Ch 42.6 Notes

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Vocab

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Breathing: The alternating inhalation and exhalation of air

Positive Pressure Breathing: Inflating the lungs with forced airflow. Inhalation begins when muscles lower the floor of an amphibian’s oral cavity, drawing in air through its nostrils

Negative Pressure Breathing: Pulling, rather than pushing, air into their lungs

Diaphragm: A sheet of skeletal muscle that forms the bottom wall of the cavity

Tidal Volume: The volume of air inhaled and exhaled with each breath

Vital Capacity: About 3.4 L and 4.8 L for college-age women and men

Residual Volume: The air that remains after a forced exhalation

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Notes

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Breathing ventilates the lungs

Breathing and Air Pressure

How does your body know when to breathe?

* High amounts of carbon dioxide= signal to exhale

Diaphragm= large muscle under lungs

* Contracts and relaxes to move air into and out of your lungs
* Movement causes changes in air pressure
* Inhalation= diaphragm contracts and moves down
  + reduces air pressure= air rushes into lungs
* Exhalation= diaphragm relaxes and moves up
  + increases air pressure= air rushes out of lungs

Pleura= membrane lining

liquid between pleura= sticks together

Chest cavity and lungs seem to move in unison because “stuck” together due to pleura

Breath terminology

Tidal volume

* Volume inhaled/exhaled with each breath

Vital capacity

* Maximum inhalation/exhalation tidal volume

Residual volume

* Air remaining in lungs after maximum exhalation

Control

Medulla Oblongata

* Uses pH
* CO2 decreases pH
* Increases/decreases breathing rate to maintain pH