

# The Respiratory System



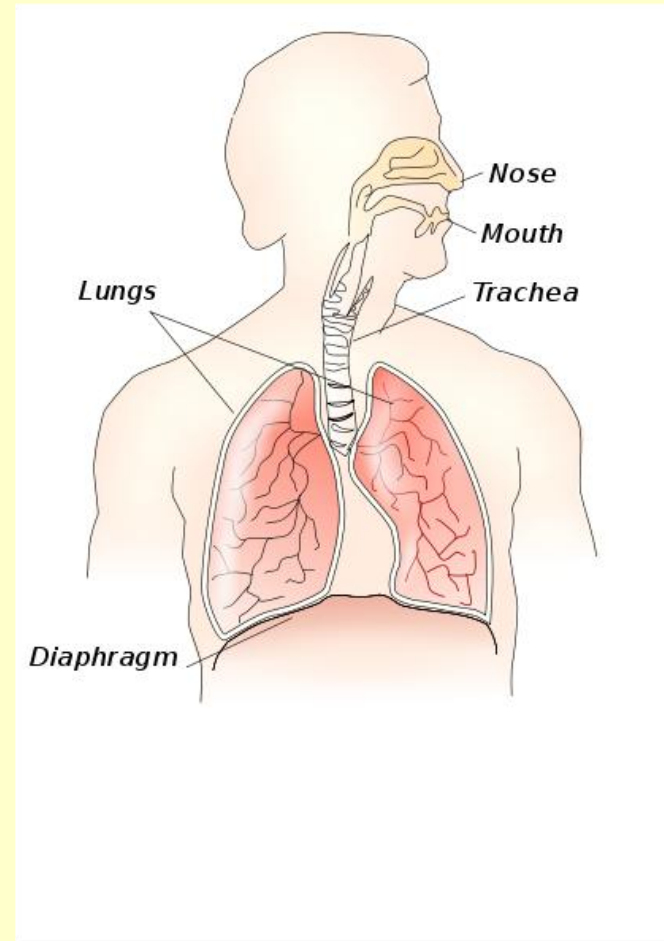
# Objectives

- List the parts and functions of the Respiratory System.
- Discuss functions of the Respiratory Function



# Functions of the Respiratory Systems

- Breathing is the process by which oxygen is brought into the lungs and into close contact with the blood.
- The blood absorbs oxygen and carries it to all parts of the body.
- The blood gives up waste (carbon dioxide) which is exhaled.



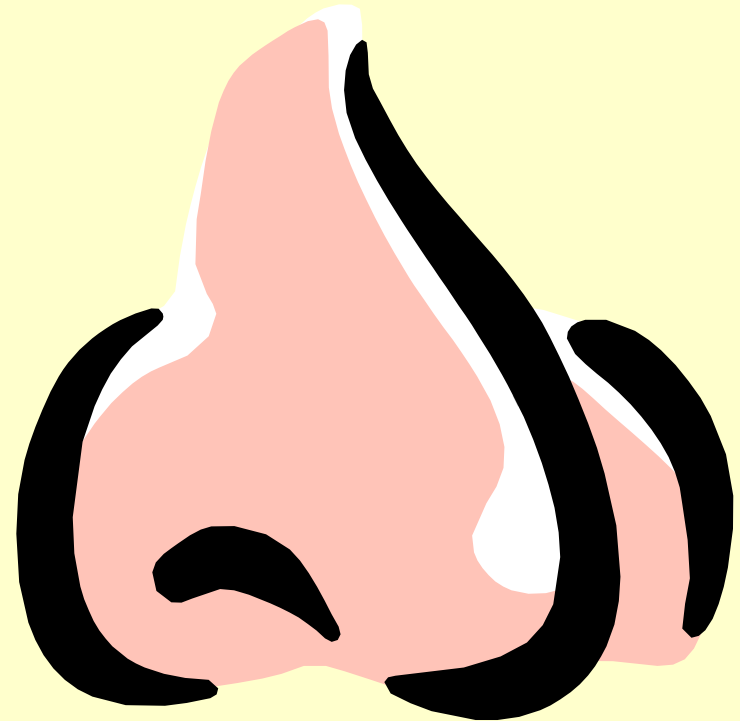
# Sinuses

- Hollow spaces in the bones of the head.
- Small openings connect them to the nasal cavity.
- Sinuses help regulate the temperature and humidity of the air breathed in.



# Nasal Cavity (Nose)

- The preferred entrance for the outside air into the Respiratory System.
- The hairs that line the inside wall are part of the air-cleansing system



# Oral Cavity (Mouth)

- Air enters through here especially when the nasal cavity (nose) is blocked by a cold.



# Adenoids

- Are overgrown lymph tissue at the top of the throat.
- They are generally taken out if they interfere with breathing.
- Helps resist body infections by filtering out germs and producing cells to fight them.

# Tonsils

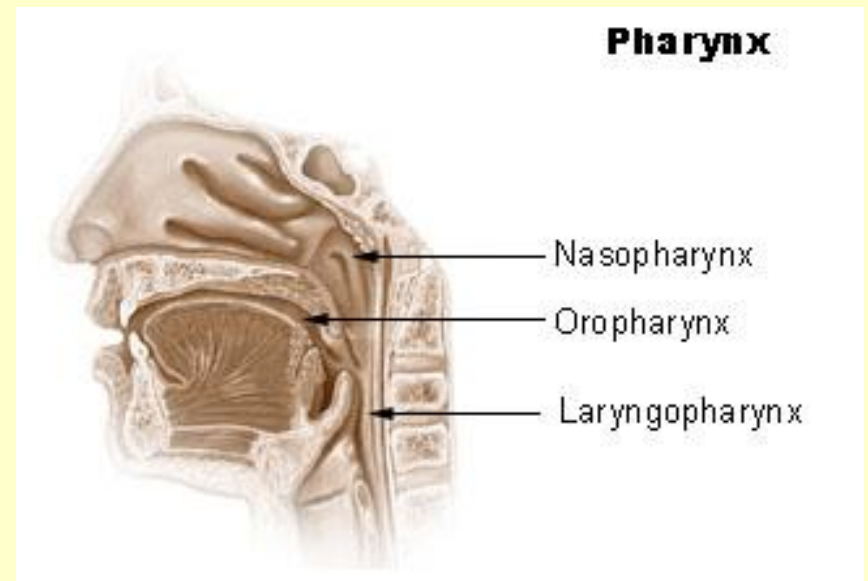
- Are lymph nodes in the wall of the pharynx that often become infected.
- Are an unimportant part of the germ-fighting system of the body.
- When infected they are generally removed.





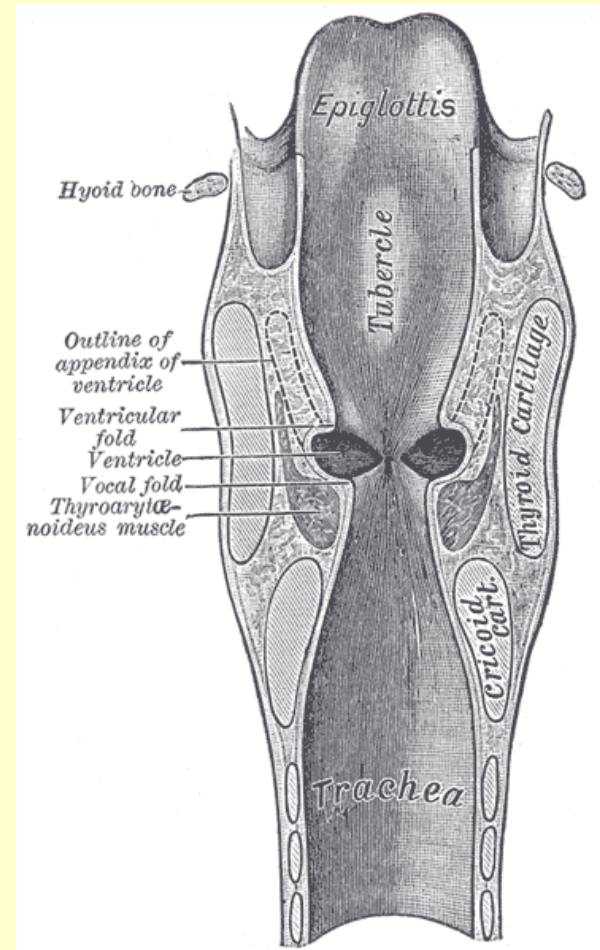
# Pharynx (Throat)

- Collects incoming air from the nose and passes it downward to the trachea.



# Epiglottis

- Is a flap of tissue that guards the entrance to the trachea, closing when anything is swallowed that should go straight to the stomach.



# Larynx (Voice Box)

- Contains the vocal cords.
- It is the place where moving air being breathed in and out creates voice sound.



# Esophagus

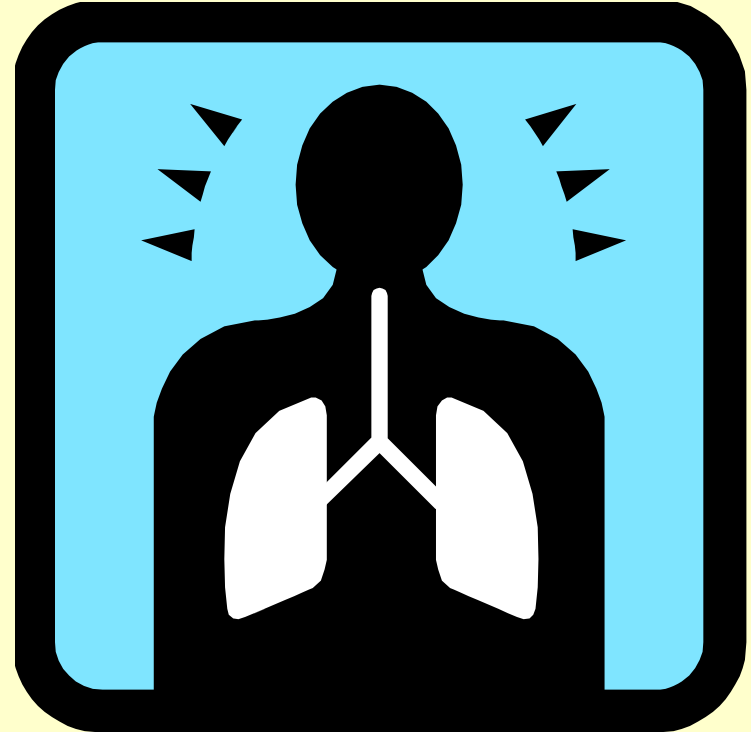
- Is the passage leading from the mouth and throat to the stomach.
- Tiny muscles push things that are swallowed downward.
- This allows a person to swallow upside-down.



This esophagus has been split open to show the muscles.

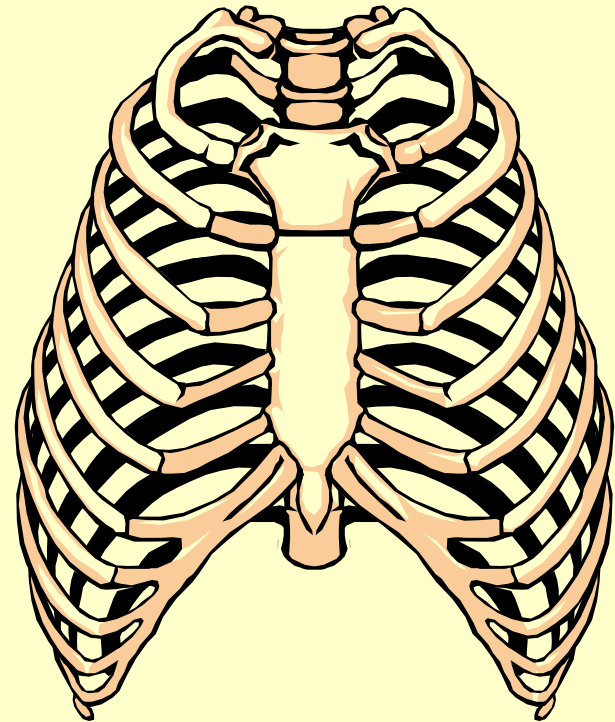
# Trachea (Wind Pipe)

- Is the passage leading from the pharynx to the lungs.



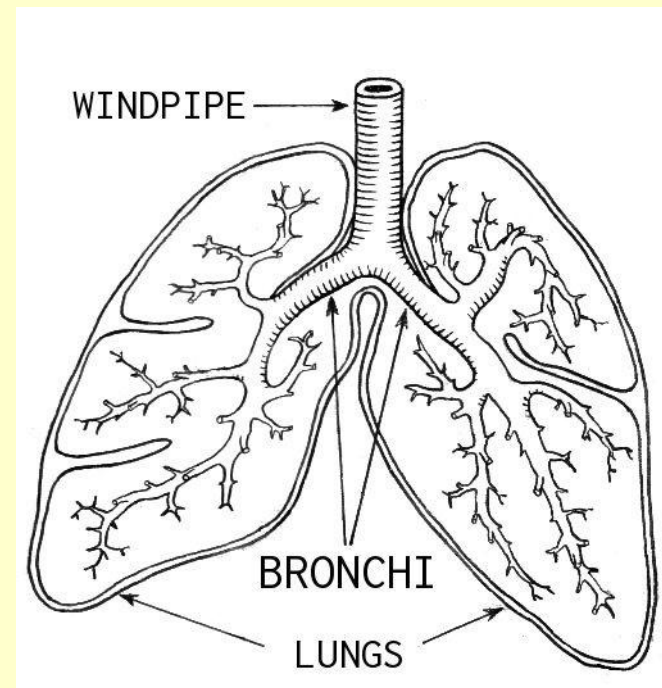
# Ribs

- Are bones supporting and protecting the chest cavity.
- They move to a limited degree, helping the lungs to expand and contract.



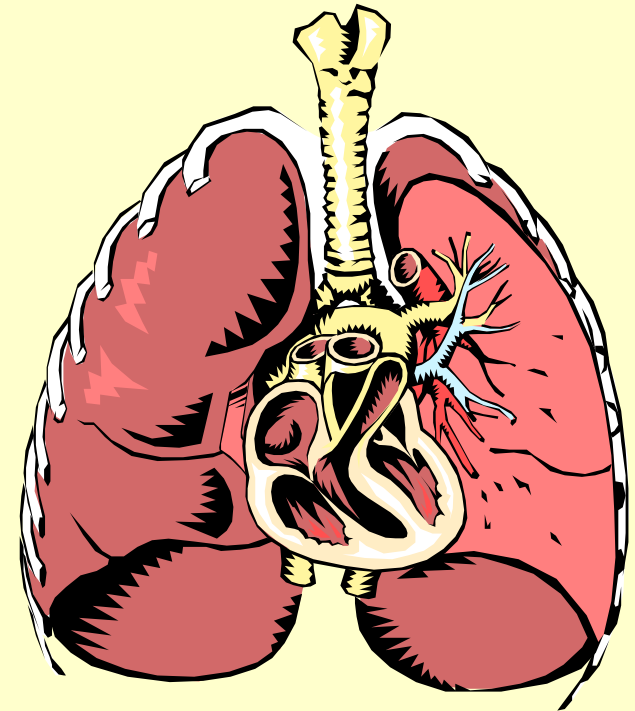
# Bronchi (Tubes)

- The two main tubes that the trachea divides into for each lung.
- They then subdivide into bronchioles.



# Lobes

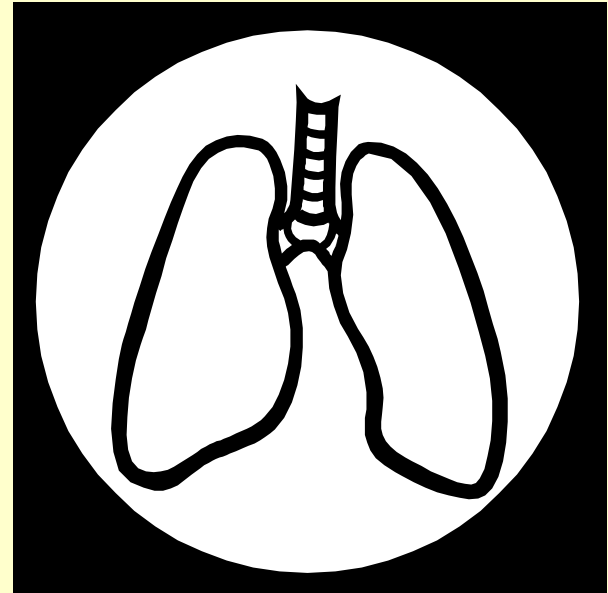
- Right Lung has three lobes
- Left Lung has two lobes because of the placement of the heart





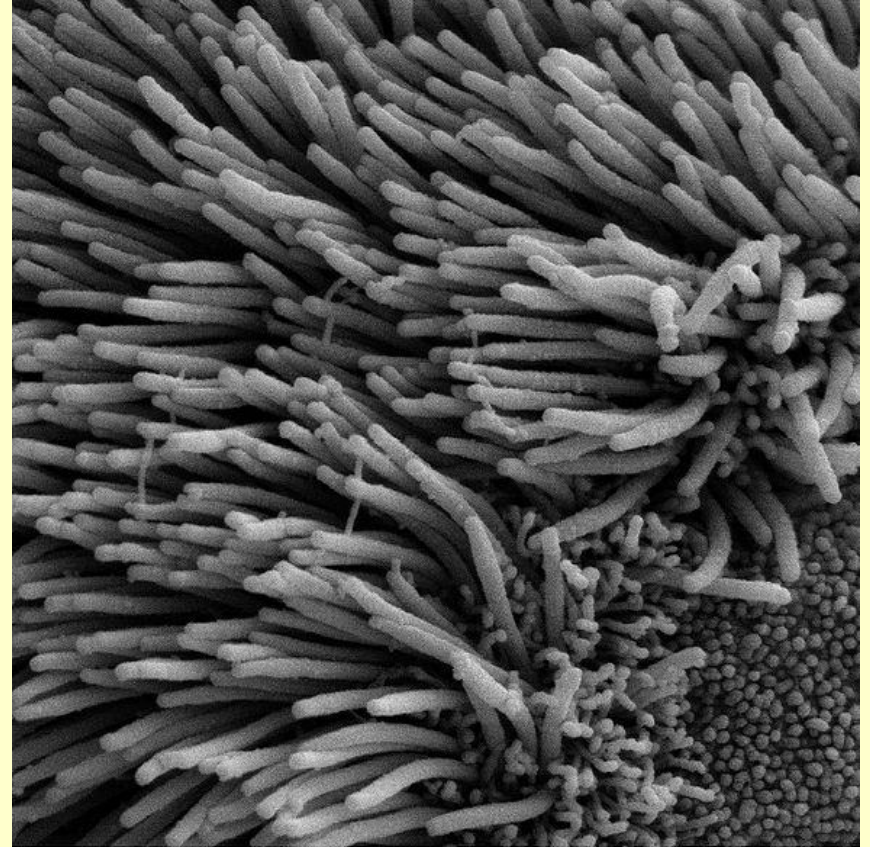
# Pleura

- Are the two membranes that surround each lobe of the lungs and separate the lungs from the chest wall.



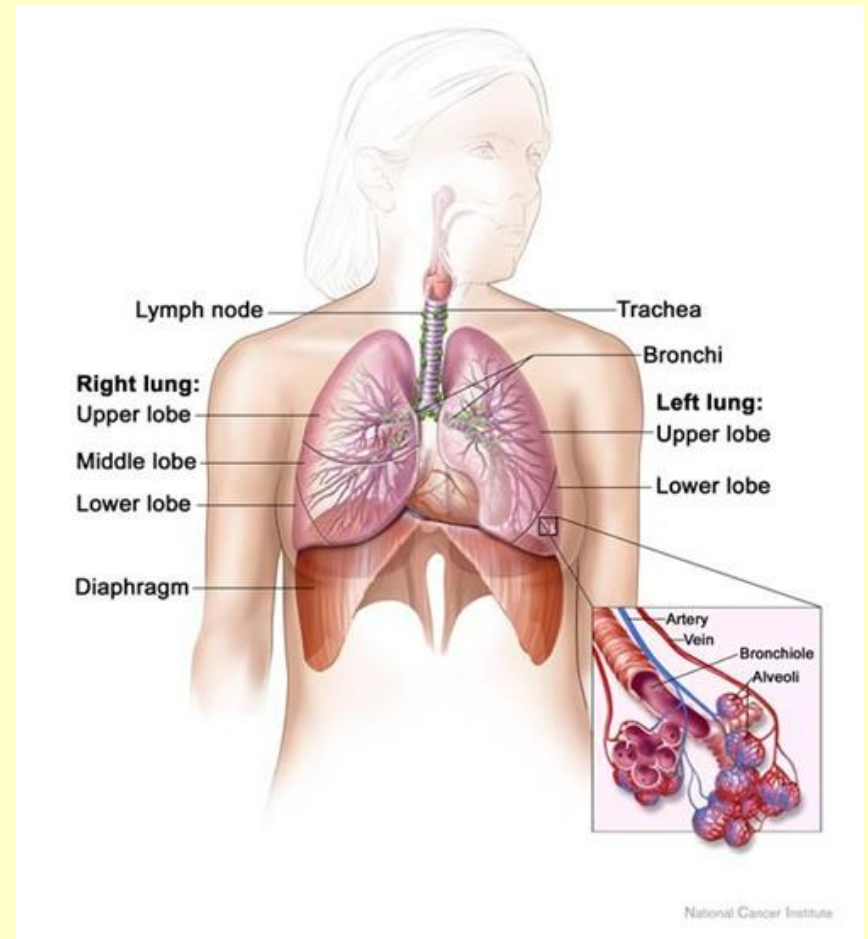
# Cilia and Mucus

- Cilia are like very small hairs that have a wave-like motion.
- Mucus which is a sticky phlegm or liquid that is carried by the motion of the cilia.
- The mucus grabs the dust and other unwanted matter that might invade the lungs and is coughed up to remove it.



# Diaphragm

- Is the strong wall of muscle that separates the chest cavity from the abdominal cavity.
- By moving downward, it creates suction to draw in air and expand the lungs.



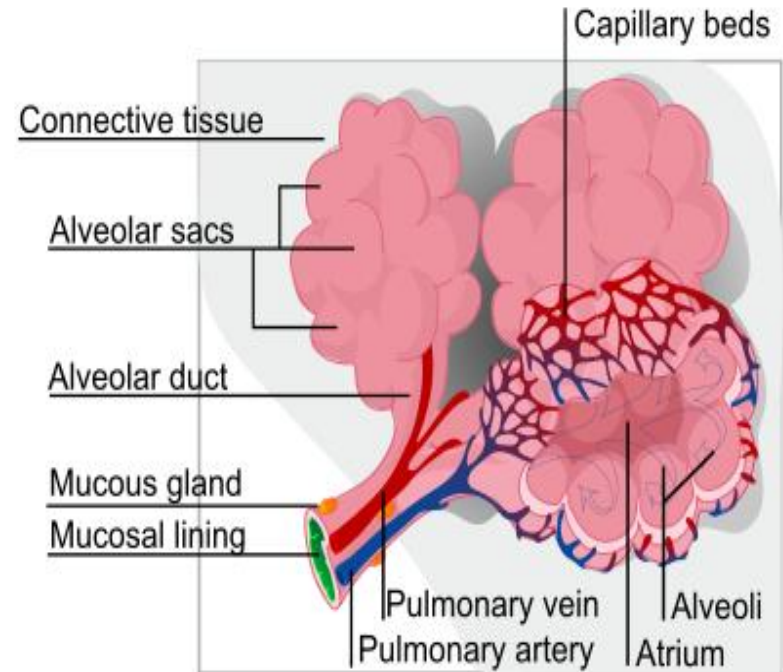
# Brochioles

- Are the smallest division of bronchi
- At the end of the brochioles are the alveoli.
- Alveoli is plural for aveolus



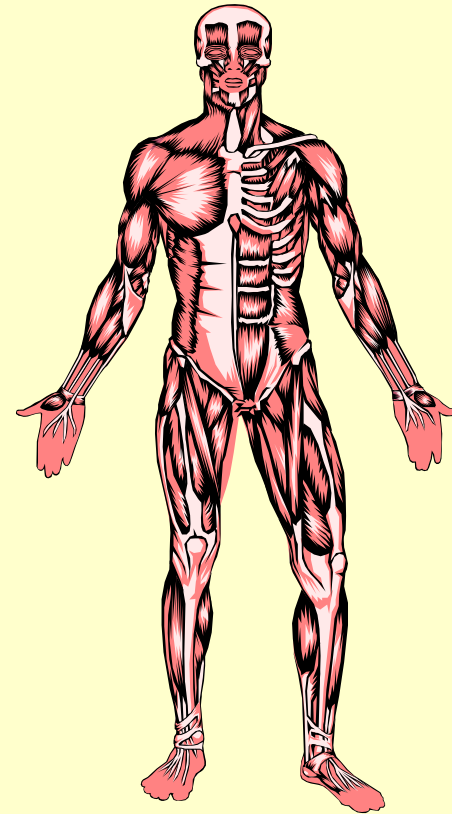
# Alveoli and Capillaries

- Alveoli is the very small air sacs that are the destination of the air breathed in.
- Capillaries are blood vessels that are imbedded in the walls of the alveoli.



# Pulmonary Artery and Vein

- The pulmonary artery brings blood through the capillaries.
- The pulmonary vein carries the blood away.
- While in the capillaries the blood discharges carbon dioxide into the alveoli and takes up oxygen from the air in the alveoli.



# Summary

- The Respiratory System is in charge of the breathing.
- Its carries oxygen into the body and carbon dioxide out.
- The Respiratory System has lots of parts that all have important roles in breathing.

