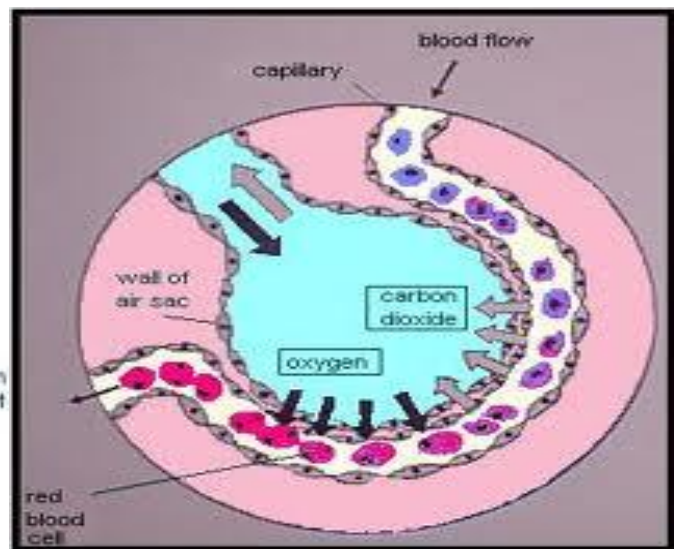
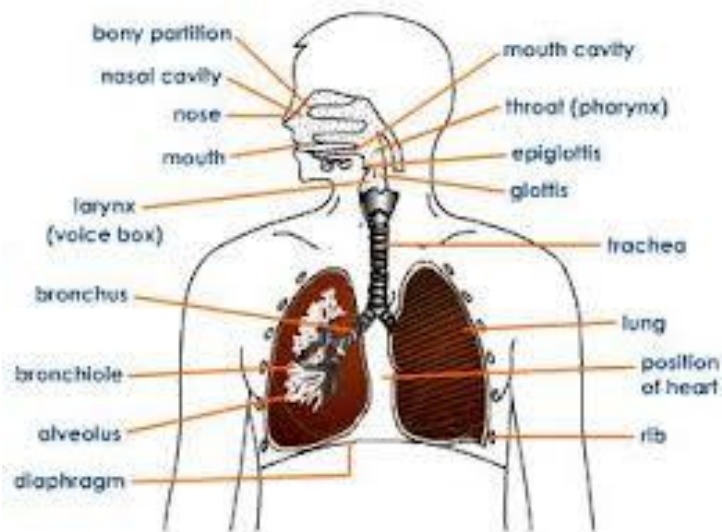


The Breathing System | Topic Notes

The **thorax** is the chest cavity. It contains the respiratory system.

- The **Nasal cavity** warms, moistens and filters inhaled air.(nose)
- The **Buccal cavity** doesn't filter, warm or moisten inhaled air. Used when exercising.(mouth)
- The **Pharynx** is the throat.(Buccal and nasal cavities meet here)
- The **Epiglottis** is a flap of tissue the closes over the glottis during swallowing, preventing choking.
- The **Larynx** is the voice box. It produces sound by use of **vocal chords**.
- The **Trachea** directs air in and out of the lungs. **Rings of cartilage** prevent it collapsing.
- The **Bronchi** direct air to and from each lung, **Bronchioles** carry air to alveoli.
- The **Alveoli** are tiny air sacks where gas exchange occurs. They have thin walls, good supply, elastic walls and a layer of moisture making them well suited to gas exchange.
- The **Diaphragm** is the muscle below the lungs that contracts to force air into the lungs.
- The **Pleural membranes** are a 2 membrane structure that cover the lungs and are attached to the inside of the rib cage. The **pleural cavity** is filled with a friction free fluid.
- The **Intercostal muscles** are between each rib. When they contract, they cause the rib cage to move upwards and outwards increasing the volume of the thorax.
- The **Rib cage** is a series of 12 ribs that support and protect the lungs.
- **Inhalation** involves the contraction of the diaphragm and intercostal muscles. The thoracic air pressure decreases and air rushes in.
- **Exhalation** involves the relaxation of the respiratory muscles. The thoracic air pressure increases and air rushes out.
- **Bronchitis** is the inflammation of the mucous membranes of the bronchi causing a cough.
- **Asthma** is a chronic inflammation of the bronchioles causing wheezy breathing and a shortness of breath. Allergens should be avoided and an inhaler may be required to widen the bronchioles.



(The average human lung capacity is 5liters)