

**You need a book and your**  
**notes out please!**

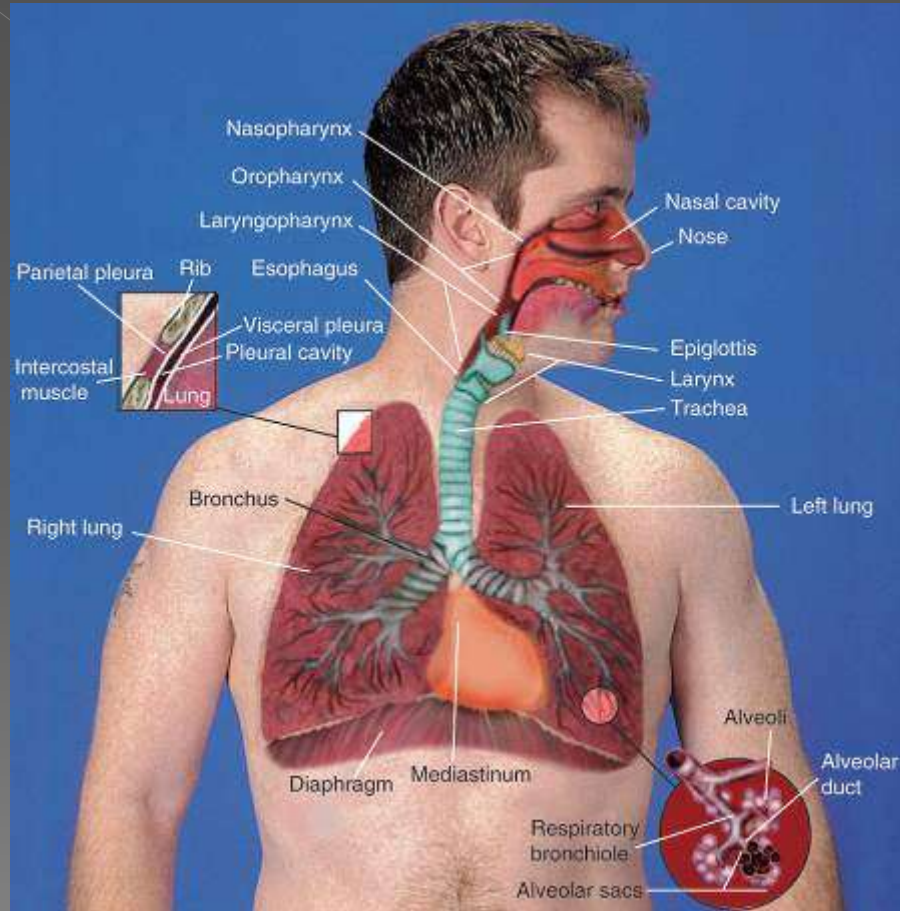
also have supplies for notebooking 😊

Warm Up – For  
every word part  
write 2 terms that  
use that word  
part (in NB)

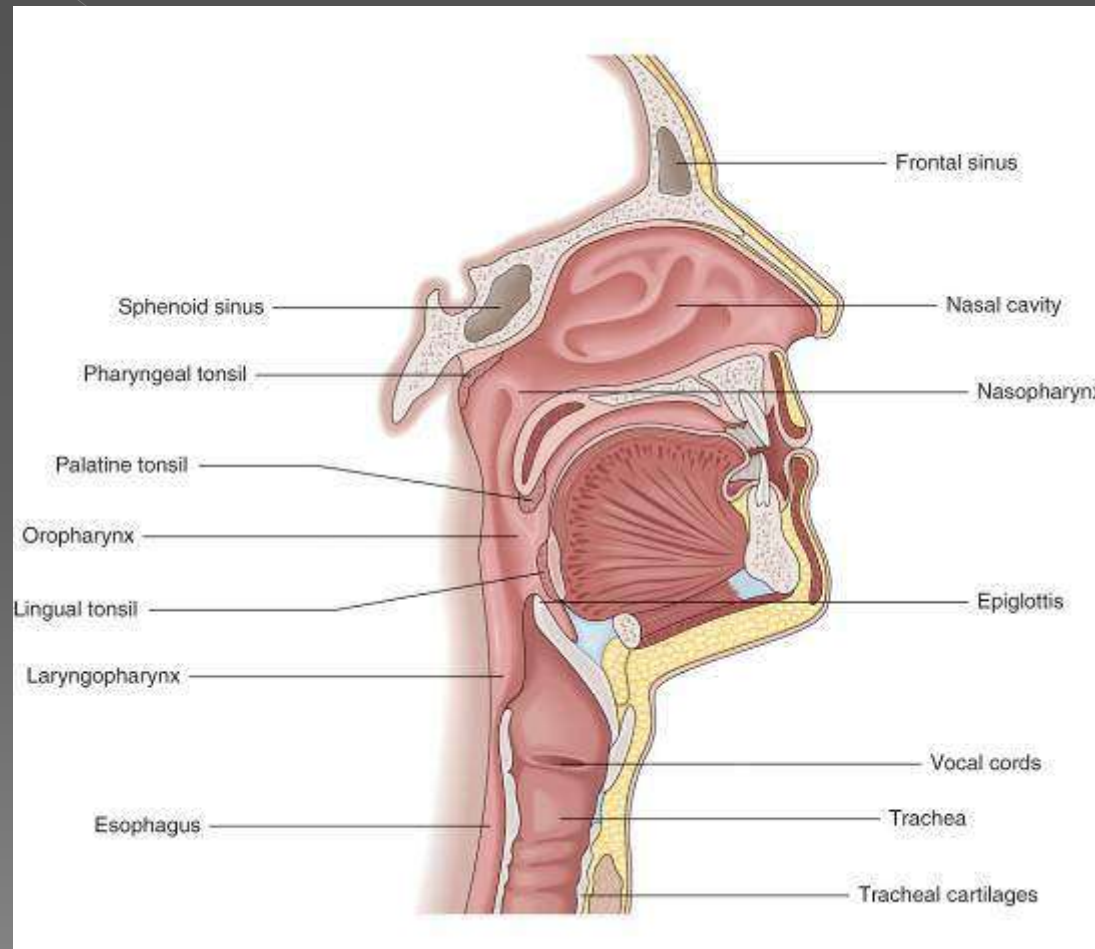
## Chapter 7

The Respiratory  
System

# Structures of the Respiratory System

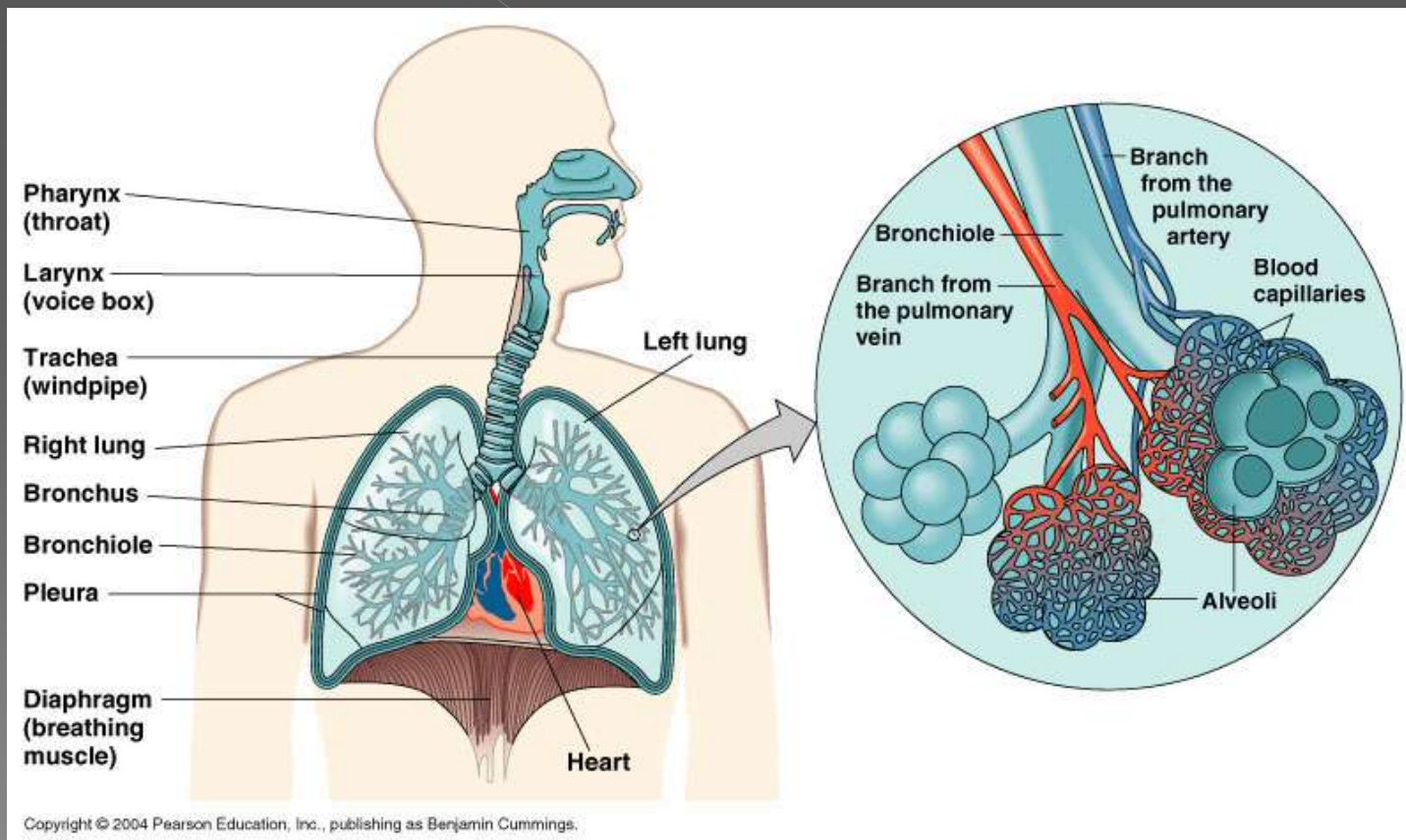


# Structures of the Upper Respiratory Tract



# The Lower Respiratory Tract

- Consists of bronchial tree and lungs.



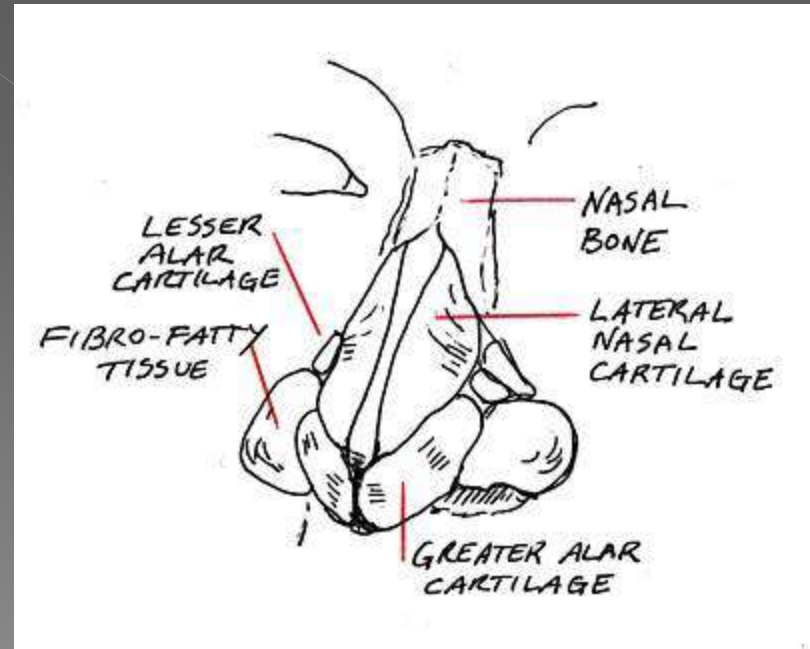
# Nose

## Primary Functions

- Exchanges air during inhaling and exhaling.
- Warms, moisturizes, and filters inhaled air.

## Related Combining Forms

- nas/o
- rhin/o



# Sinuses

## ◎ Primary Functions

- Provides mucus.
- Makes bones of the skull lighter.
- Aids in sound production.

## ◎ Related Combining Form

- sinus/o

# Pharynx

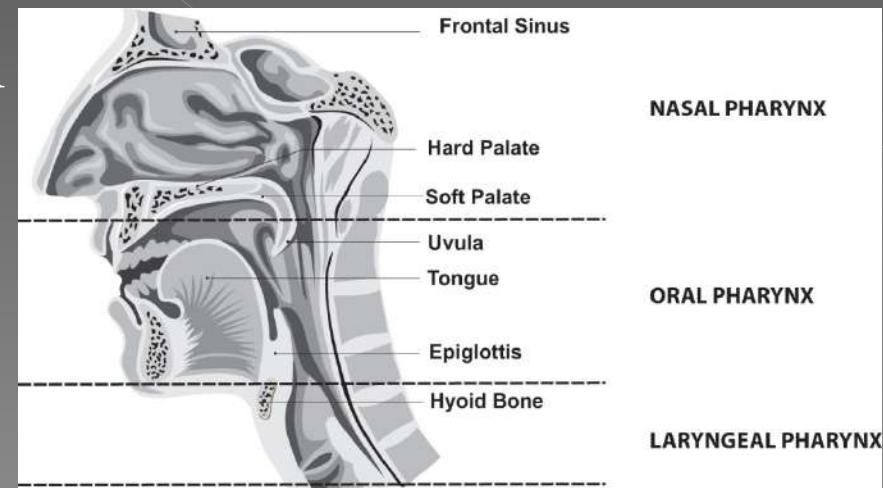
Commonly called the throat ( has 3 divisions: naso, oro & laryngo)

Primary Function

- Transports air to and from the nose to the trachea
- .

Related Combining Form

- **pharyng/o**



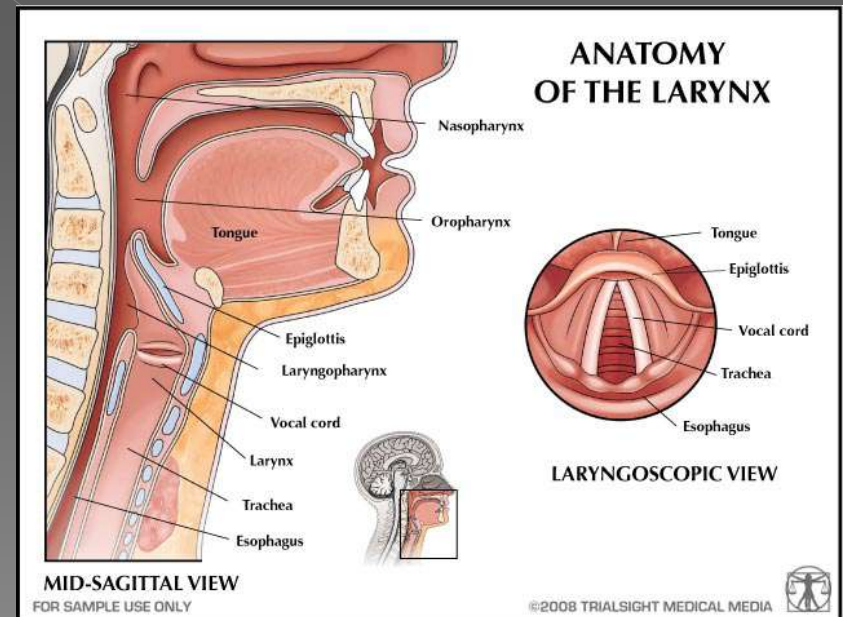
# Larynx

## Primary Function

- Makes speech possible.

## Related Combining Form

- laryng/o



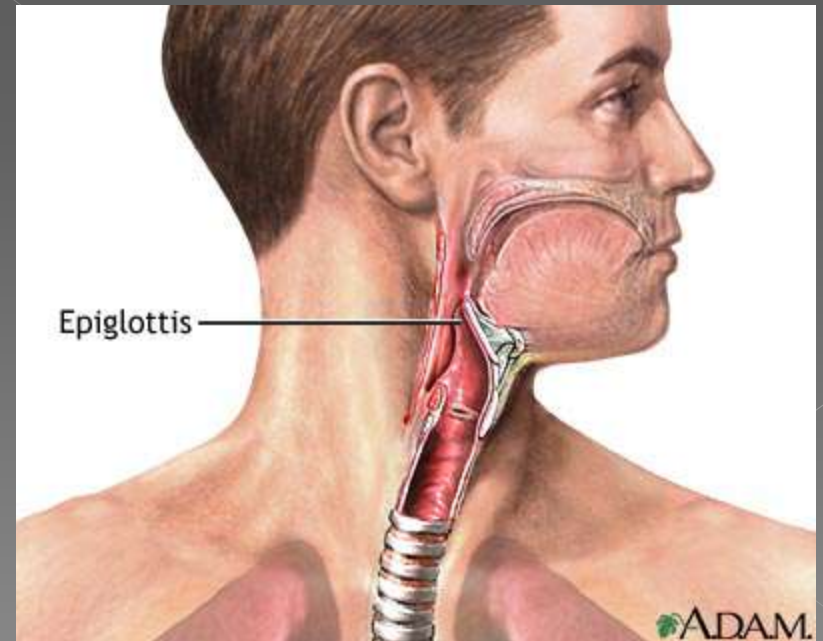
# Epiglottis

## Primary Function

- Closes off the trachea during swallowing.

## Related Combining Form

- epiglott/o



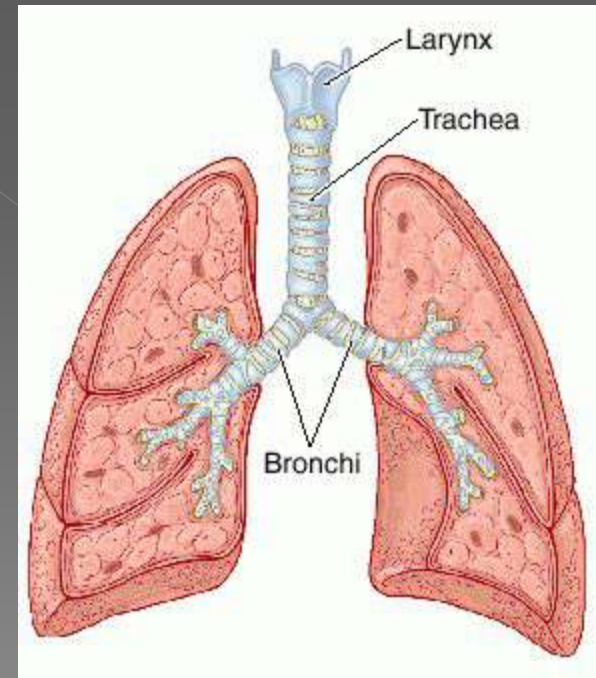
# Trachea

## ◎ Primary Function

- Transports air to and from the pharynx to the bronchi.

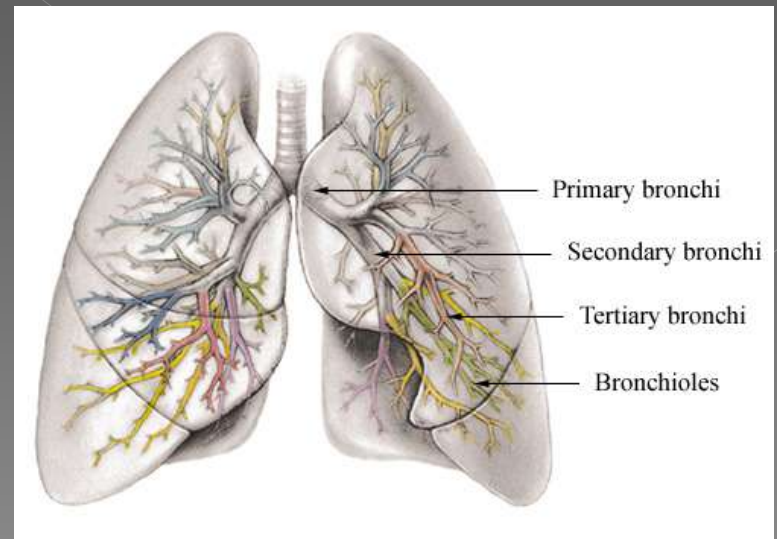
## ◎ Related Combining Form

- **trache/o**



# Bronchi

- ◎ Primary Function –branch off of the trachea. One branch into each lung. In the lung subdivides into bronchioles
  - Transports air from the trachea into the lungs.
- ◎ Related Combining Forms
  - **bronch/o, bronchi/o**



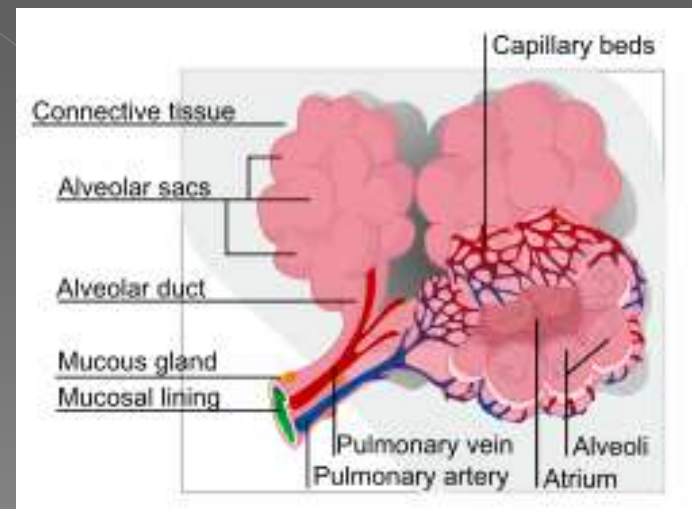
# Alveoli

## ◎ Primary Function

- Air sacs that exchange gases with the pulmonary capillary blood.

## ◎ Related Combining Form

- alveol/o



# Pleura

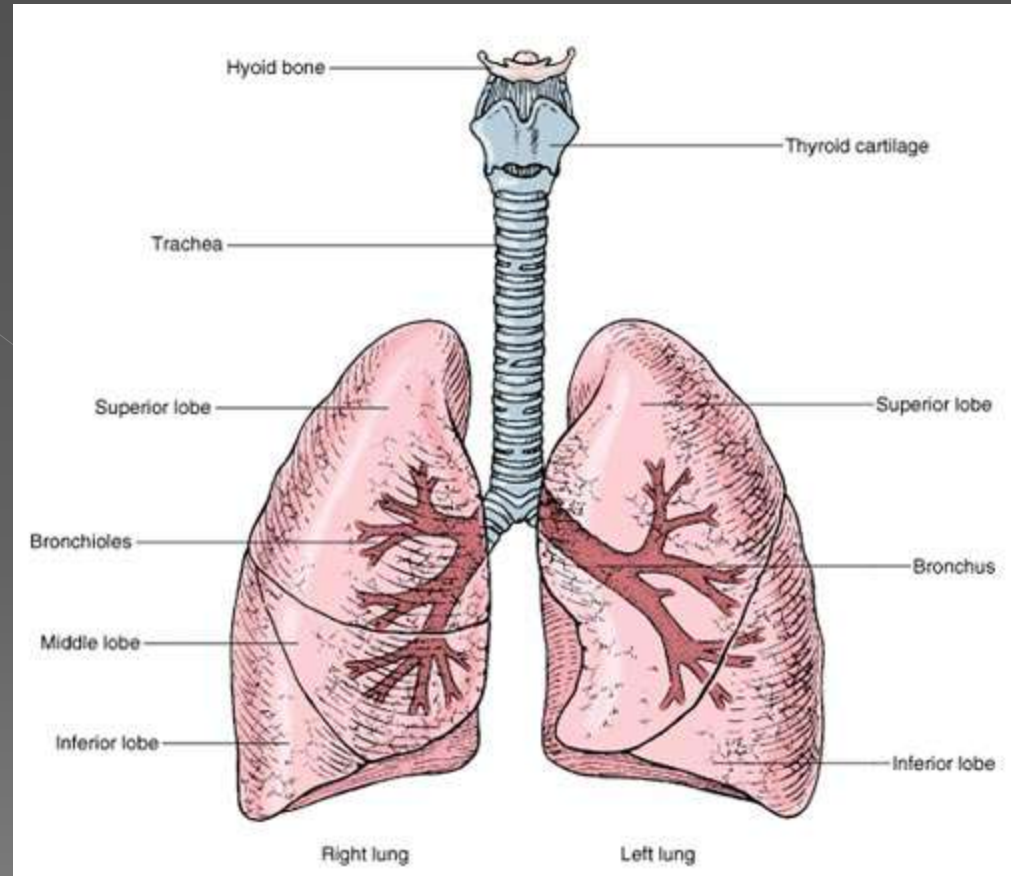
- ◎ Is a multilayered membrane that surrounds each lung with its blood vessels and nerves
- ◎ Pleura Cavity: airtight space between the folds of the pleural membrane
  - Function: contains a watery lubricating fluid that prevents friction when the membranes rub together during respiration

# Diaphragm

- Is the muscle that separates the thoracic cavity from the abdomen
- It is the contraction and relaxation of this muscle that makes breathing possible

# Lungs

- Lobe – division of the lungs
- Right Lung – has three lobes: the superior, middle and inferior
- Left Lung – has two lobes: the superior and inferior



# Respiration

- ⦿ Breathing- brings air into & out of the lungs.
- ⦿ Inhalation- breathing in, diaphragm contracts
- ⦿ Exhalation- breathing out, diaphragm relaxes
- ⦿ Internal respiration is the exchange of gases within the cells of the body.

# Careers related to Respiratory System

- ◎ **Pulmonologist**-doctor that specializes in the diagnosis & treatment of the lungs.
- ◎ **Respiratory Therapist**-treats patients with lung problems by administering oxygen or treatments under the supervision of a physician.

# Lung Diseases

- ◎ **COPD**- group of conditions which is characterized by chronic impairment of airflow.
- ◎ **asthma**- breathing difficulty, due to swelling of the airways. Treated with bronchodilators.
- ◎ **Emphysema**-decreased lung function, destruction of the alveoli.

# Respiratory Diseases

- ◎ **“allergies”**: **allergic rhinitis**- Allergic reaction to airborne allergens.
- ◎ **Influenza**-viral respiratory infection. Spread by droplet( cough & sneezing).
- ◎ **Pneumonia**-inflammation of the lungs in which the air sacs fill with pus & other fluid.

● **Cystic Fibrosis**-genetic disease which causes the lungs to be clogged with abnormally large amounts of thick mucus.

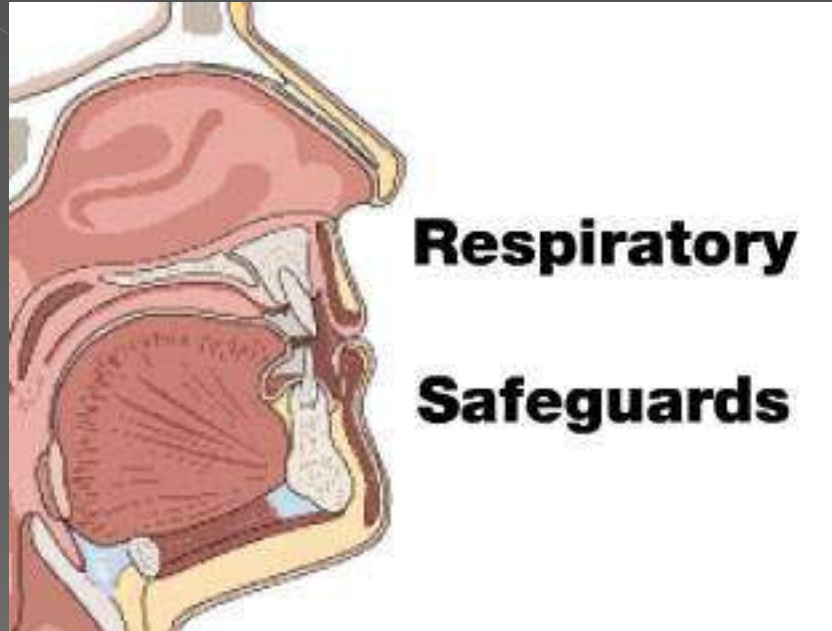
# Procedures

- Bronchoscopy
- Spirometry- tests to record amount of air inhaled & exhaled.
- Chest xrays- will show pneumonia, tumors, emphysema.

# Treatments

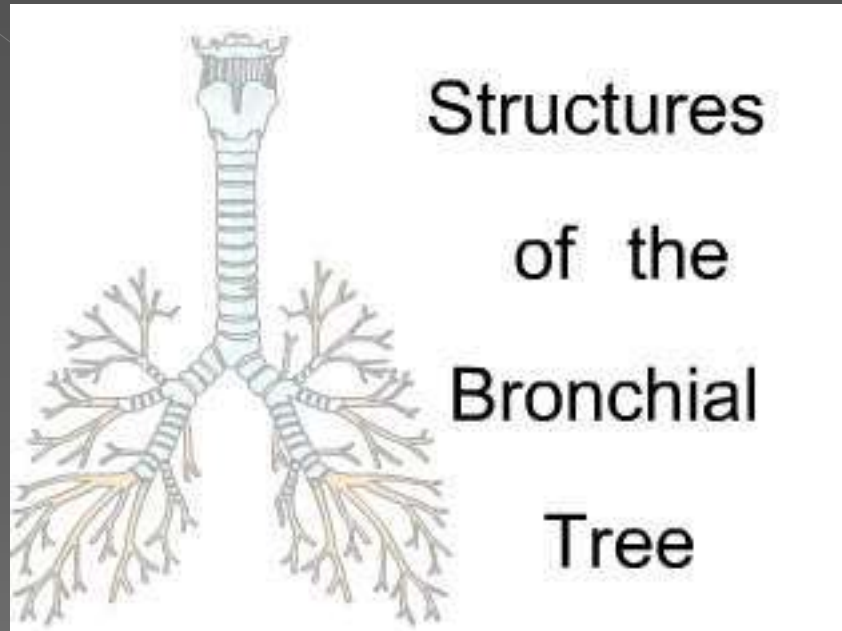
- ⦿ Bronchodilators- opens the lungs, used to treat asthma.
- ⦿ Oxygen
- ⦿ Ventilators
- ⦿ Thoracotomy-surgical incision into the chest.

# Respiratory Safeguards



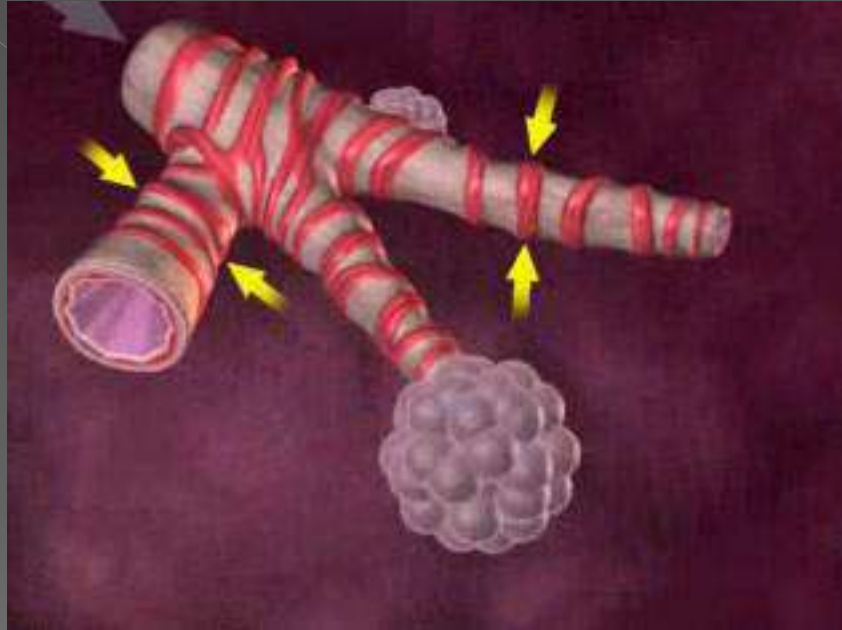
[Click Here to play Respiratory  
Safeguards animation](#)

# Structures of the Bronchial Tree



[Click Here to play Structures of the Bronchial Tree animation](#)

# Asthma



[Click Here to play  
Asthma animation](#)

# Smoking

- <https://www.youtube.com/watch?v=yskYG-EVIBY>
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