood, gases, nutrients
 - collecting waste materials
 - maintaining body temperature