

Descending thoracic aorta :

Beginning → T₄

Course → esophagus descends on the right side of aorta, cross in front of it at level T₇

Termination → T₁₂

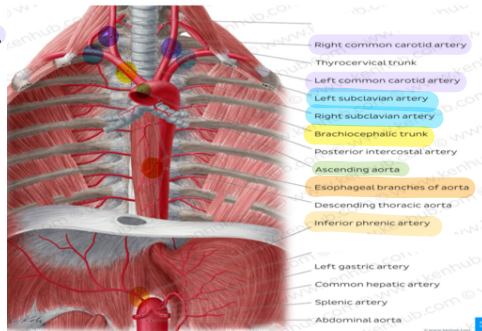
Branches:

Parietal branches:

1. Posterior intercostal arteries from 3-11.
2. Subcostal artery.
3. Superior phrenic artery.

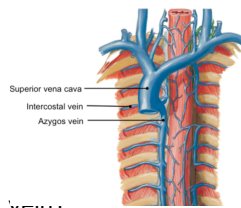
Visceral branches:

1. Bronchial arteries.
2. Esophageal branches.
3. Pericardial branches.
4. Mediastinal branches.



ANATOMY 3

Azygos vein



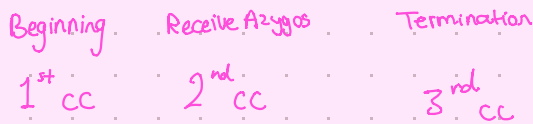
Beginning :

- From the back of IVC opposite L₂ (level of renal vein),
- Or by union of right subcostal and right ascending lumbar veins.

Course:

- It ascends through aortic opening of diaphragm.
- Then it ascends in posterior mediastinum till T₄ where it arches forwards above right bronchus

Termination: the back of SVC opposite right 2nd costal cartilage:

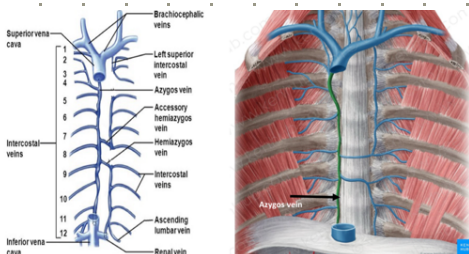


Tributaries:

1. Right subcostal vein.
2. Right ascending lumbar vein.
3. Right posterior intercostal veins from 4-11 (2nd and 3rd posterior intercostal veins drained into right superior intercostal vein which drained into arch of azygos).
4. Right subcostal vein
5. Superior and inferior hemiazygos veins.
6. Right bronchial veins.
7. Esophageal veins.
8. Pericardial veins.
9. Mediastinal veins.

Branches of descending aorta:

- Posterior intercostal arteries from 3-11.
- Subcostal artery.
- Superior phrenic artery.
- Bronchial arteries.
- Esophageal branches.
- Pericardial branches.
- Mediastinal branches.



CLINICAL NOTE

Azygos vein is a direct link between SVC and IVC .

So, it can help in cases of thrombosis of SVC or IVC

The azygos vein communicates with the vertebral venous plexuses that drain the back, vertebrae, and structures in the vertebral canal.

hemiazygos vein

Superior

It is a longitudinal venous channel that descends on the left side of vertebral body

Termination:

At the level of T₇, it curves to right to end in azygos vein.

Tributaries:

1. Left posterior intercostal veins from 4-8
2. Left bronchial veins.

Inferior

Beginning : From the back of the left renal vein opposite L₂.

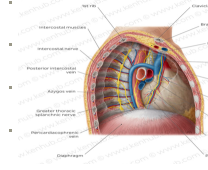
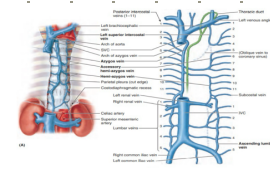
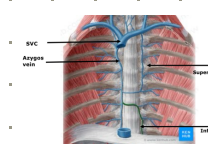
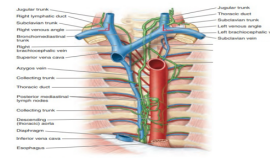
Or by union of left subcostal and left ascending lumbar veins.

Termination :

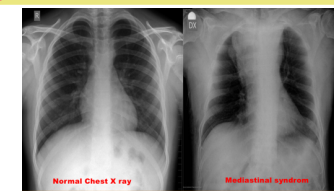
At the level of T₈, it curves to the right to end into azygos vein.

Tributaries:

1. Left posterior intercostal veins from 9-11.
2. Left subcostal and left ascending lumbar veins.



MEDIASTINAL SYNDROME



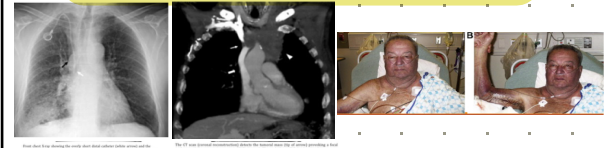
Definition :

group of symptoms due to compression of the mediastinal contents by a space-occupying lesion: e.g. malignant tumour as lung cancer or non-Hodgkin's lymphoma

Symptoms:

- **Dyspnea:** due to compression of trachea.
- **Dysphagia:** due to compression of esophagus.
- **Congestion of veins:** due to compression of SVC.
- **Ischemia:** due to compression of branches of arch of aorta.
- **Hoarseness of voice:** due to compression on left recurrent laryngeal nerve.
- **Paralysis of hemi-diaphragm:** due to compression on phrenic nerve.

SUPERIOR VENA CAVA SYNDROME



Due to obstruction of Superior vena cava

Manifestation

Dyspnea and edema in the face and arms

Pemberton sign:

Ask the patient to raise both arms above head, facial edema or cyanosis indicates SVCS.