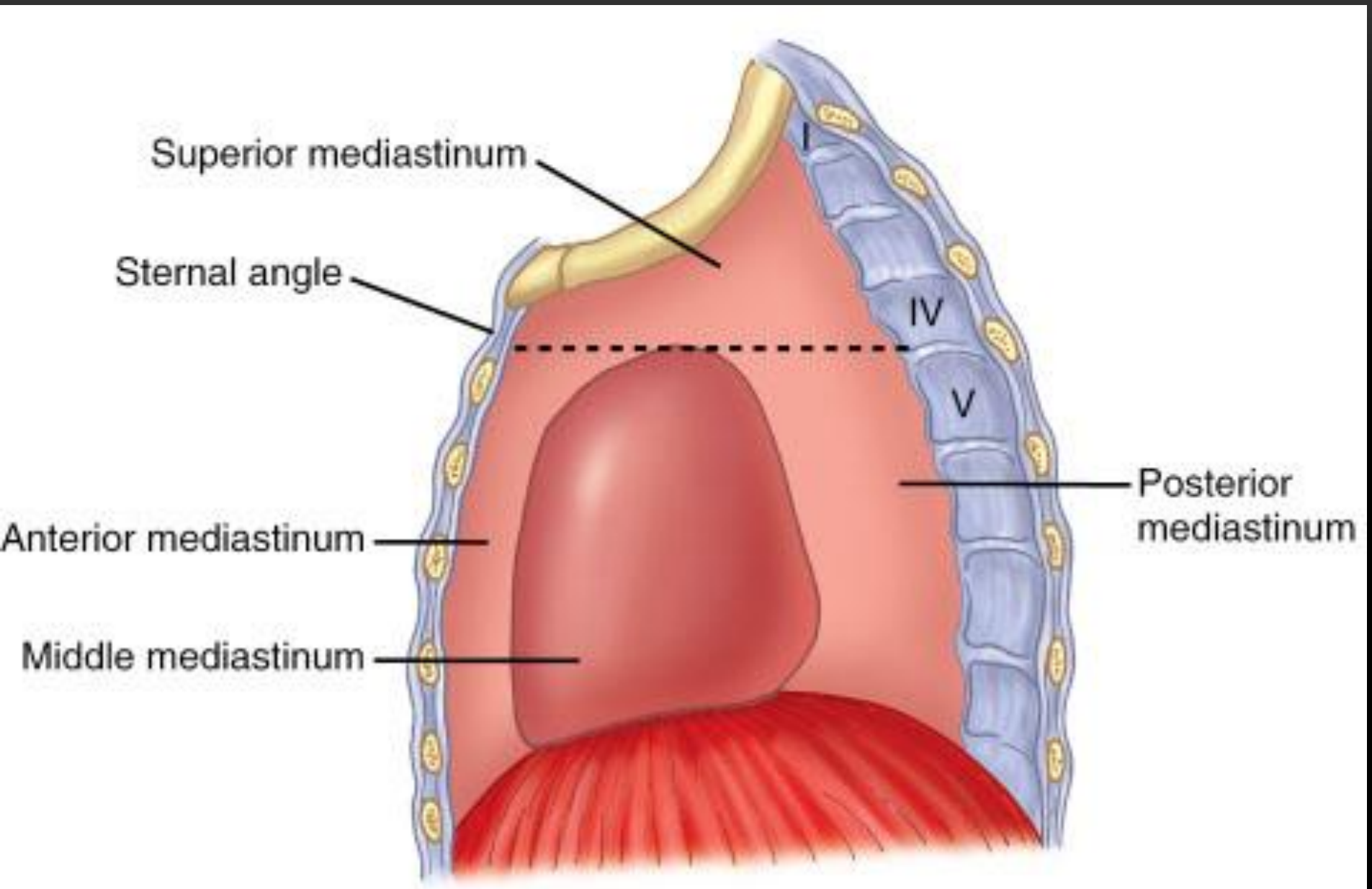
Mediastinum

المُنَصِف

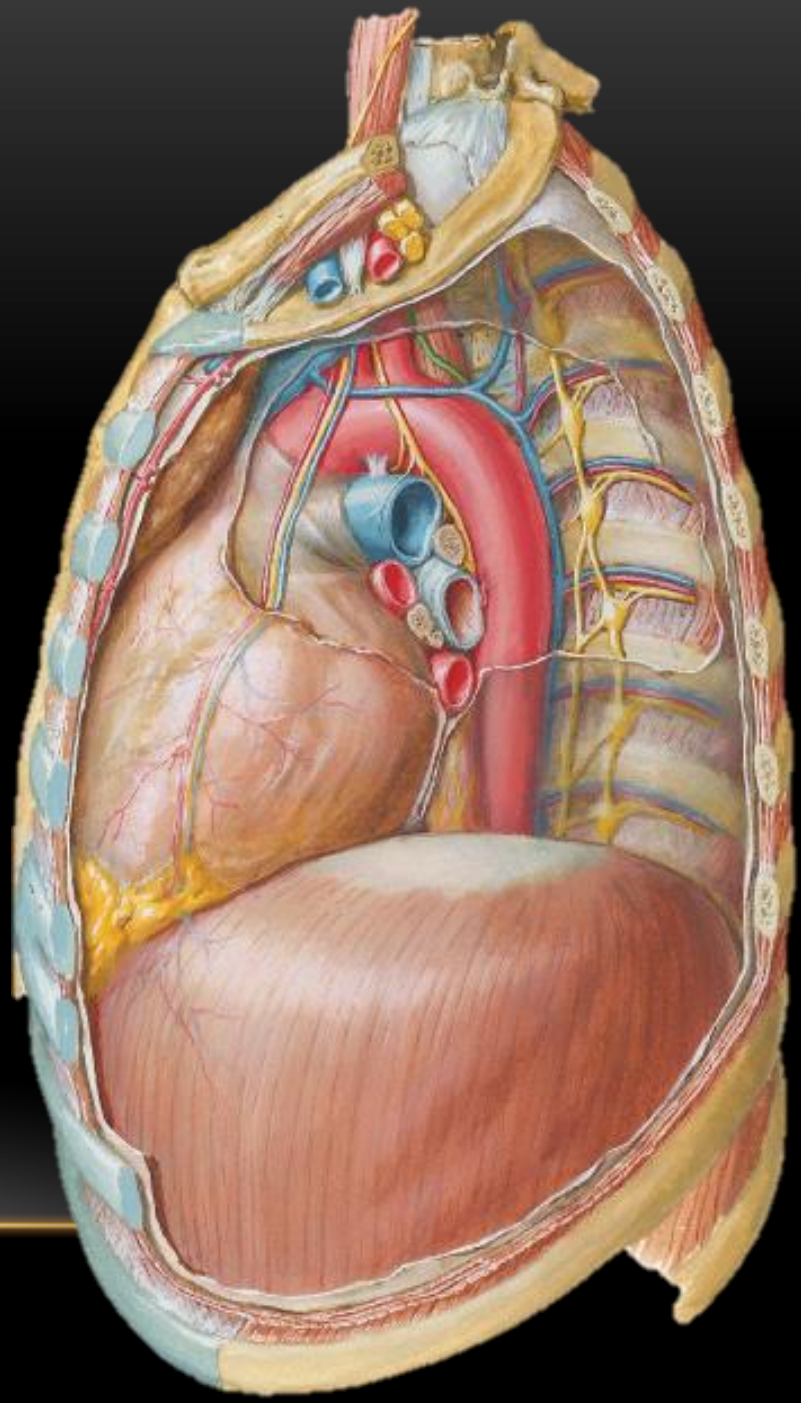

Superior mediastinum
Sternal angle
Anterior mediastinum
Middle mediastinum
I
IV
V
Posterior mediastinum

It is a division of the thoracic cavity extending from the root of the neck to the diaphragm.

Lies behind the sternum and in front of the vertebral column, surrounded by the chest wall and both lungs

Contains:

- Thymus or its remains.
- Heart and its major vessels
- Arteries, and veins
- Trachea
- Oesophagus
- Thoracic duct and lymph nodes.
- Nerves.

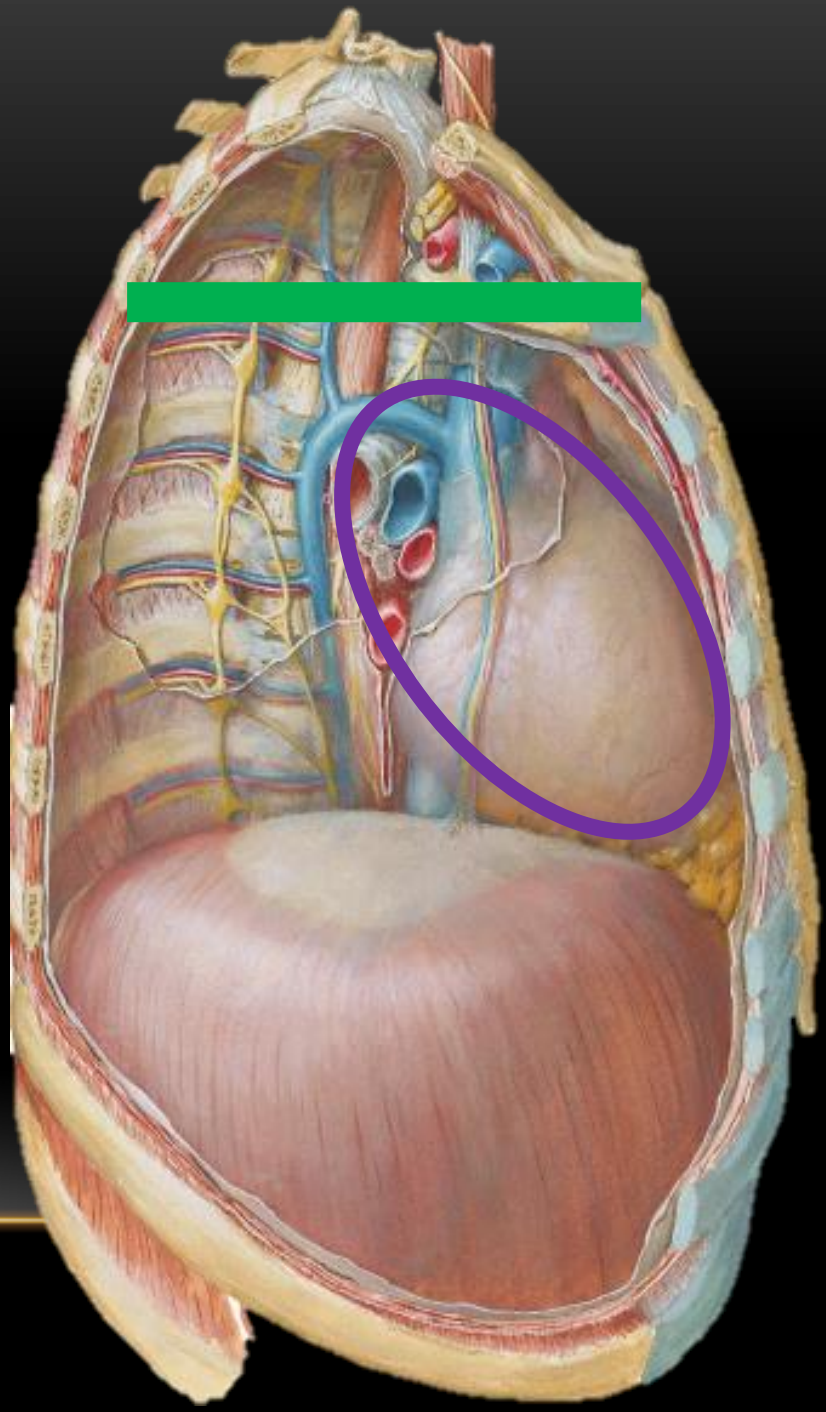


Divisions

Superior Mediastinum: above an imaginary line passing from the sternal angle (of Louis) to T4.

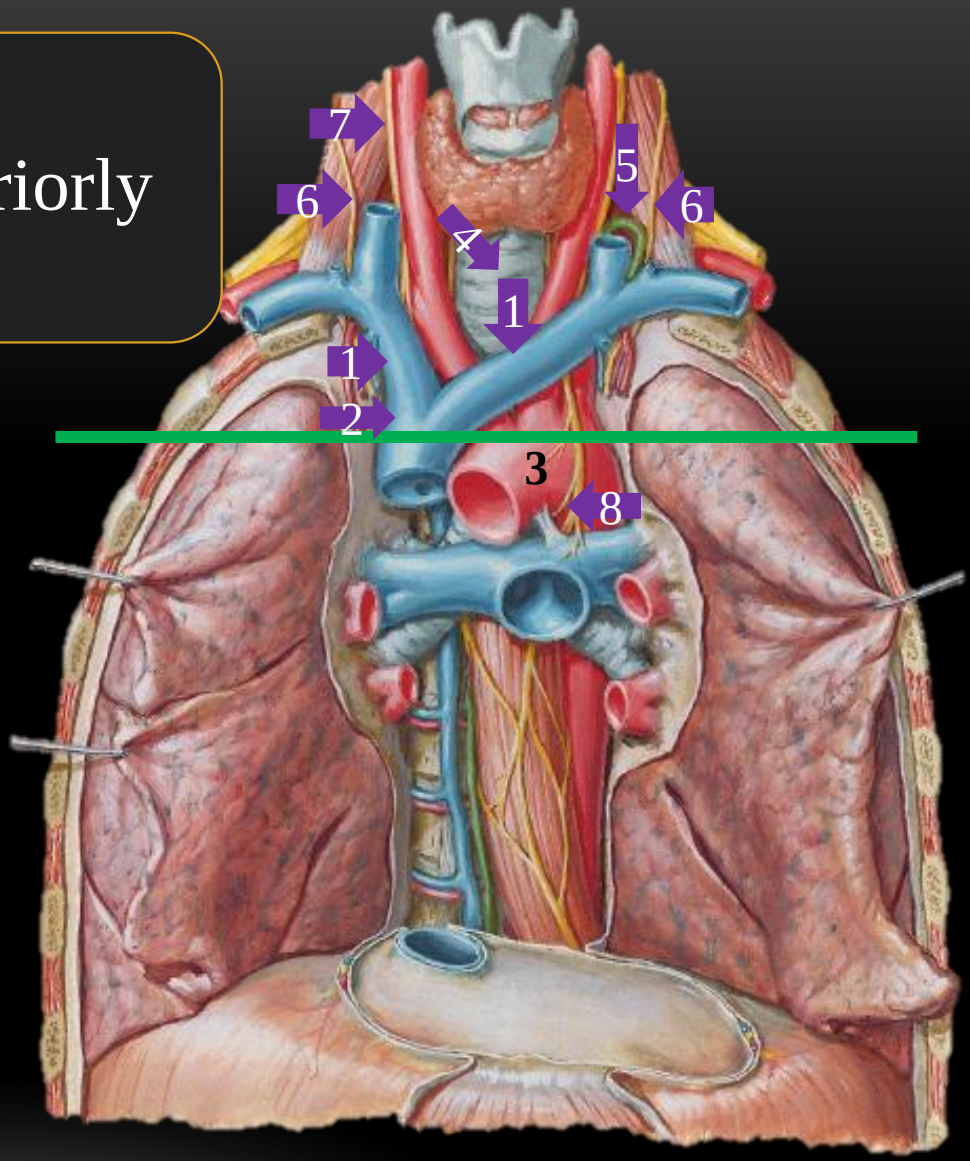
Inferior Mediastinum: below the line, it is divide by the heart into:

- Middle
- Anterior
- Posterior



Superior Mediastinum

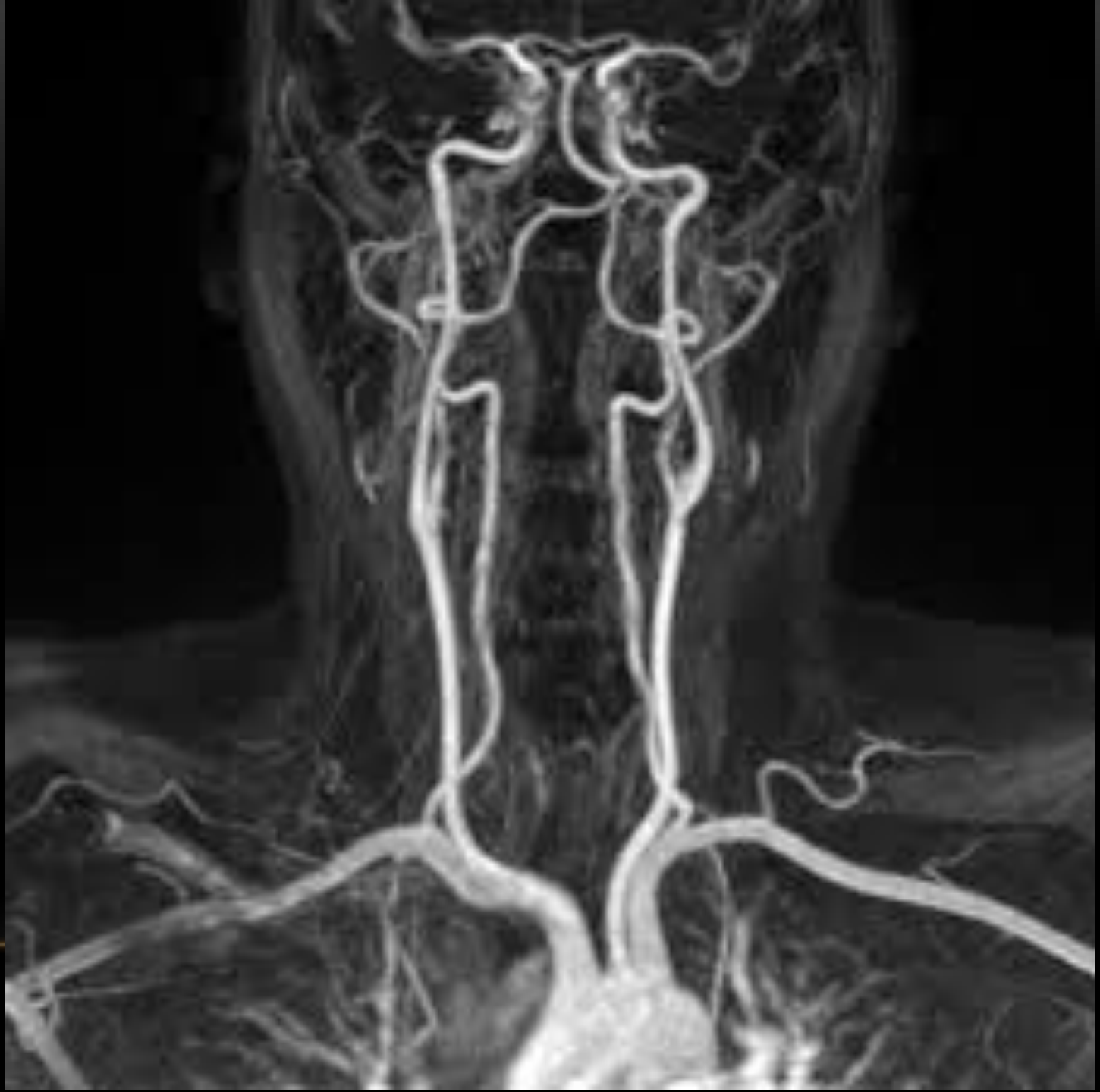
Bounded anteriorly by the manubrium sterni and posteriorly by the T1-T4 vertebrae



Contents:

- Remains of the thymus gland in adults
- Right and left brachiocephalic veins (1)
- Upper part of superior vena cava (2)
- Aortic arch and its branches (3)
- Trachea (4)
- Oesophagus
- Thoracic duct (5)
- Phrenic nerves (6)
- Vagi (7)
- Left recurrent laryngeal nerve (8)
- Sympathetic trunks

Aortic Angiogram

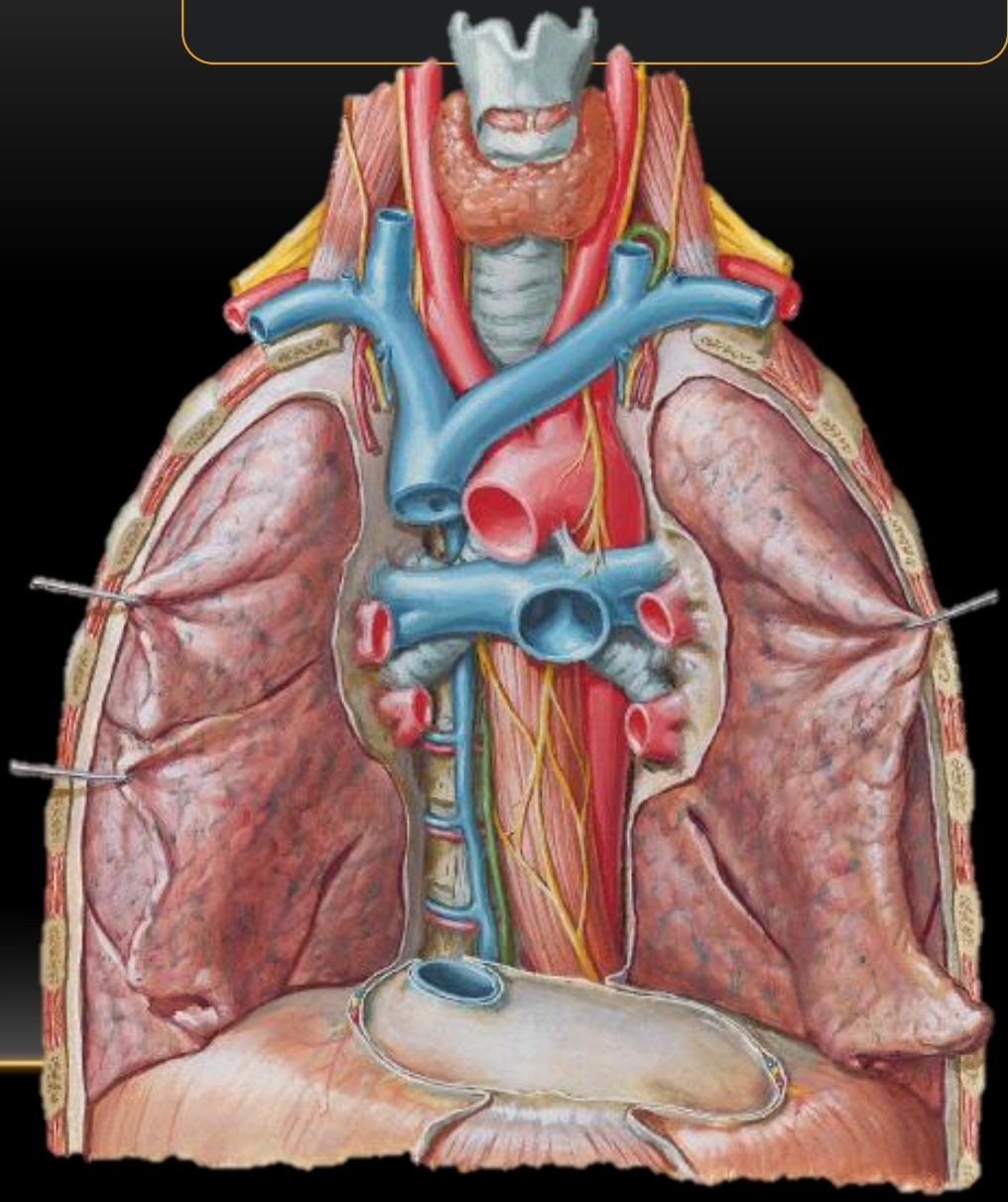


Posterior Mediastinum

Oesophagus

- enters the mediastinum a little to the right of the median plane, posterior to the trachea.
- It passes to the midline, then to the left and anteriorly as it travels down.
- It passes through the left dome of the diaphragm opposite T10.

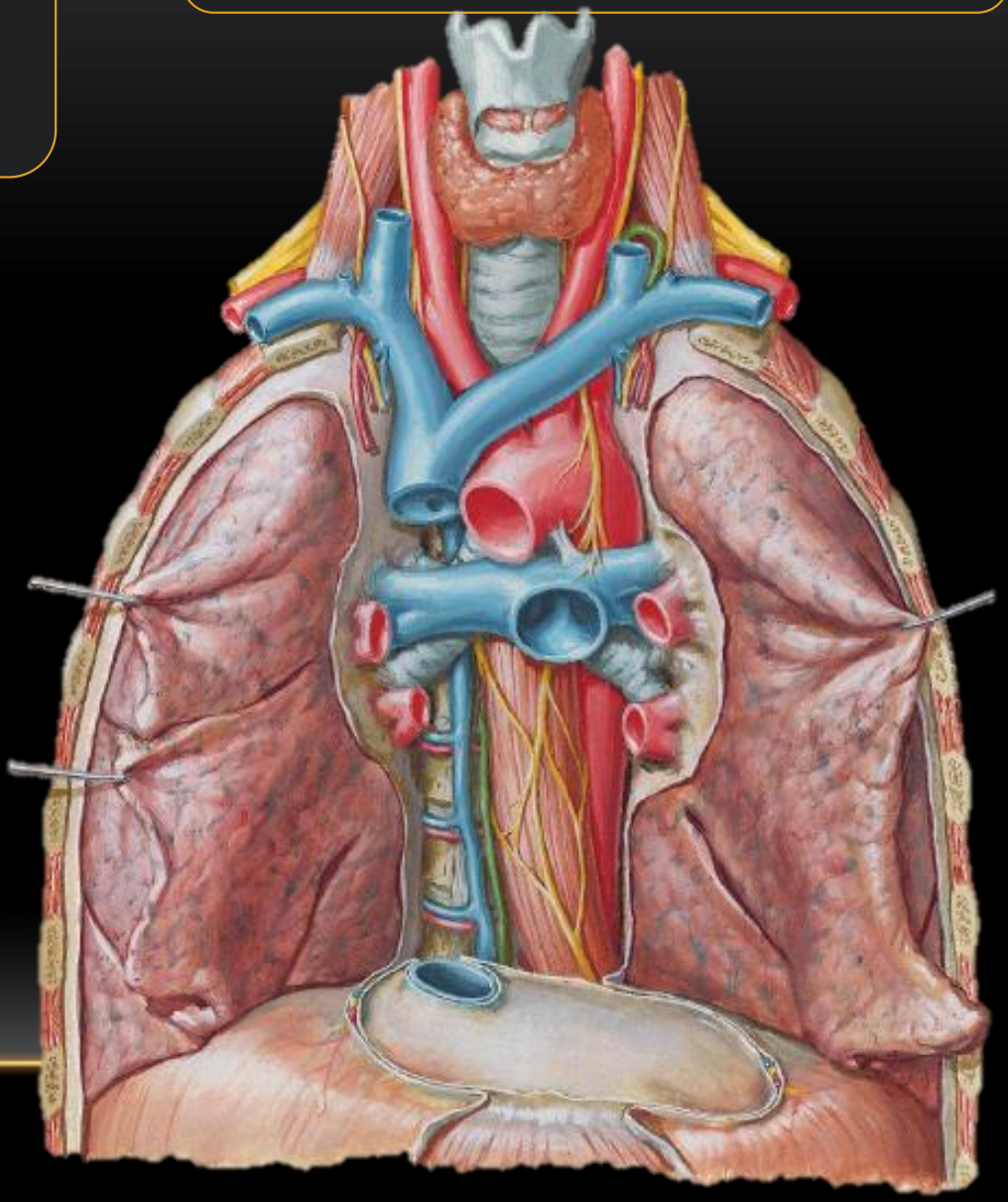
Posterior Mediastinum ..1/6:



Barium swallow

Descending Thoracic Aorta:

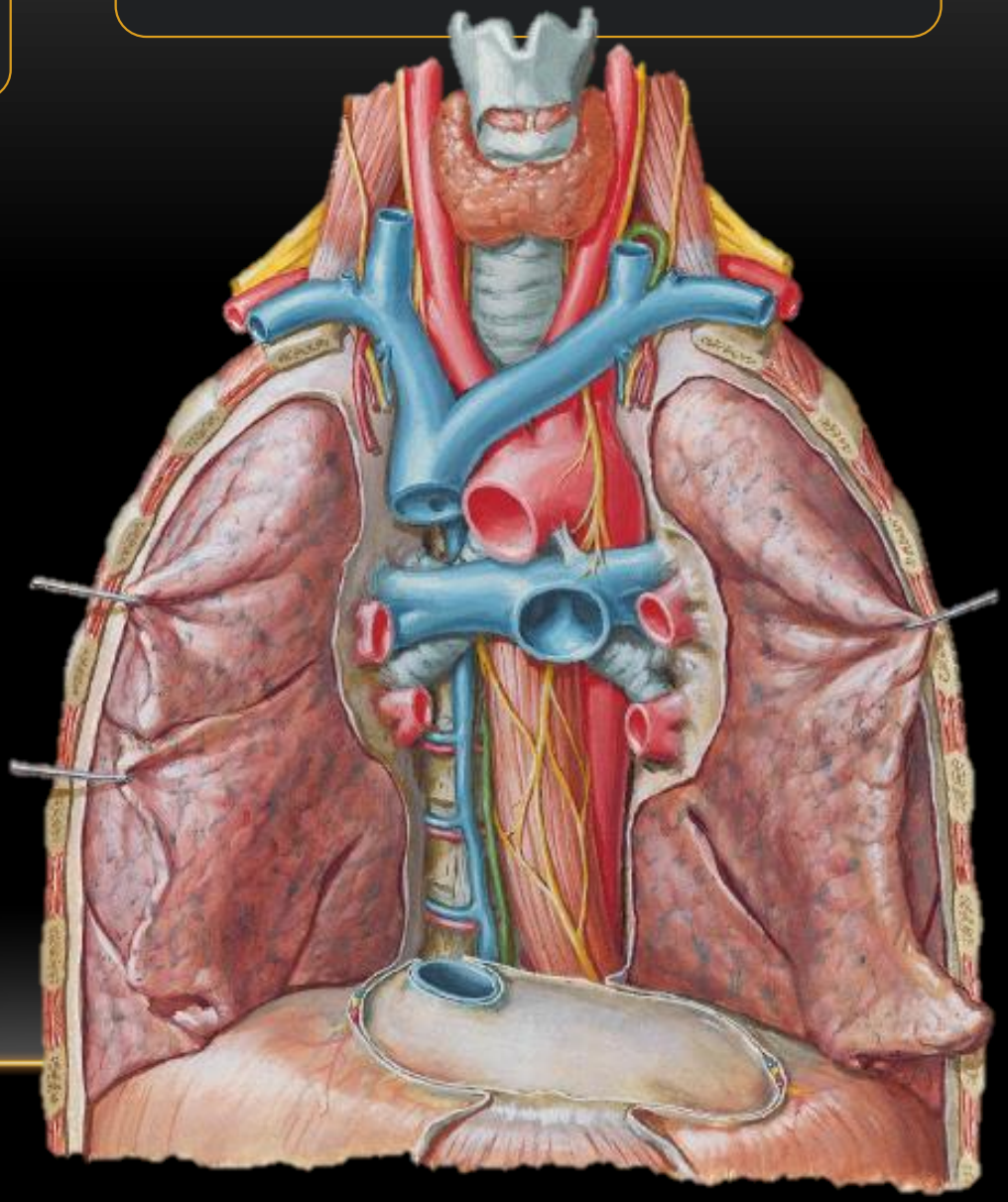
- it starts left of midline and somewhat anterior to the vertebrae, due mainly to the way the arch develops.
- After the bifurcation of the trachea, the aorta moves to the midline.
- It passes through the aortic hiatus at the level of T12, where it lies on the vertebrae.



Posterior Mediastinum ..3/6:

Branches of the Descending Thoracic Aorta:

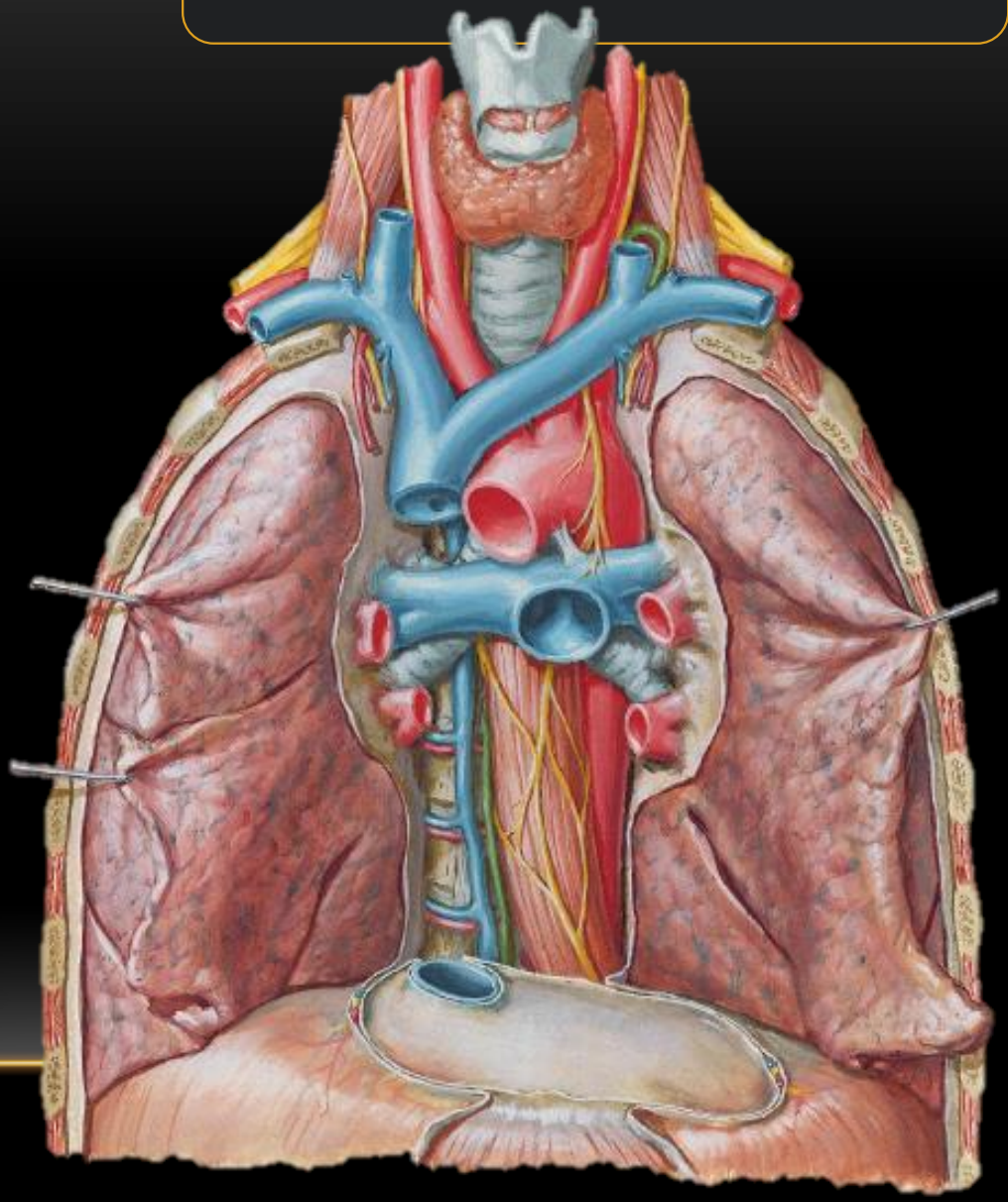
- **bronchial arteries** - supplying the lower trachea and bronchial tree
- **pericardial arteries** - supplying the pericardium
- **posterior intercostal arteries** - supplying the intercostal muscles, spinal cord and vertebral column, deep back muscles, and the skin and superficial fascia overlying the intercostal spaces
- superior phrenic arteries - supplying the diaphragm
- **esophageal arteries** - supplying the lower 2/3 of the esophagus
- **mediastinal arteries** - supplying the lymph nodes and tissues of the posterior mediastinum
- **subcostal arteries** - supplying the vertebrae, spinal cord and muscles, skin, and fascia of the upper abdominal wall. They are just like intercostal arteries, but occur below the 12th rib.



Posterior Mediastinum ..4/6:

Azygos vein:

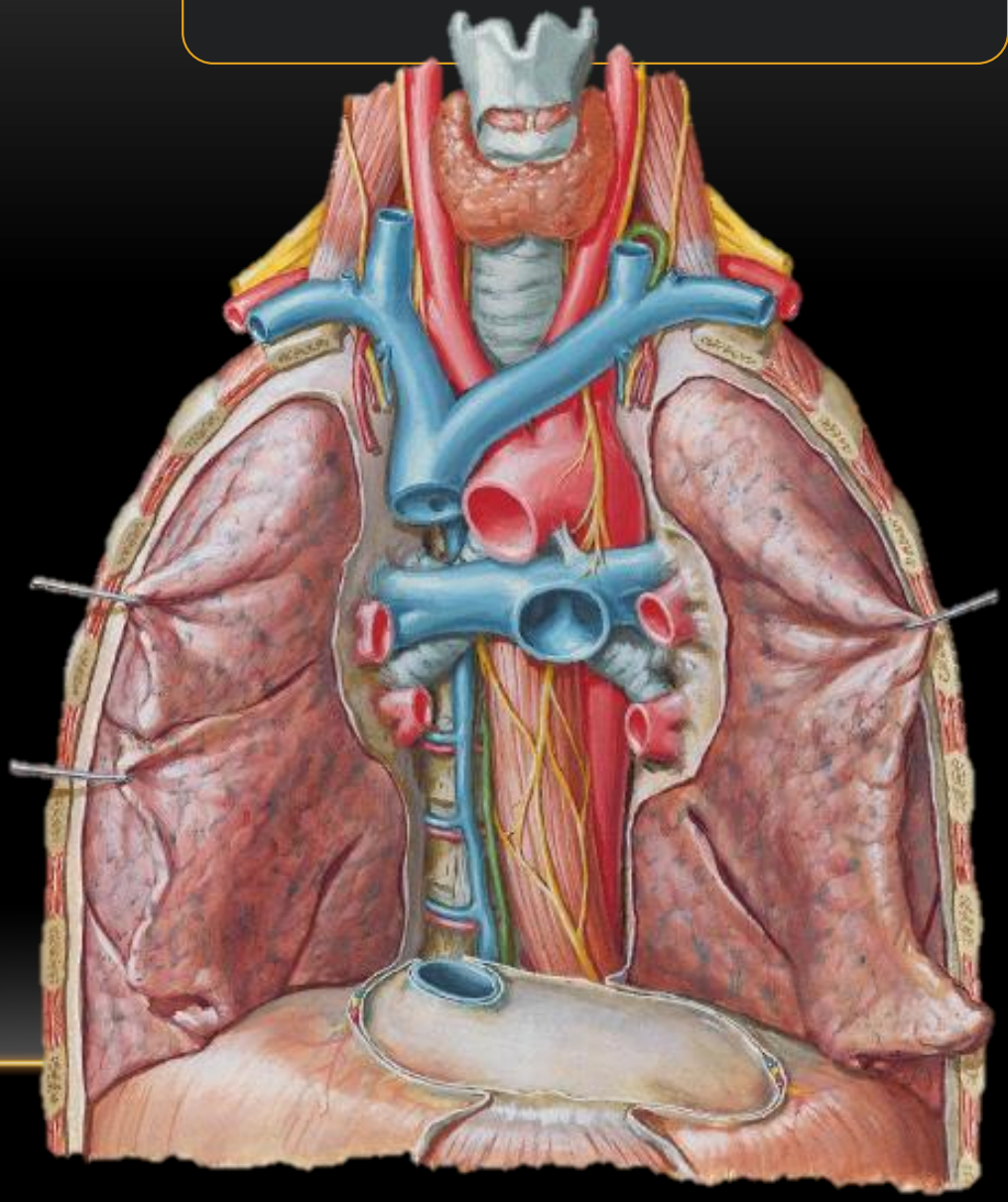
- runs up the right side of the vertebrae, arching over the root of the right lung to join the superior vena cava.
- It receives blood from the right posterior intercostal veins, as well as the hemiazygos and accessory hemiazygos veins.



Hemiazygos veins:

- **Superior hemiazygos vein**: ascends as far as T9 or so, receiving blood from the left posterior intercostal veins and many of the smaller veins draining the mediastinal viscera, before crossing the vertebral column to join the azygos vein.
- **Accessory hemiazygos vein**: the azygos vein's "superior" partner, running along the left side of the vertebral column between T5 and T8. It receives the posterior intercostal veins and others, before crossing the vertebral column to join the azygos vein.

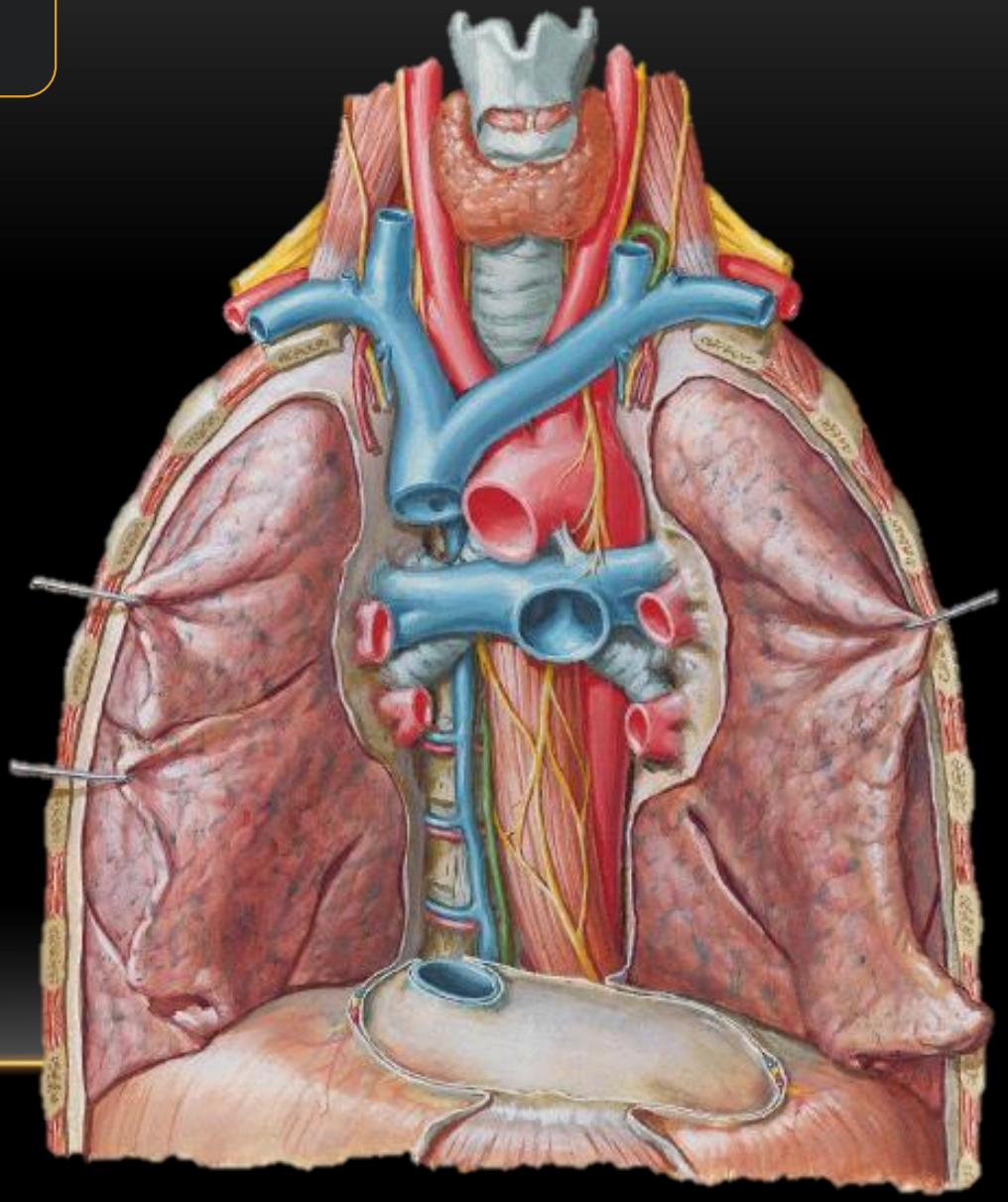
Posterior Mediastinum ..5/6:



Posterior Mediastinum ..6/6:

Thoracic duct:

- Drains lymph from all of the lymph from all of the body below the diaphragm and the left half of the body above the diaphragm.
- In the superior mediastinum it can be found behind the **aortic arch**, on the left side of the **esophagus**.
- It terminates I the junction between the left internal jugular and left subclavian veins.

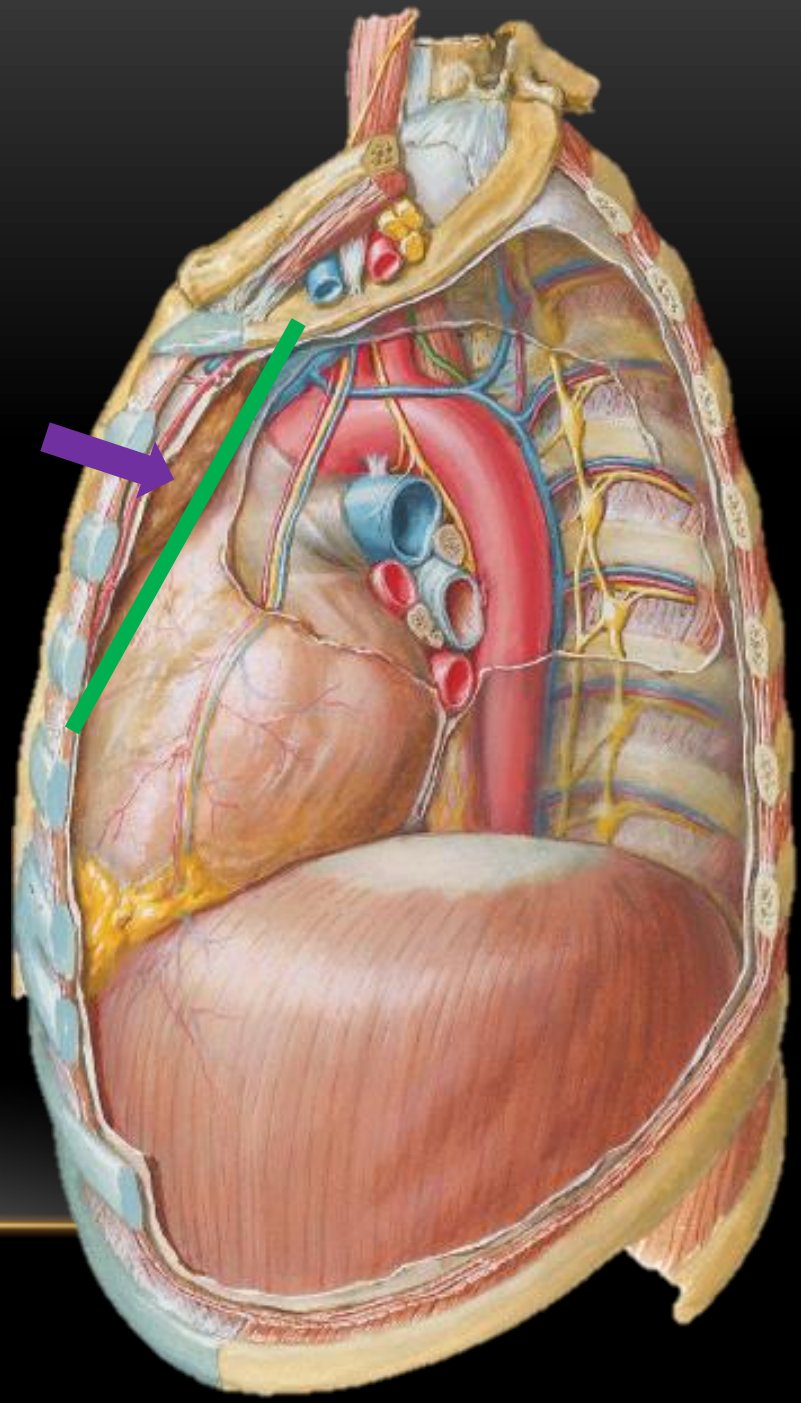


Anterior Mediastinum

It is the narrow space in front of the heart and pericardium.

Contents:

- Remains of the thymus gland (in adults)
- Loose areolar connective tissue
- Sterno-pericardial ligaments
- Lymph nodes



Middle Mediastinum

Middle Mediastinum:

- Pericardium
- Heart
- Pulmonary trunk (1)
- Ascending Aorta (2)
- Lower part of SVC (3)
- Upper part of IVC (4)
- Bifurcation of trachea (5)