

The Respiratory System

Text: Human Biology, by Mader. pp. 186-201

1. Introduction (p. 186)
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 - A. Trachea (p. 189)
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B. The Respiratory (Bronchial) Tree (p. 190)

- i. Primary bronchi
- ii. Secondary bronchi
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- iv. Bronchioles
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C. Lungs: Lobes and Pleurae (pp. 190 - 919)

- i. Location
- ii. Anatomy
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 - c. Lobules
- iii. Pleural Cavity
 - a. Plural Membranes
 - b. Lubricant
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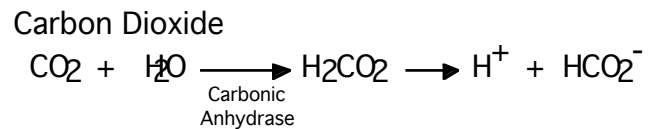
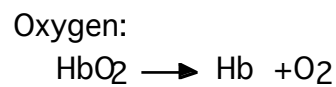
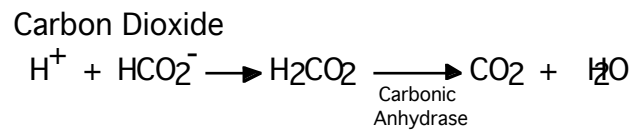
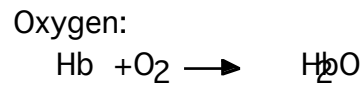
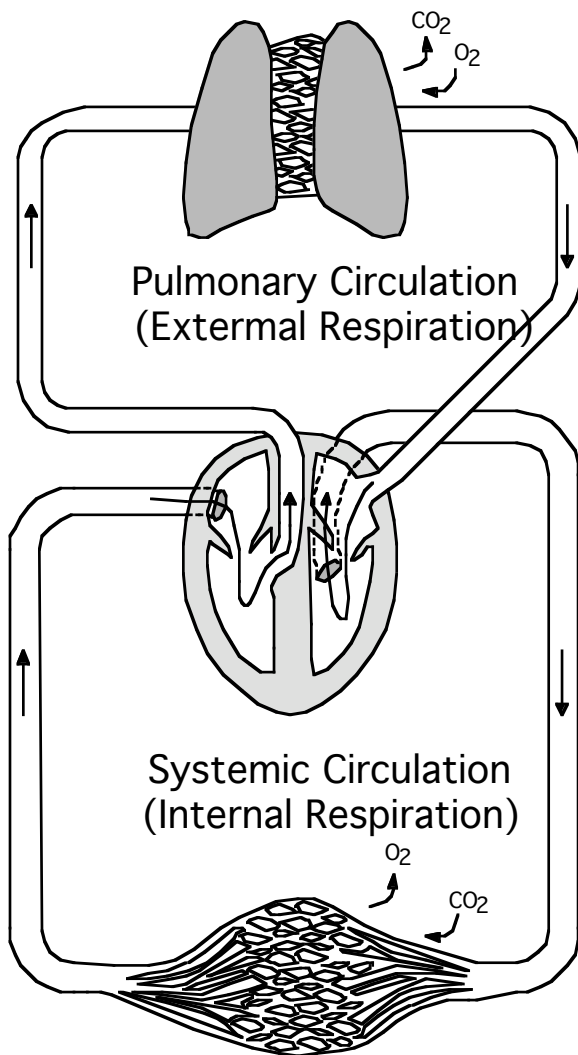
- D. Alveoli (p. 190 - 191)
 - i. Alveolar Sac
 - a. Lung Surfactant
 - b. Alveolar Surface Tension
 - c. Alveolar macrophages
- 4. Breathing Mechanics (p. 191 - 193)
 - A. Muscular Control of Breathing
 - i. Inspiration
 - a. Diaphragm
 - b. External Intercostal
 - ii. Expiration, Passive
 - a. Intrinsic Elastic Recoil
 - b. Extrinsic Recoil
 - iii. Forced Expiration
 - a. Internal intercostal muscles.
 - b. Abdominal muscles

5. Gas Transport and Exchange (p. 196 - 197) (see handout)

A. External Respiration

i. Oxygen

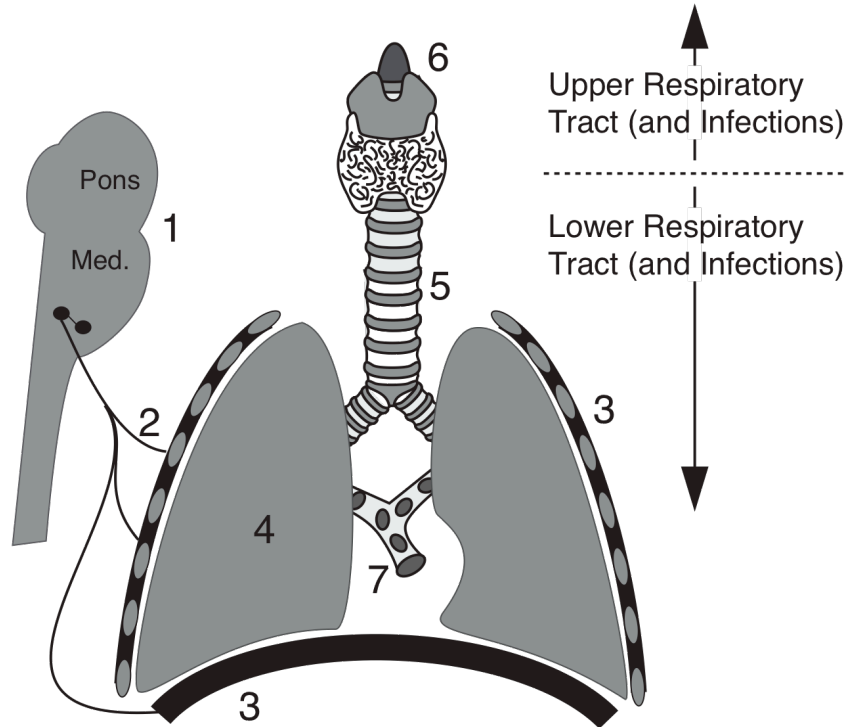
B. Internal Respiration



6. Points of Respiratory Disruption (p. 198)

Points of Respiratory System Disruption

- 1,2 Nervous system regulating and controlling breathing
3. Muscular contractions of the diaphragm and external intercostals for inhalation
5. Air conduction through the trachea and bronchi
4. Gas exchange across the membranes of the alveoli of the lung
6. Hemoglobin as a transport molecule as oxygen is poorly dissolved in water



- A. Sinusitis
- B. Otitis Media
- C. Tonsillitis
- D. Laryngitis
- E. Pneumonia