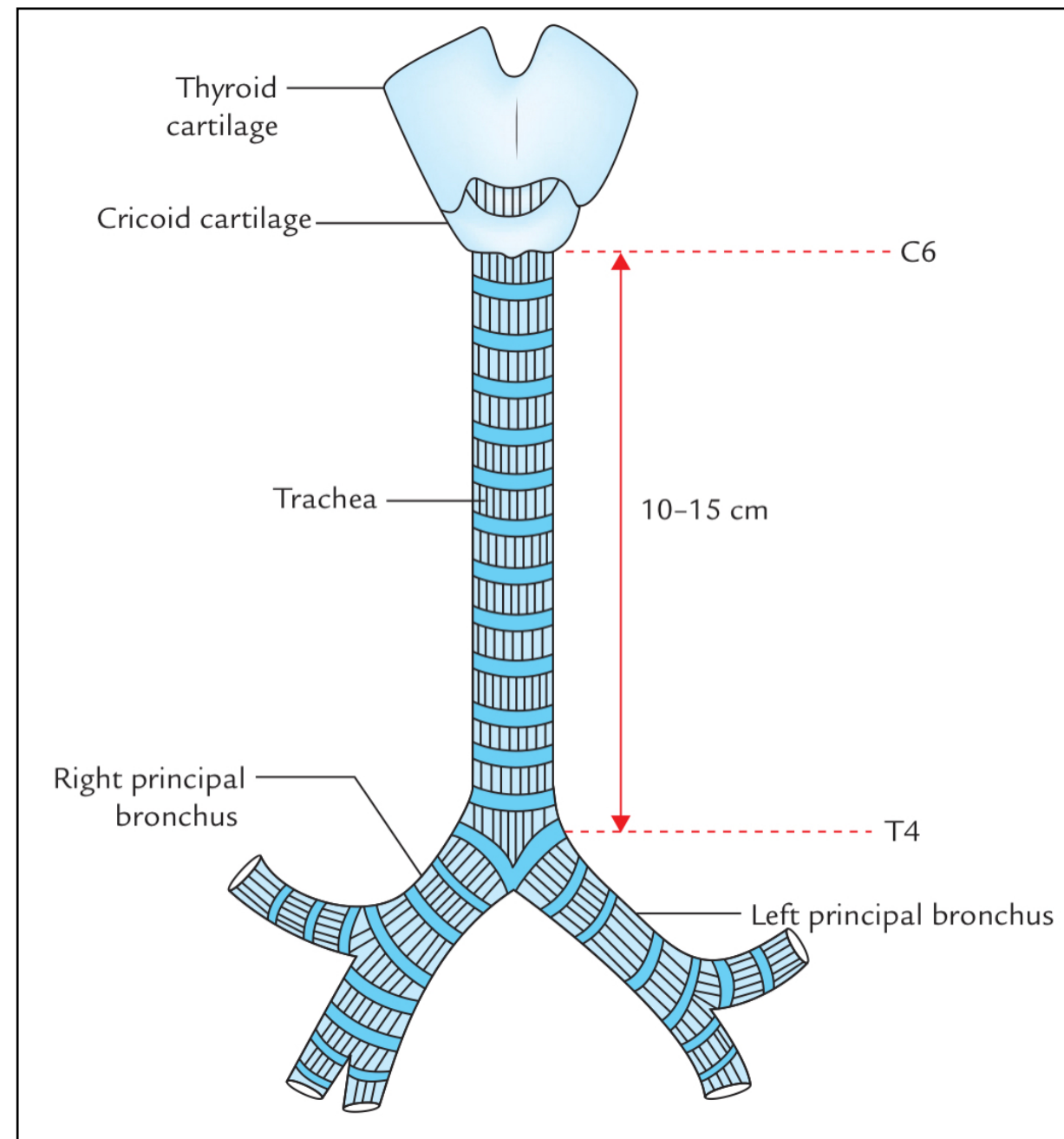


# **Lab / Third Week**

- 1. Trachea**
- 2. Bronchi.**

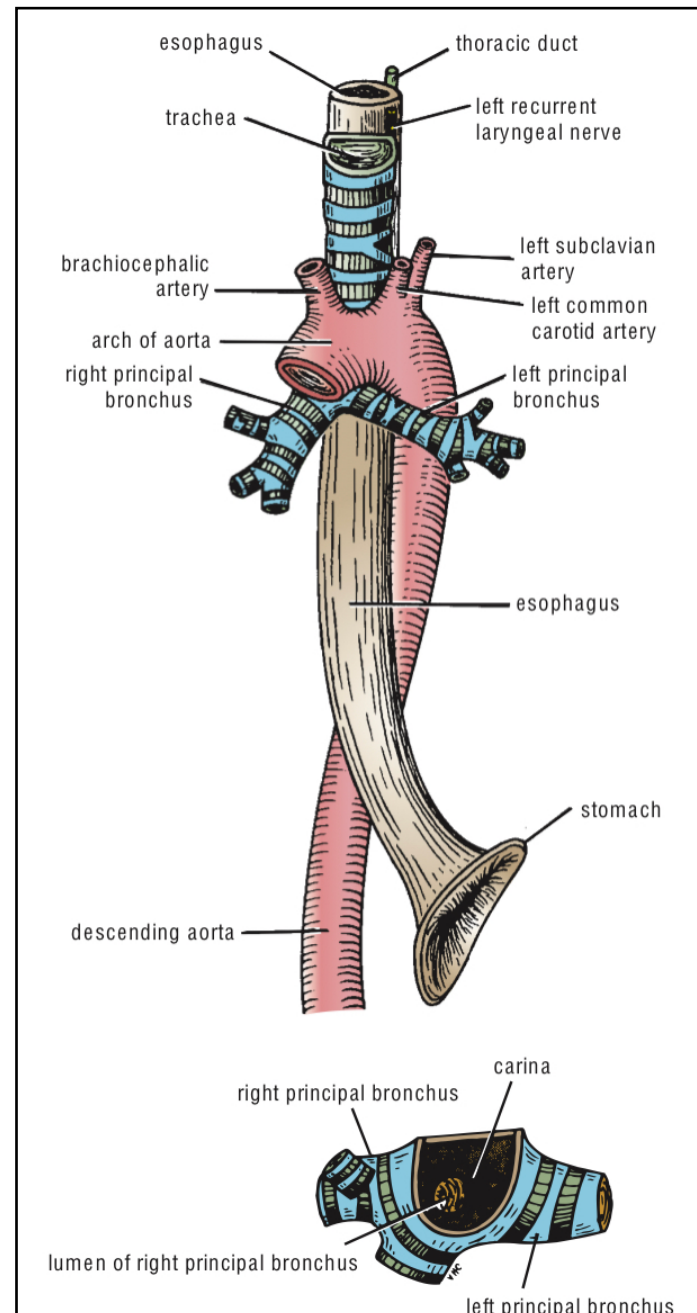
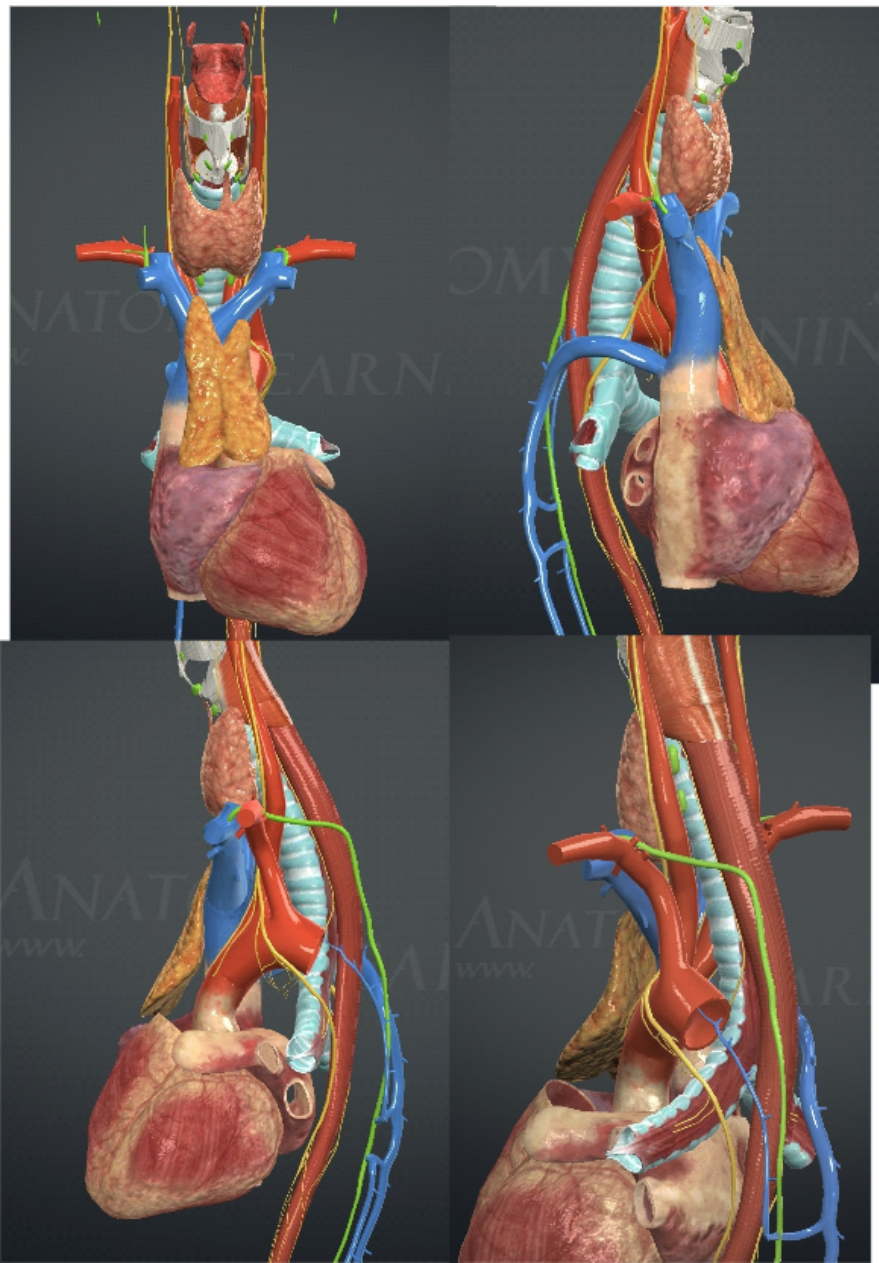
# ✱ Trachea

- The students should observe the beginning, length and ending of the trachea:



# ✱ Trachea

- The students should know the Relations of Trachea :
  - Anteriorly
  - Left
  - Right
  - Posteriorly



## Anteriorly

- Aortic arch
- Thymus
- thyroid
- Origin of brachiocephalic artery
- Manubrium sterni

## Left

- Arch of aorta
- Lt. subclavian art.
- LT. common carotid art.
- Lt. Phrenic n.
- Lt. Vagus n.
- Lt. main bronchus

## Right

- Azygous arch
- Brachiocephalic artery
- Rt. Vagus
- Rt. Phrenic
- Rt. main bronchus

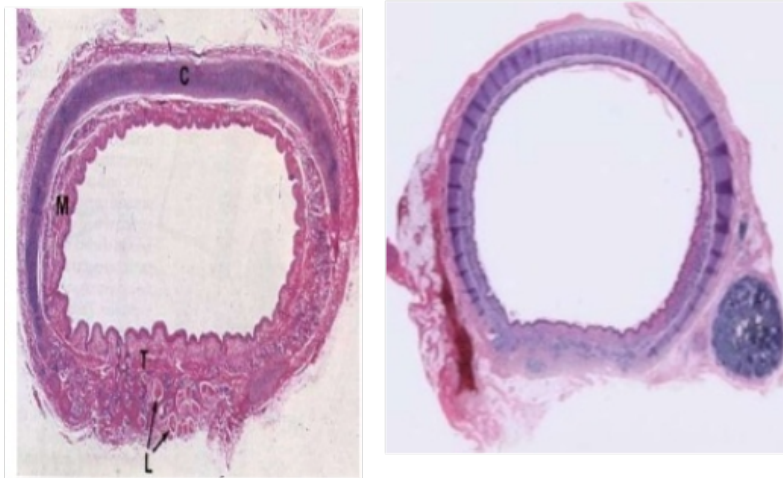
## Post.

- Esophagus
- Thoracic duct
- left recurrent laryngeal nerve

# ✱ Trachea

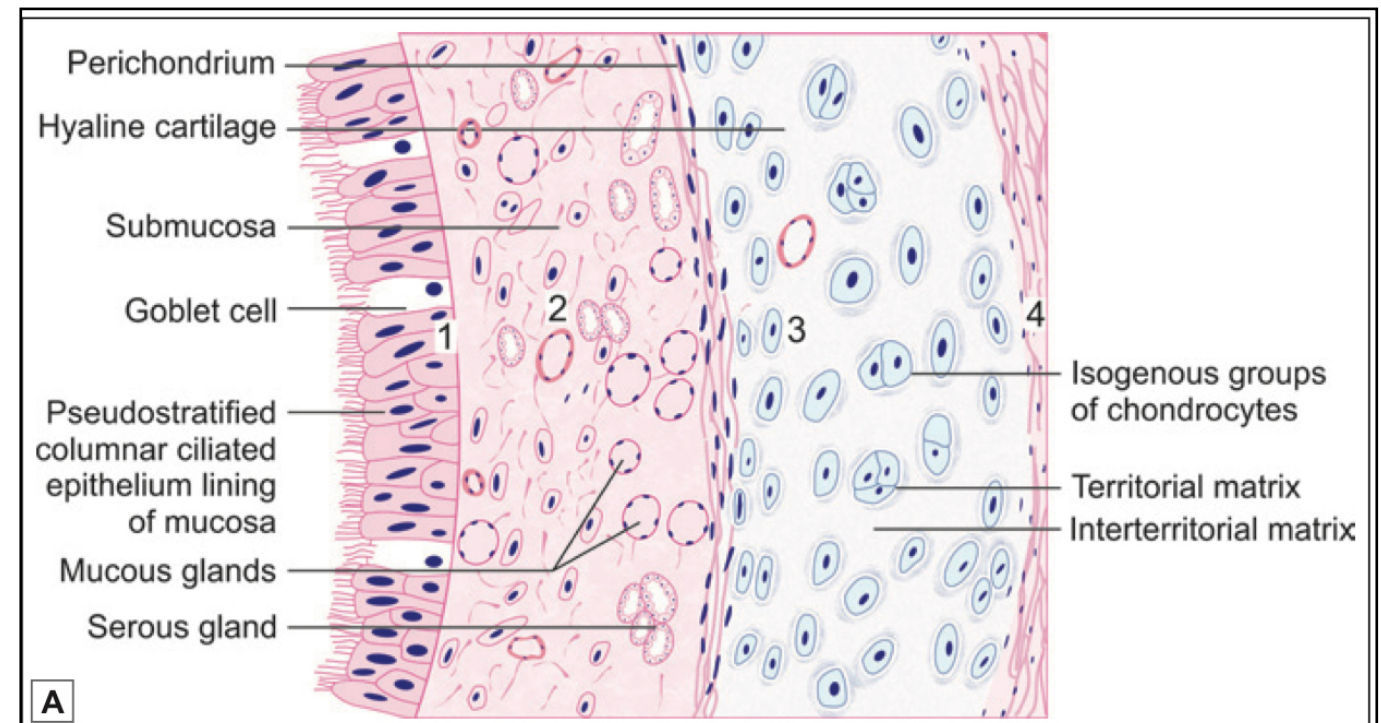
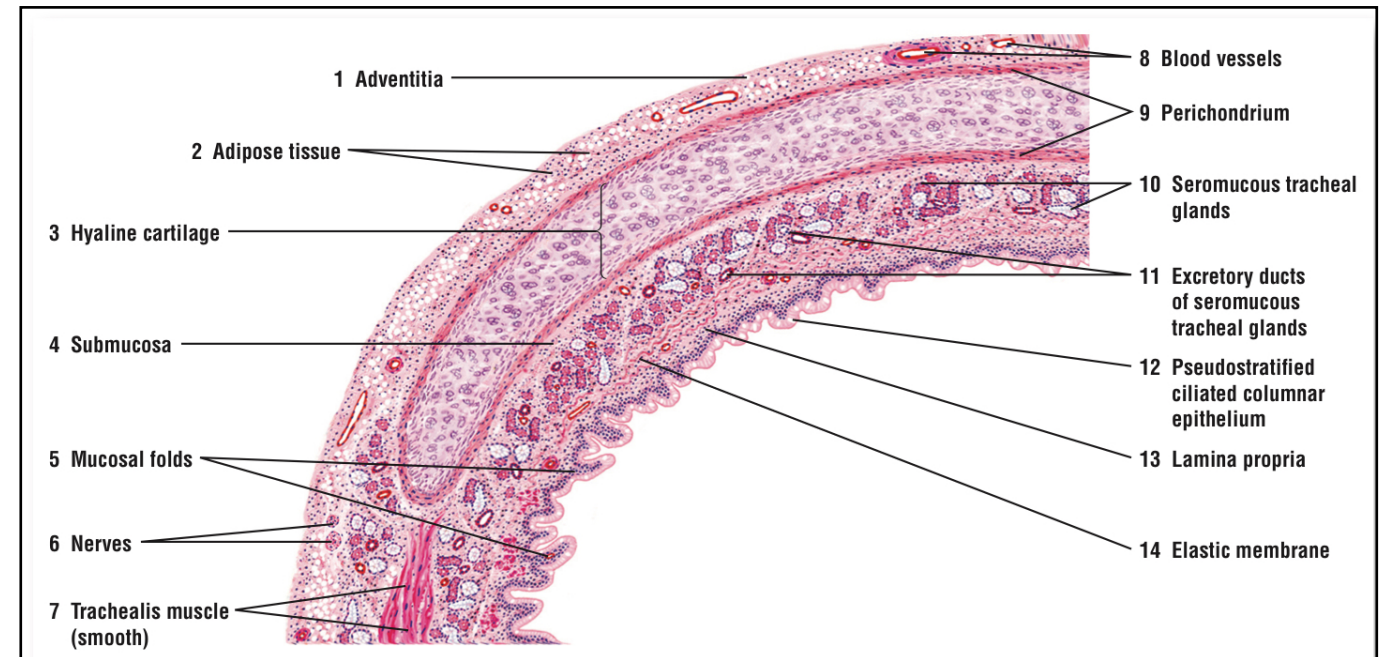
- The trachea is a fibroelastic cartilaginous tube.
- The trachea consists of four layers:

- ▶ Mucosa
- ▶ Submucosa
- ▶ Cartilage and Smooth Muscle Layer
- ▶ Adventitia



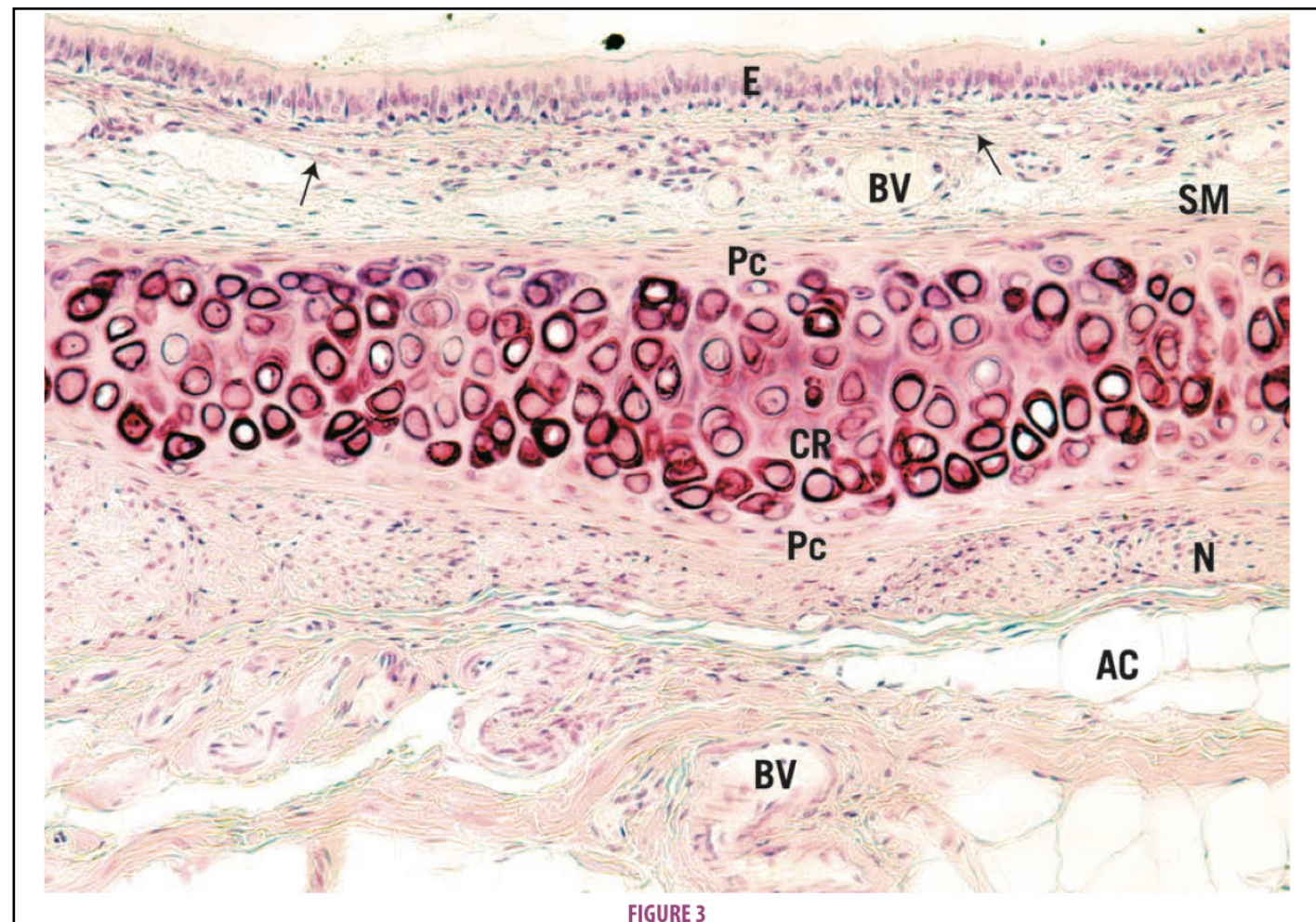
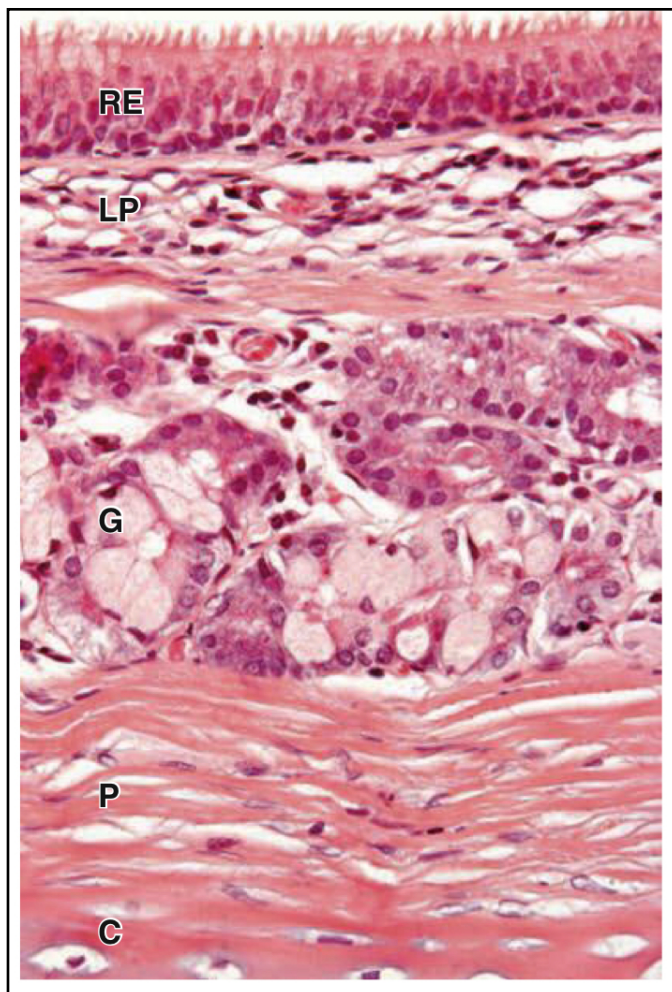
## • Mucous Membrane

- ▶ The lumen of the trachea is lined by pseudostratified ciliated columnar.
- ▶ It contains numerous goblet cells, and basal cells that lie next to the basement membrane.
- ▶ Numerous lymphocytes are seen in deeper parts of the epithelium.



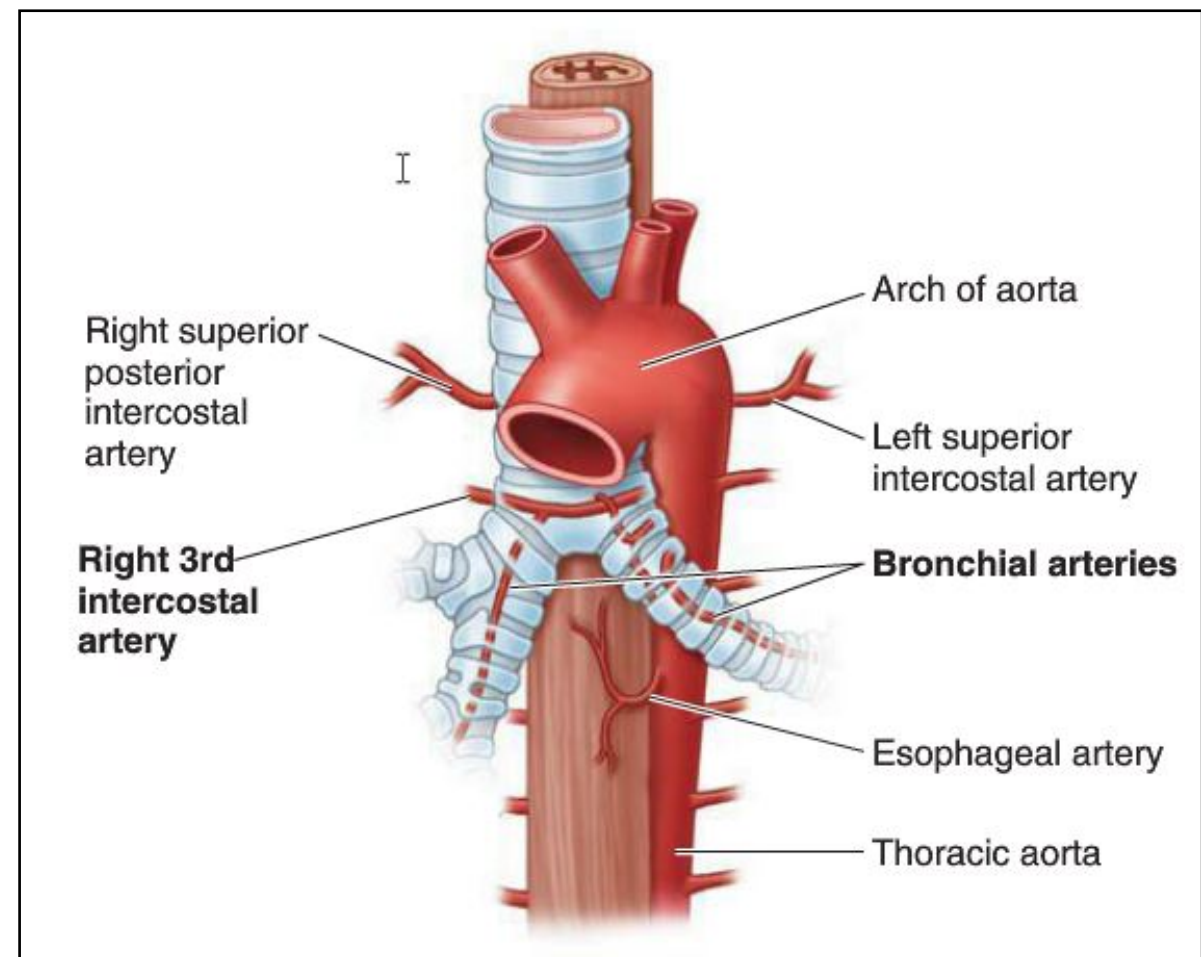
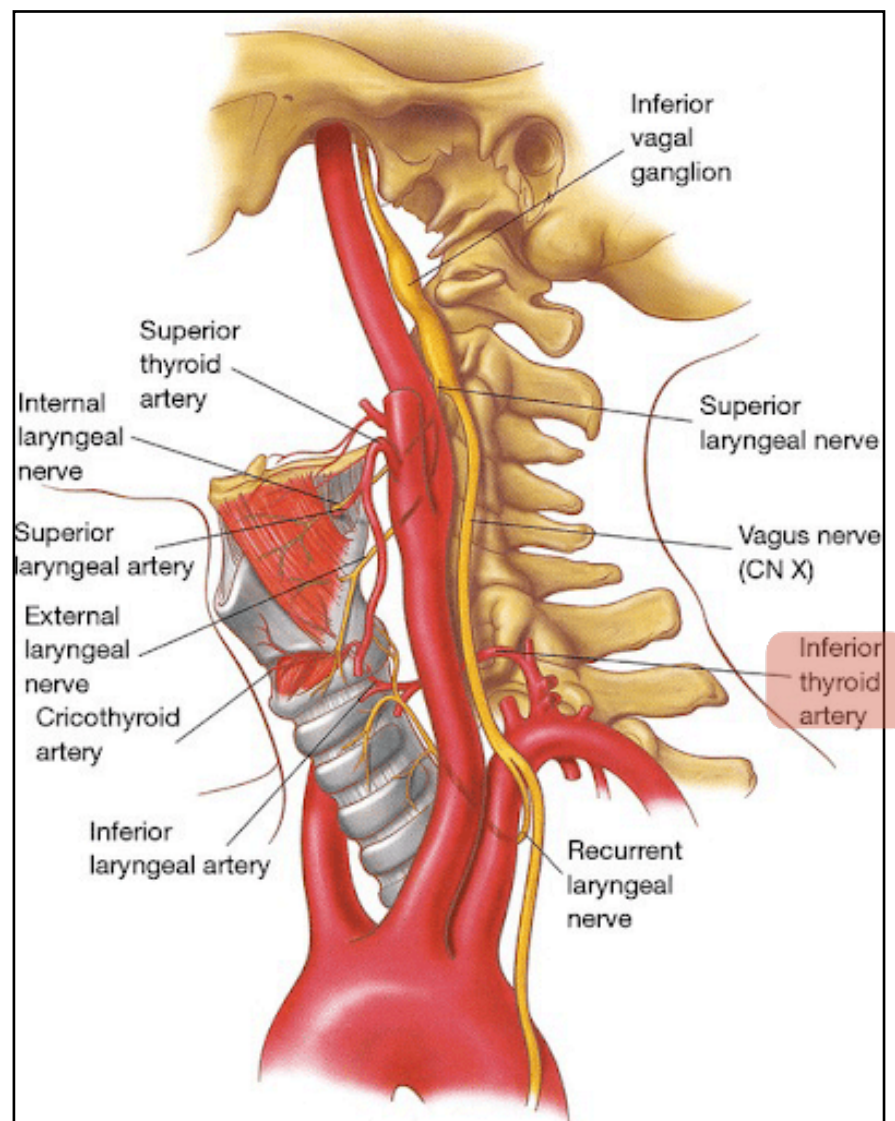
# ✱ Trachea

- Submucosa
  - ▶ made up of loose connective tissue containing mucous glands and serous glands, blood vessels and ducts.
- C' shaped plate of hyaline cartilage
  - ▶ Perichondrium has outer fibrous and inner chondrogenic layers.
  - ▶ Observe that the cartilage is absent posteriorly and replaced by trachialis muscle
- Adventitia
  - ▶ is made of fibroelastic connective tissue containing blood vessels and nerves.



# ✱ Trachea

- The students should know the blood supply of Trachea :
  - the upper two thirds are supplied by the inferior thyroid arteries
  - the lower third is supplied by the bronchial arteries



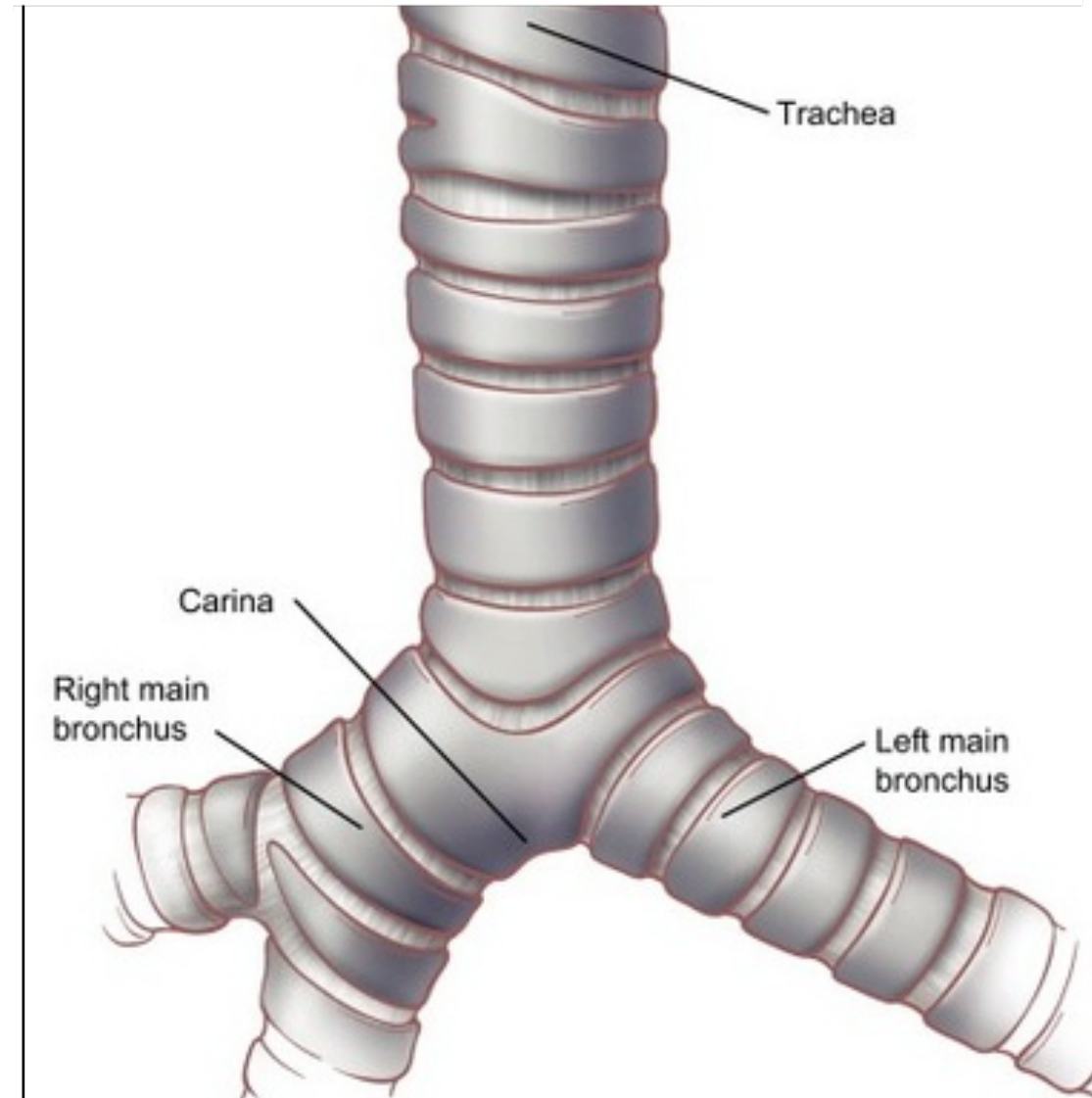
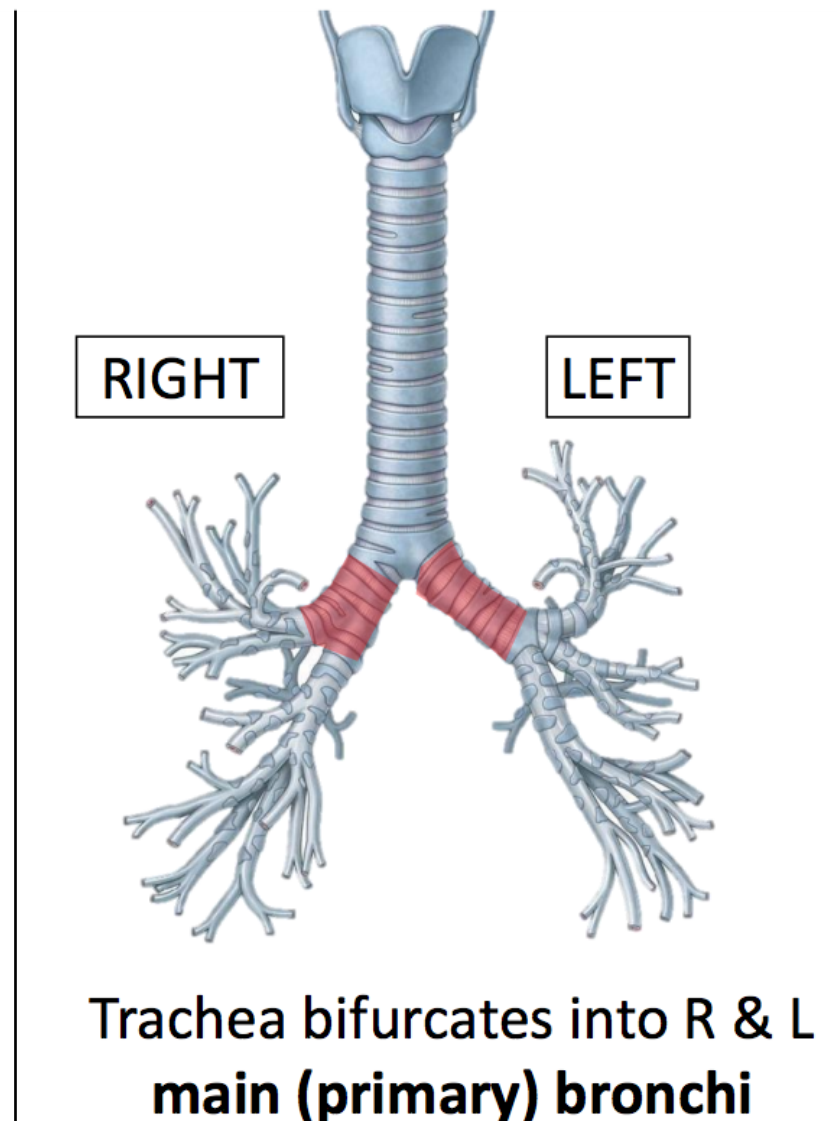
The **right main bronchus** is wider and takes a more vertical course and is about 1 in. (2.5 cm)

# ✱ Bronchi.

- The students should know the different between the right main bronchus and left main bronchus

The **right main bronchus** is wider and takes a more vertical course and is about 1 in. (2.5 cm)

The **left main bronchus** is narrower, longer, and more horizontal than the right and is about 2 in. (5 cm) long



# ✱ Bronchi.

- The students should know the b
  - lobar bronchi
  - segmental bronchi
  - bronchopulmonary segment

## Lt. lung 10 segments

### Upper lobe

Apical

posterior

Ant

sup. Lingual

inf. lingual

### Basal lobe

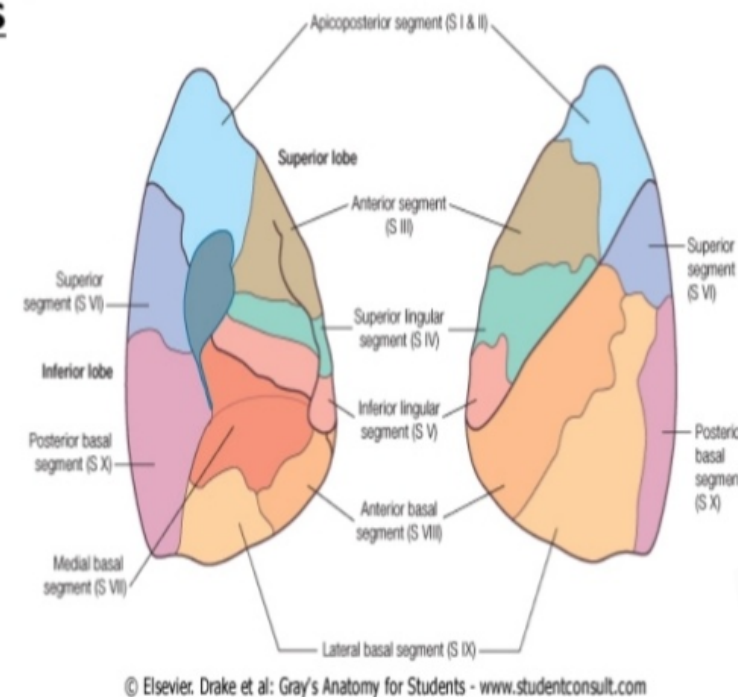
Apical( apico basal)

Ant

Med

Lat

Post



## Rt. Lung 10 segments

### Upper lobe

Apical

posterior

Ant

### Middle lobe

Medial

Lateral

### Basal lobe

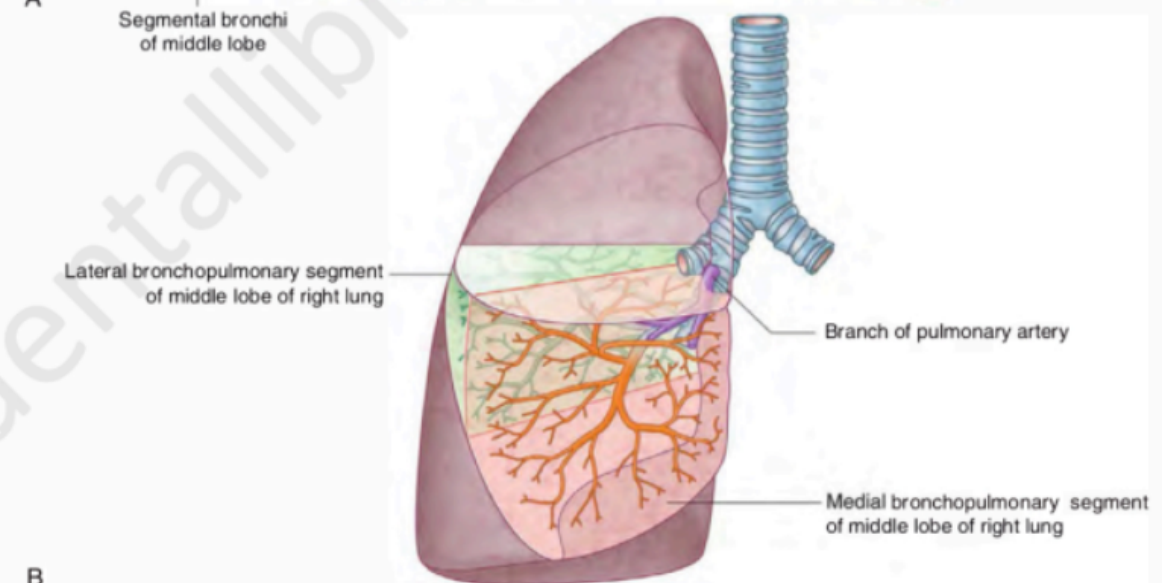
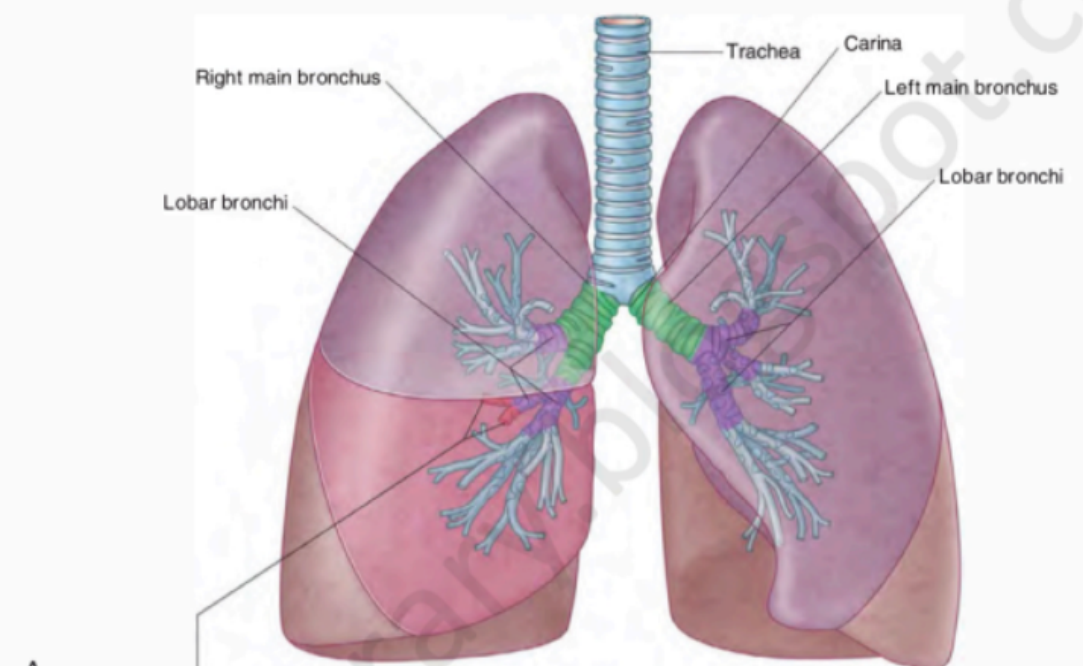
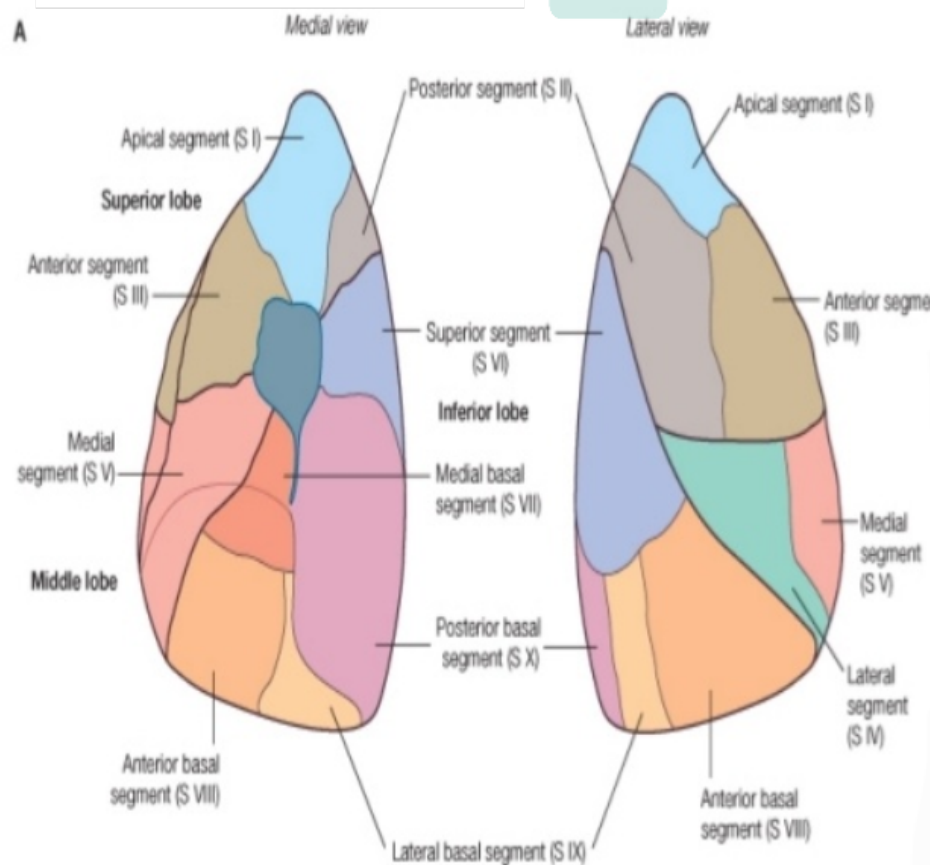
Apical ( apico basal)

Ant

Med

Lat

Post



# ✱ Bronchi.

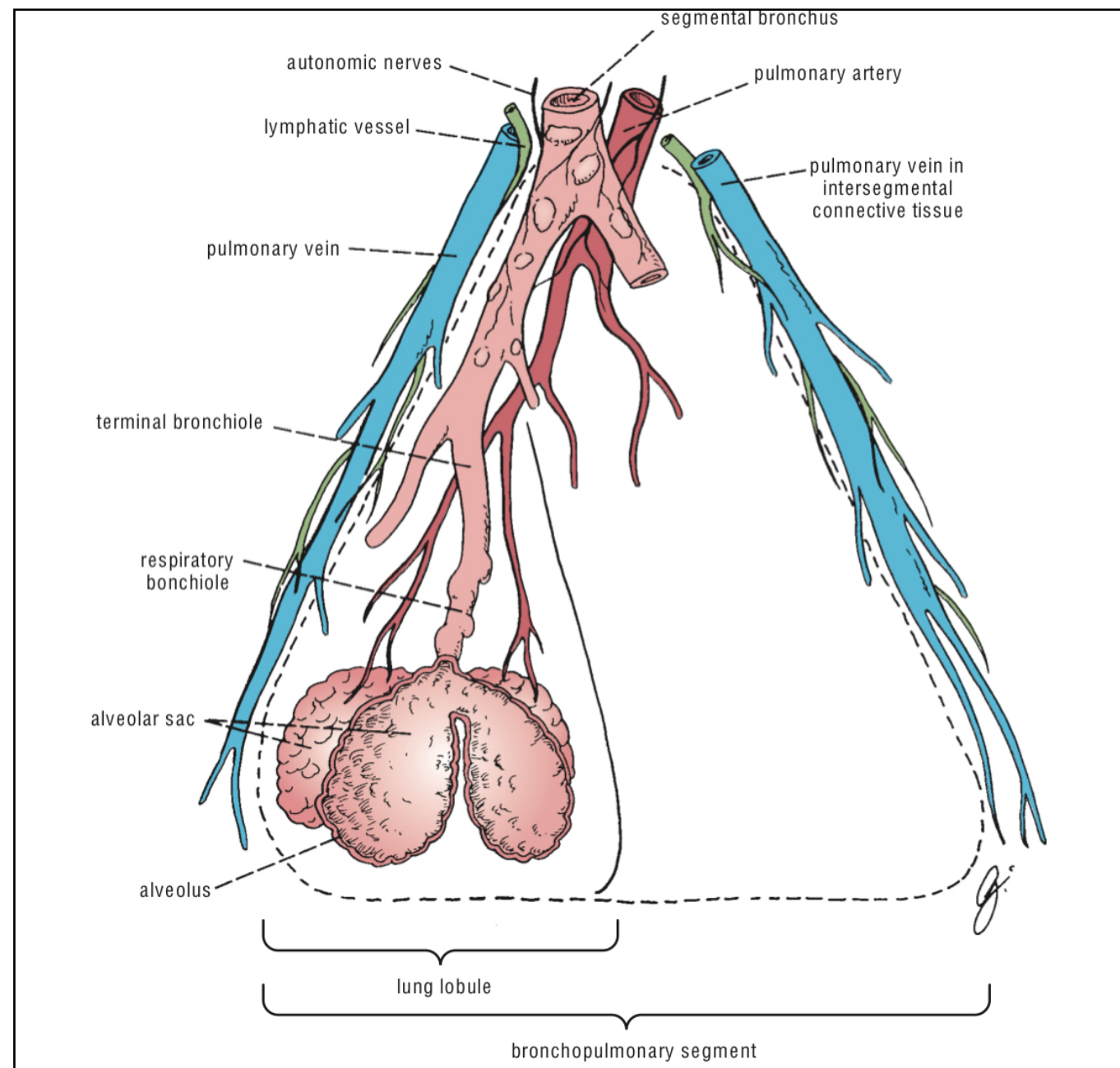
## Bronchopulmonary Segment

- 10 in each lung.

- Pyramidal in shape with an apex near the hilum of the lung and a base on the surface of the lung.

- On its two sides there is a connective tissue and pulmonary vein

- The student should know the characters of the Bronchopulmonary segment
- It's very important in surgery.



# ✱ Bronchi.

- The student should know the distribution of the bronchopulmonary segments in each lung:
  - Rt. Lung 10 segments (upper, middle, basal lobes)
  - Lt. lung 10 segments (upper, basal lobes)
- Clinical points:
  - Foreign body is usually descend in the right main bronchus.
  - The foreign body in erect Poisson usually descend to the posterior basal segment.
  - In recumbent Poisson (patient and dentist) the extracted tooth descend to the lower lobe to the apico-basal segment.

