

Mediastinum

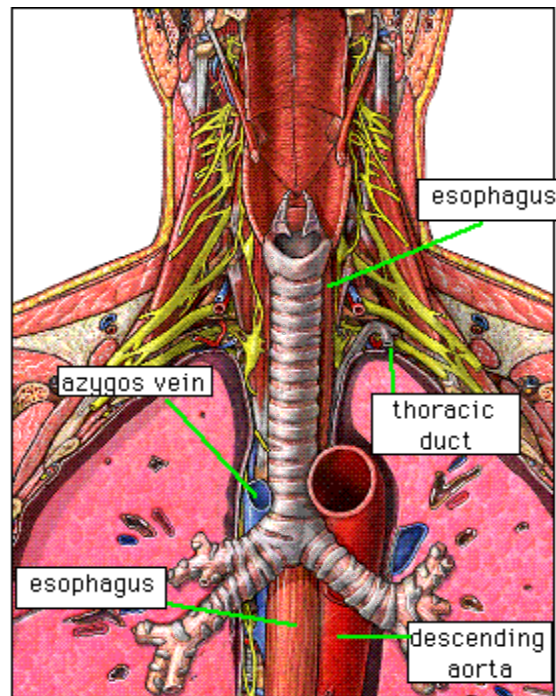
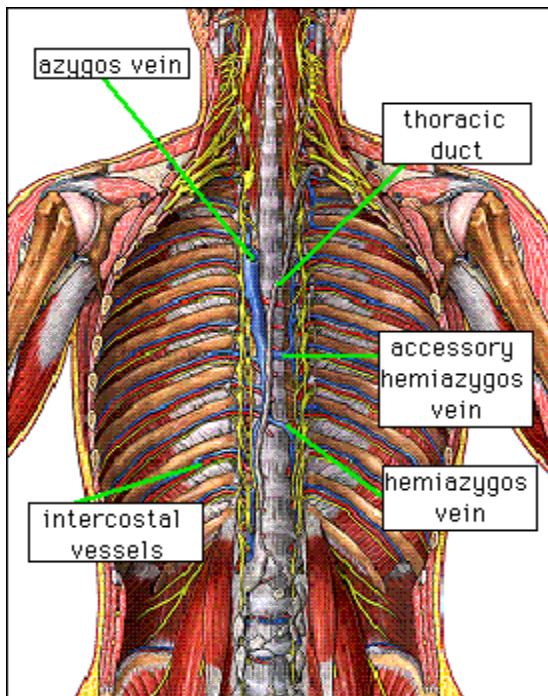
Objectives

- Define the "*Mediastinum*".
- Differentiate between the divisions of the mediastinum.
- List the boundaries and contents of each division.
- Describe the relations between the important structures in each division

Mediastinum

YouTube :

[Anatomy of Mediastinum.](#)



WHAT IS THE MEDIASTINUM:

- It is a thick **movable** partition between the two **pleural sacs & lungs**.
- It contains all the structures which lie in the **intermediate** compartment of the **thoracic cavity**.

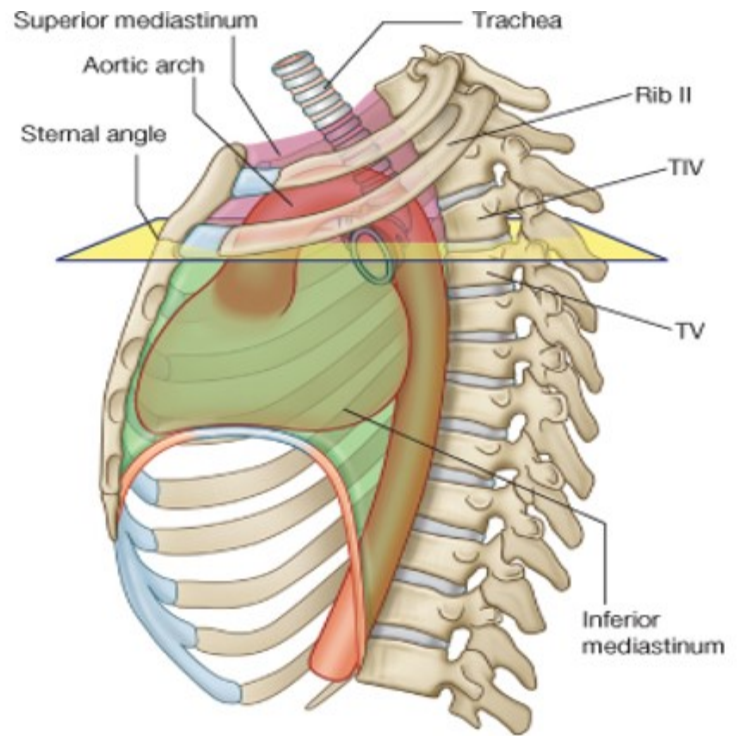
MEDIASTINUM BOUNDARIES:

- **Superior: Thoracic outlet:** (manubrium, 1st rib & 1st thoracic v)
- **Inferior: Diaphragm.**
- **Anterior: Sternum.**
- **Posterior: The 12 thoracic vertebrae.**

MEDIASTINUM Subdivisions:

The mediastinum is subdivided by a **Horizontal plane** (extending from the **Sternal angle** to the lower border of **T(4)**) into:

- **Superior mediastinum (S):** above the plane
- **Inferior mediastinum:** below the plane.



LEVEL OF T4:

at the level of T4 vertebra there are:

- **sternal angle**
- **2nd costal cartilage**

Bifurcation of trachea

Bifurcation of pulmonary trunk

Beginning & termination of aorta

PHRENIC NERVE:

Root Value:

C3,4,5

They pass through the **Superior & Middle** mediastina

Course in Thorax:

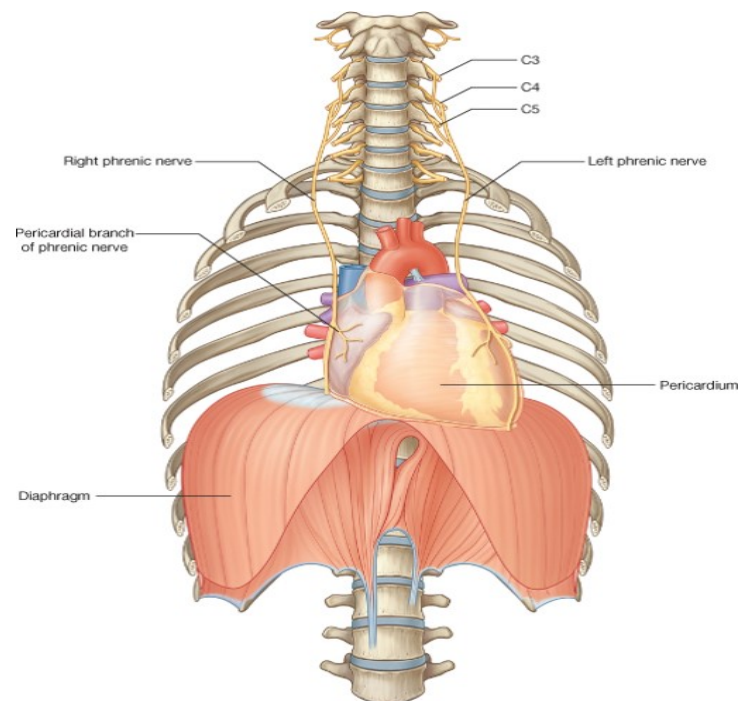
The **right phrenic** descends on the right side of SVC & heart.

The **left phrenic** descends on the left side of heart.

Both nerves **terminate** in the **diaphragm**

Branches :

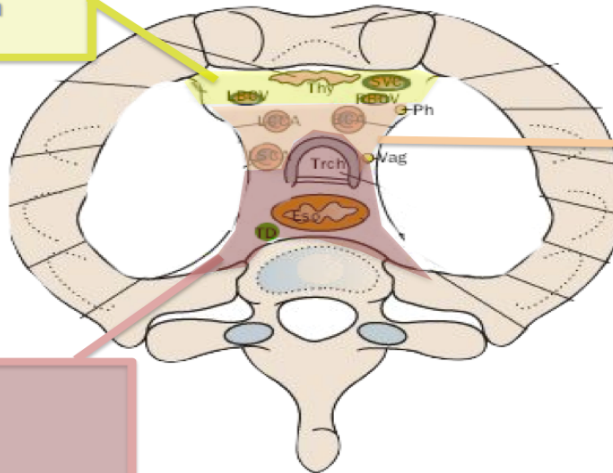
- 1) **Motor & Sensory fibers to Diaphragm**
- 2) **Sensory fibers to pleurae & pericardium**



Contents: (Superior Mediastinum)

Superficial:

- Thymus Gland
- R. + L. Brachiocephalic V.
- Superior Vena Cava



Intermediate:

Arch of **Aorta** and branches:

- Brachiocephalic A.
- L. Common Carotid A.
- L. Subclavian A.

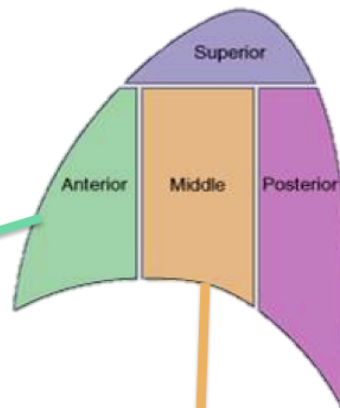
Nerves:

- Phrenic
- Vagus

Deep:

- Trachea
- Esophagus
- Thoracic Duct

Contents: (Inferior Mediastinum)



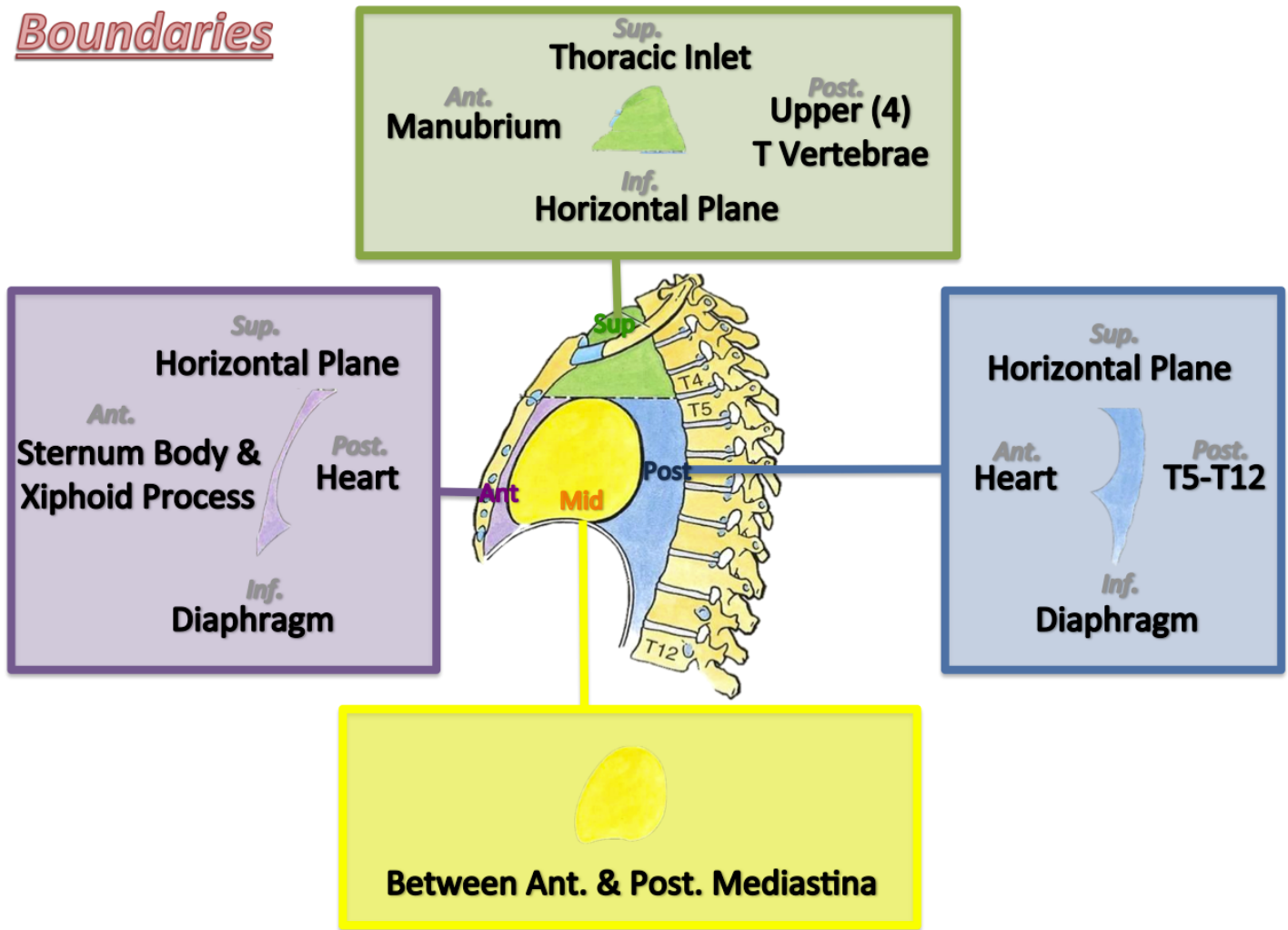
- Thymus Gland
- Lymph Nodes

- Heart & Pericardium
- As. Aorta
- Pulmonary Trunk
- Sup. & Inf. Vena Cava
- R. + L. Phrenic Nerves
- Lymph Nodes

- Esophagus
- Azygos System of Veins
(post. R. to Eso.)
- Ds. Aorta
(post. L. to Eso.)
- Thoracic Duct
(post. to Eso.)
- R. + L. Thoracic Symp. Trunks
- Mediastinal Lymph Nodes
- Vagus Nerves



Boundaries



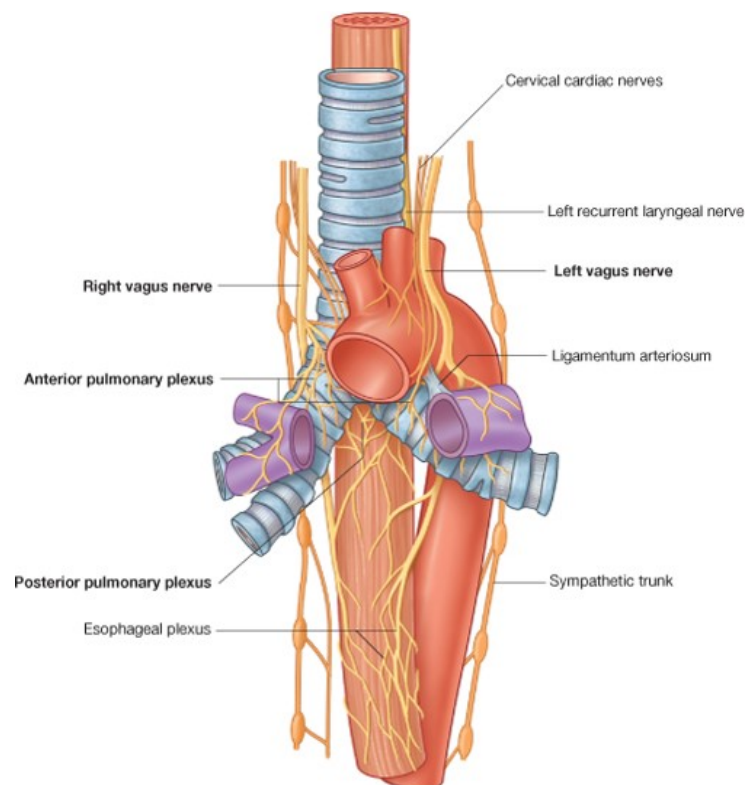
VAGUS NERVE:

It is the 10th cranial nerve.

It descends through the **Superior & Posterior** mediastina

The **right vagus** descends to the **right side of trachea**, forms the **posterior esophageal plexus** & continues in abdomen as **posterior gastric nerve**.

The **left vagus** descends **between left common carotid & left subclavian arteries**, forms the **anterior esophageal plexus** & continues in abdomen as **anterior gastric nerve**.



AORTA:

:ASCENDING AORTA

.Beginning: at **aortic orifice of left ventricle**

Course: in **middle mediastinum**

(End: continues as arch of aorta (at level of **T4**

:ARCH OF AORTA

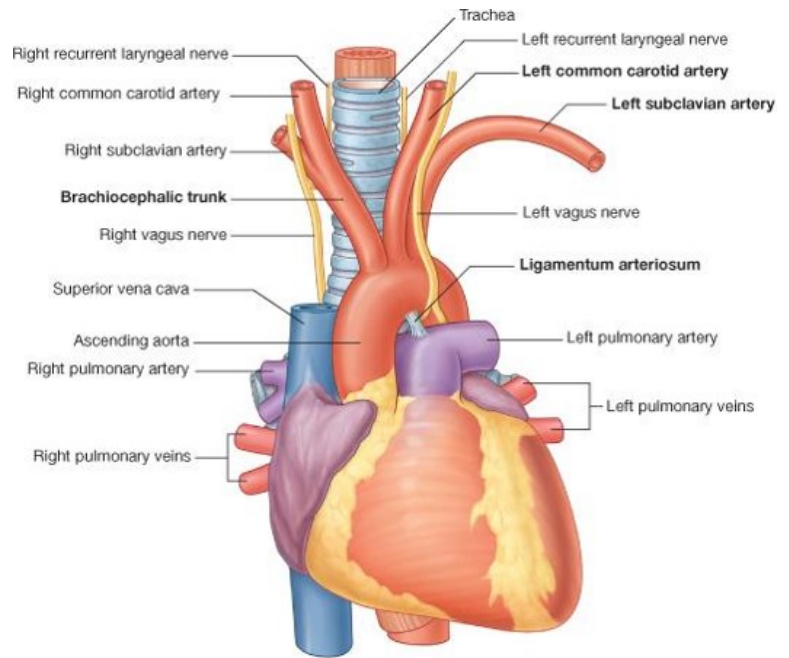
Course: in **superior mediastinum**

End: continues as descending thoracic aorta (at level of **T4**

DESCENDING AORTA:

Course: in **posterior mediastinum**

End: continues as abdominal aorta after it passes through diaphragm.



THORACIC DUCT:

BEGINNING:

It is the continuation of **Cisterna Chyl** كيس يحتوي سائل (at the level of **L1**).

COURSE:

It passes through aortic opening of diaphragm.

It ascends in **Posterior mediastinum** (posterior to esophagus).

It ascends in **Superior mediastinum** (to the left of esophagus).

TRIBUTARIES:

It receives:

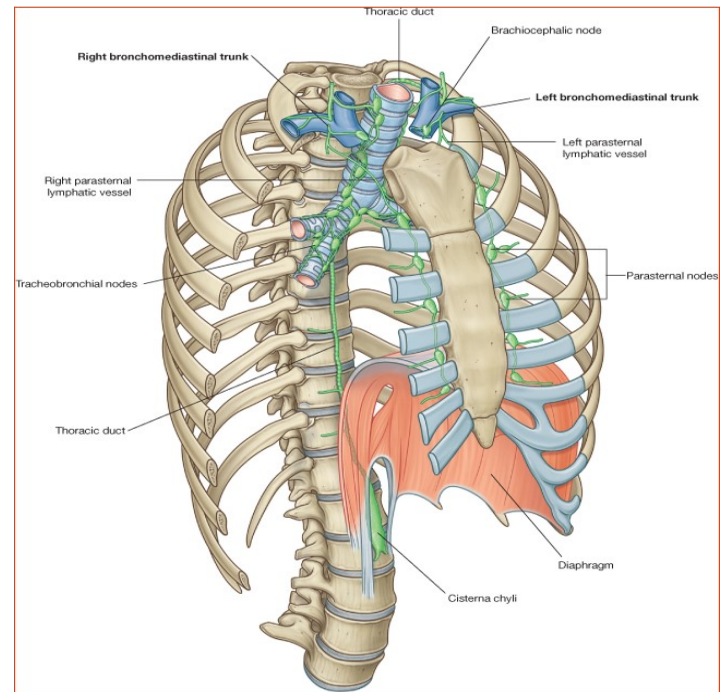
Lymphatics from all body

EXCEPT:

Right side of thorax, Right upper limb & Right side of head & neck.

END:

It **opens** in the **left brachiocephalic vein**.



Don By Anatomy Team ..

Good Luck ^_^