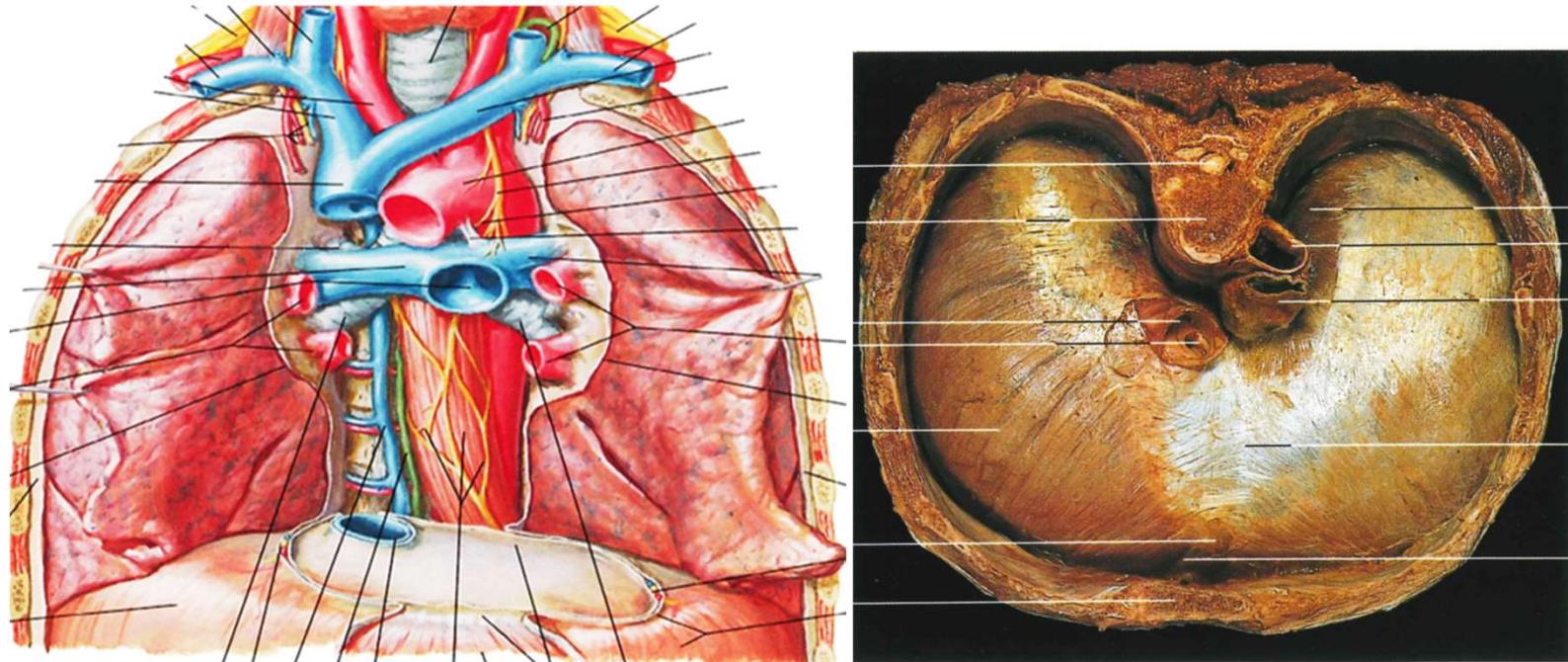


Posterior Mediastinum & Diaphragm



授課老師: 周綉珠

聯絡方式: 醫綜大樓後棟八樓解剖學暨細胞生物學科

e-mail: chou0217@tmu.edu.tw

TEL: 27361661-3257

References

1. Grant's Dissector

Alan J. Detton. 7th ed. 2021 Wolters Kluwer

2. Gray's anatomy for student

Richard L. Drake, A. Wayne Vogl, Adam W.M
Mitchell. 4th ed, 2020 Elsevier

•Atlas :

1. **Grant's atlas of anatomy**

Anne M.R. Agur & Arthur F. Dalley

2. **Atlas of human anatomy by Frank H. Netter**

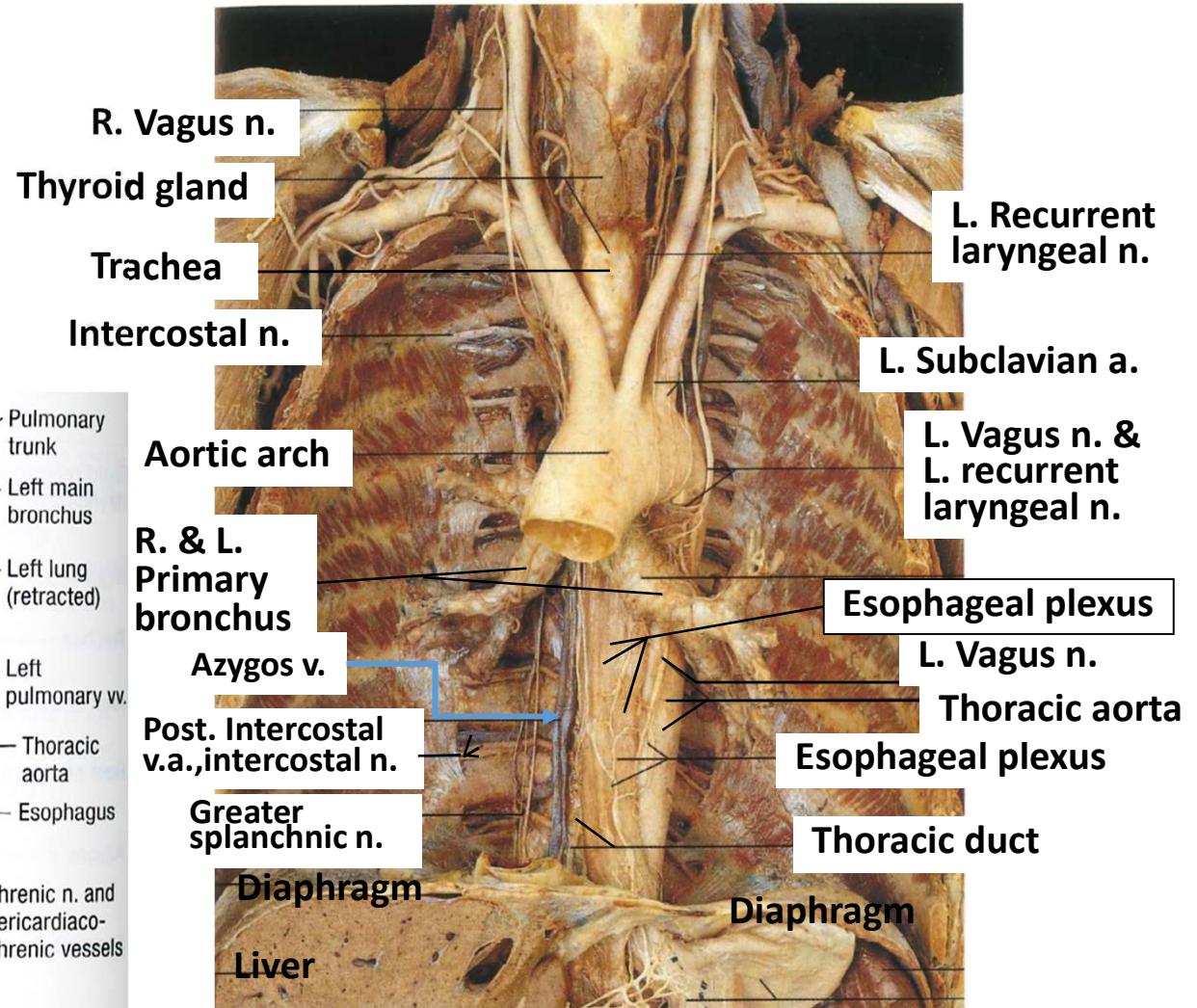
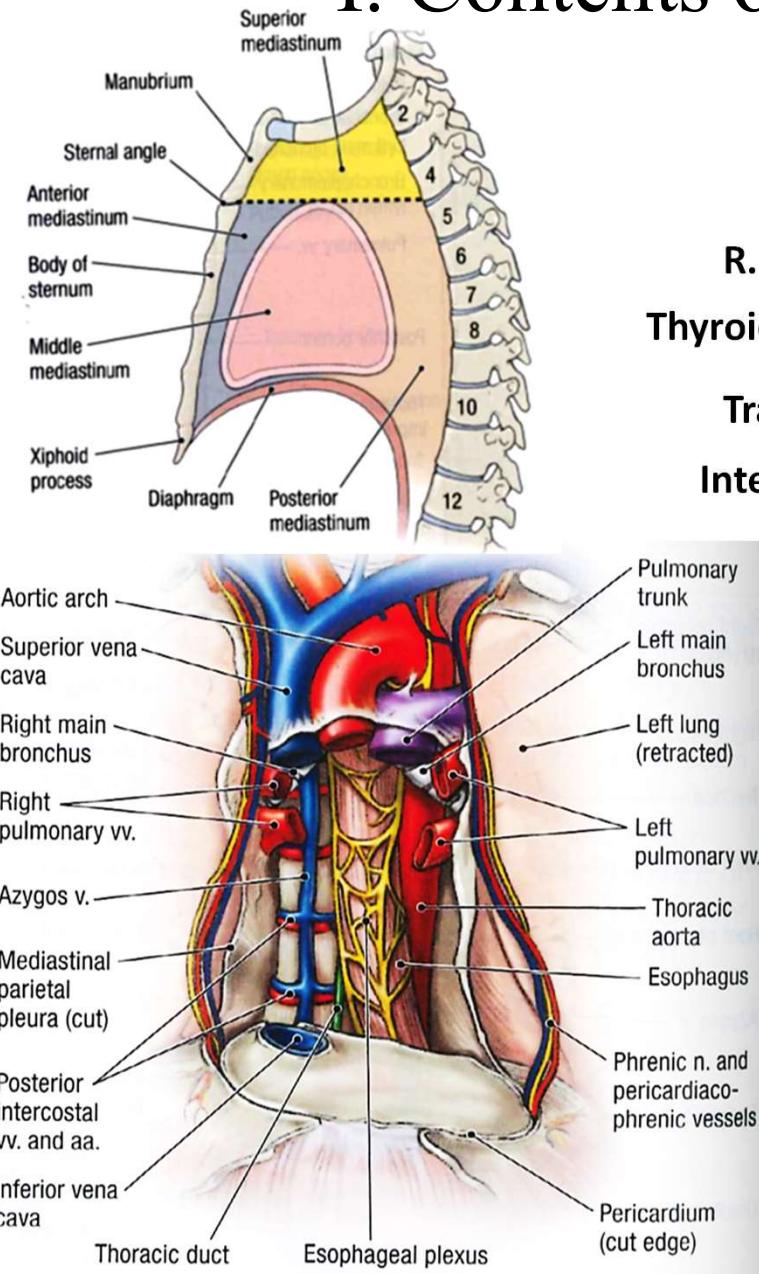
3. **Color Atlas of Anatomy: A Photographic Study of the Human Body**

Johannes W. Rohen, Chihiro Yokochi, Elke Lutjen-Drecoll

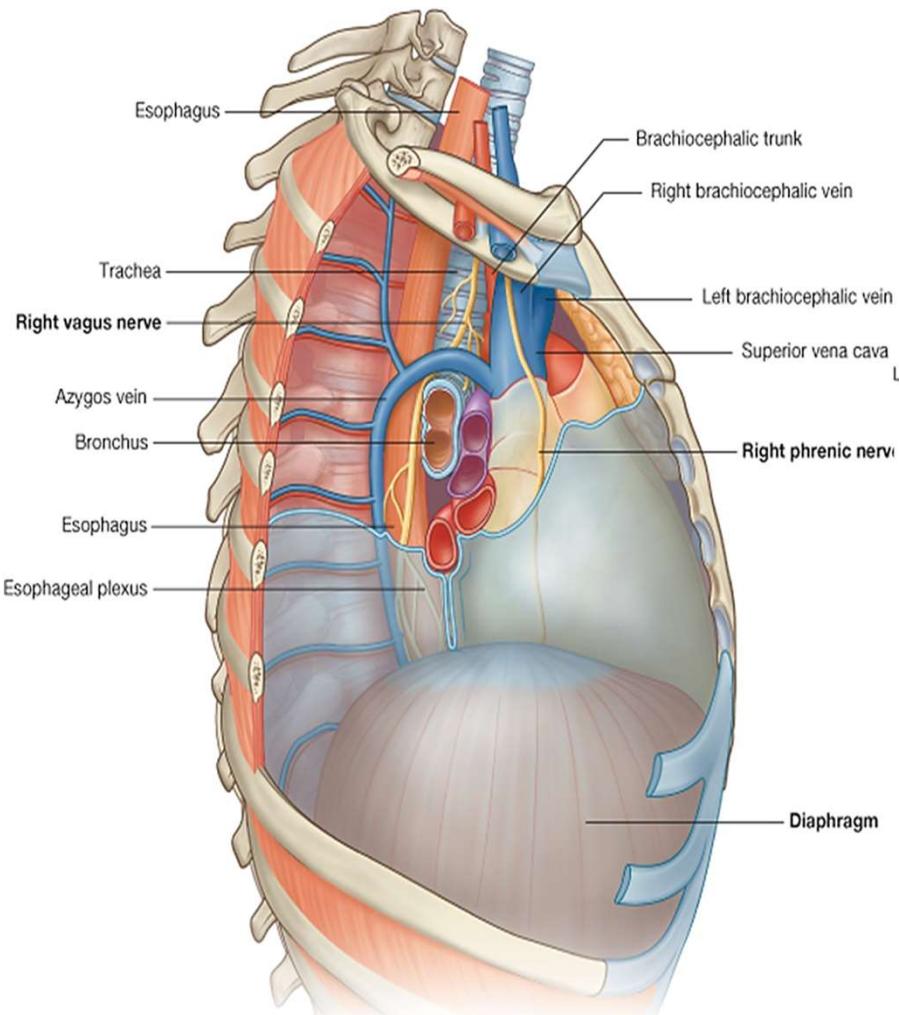
Learning Objectives

- I. Contents of posterior mediastinum
- II. Structures of diaphragm
- III. Dissection instructions:
 - A. Posterior mediastinum
 - B. Diaphragm
- IV. Summary

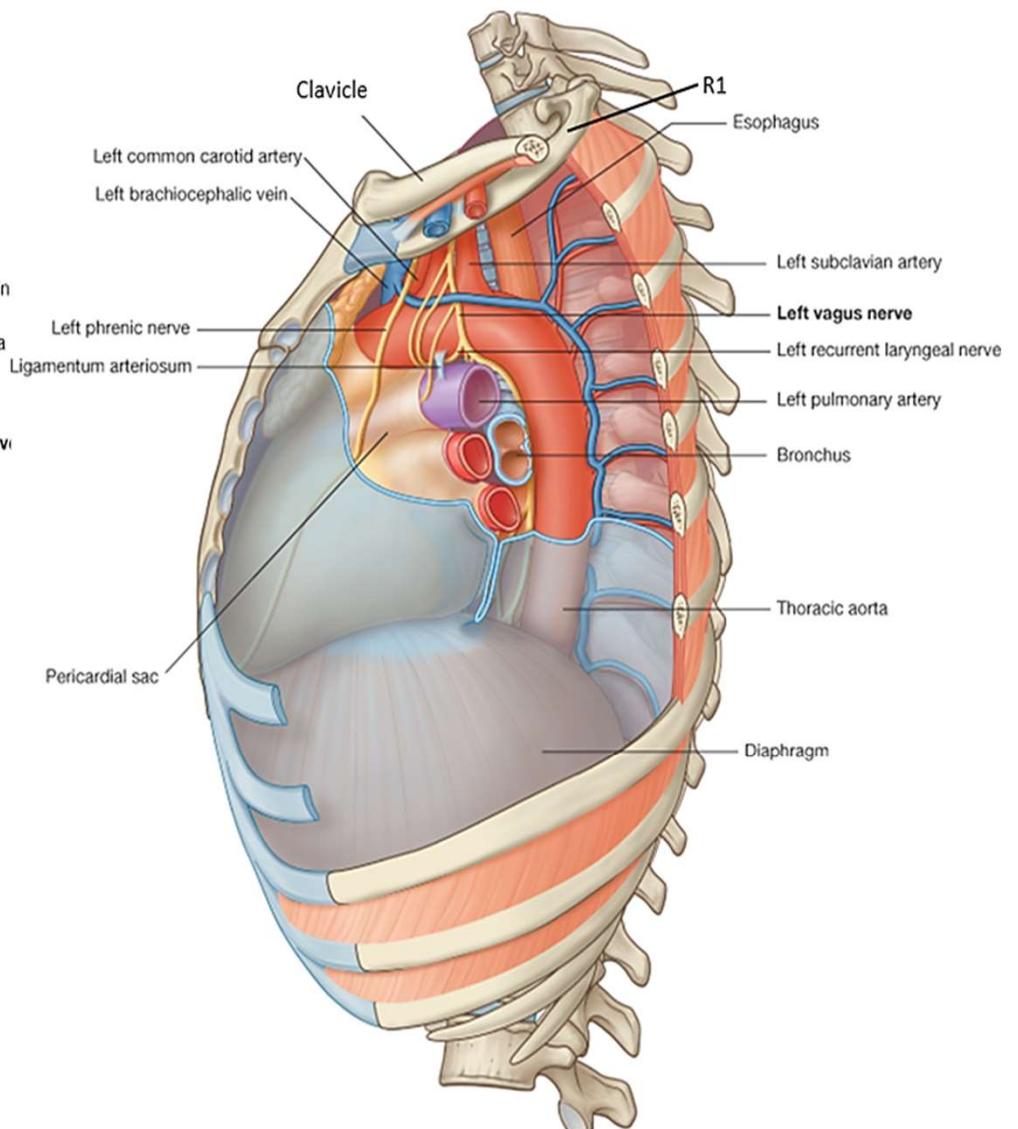
I. Contents of posterior mediastinum 1



I. Contents of posterior mediastinum 2

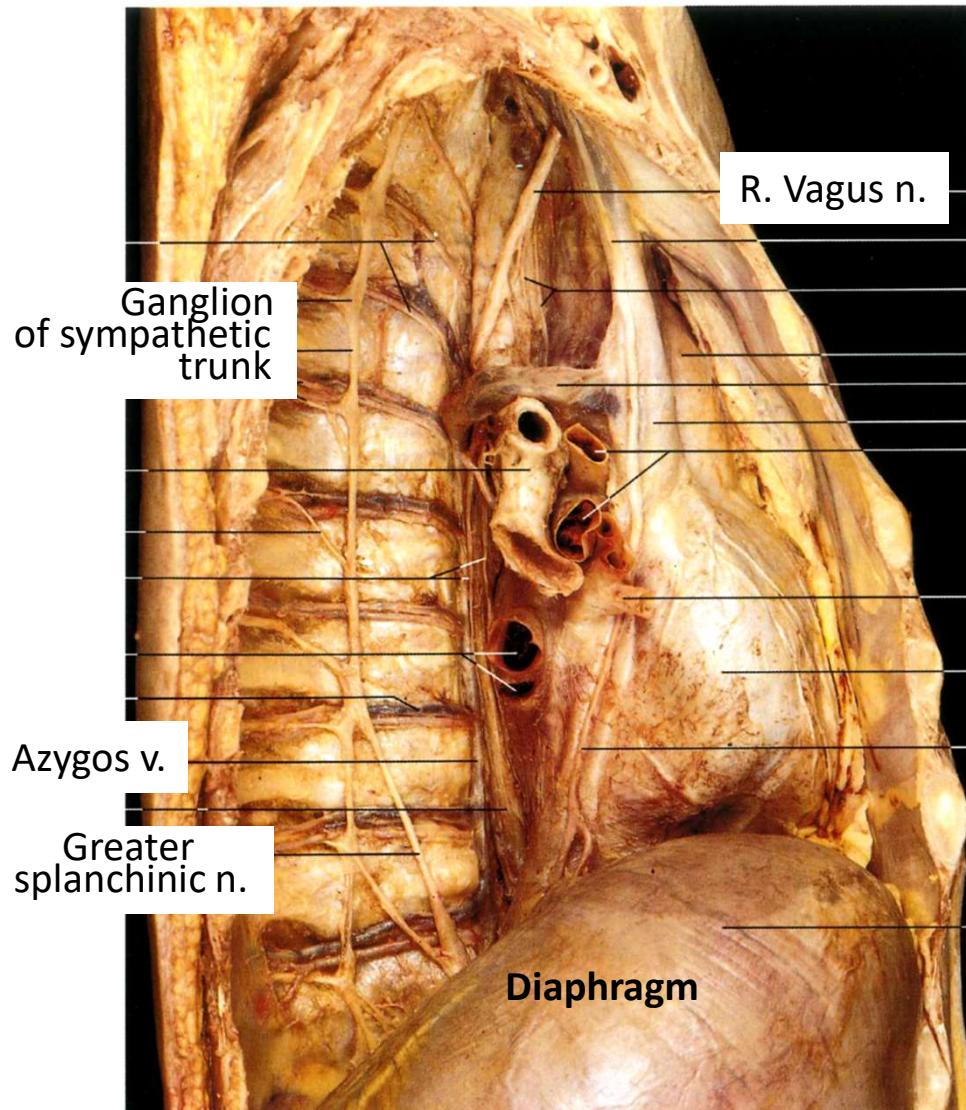


Right lateral aspect

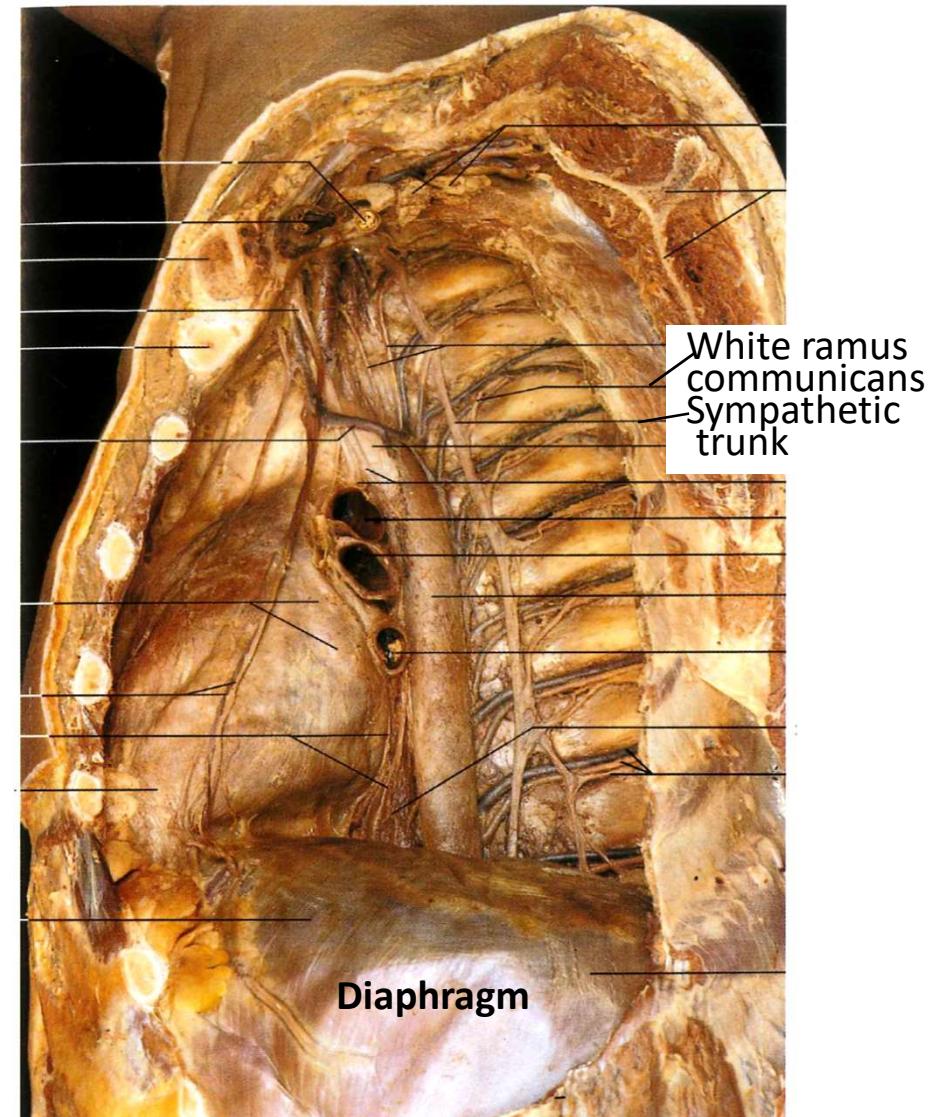


Left lateral aspect

I. Contents of posterior mediastinum 3



Right lateral aspect



Left lateral aspect

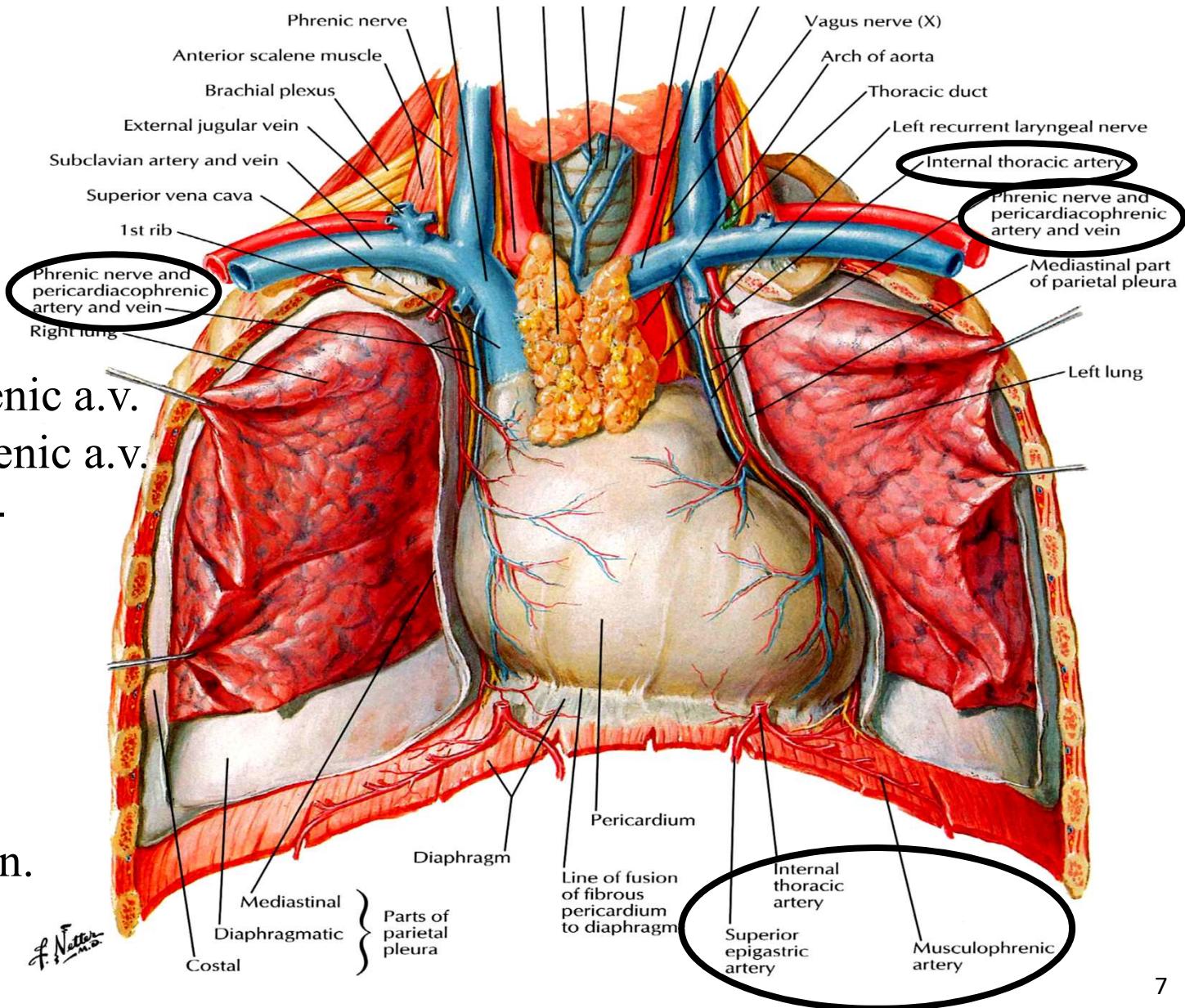
II. Structures of diaphragm 1

Vessels:

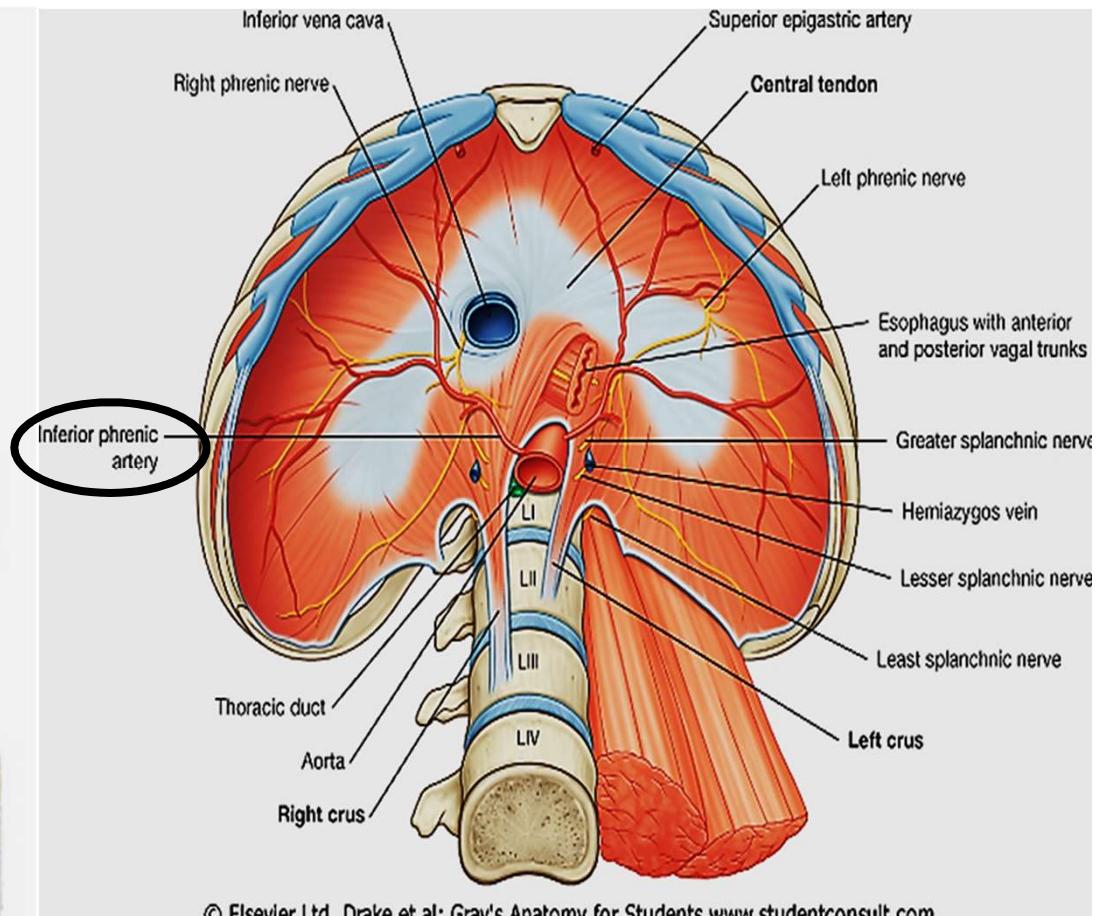
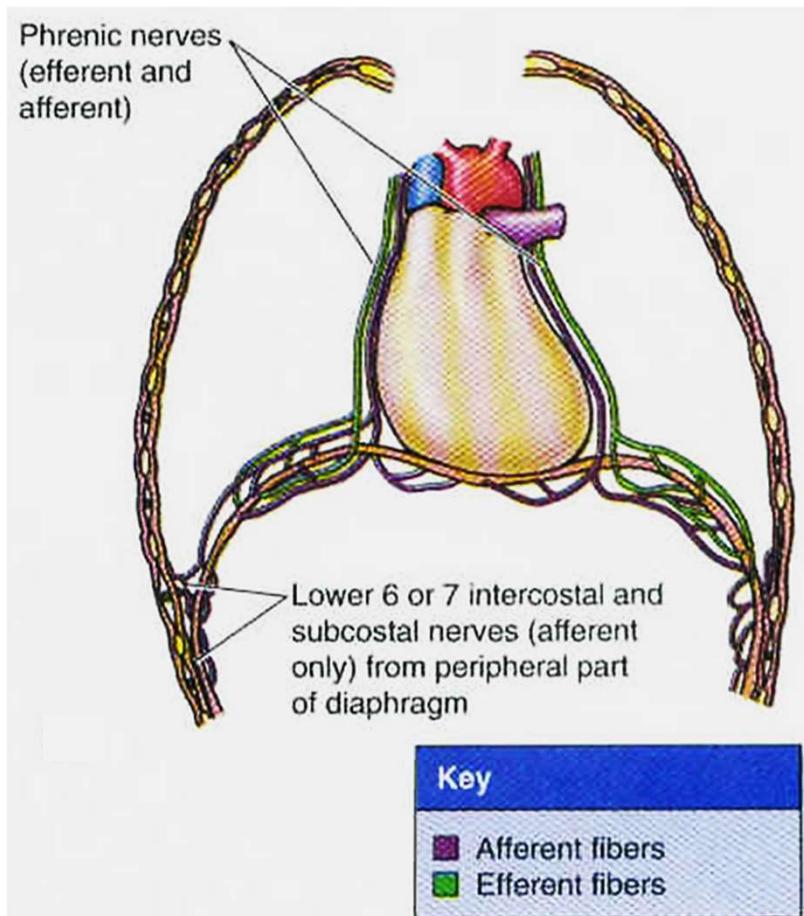
Musculophrenic a.v.
Superior phrenic a.v.
Pericardiophrenic a.v.

Nerves:

Phrenic n.n.
R 6~12
intercostal n.n.



II. Structures of diaphragm 2



© Elsevier Ltd. Drake et al: Gray's Anatomy for Students www.studentconsult.com

Nerves:

Phrenic n.n.

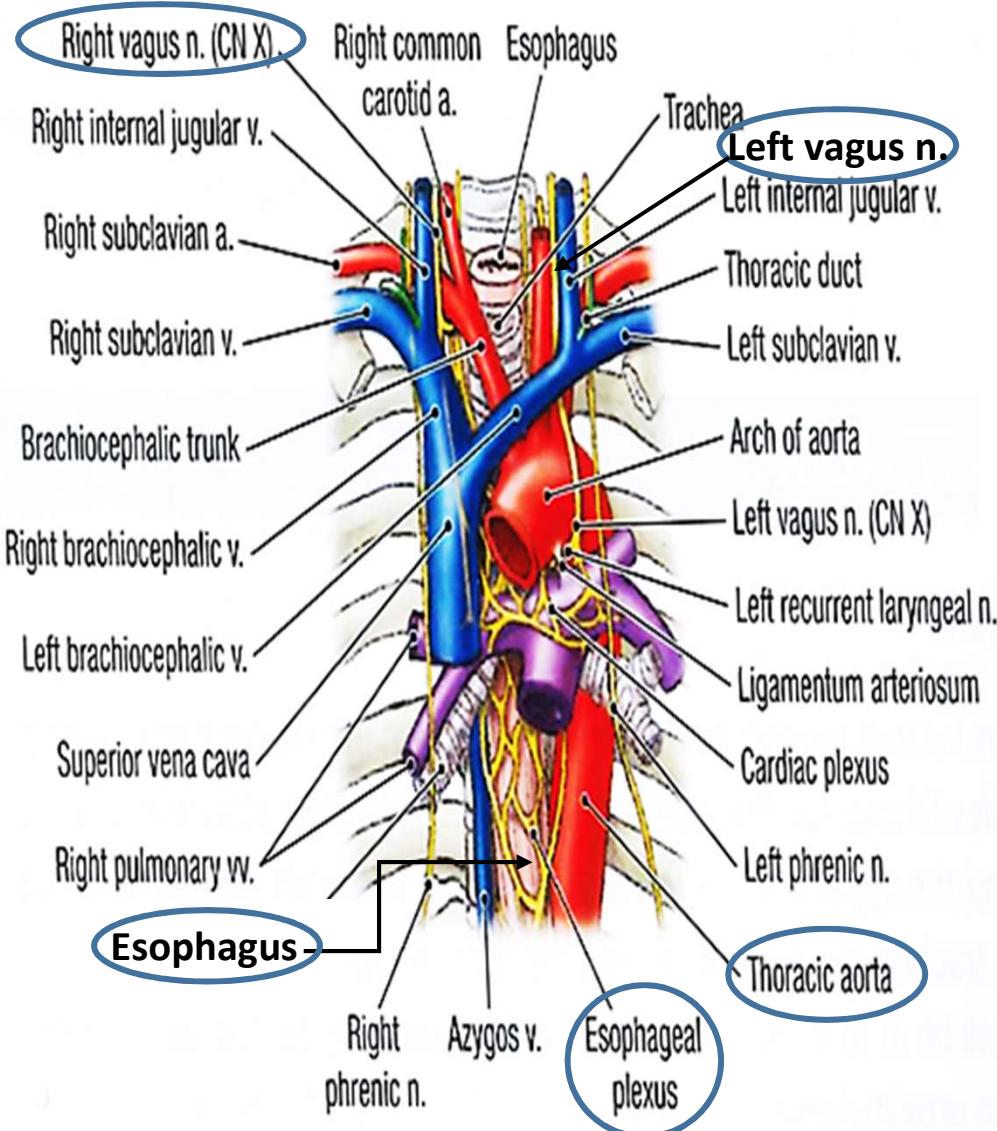
R 6~12 intercostal n.n.

Vessels:

Inferior phrenic a.v.

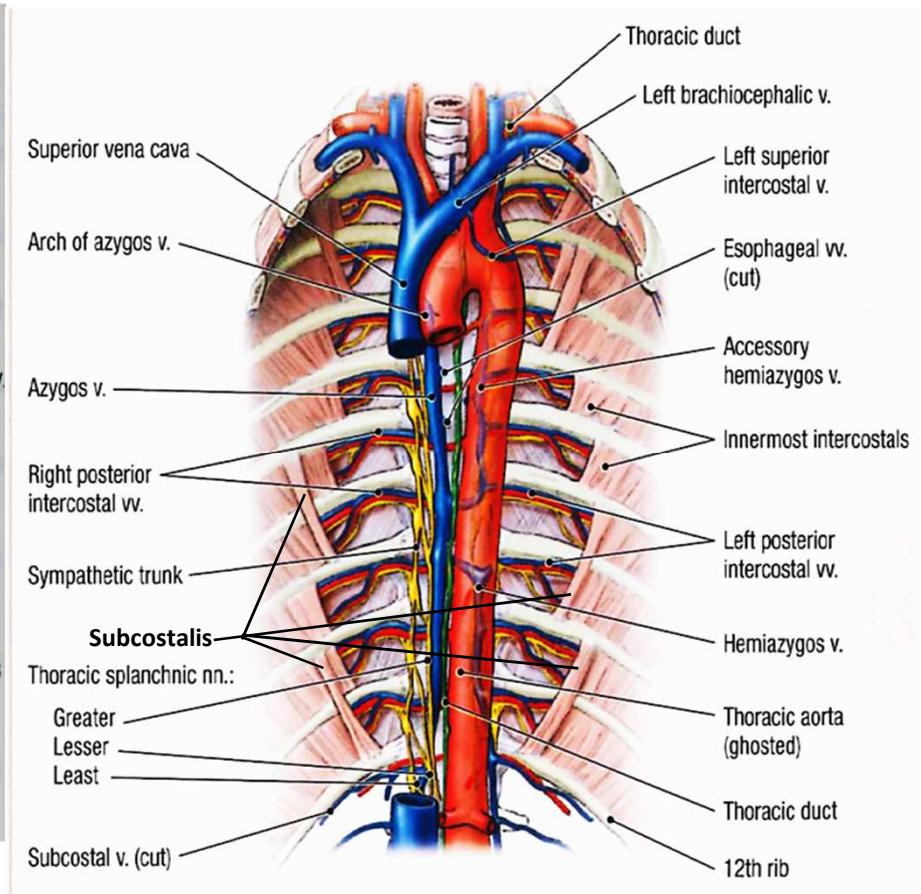
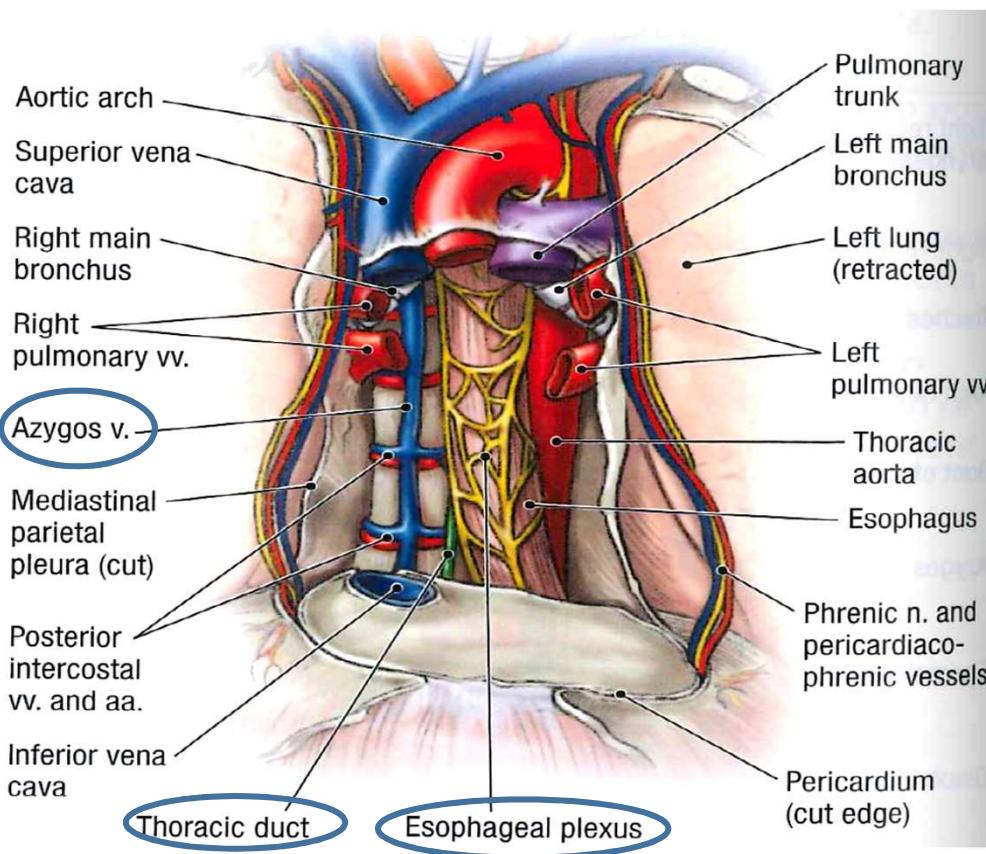
III. Dissection instructions

A. Posterior mediastinum 1



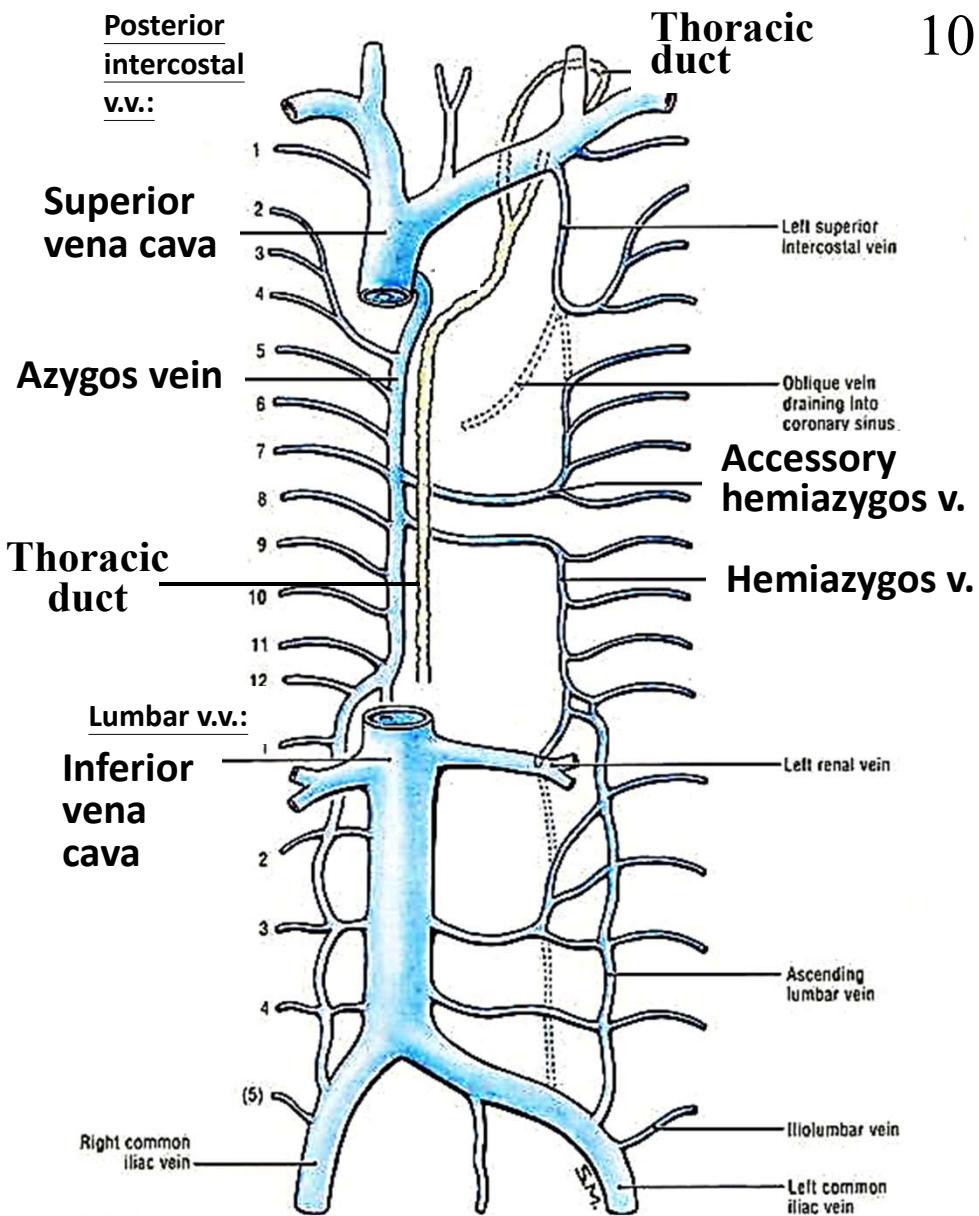
1. Use scissors make a vertical cut on post. wall of pericardium in area of oblique pericardial sinus
2. Detach pericardium with fingers and cut other attachments to move it into the tissue container
3. Gently separate the esophagus by fingers from right of midline
4. Identify esophageal plexus on the ante. surface of esophagus
5. Identify thoracic aorta in left and post. to the esophagus
6. Trace L. & R. vagus n.n. lateral to L. & R common carotid a.a.

A. Posterior mediastinum 2



- Identify the thoracic duct located on the lower right side of the esophagus, trace it superiorly—between azygos v. and thoracic aorta.
- Find posterior intercostal v.a. intercostal n. below the inferior
- ~~Find the sympathetic trunk & ganglion lies post. to the costovertebral pleura (not a content of the post. mediastinum).~~

A. Posterior mediastinum 3

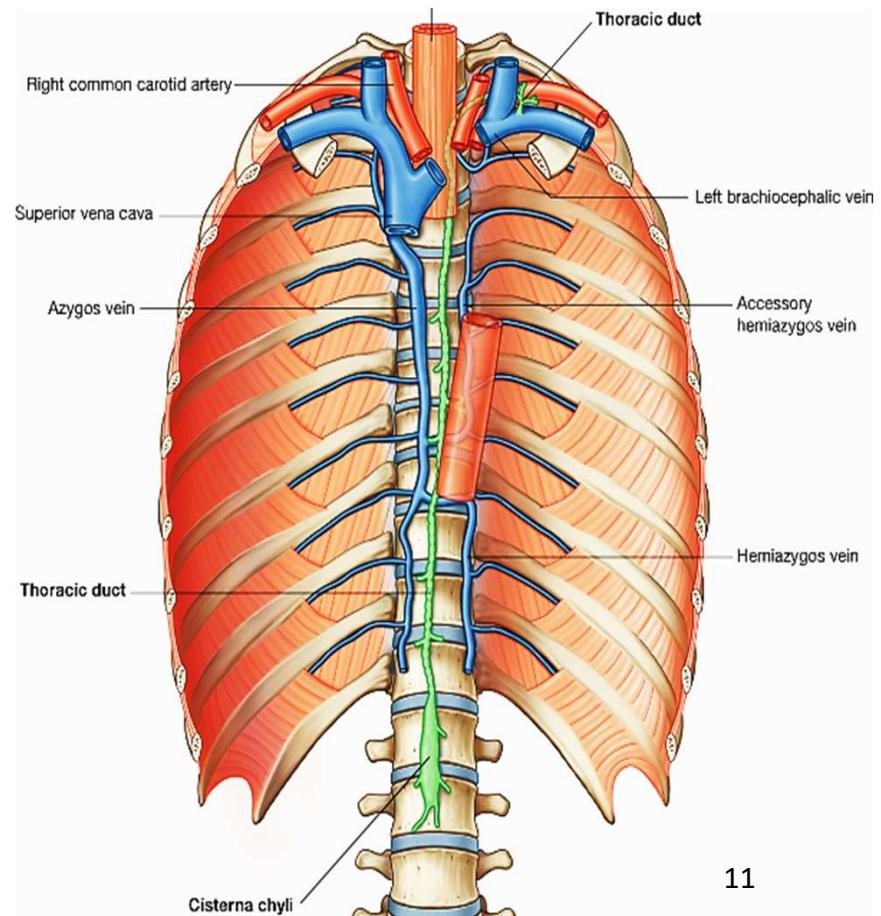


10. Identify the azygos system:

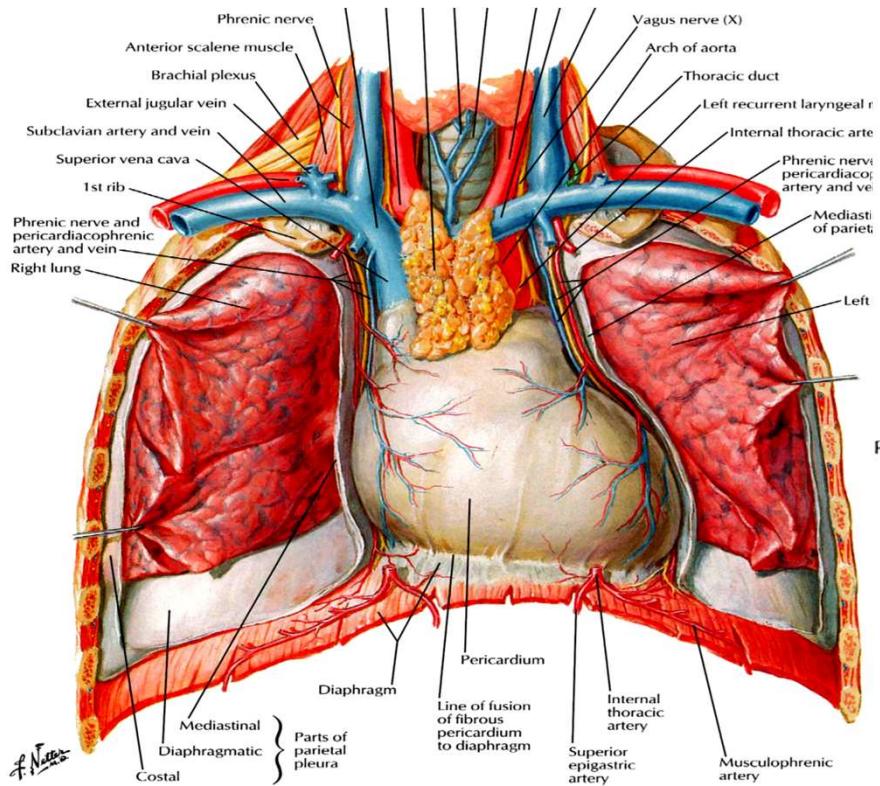
Azygos v.—arch of azygos v.—SVC

Hemiazygos v.—left inferiorly

Accessory hemiazygos v.—left superiorly



B. Diaphragm 1



1. Find the vessels in the thoracic surface of diaphragm:

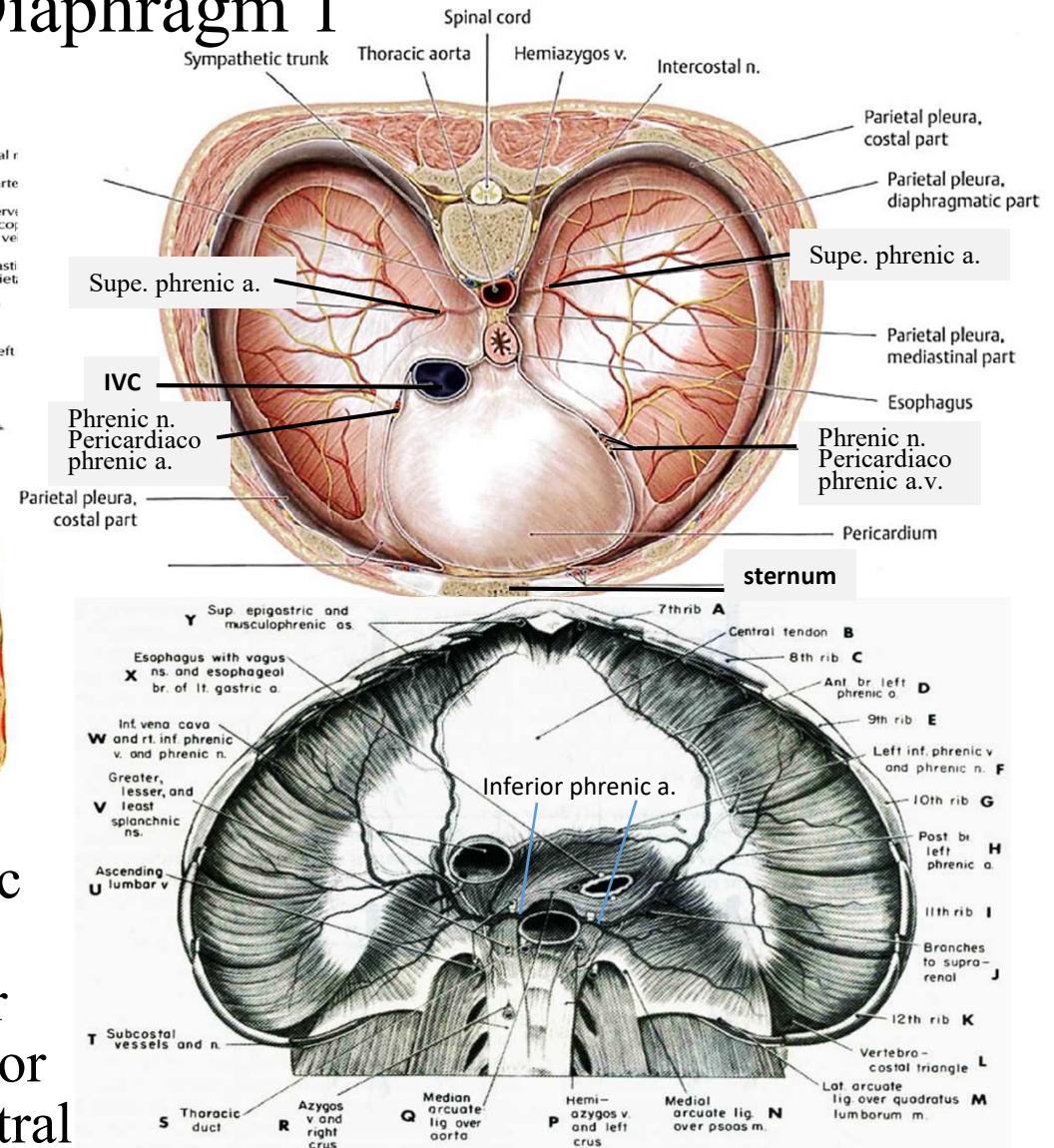
Musculophrenic a.v.- anterior

Superior phrenic a.v.- posterior

Pericardiophrenic a.v.- central

2. Trace L. & R. phrenic n.n.- companion with pericardiophrenic a.

3. Detach the peritoneum covering in the inferior surface of diaphragm, identify the L. & R. crura, infe. phrenic a. and the arcuate ligaments



B. Diaphragm 2

4. Find the openings for structures to pass through diaphragm

@ inferior vena cava: IVC, right phrenic nerve

@ esophagus: ante. and post. vagus trunks,
esophageal br. of left gastric vessels

@ aorta: aorta, thoracic duct, azygos v.(may R. crus)

5. Smaller foramina for:

left phrenic n.

superior epigastric a.v.

musculophrenic a.v.

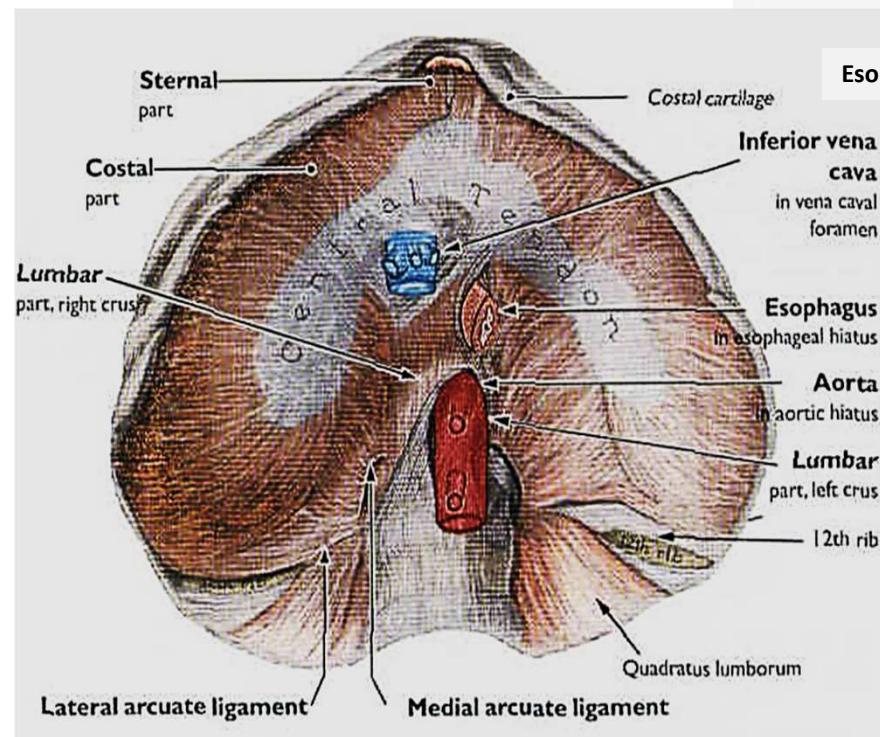
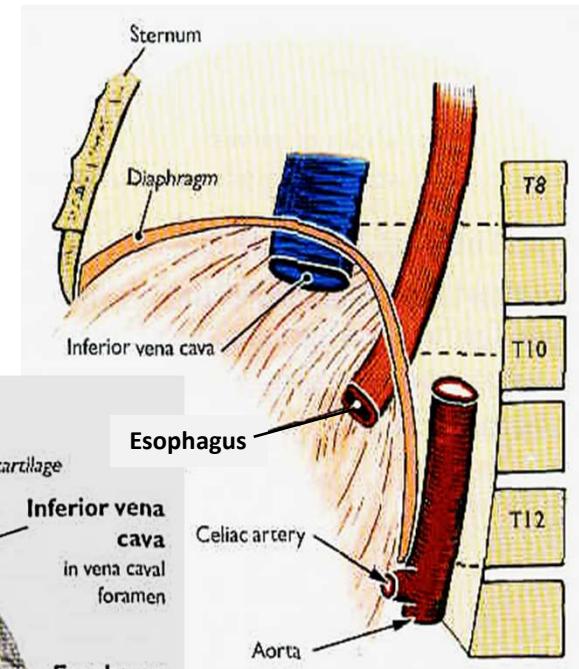
lower 5 intercostal n.n.

subcostal a.v. & n.n.

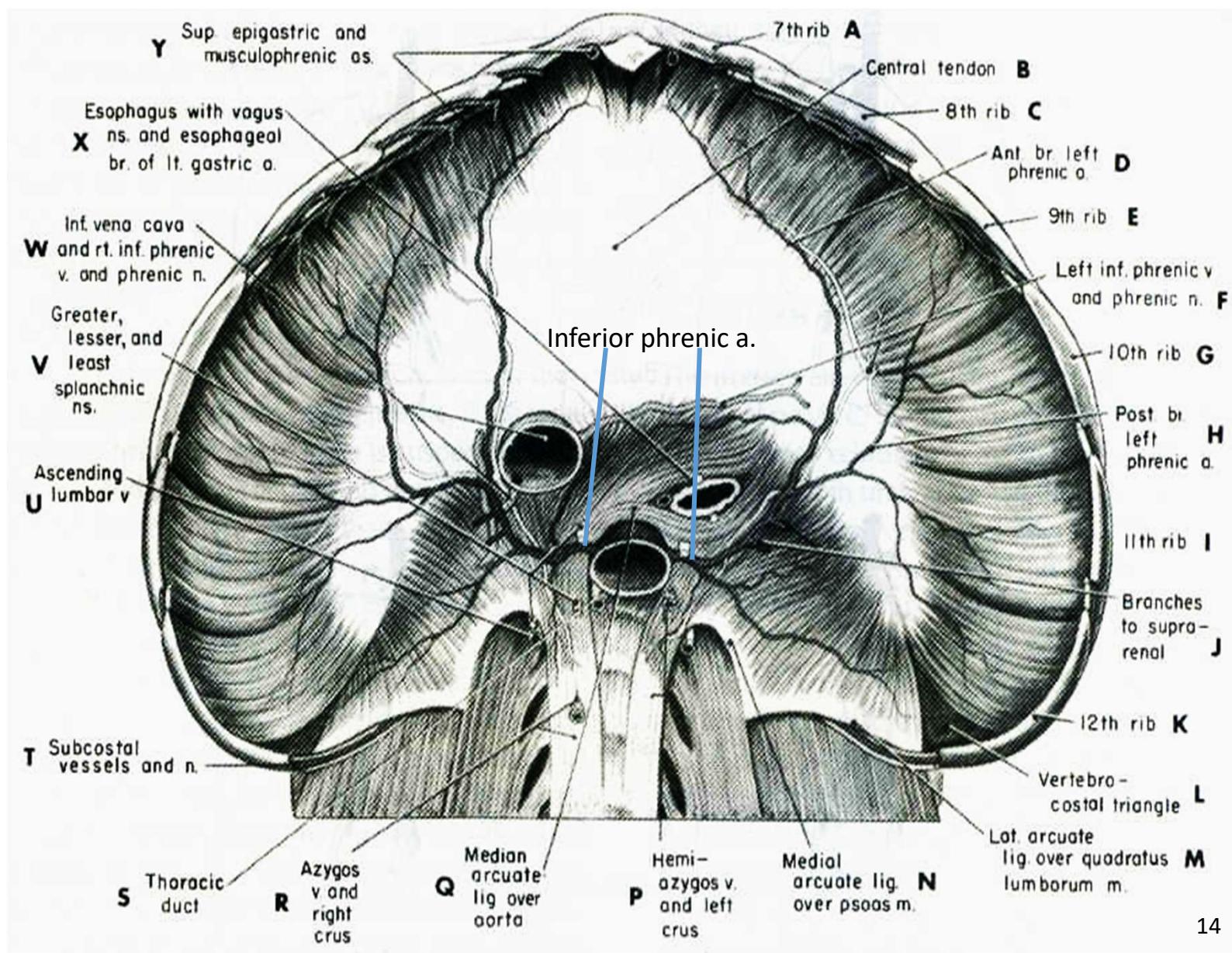
sympathetic trunks

splanchnic n.n.

hemiazygos (L. crus)



B. Diaphragm 3



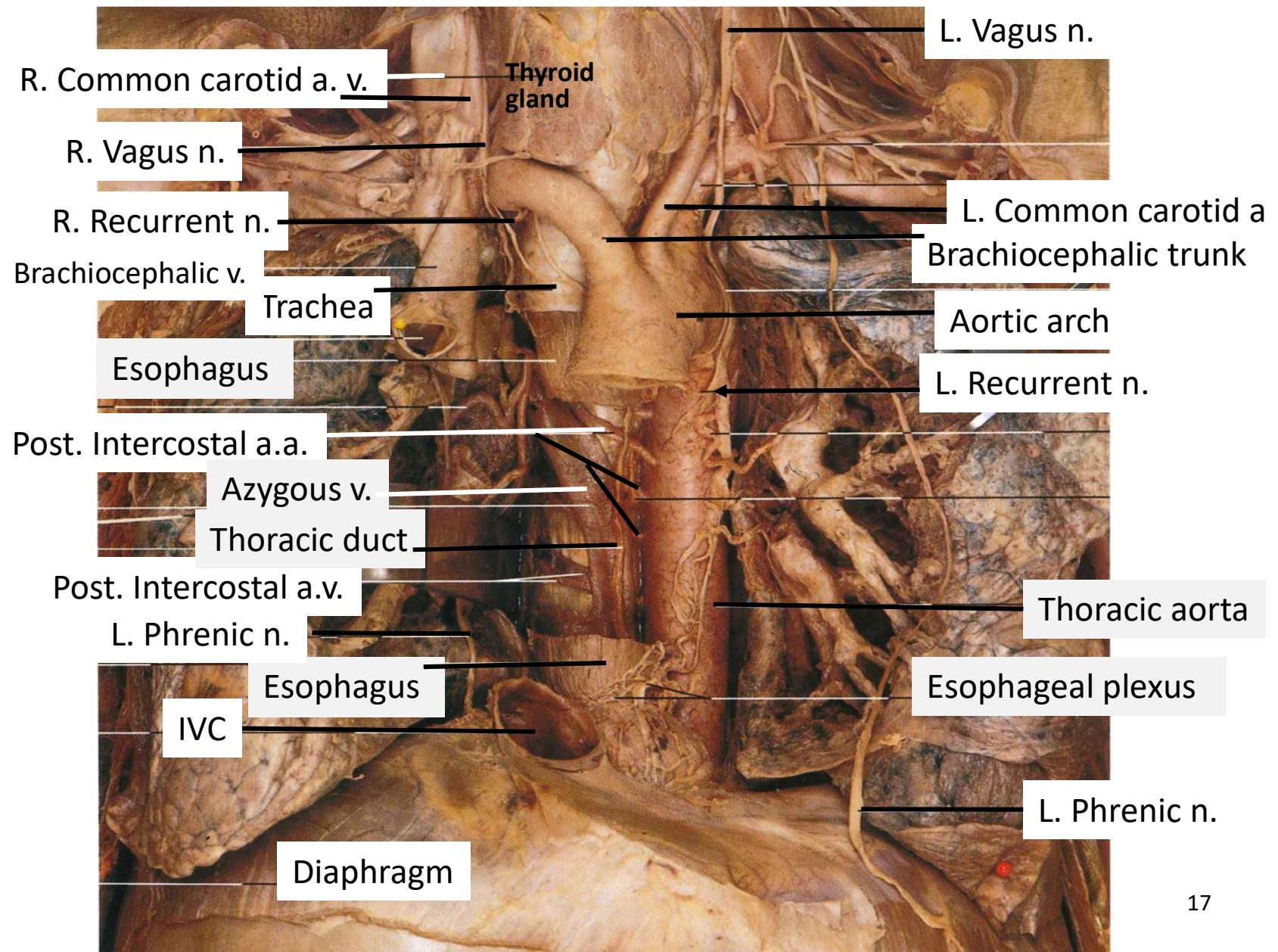
IV. Summary 1

Posterior mediastinum		
Structures	Structures	Structures
Muscles:	Vessels:	Thoracic duct
subcostalis	thoracic aorta	Ligamentum arteriosum
Nerves:	post. intercostal a.v.	
intercostal n.	azygos system:	
L. & R. vagus n.	azygos v.	
L. & R. recurrent laryngeal n.	accessory hemiazygos v.	
sympathetic trunk & ganglion	hemiazygos v.	
greater splanchnic n.		

IV. Summary 2

Diaphragm		
Structures	Structures	Structures
Muscles:	Vessels:	Crura:
diaphragm	pericardiophrenic a.v.	L. crus
Nerves:	superior phrenic a.v.	R. crus
L. phrenic	musculophrenic a.v.	Arcuate ligaments:
R. phrenic	inferior phrenic a.v.	median
		medial
		lateral

IV. Summary 3



IV. Summary 4

