

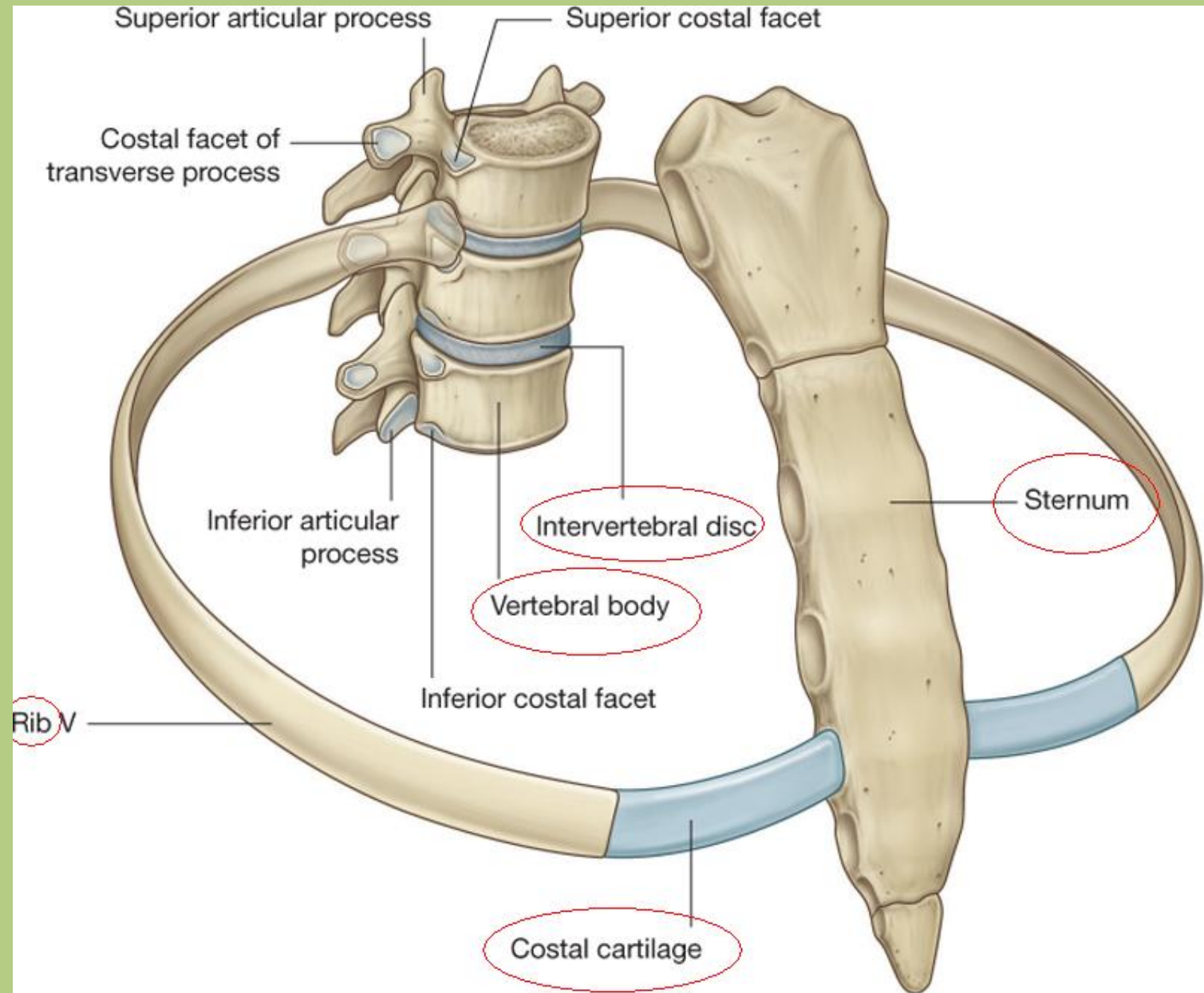


# CHEST CAVITY, MEDIASTINUM

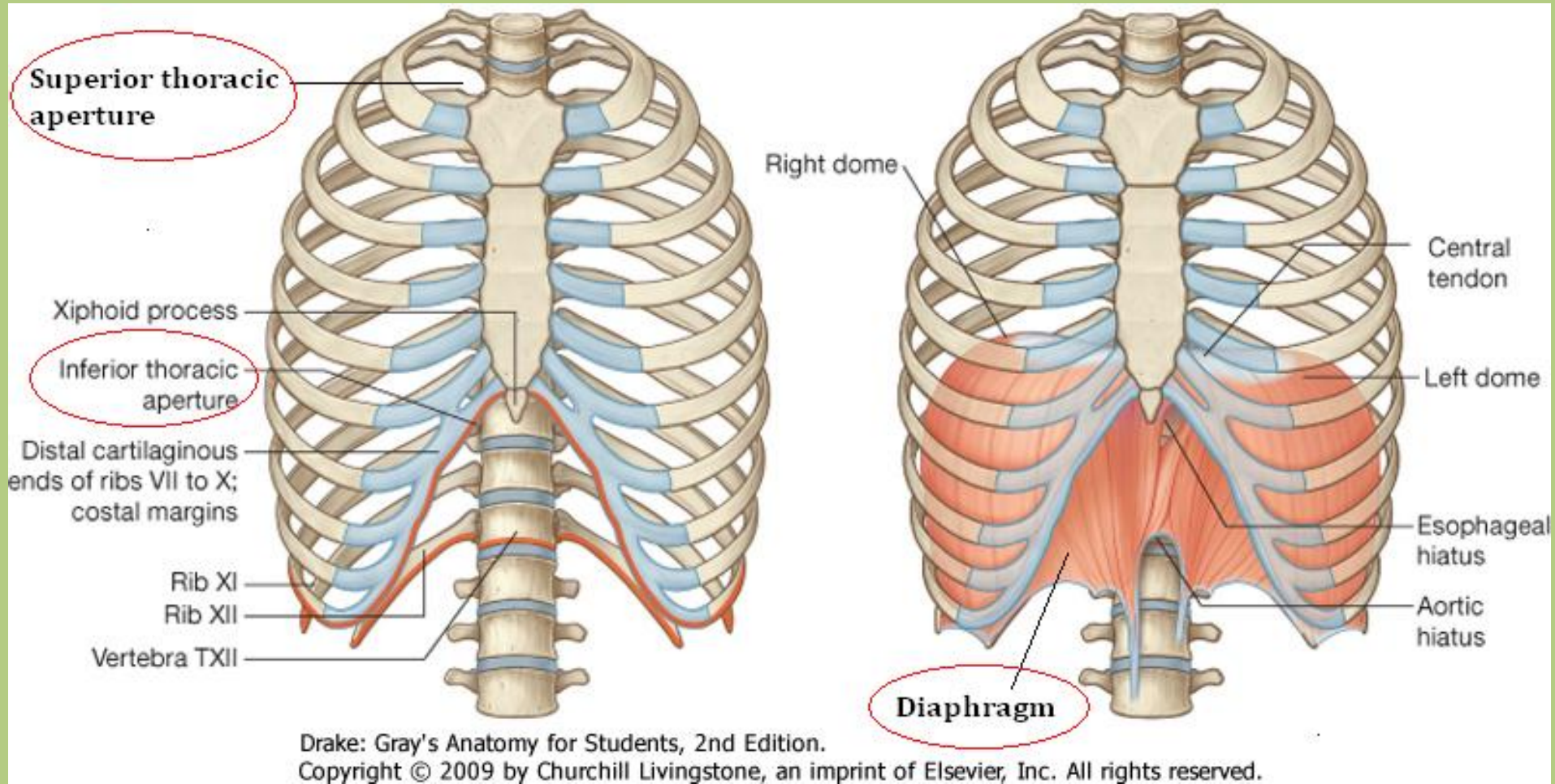
Sándor Katz M.D.,Ph.D.

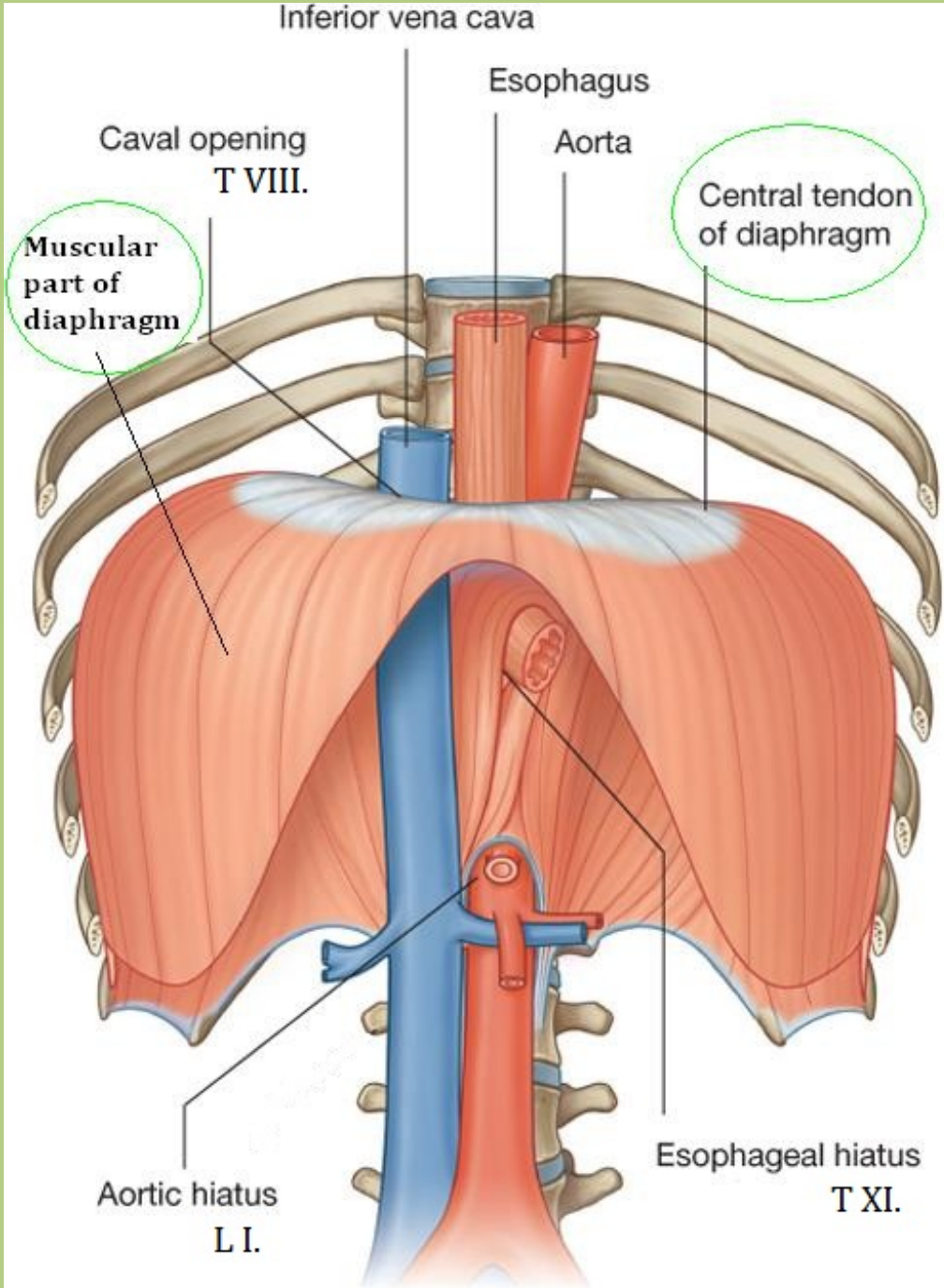


# Chest cavity - bony structures



# Chest cavity - bony structures

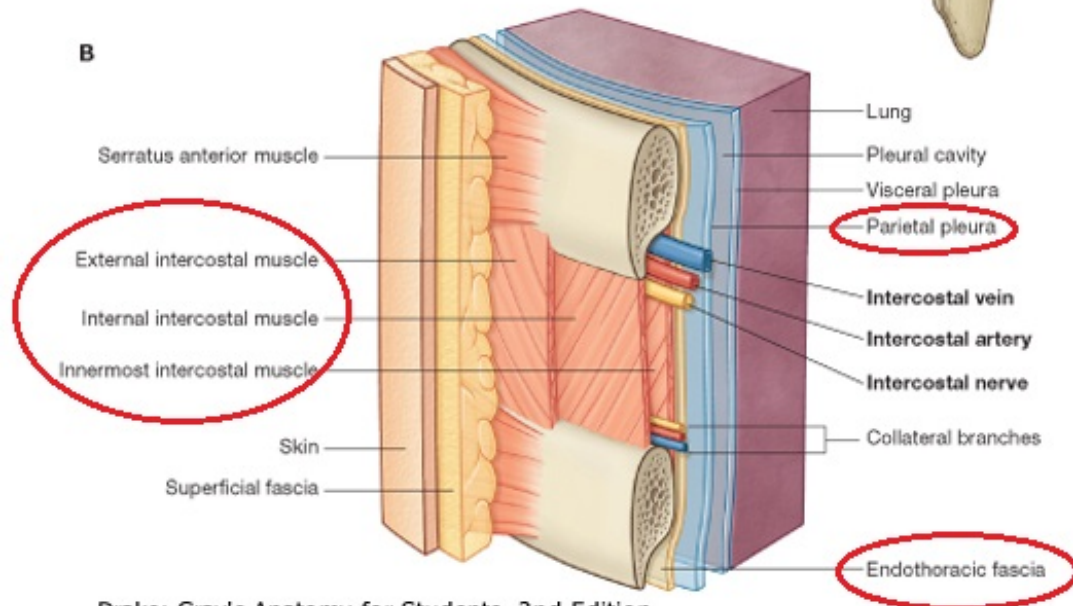
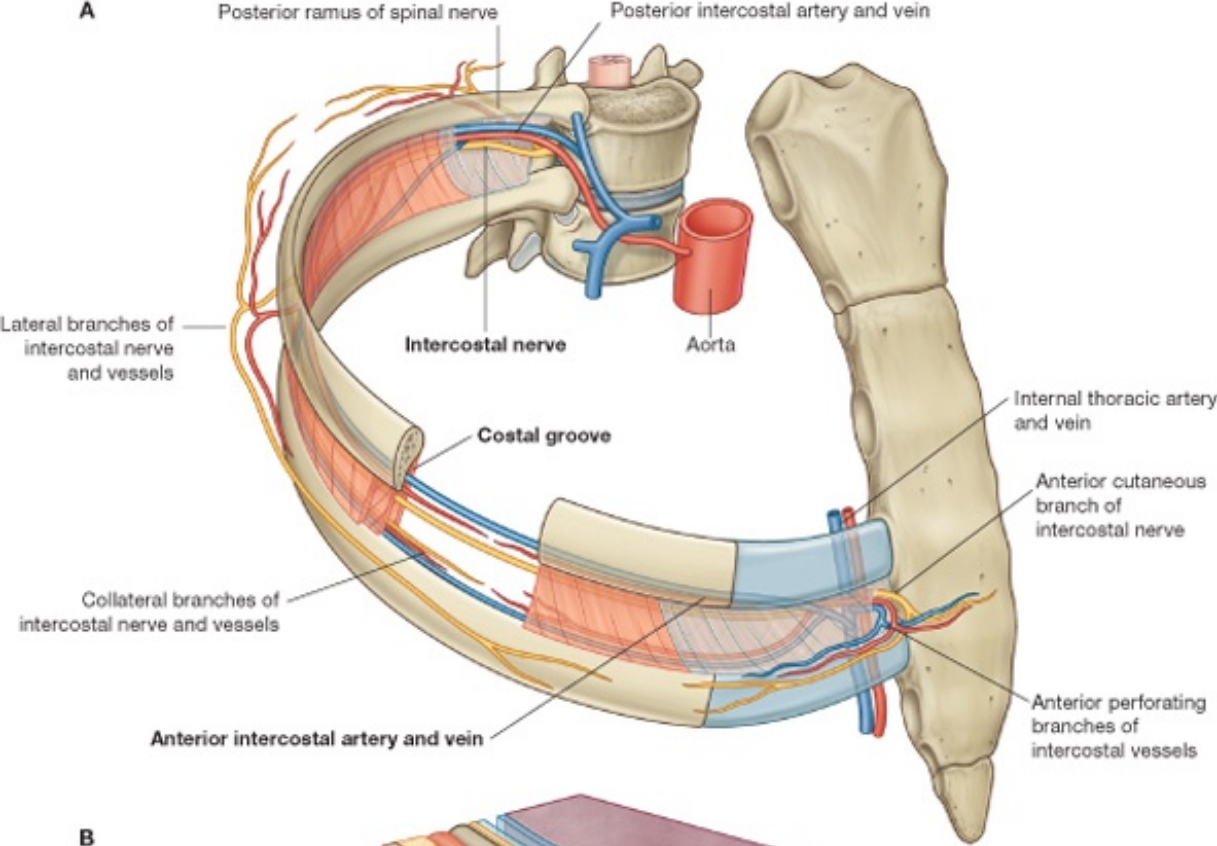




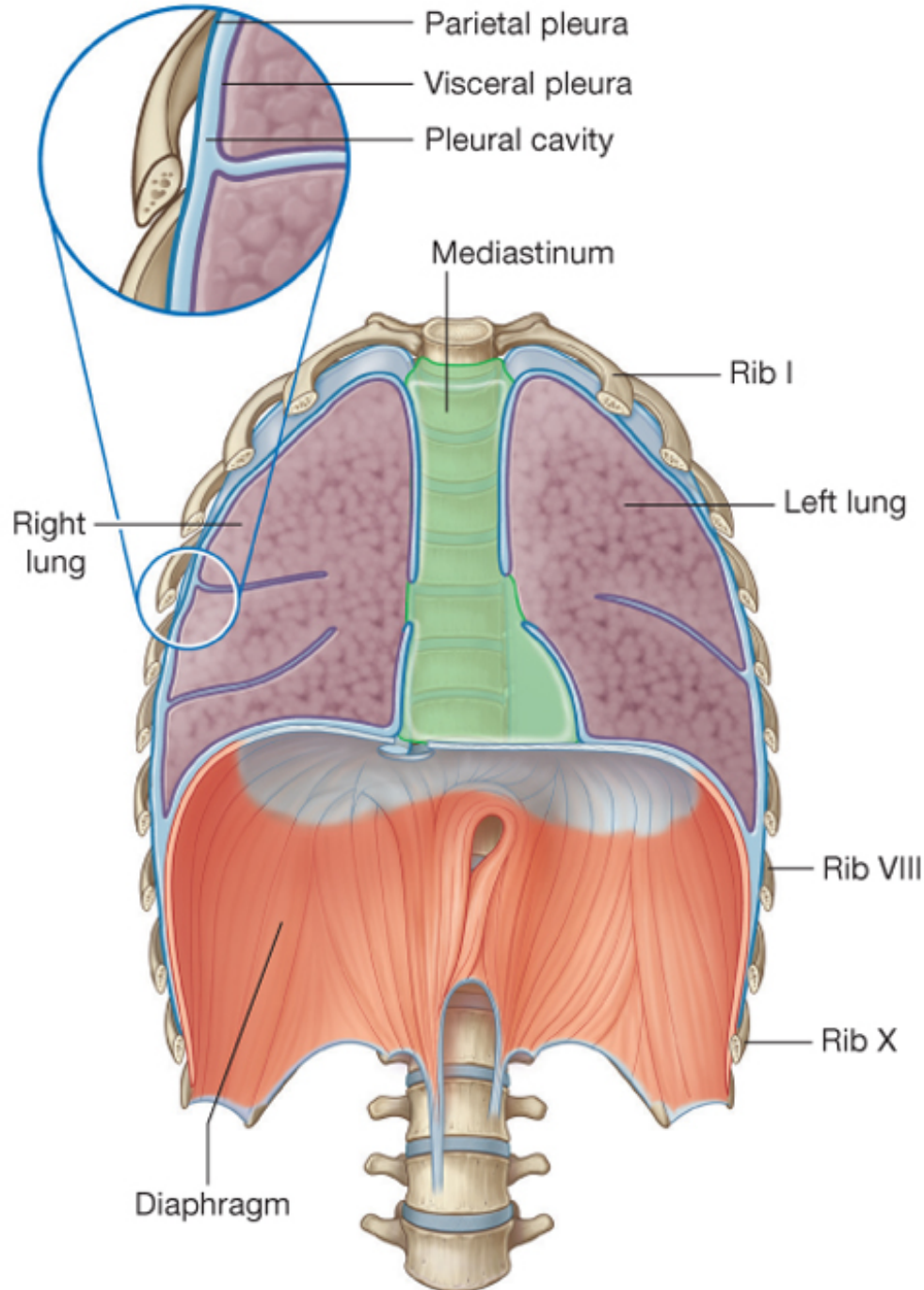
# Diaphragm



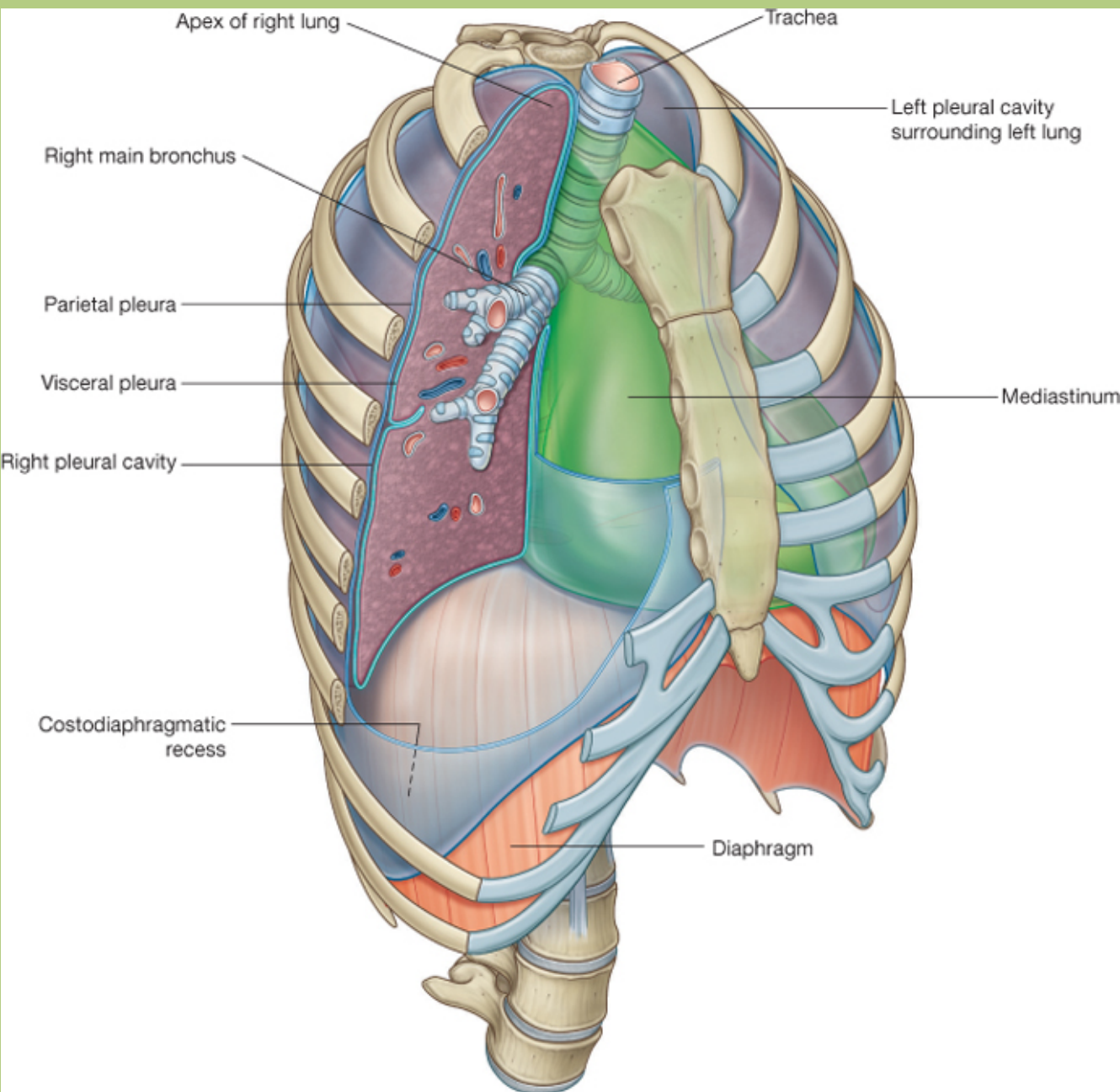
# Thoracic wall – soft structures



# Mediastinum



*Space between two mediastinal pleura.*



# Mediastinum - boundaries

**Anterior:**  
sternum, costal cartilages

**Posterior:**  
vertebral column

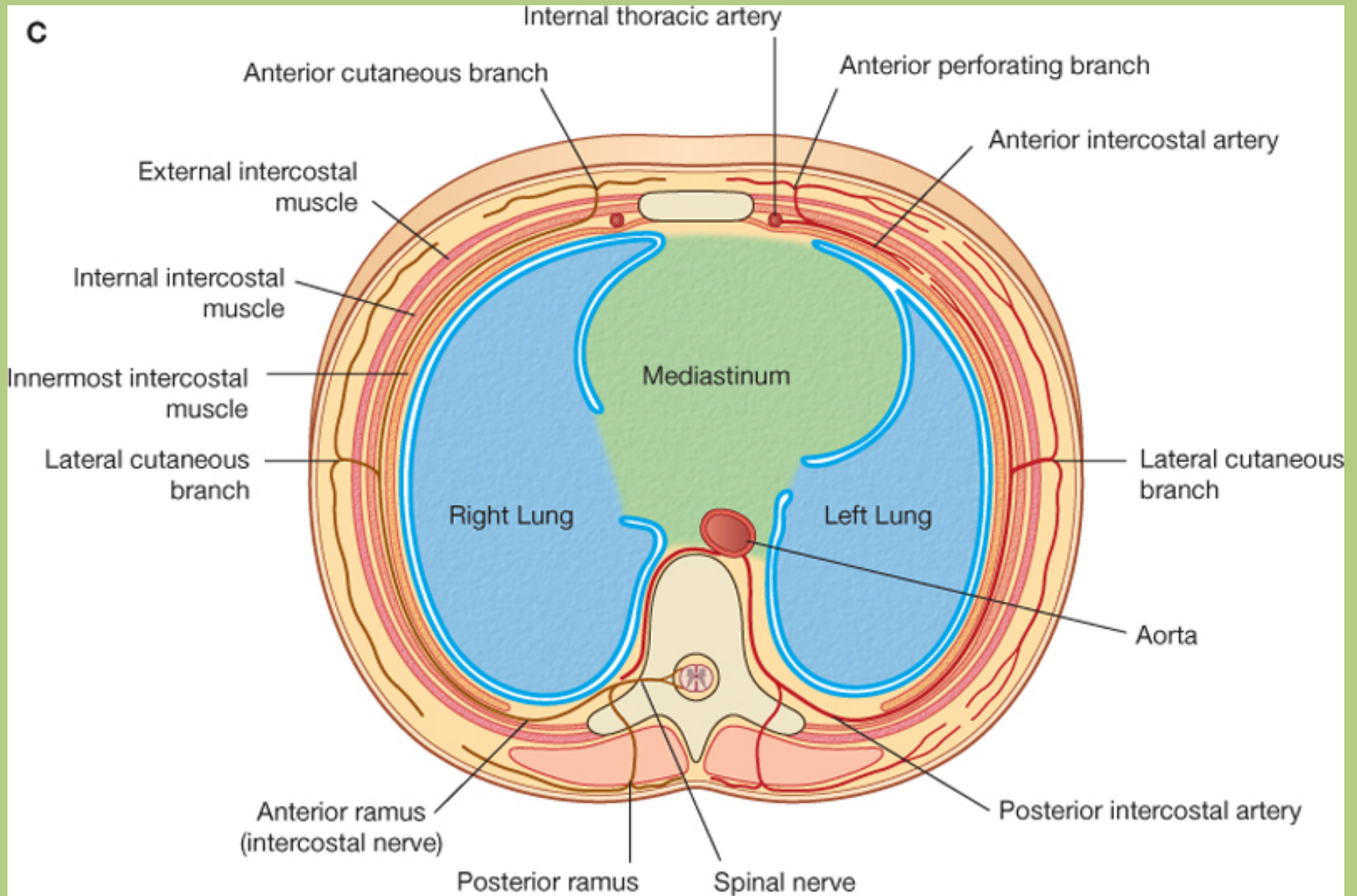
**Superior:**  
manubrium of sternum, I. rib, T1 vertebra

**Inferior:**  
diaphragm

**Lateral:**  
mediastinal pleural



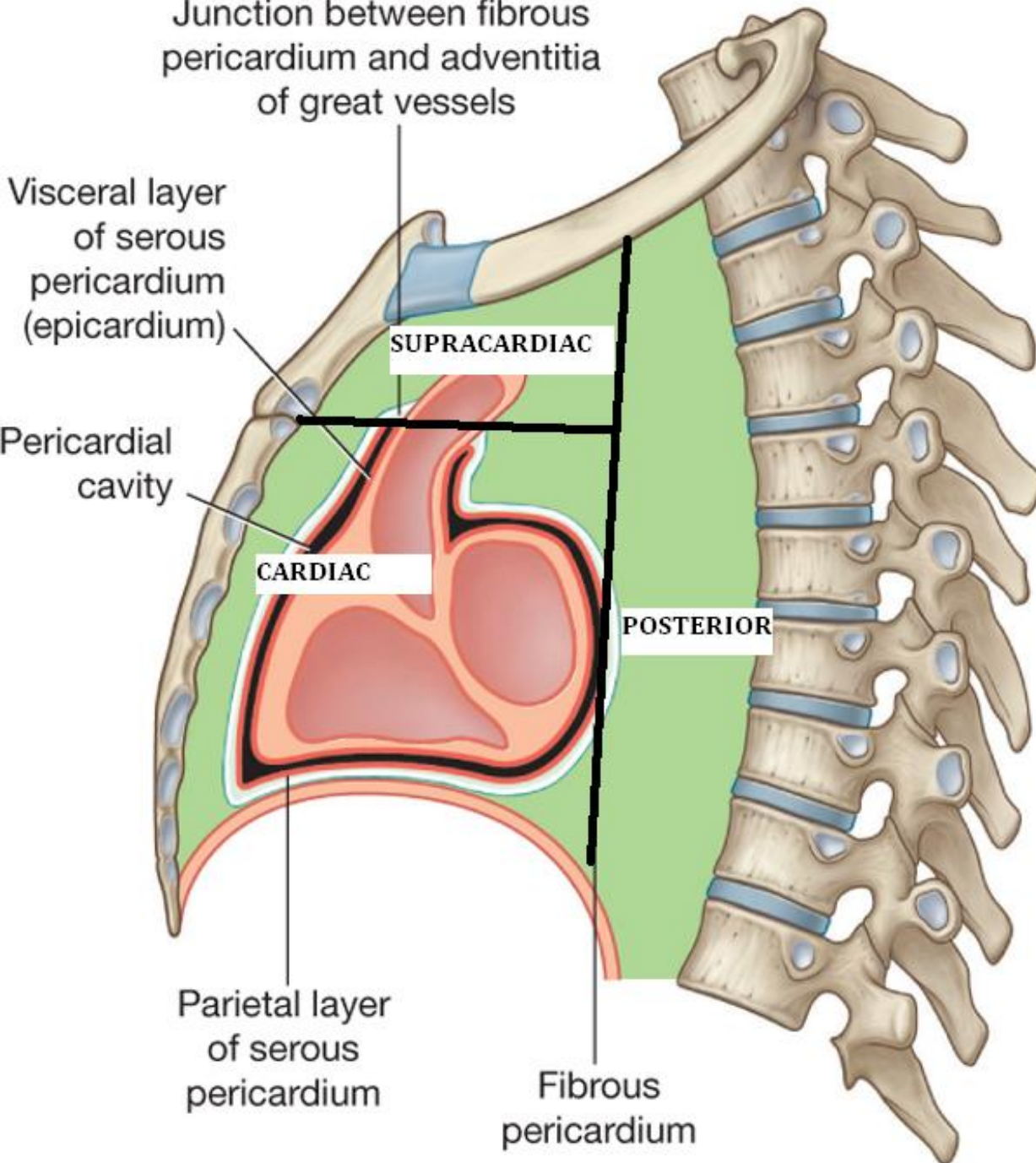
# Mediastinum - boundaries



Drake: Gray's Anatomy for Students, 2nd Edition.

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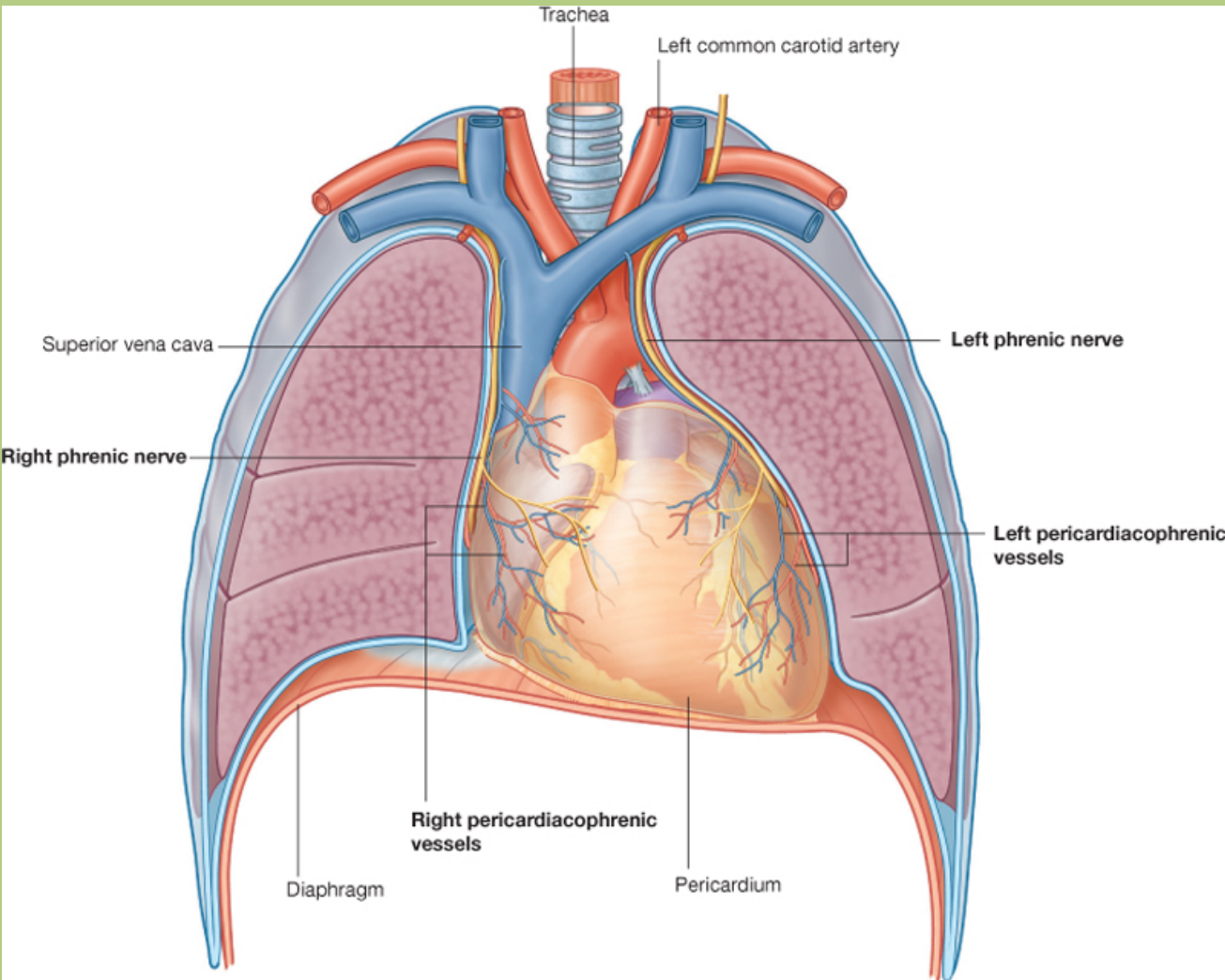


# Mediastinum - divisions

- **Anterior mediastinum:**
  - cardiac
  - supracardiac
- **Posterior mediastinum**

# Cardiac mediastinum

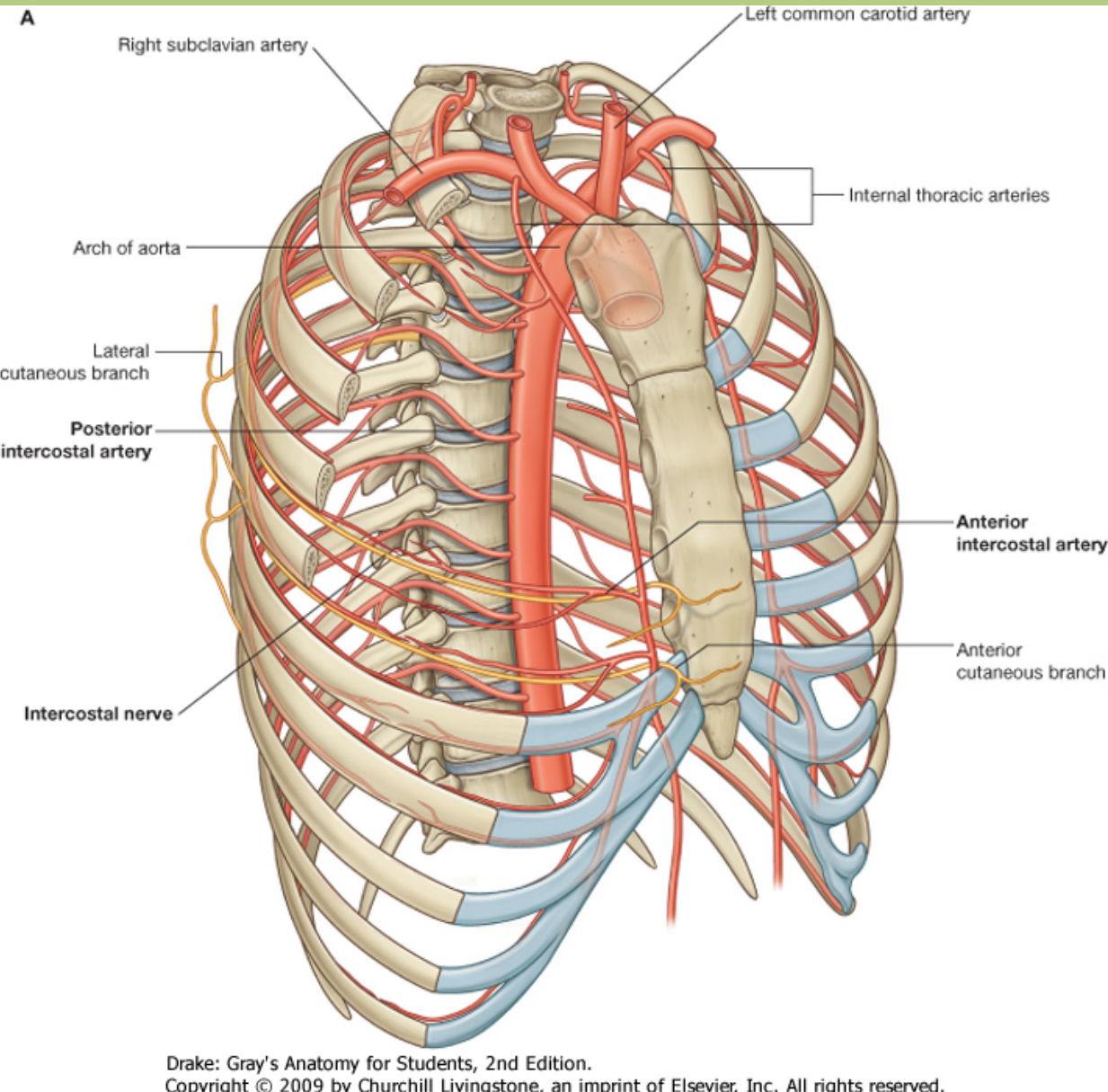
*Pericardium and its  
content.*



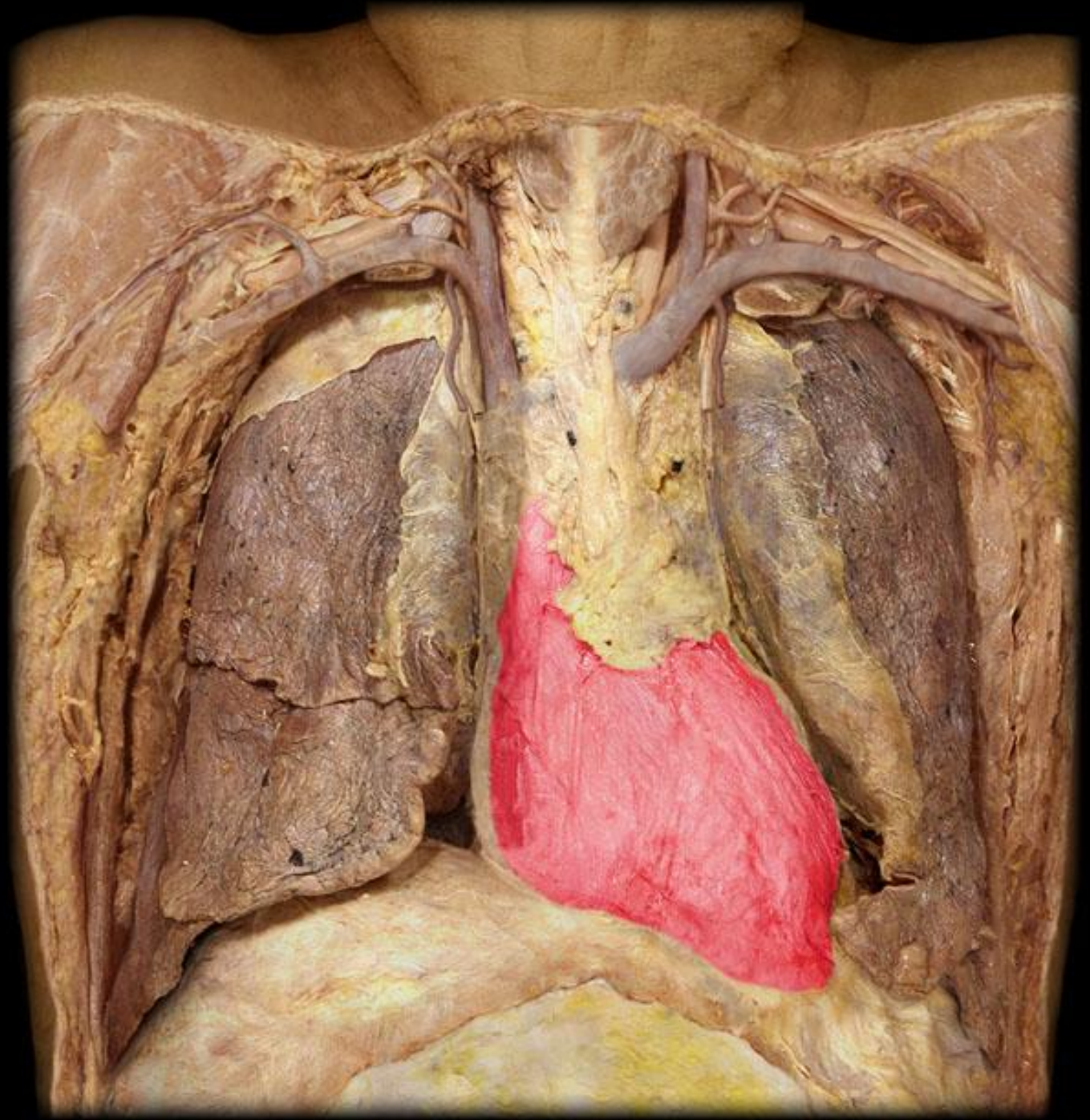
1. Visceral pericardium
2. Parietal pericardium (fibrous and serous laminae)
3. Phrenic nerves
4. Ascending aorta
5. Pulmonary trunk
6. Superior vena cava
7. (Inferior vena cava)



# Cardiac mediastinum

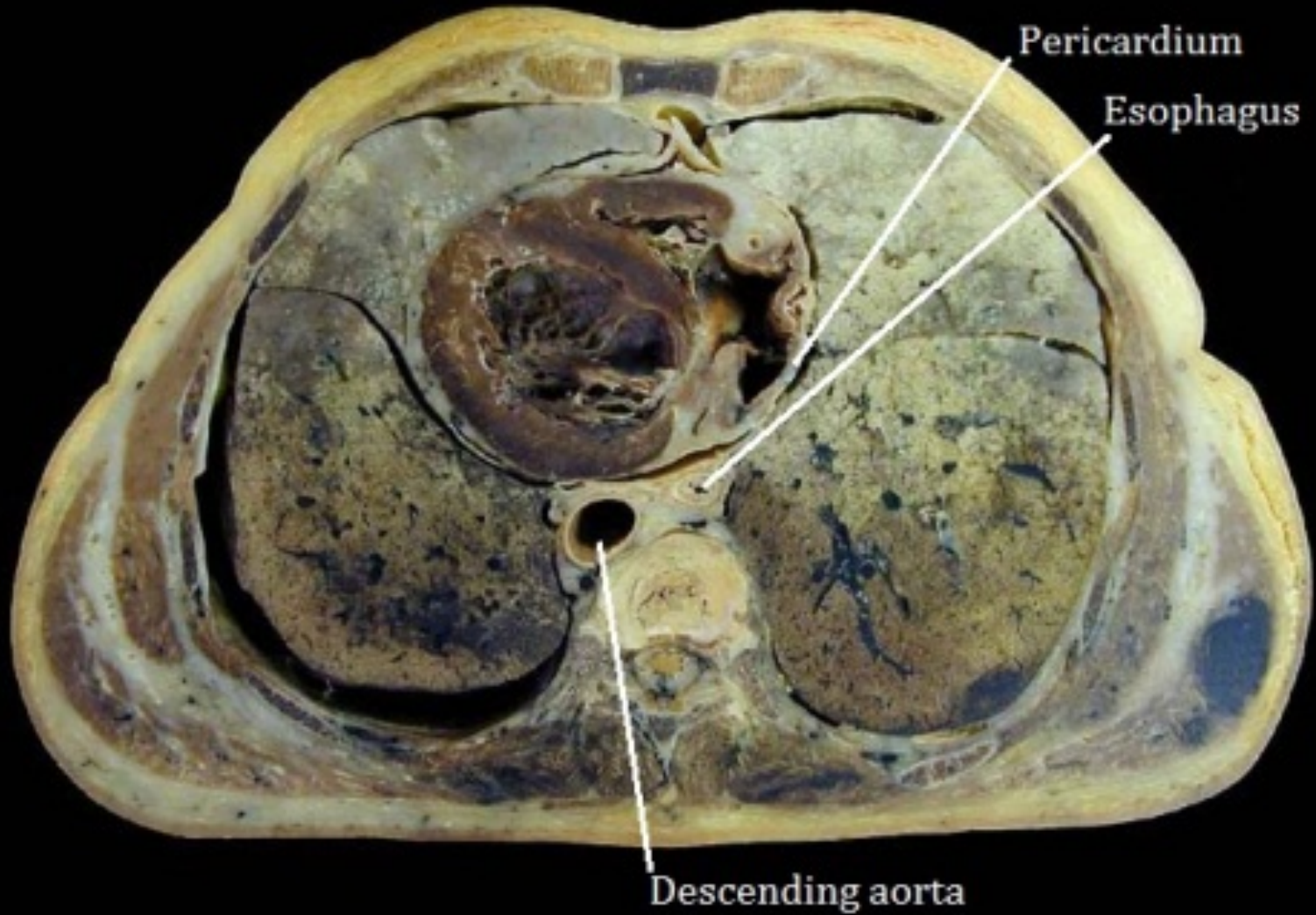


## 7. Pericardiophrenic vessels





# Cardiac mediastinum



# Supracardiac mediastinum

## Layers:

Thymus

Veins:

Superior vena cava,  
Brachiocephalic veins,  
Azygos vein

Aortic arch and its  
branches

Recurrent laryngeal  
nerves (thoracic branch  
of the vagus nerve) and

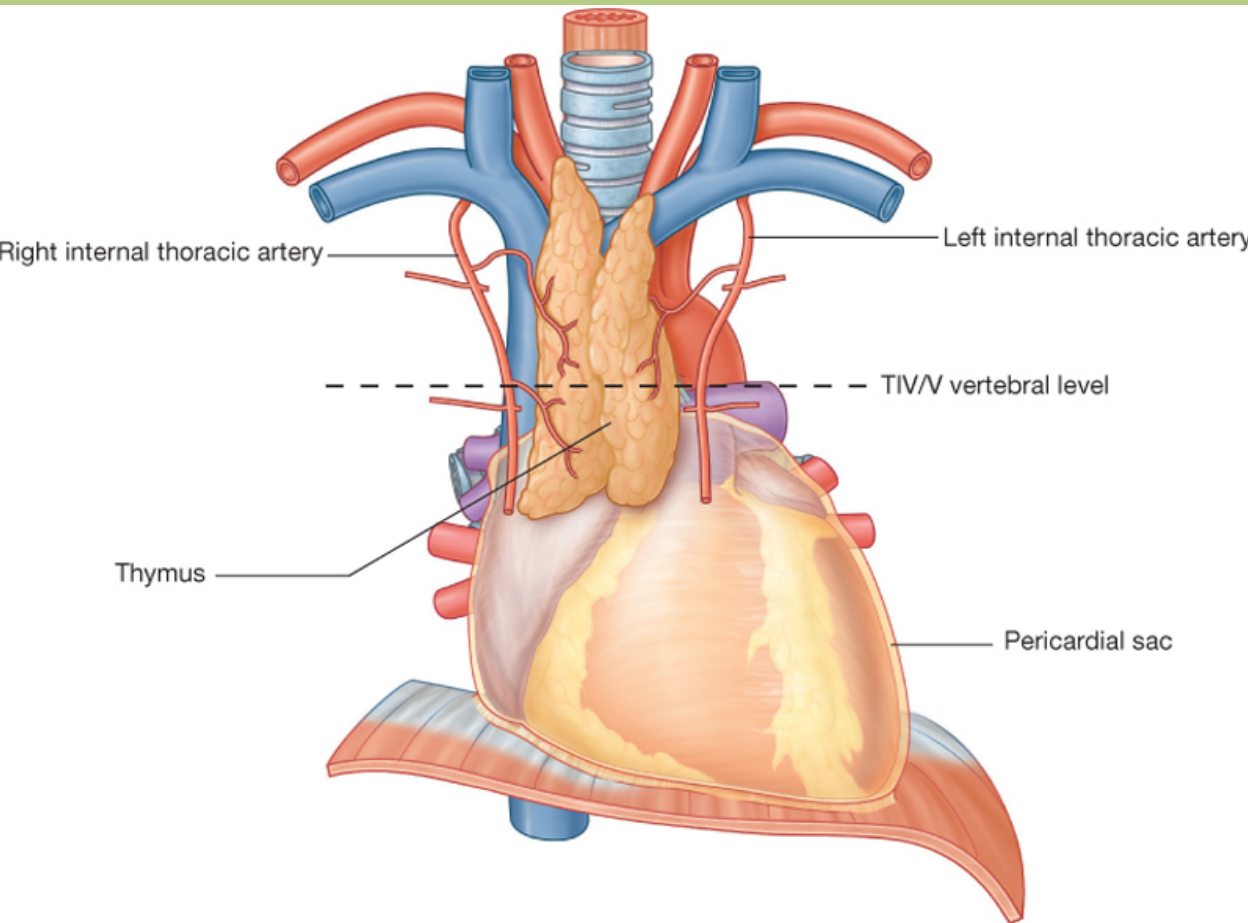
phrenic nerves,

Pericardiophrenic  
vessels

Pulmonary trunk and its

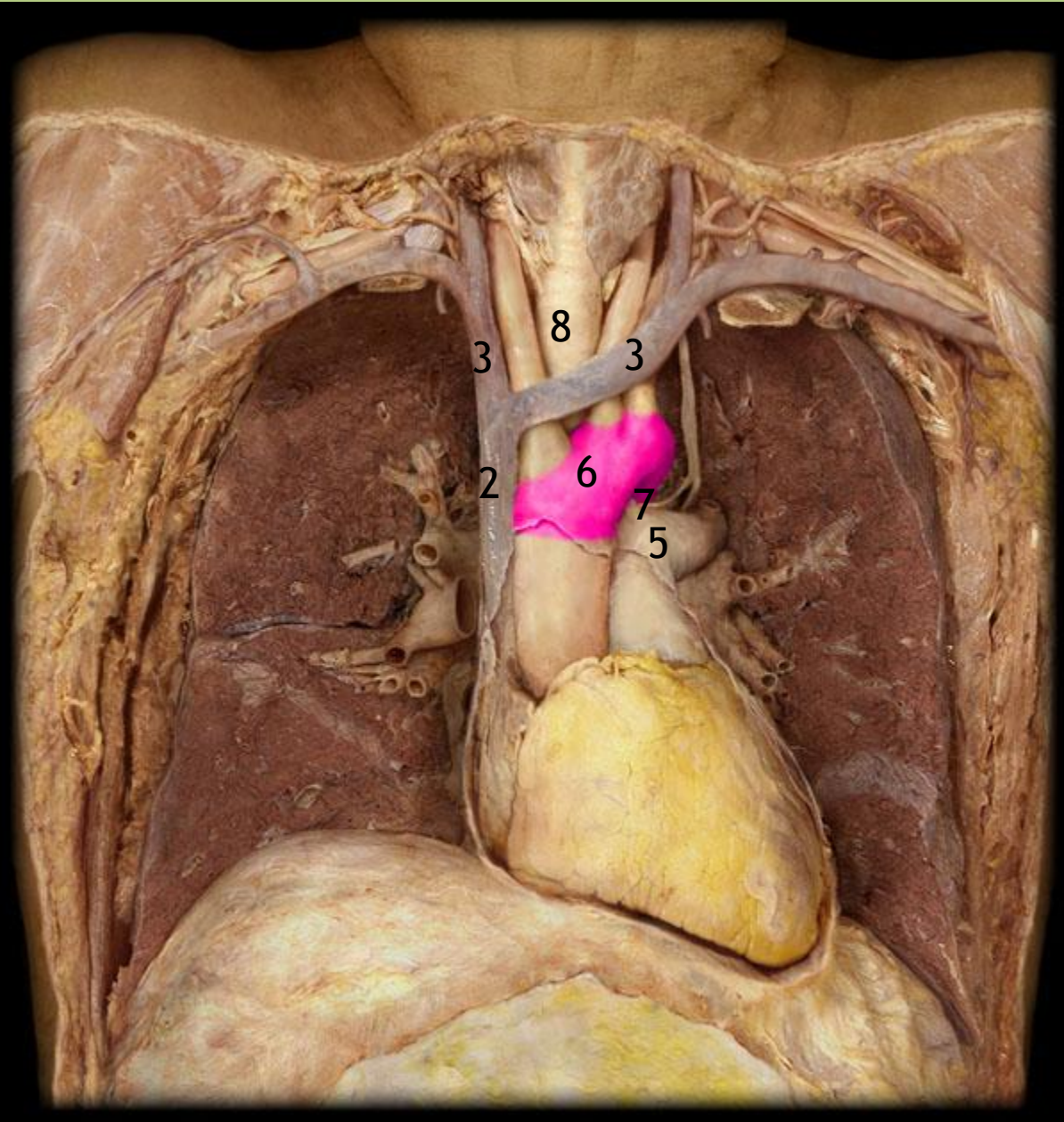
branches, pulmonary veins

Trachea and main bronchi





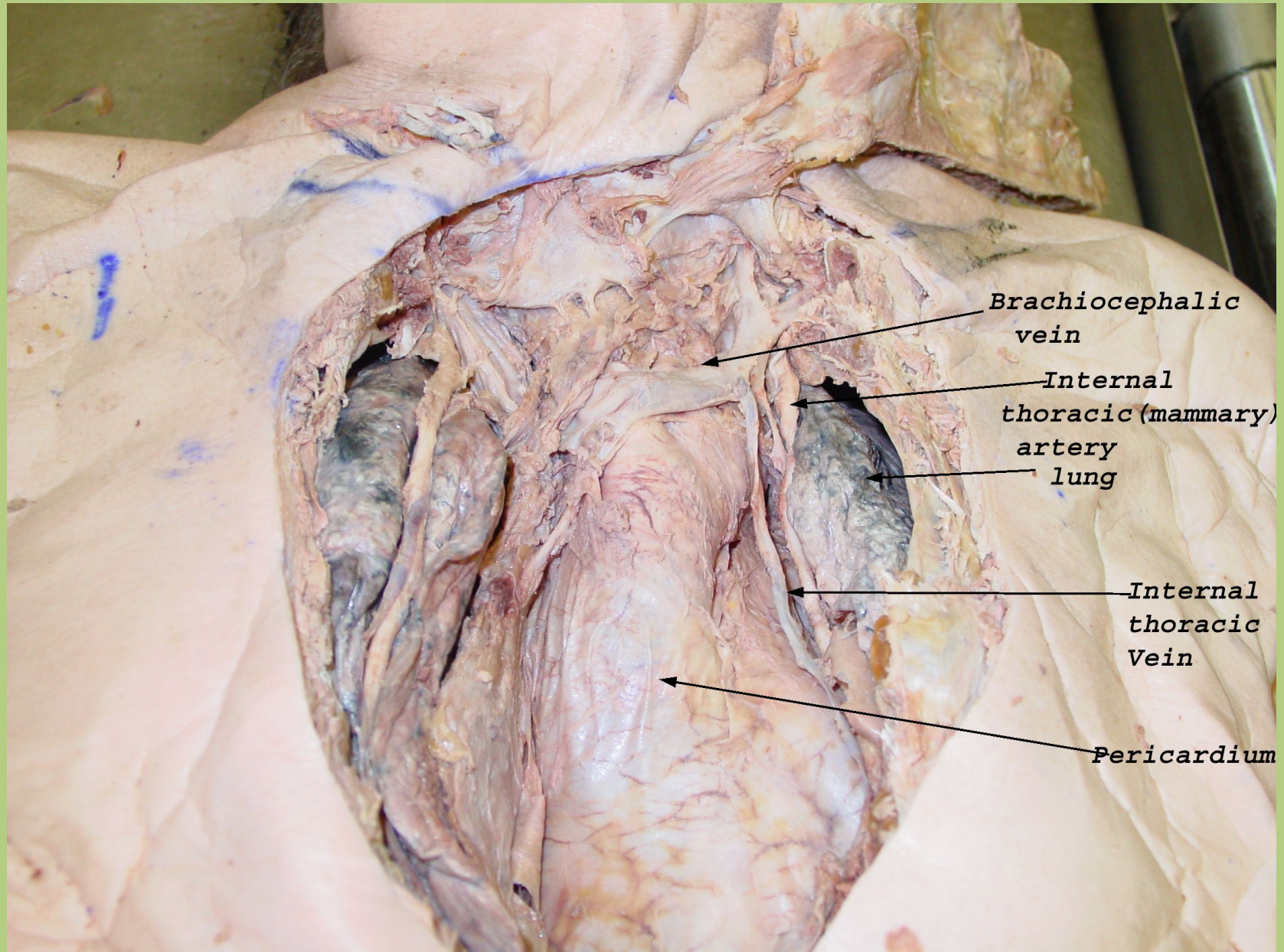
# Supracardiac mediastinum



- superior vena cava - 2
- brachiocephalic veins - 3
- pulmonary trunk - 5
- aortic arch - 6
- recurrent laryngeal nerve - 7
- trachea - 8

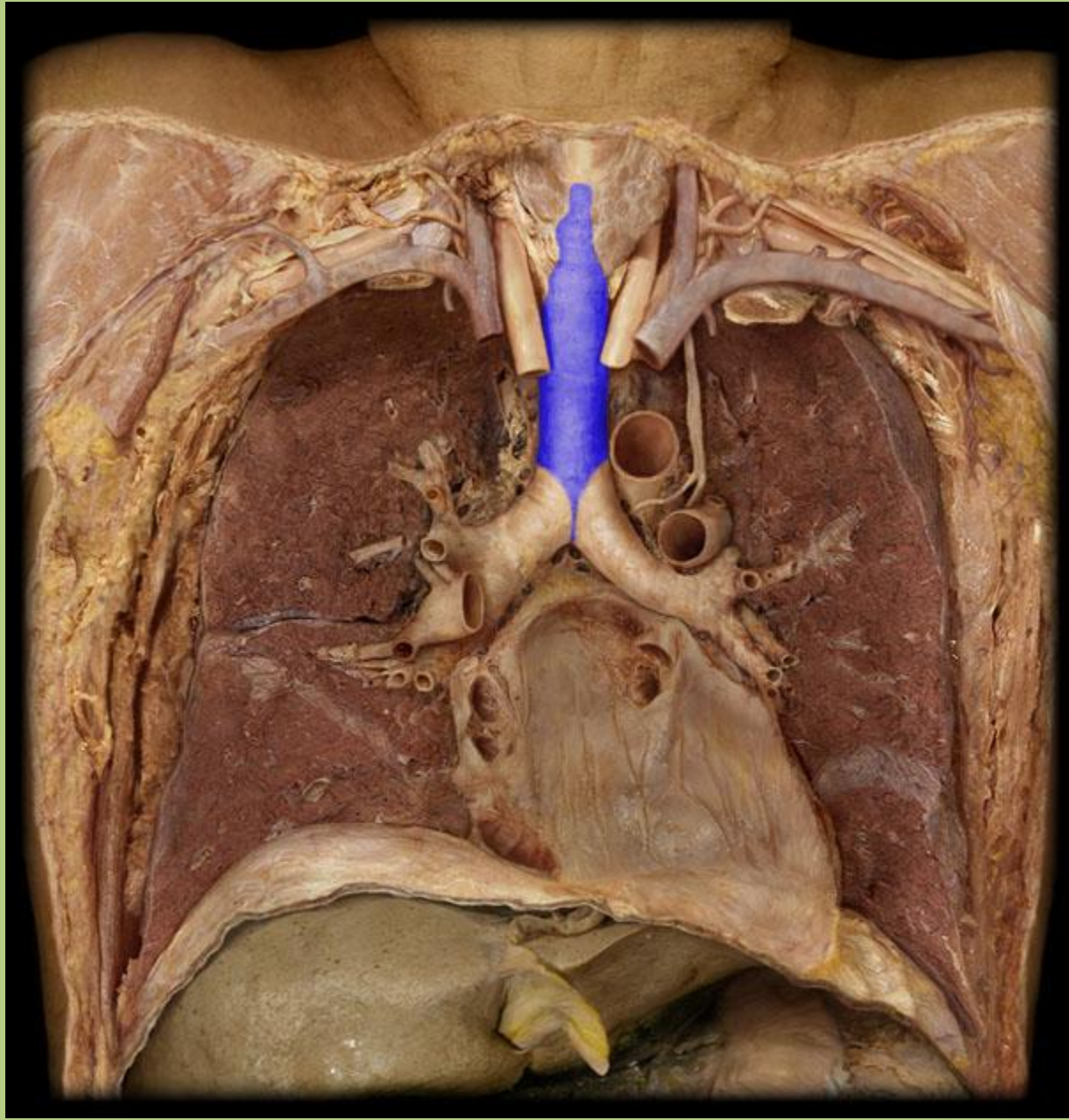


# Supracardiac mediastinum

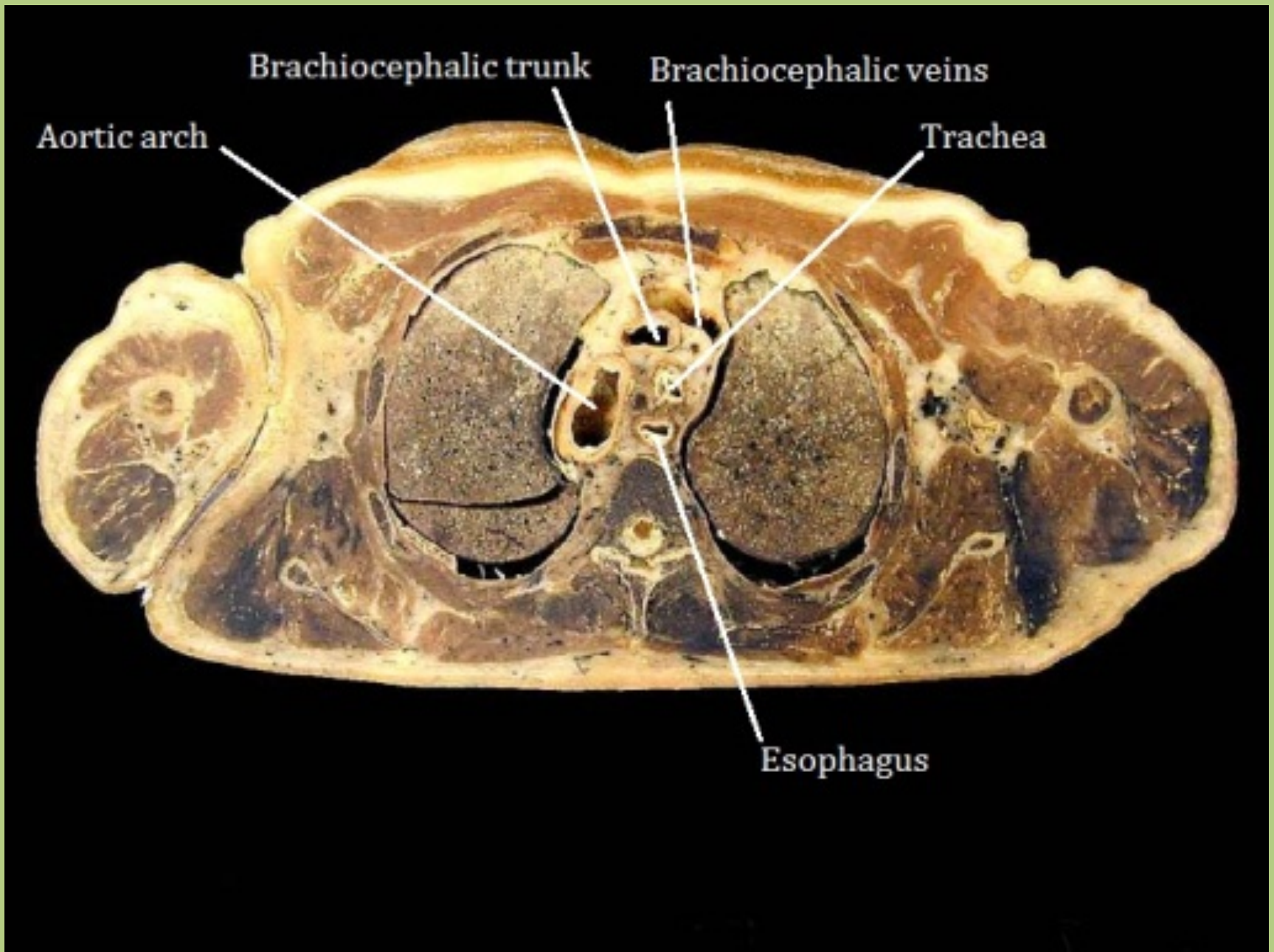




# Supracardiac mediastinum



# Supracardiac mediastinum

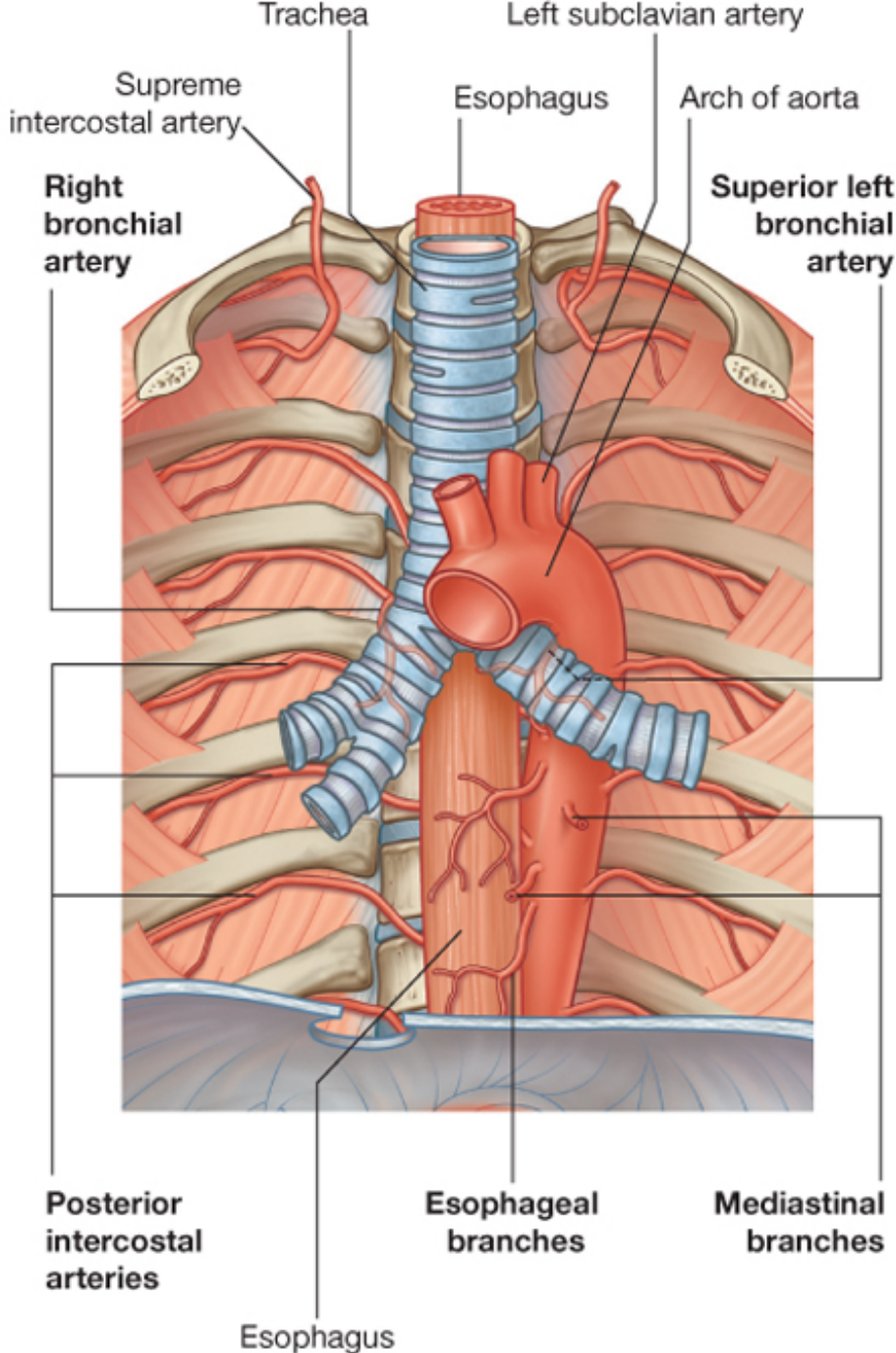




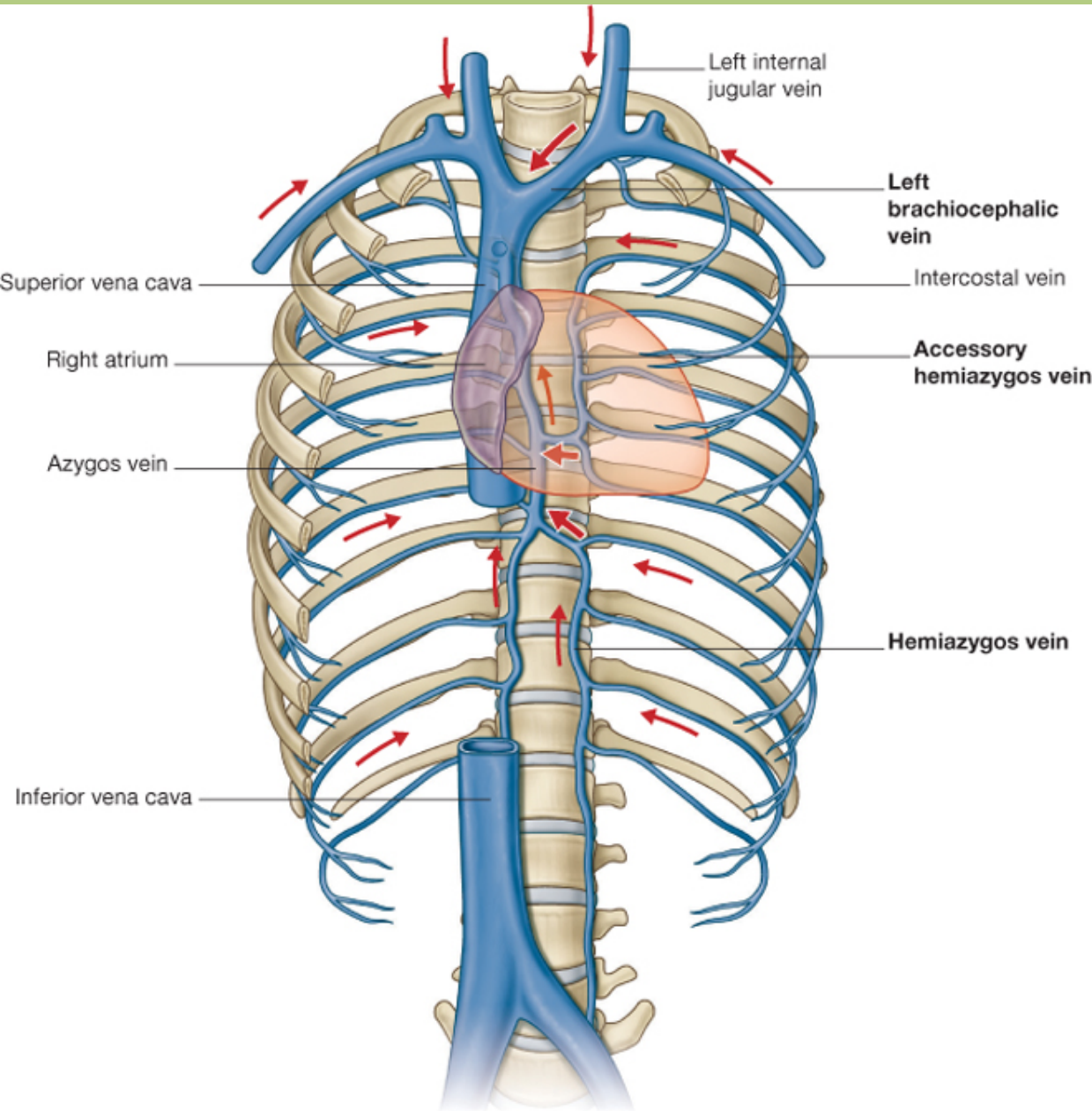
# Posterior mediastinum

*Behind the esophagus.*  
No layers.

1. Esophagus
2. Vagi nerves
3. Thoracic aorta and its branches:
  - esophageal branches
  - tracheal branch
  - bronchial branches
  - pericardial branches
  - superior phrenic arteries
  - posterior intercostal arteries



# Posterior mediastinum

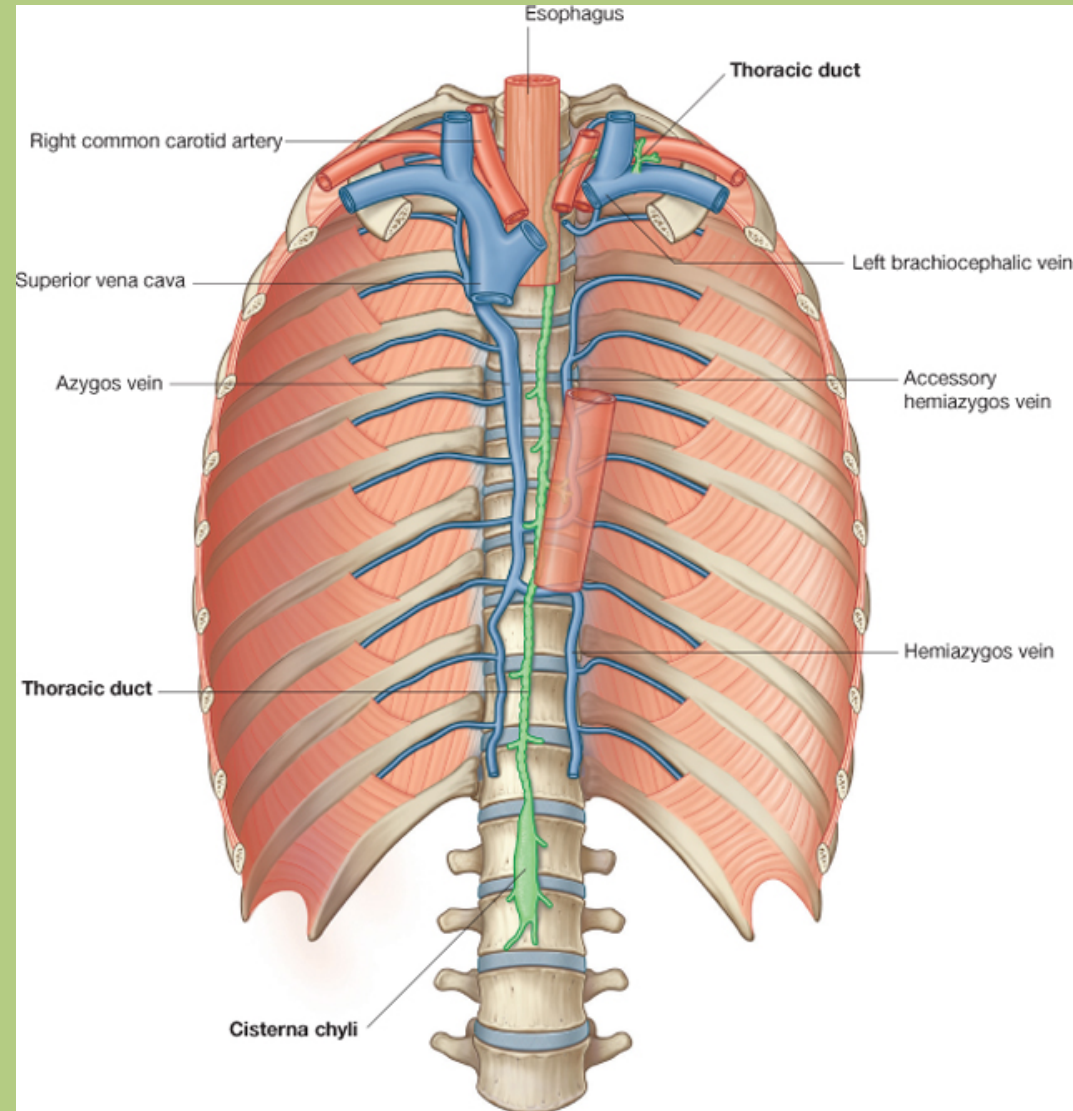


4. Azygos vein
5. Hemiazygos vein
6. Accessory hemiazygos vein

*(drainage of the posterior trunk wall, spine and spinal cord)*



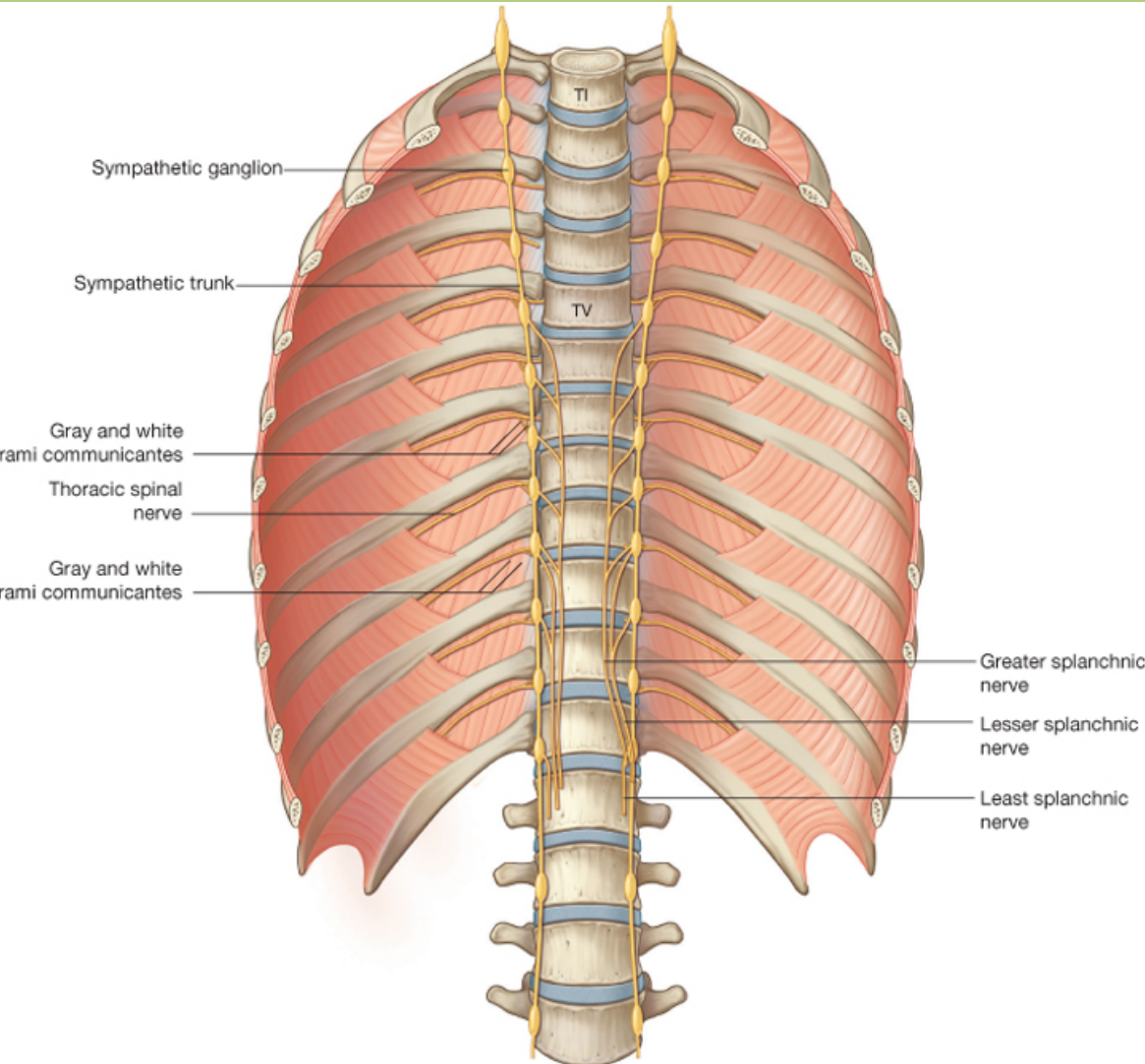
# Posterior mediastinum



## 7. Thoracic duct

*(largest lymphatic vessel, draining the majority of the body)*

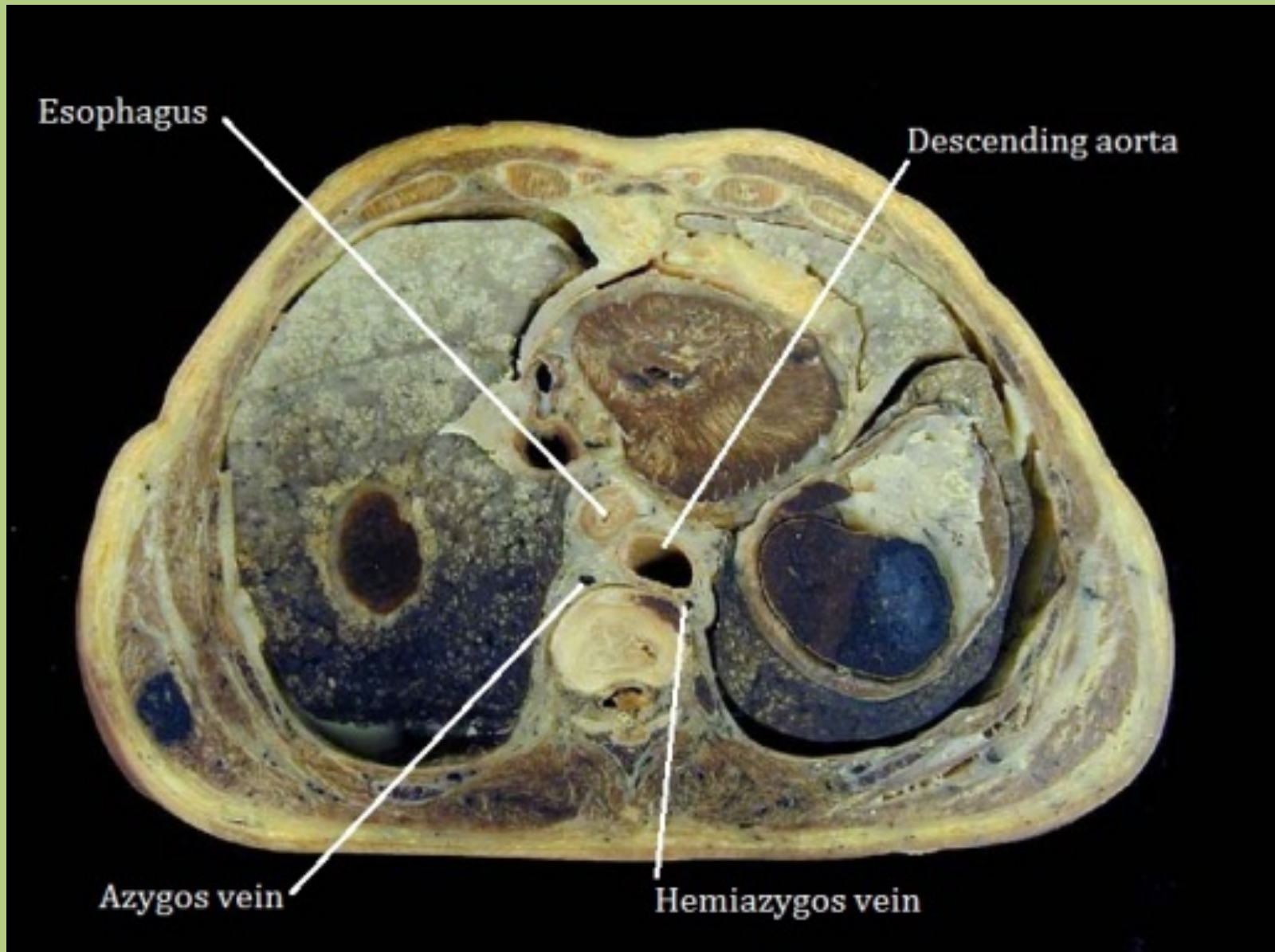
# Posterior mediastinum

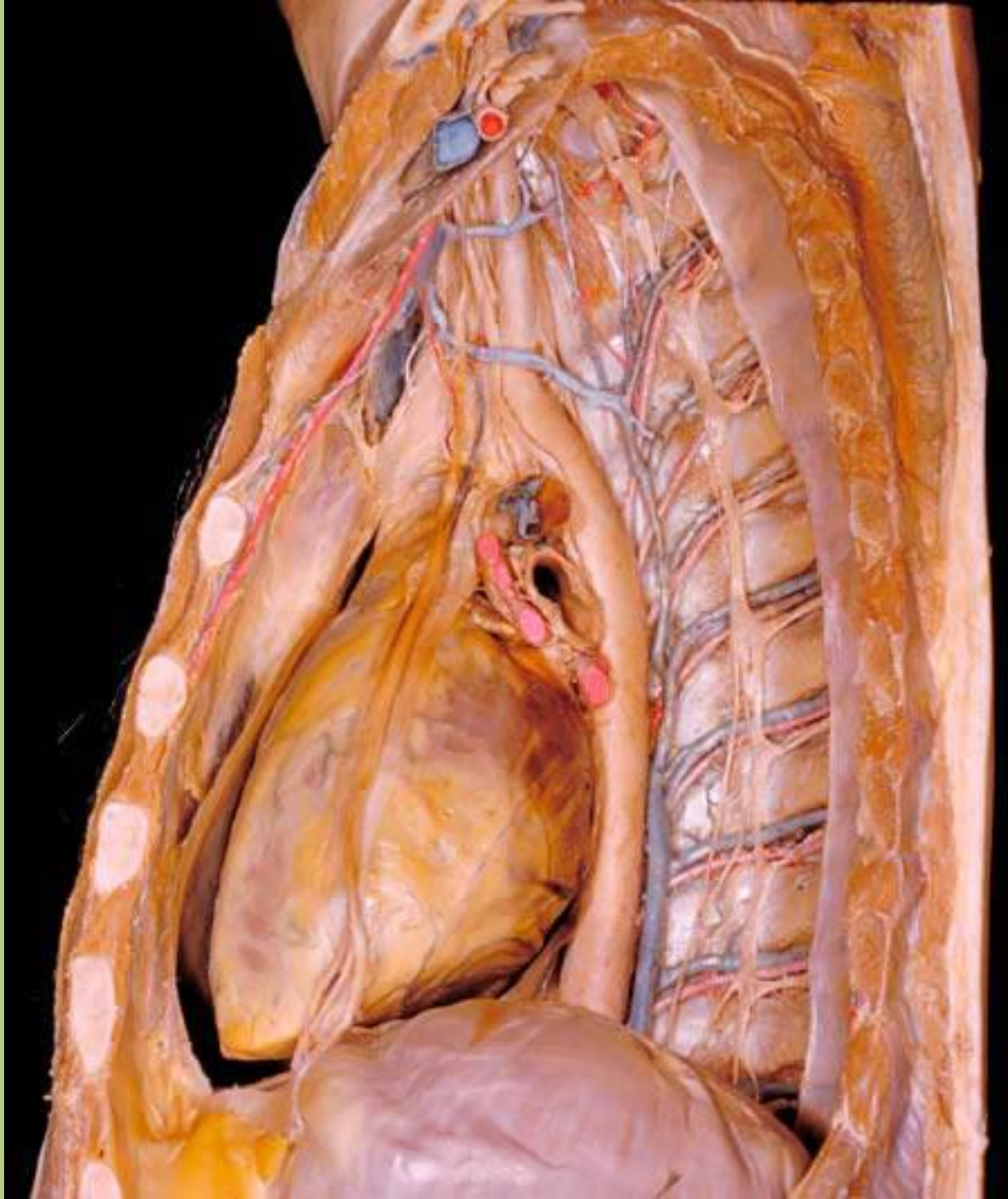


8. Sympathetic trunk
9. Greater splanchnic nerve
10. Lesser splanchnic nerve
11. Intercostal nerves

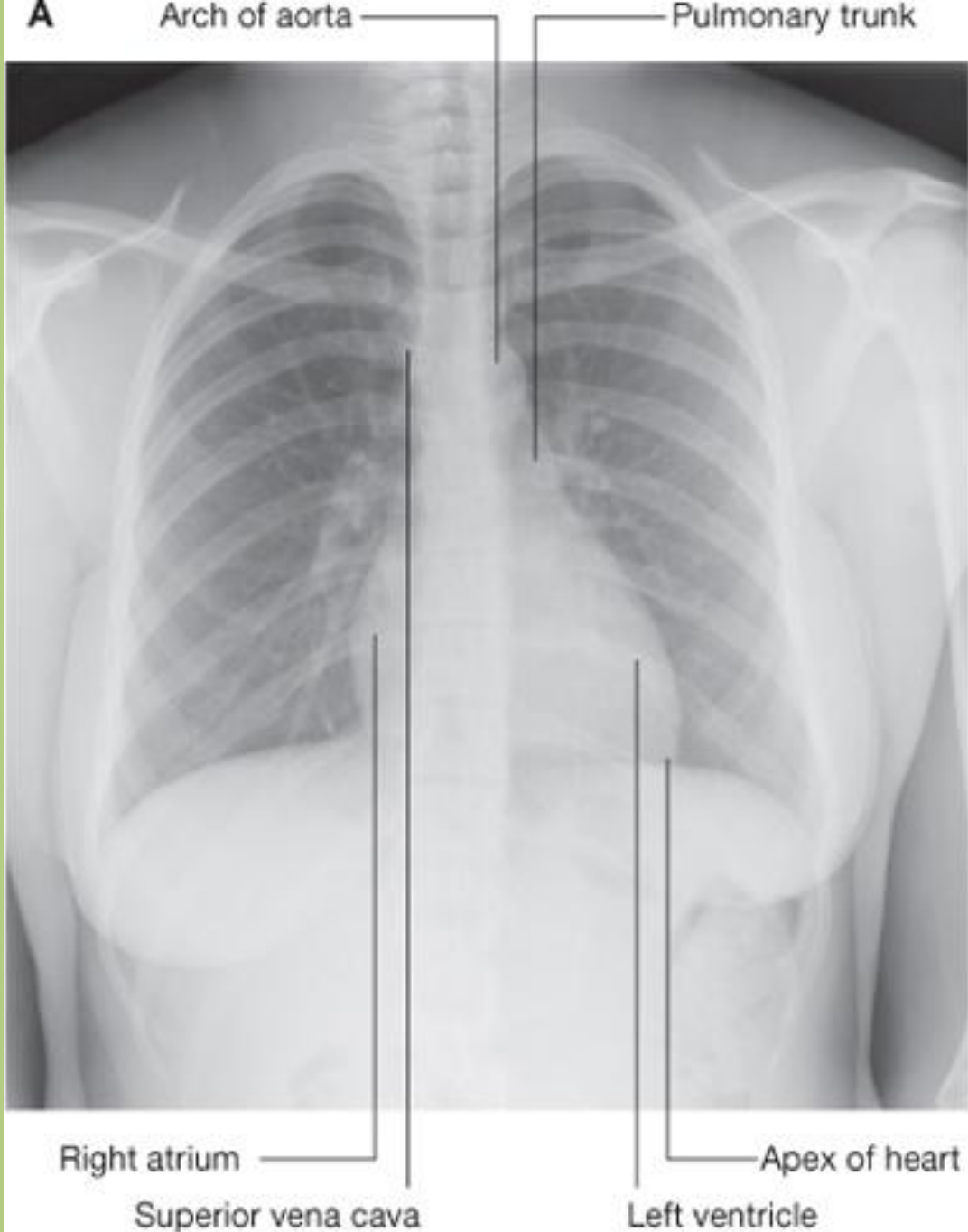


# Posterior mediastinum









X-ray picture of  
the chest cavity

Thank you for your attention.

References: Gray's Anatomy for Students

<http://www.meduniwien.ac.at/sysanat/plastination.html>  
[studyblue.com](http://studyblue.com)