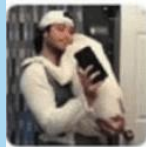


# Lungs, Diaphragm & Thoracic Cavity

By Elmira Imadova

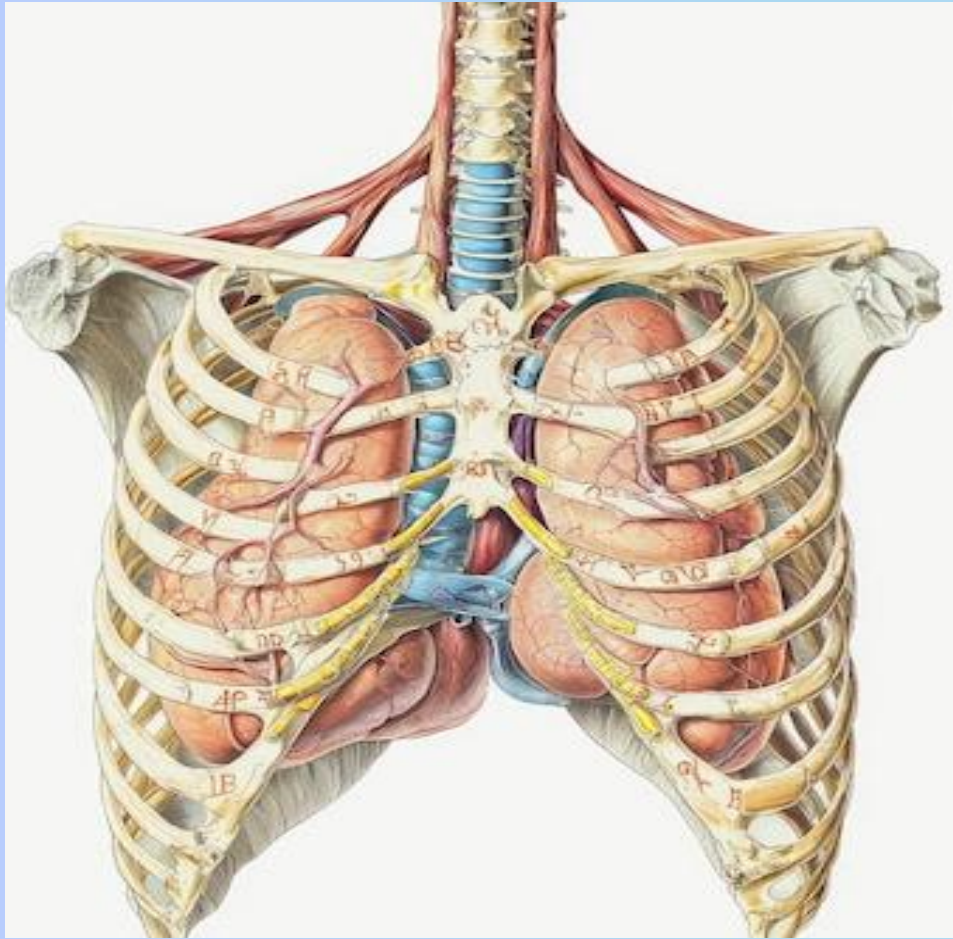
There's a Universe inside of you



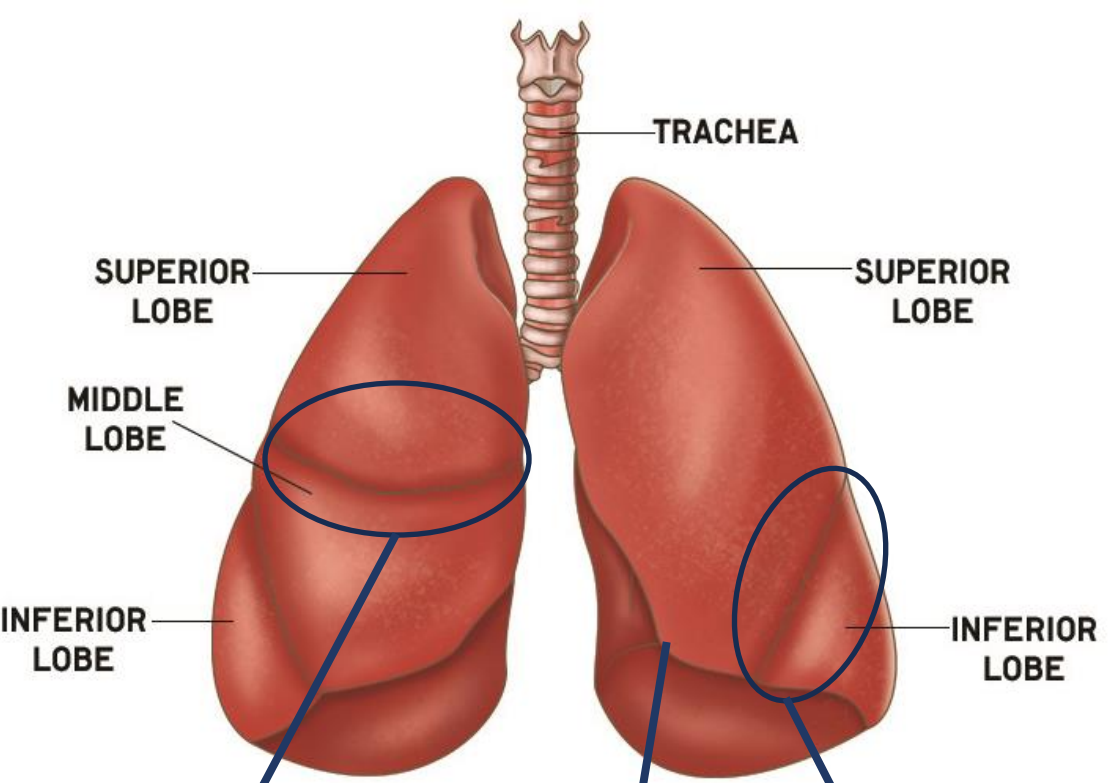
Juice 🍷 🌈 🌈  
@RexTrillerson

This is definitely tuberculosis

# Overview



# Lungs

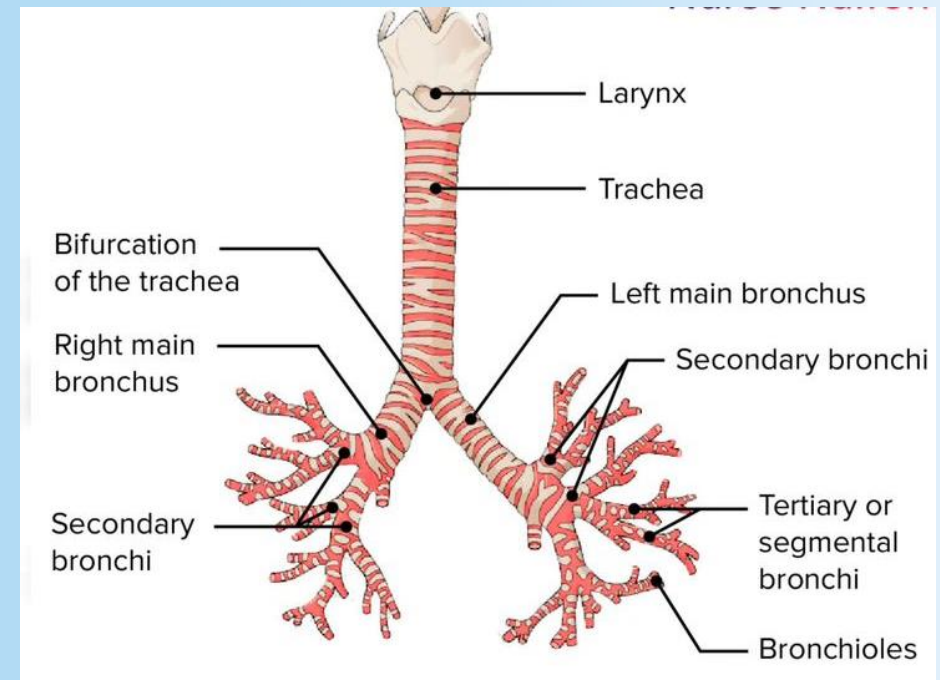
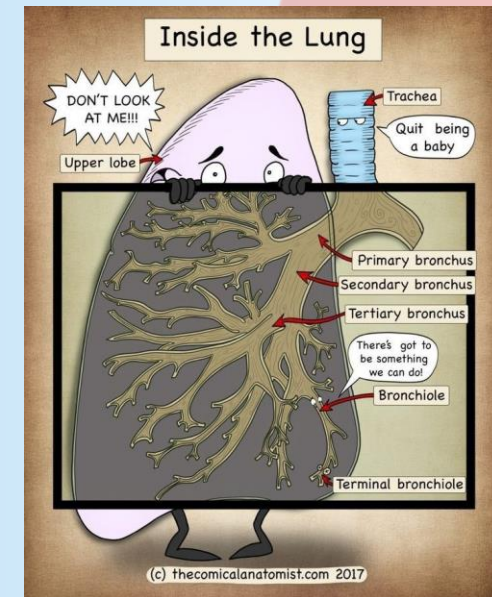
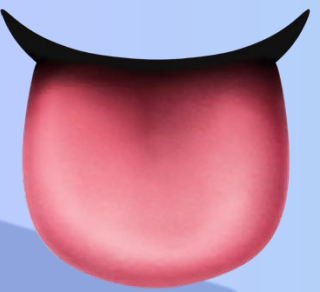


horizontal fissure only  
in the RIGHT lung

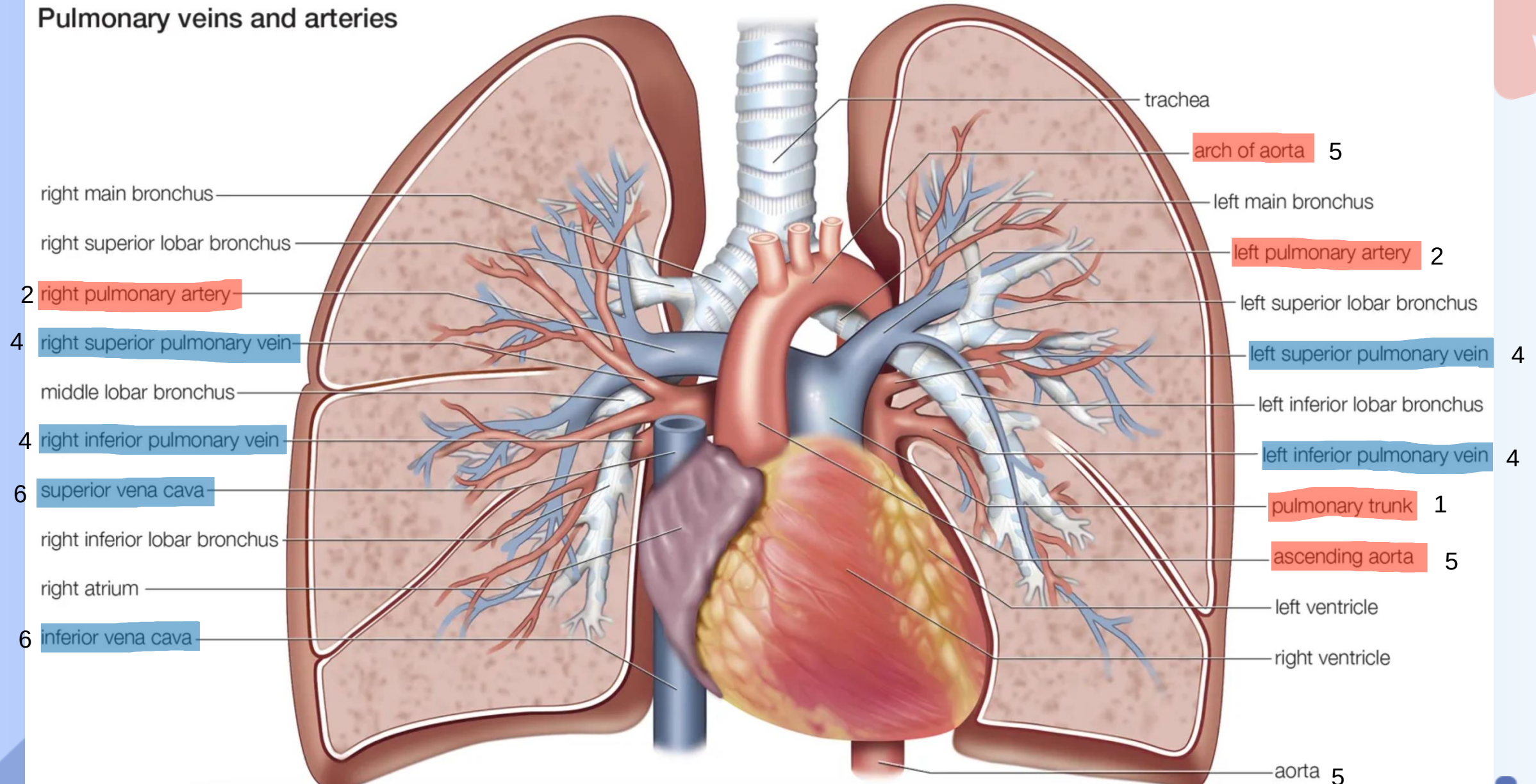
oblique fissure only  
In the LEFT lung

Lingula=Left Lung

Lingula from Latin:  
Little Tongue



## Pulmonary veins and arteries



❖ Pulmonary arteries blue? 😬

❖ Because they carry DEOXYGENATED blood from RV

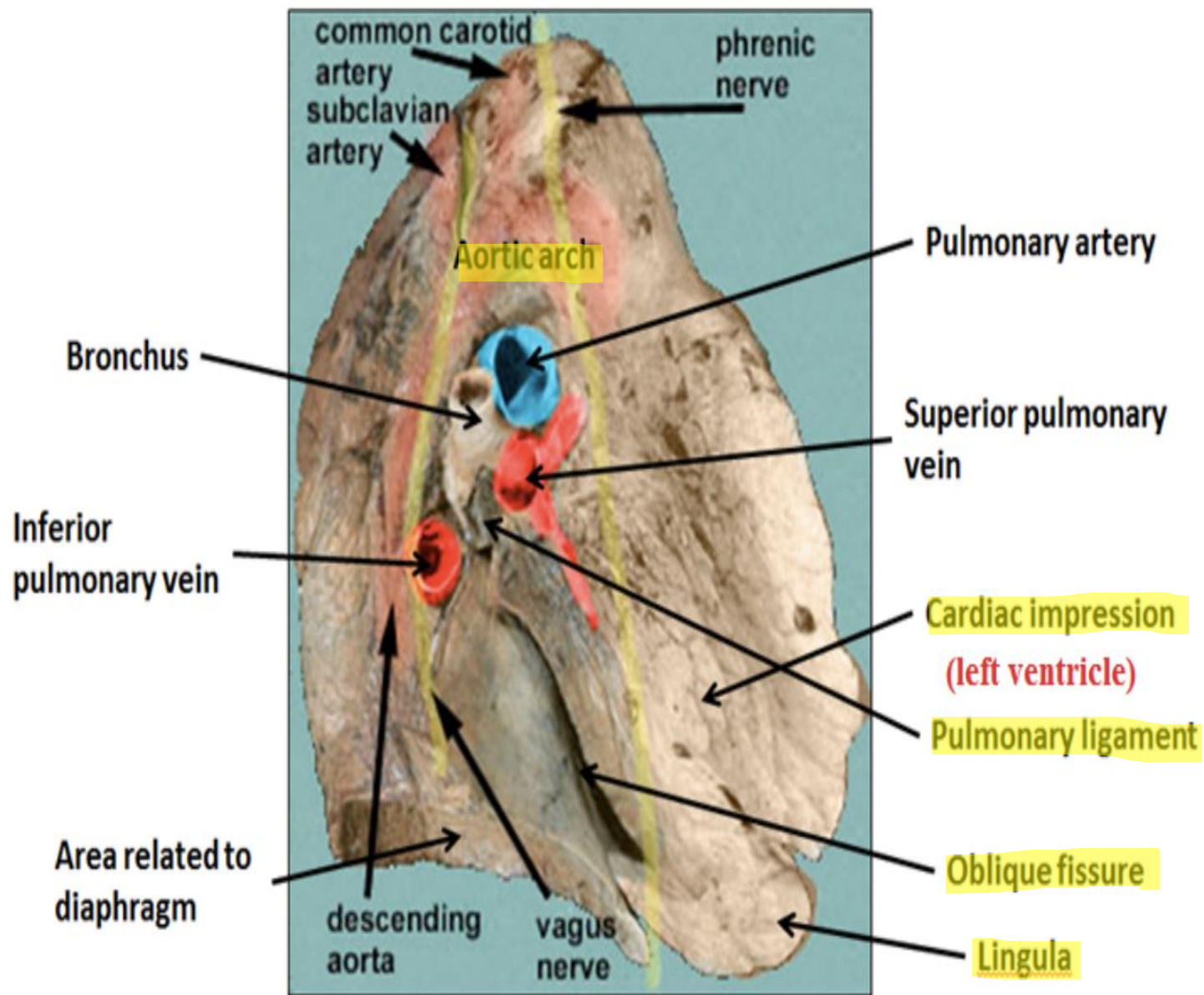
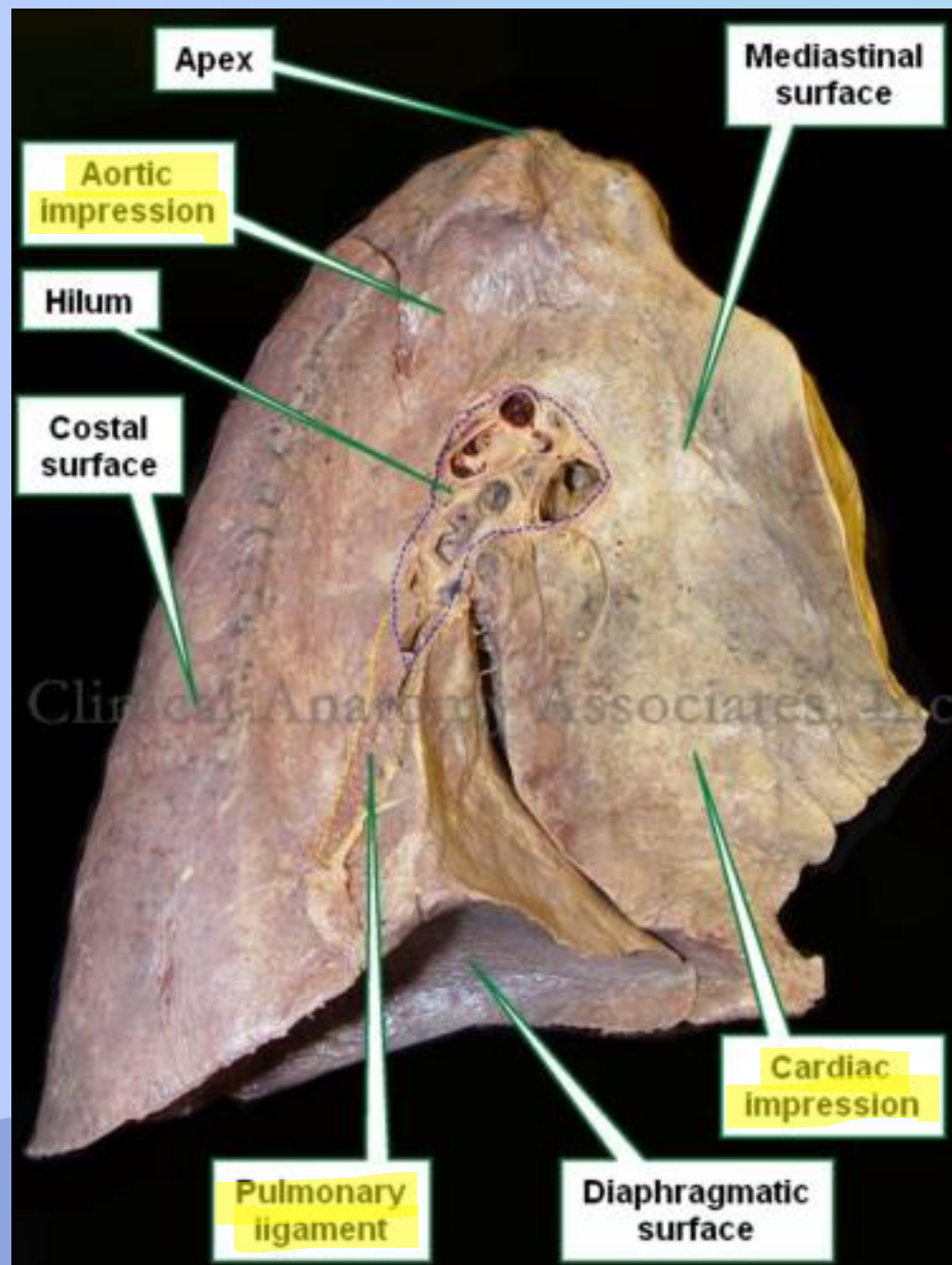


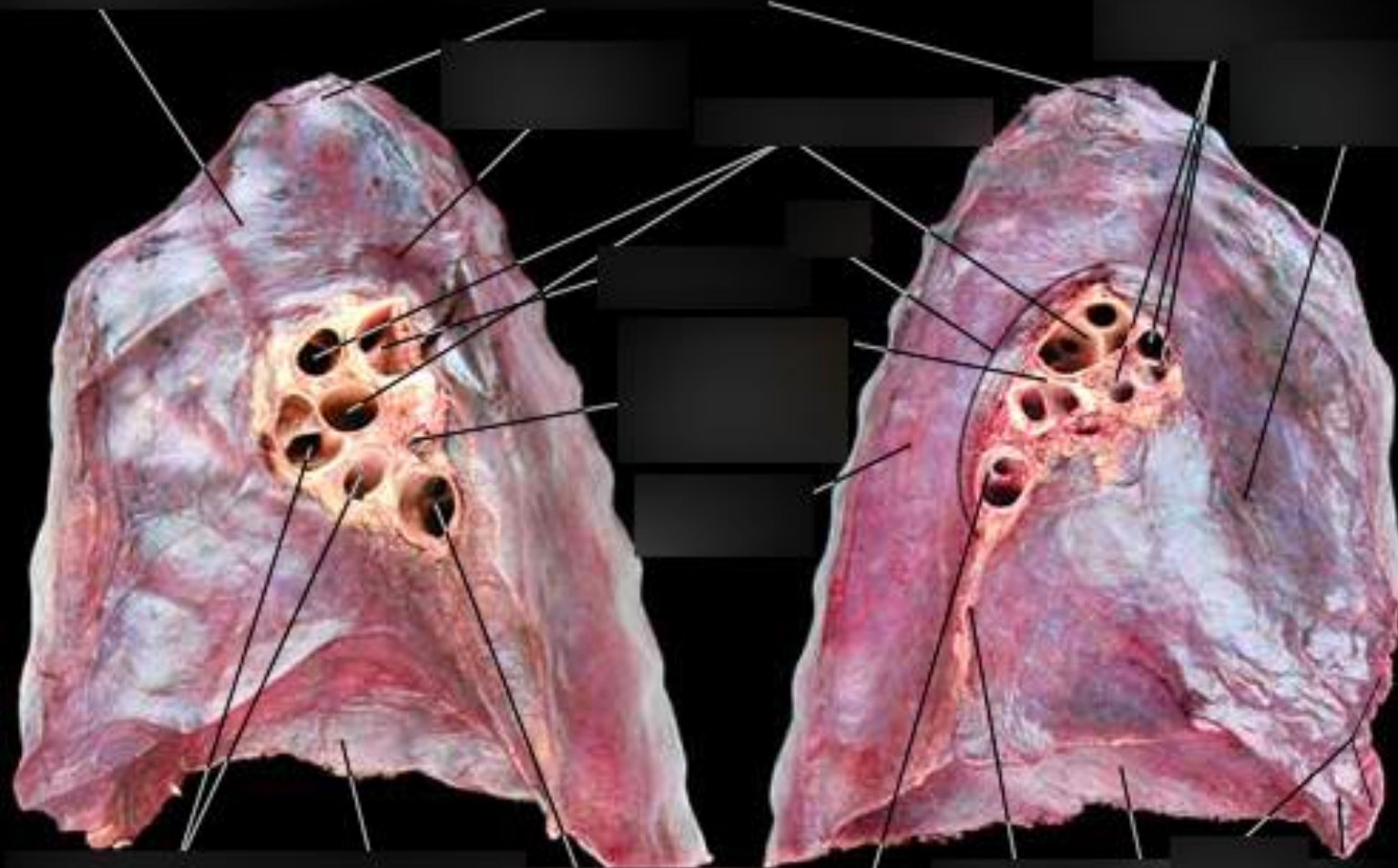
To the lungs - pulmonary arteries  
(only 2)

Away from the lungs - pulmonary  
veins (4 in total)

To the body - aorta

From the body - vena cava



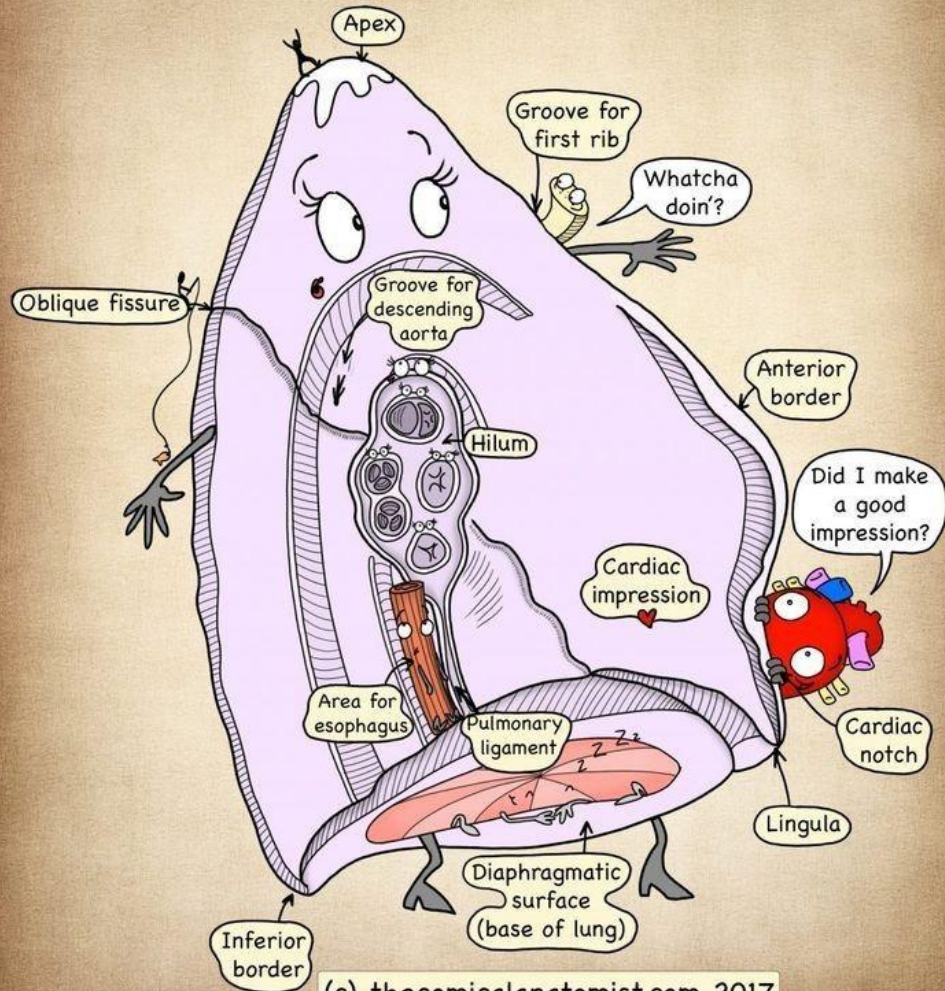


<https://quizlet.com/370279192/venous-system-cadaver-thorax-iii-respiratory-system-cadaver-exam-1-cadaver-lungs-anterior-view-right-lung-hilum-exam-1-cadaver-lungs-posterior-view-cadaver-heart-superior-view-heart-cadave-diagram/>

# Difference between right and left lung

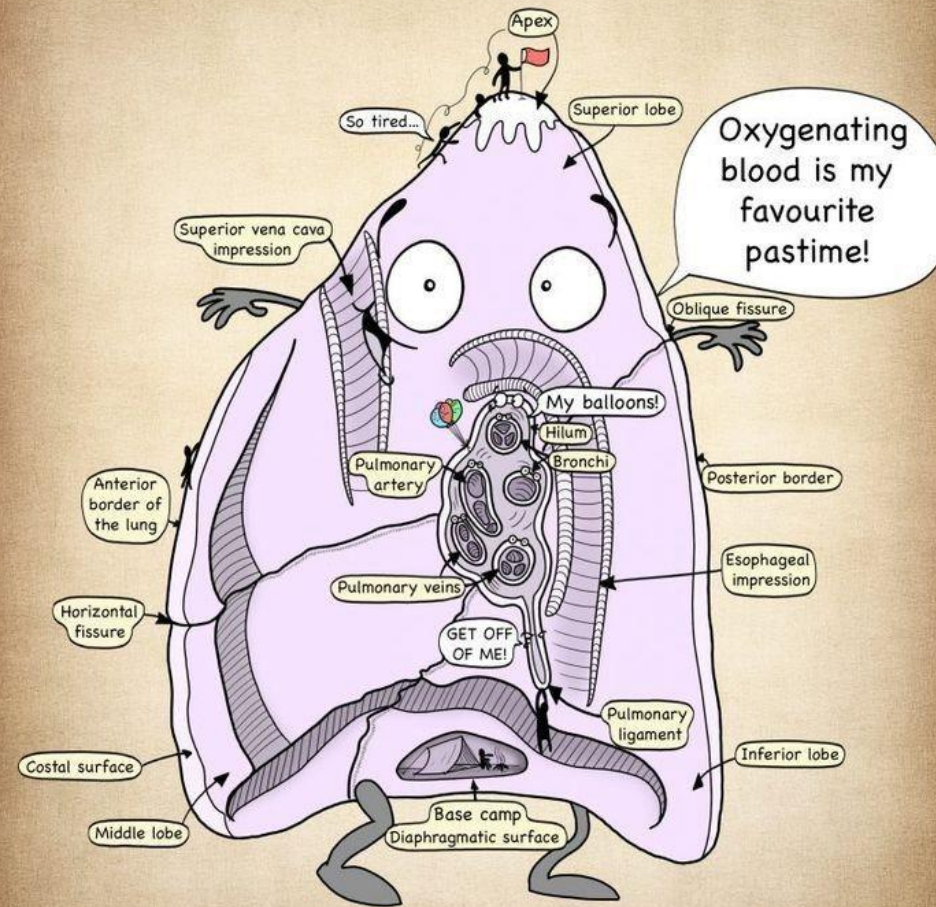
| Feature    | Right Lung | Left Lung |
|------------|------------|-----------|
| Size       |            |           |
| Lobes      |            |           |
| Shape      |            |           |
| Structures |            |           |

## THE LEFT LUNG



(c) thecomicalanatomist.com 2017

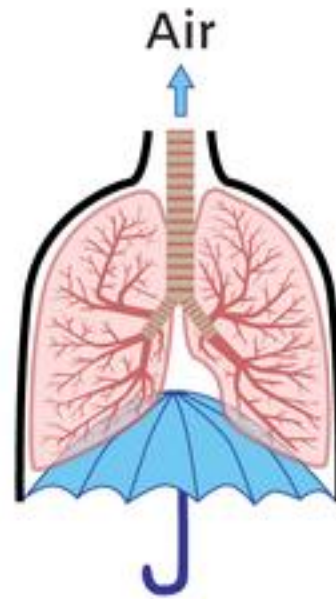
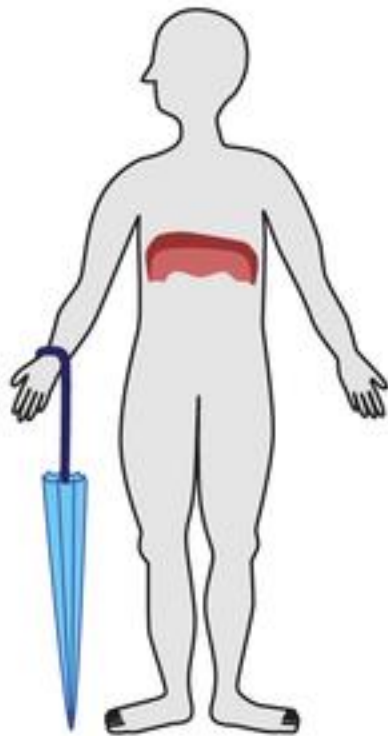
## THE RIGHT LUNG



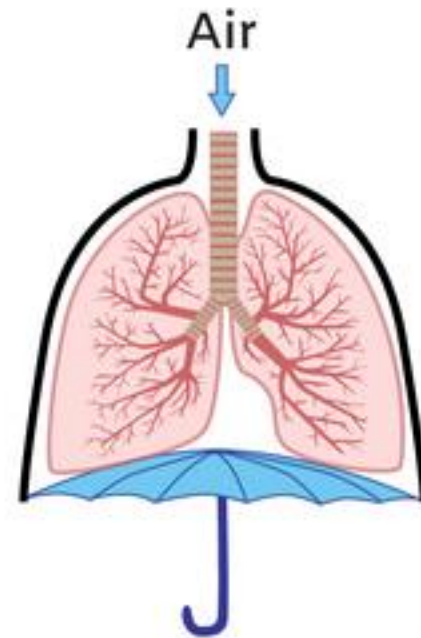
(c) thecomicalanatomist.com 2017

# Diaphragm

DIAPHRAGM = UMBRELLA MUSCLE



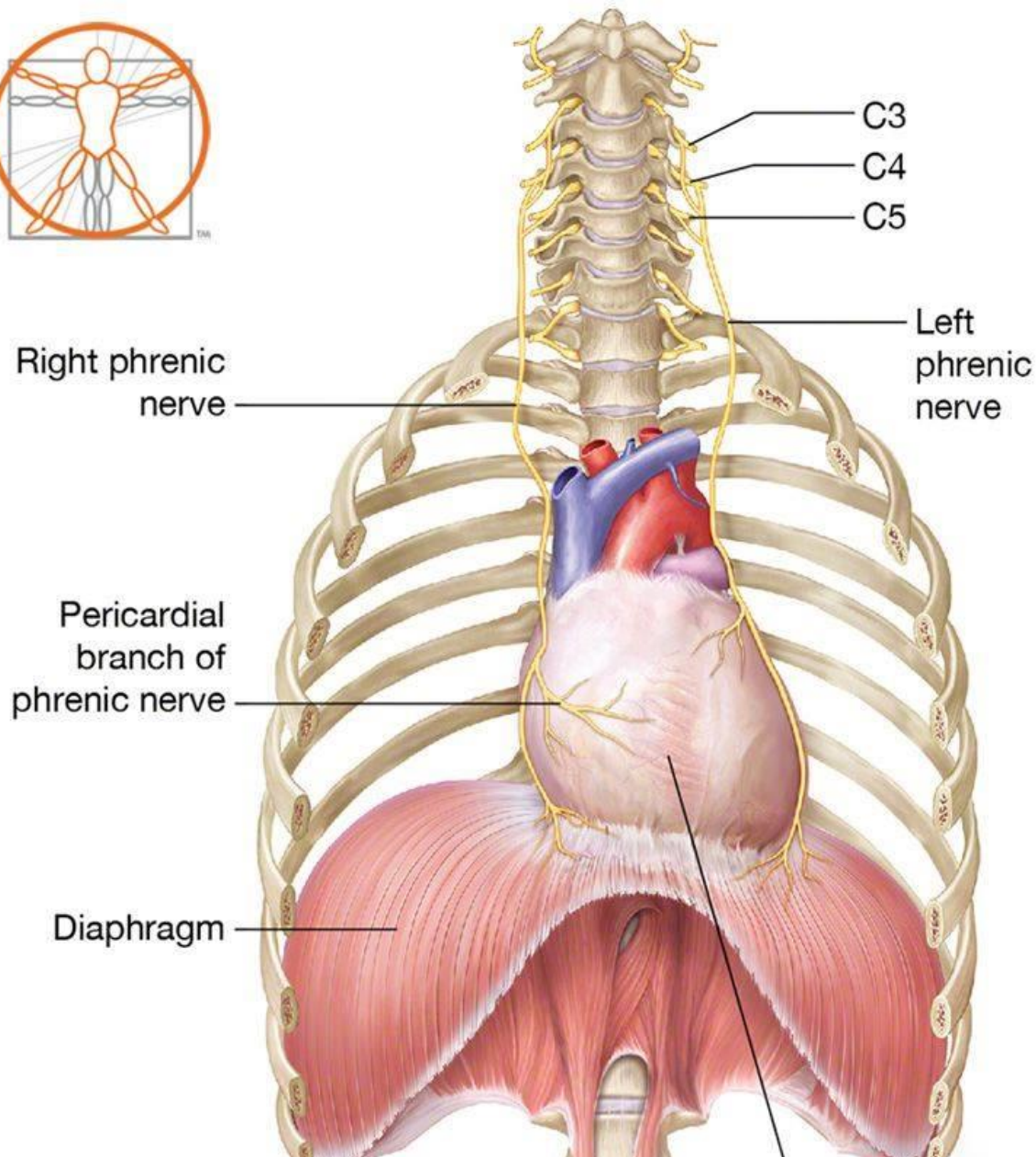
EXHALE (relax)  
Diaphragm Dome



INHALE (contract)  
Diaphragm Flatten

❖ Lungs action is the **OPPOSITE** of diaphragm's

# Diaphragm: Innervations



## ❖ Phrenic nerve

- ❖ sensory innervation to central tendon of diaphragm

## ❖ C3, C4, C5 to keep diaphragm alive

## ❖ Intercostal (within ribs) and subcostal (below ribs) nerves

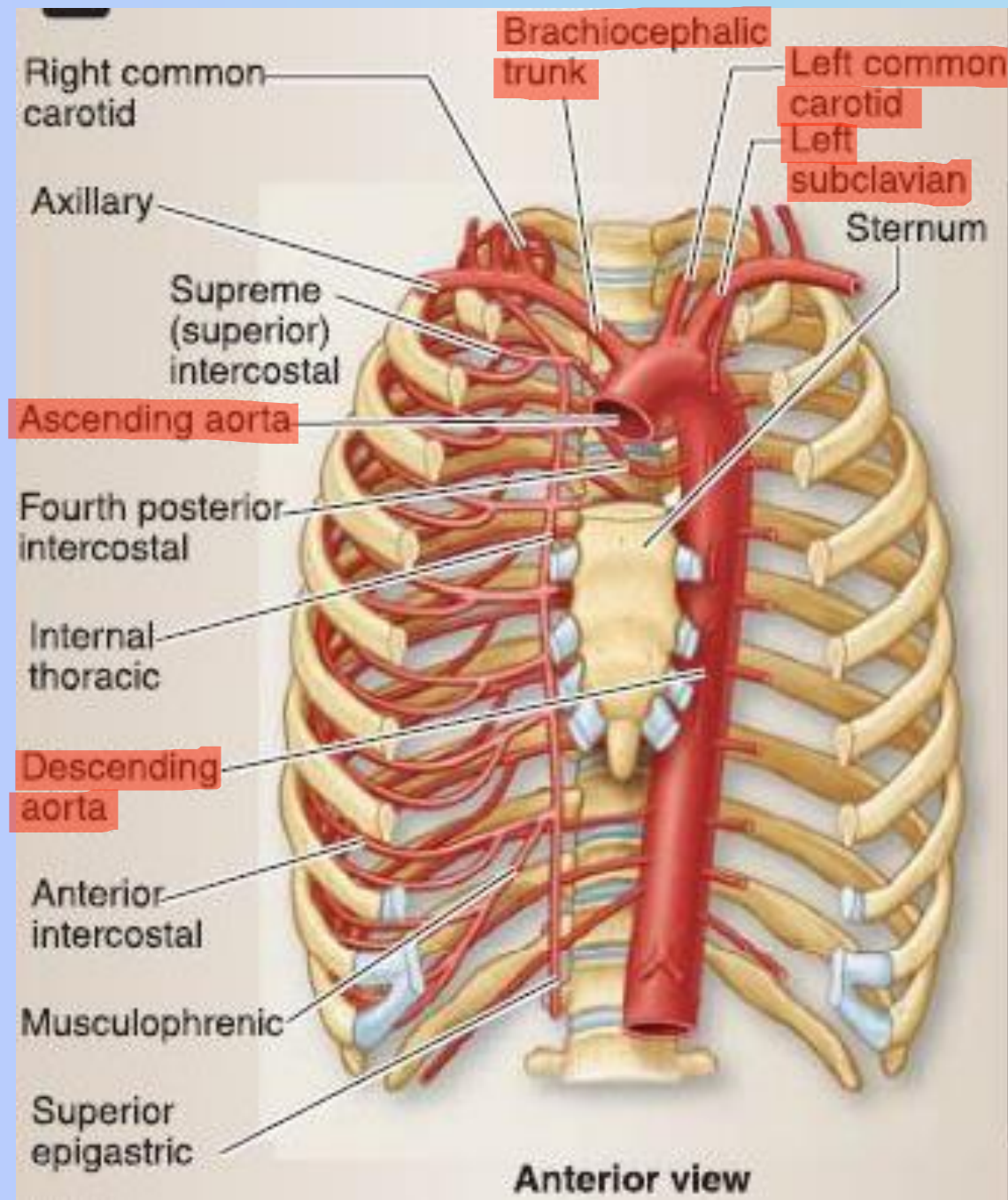
- ❖ sensory innervation to peripheral part of diaphragm
- ❖ T5-T11 and T12
- ❖ ribs are closer to periphery

➤ phrenic from Greek means diaphragm

# Thoracic Cavity



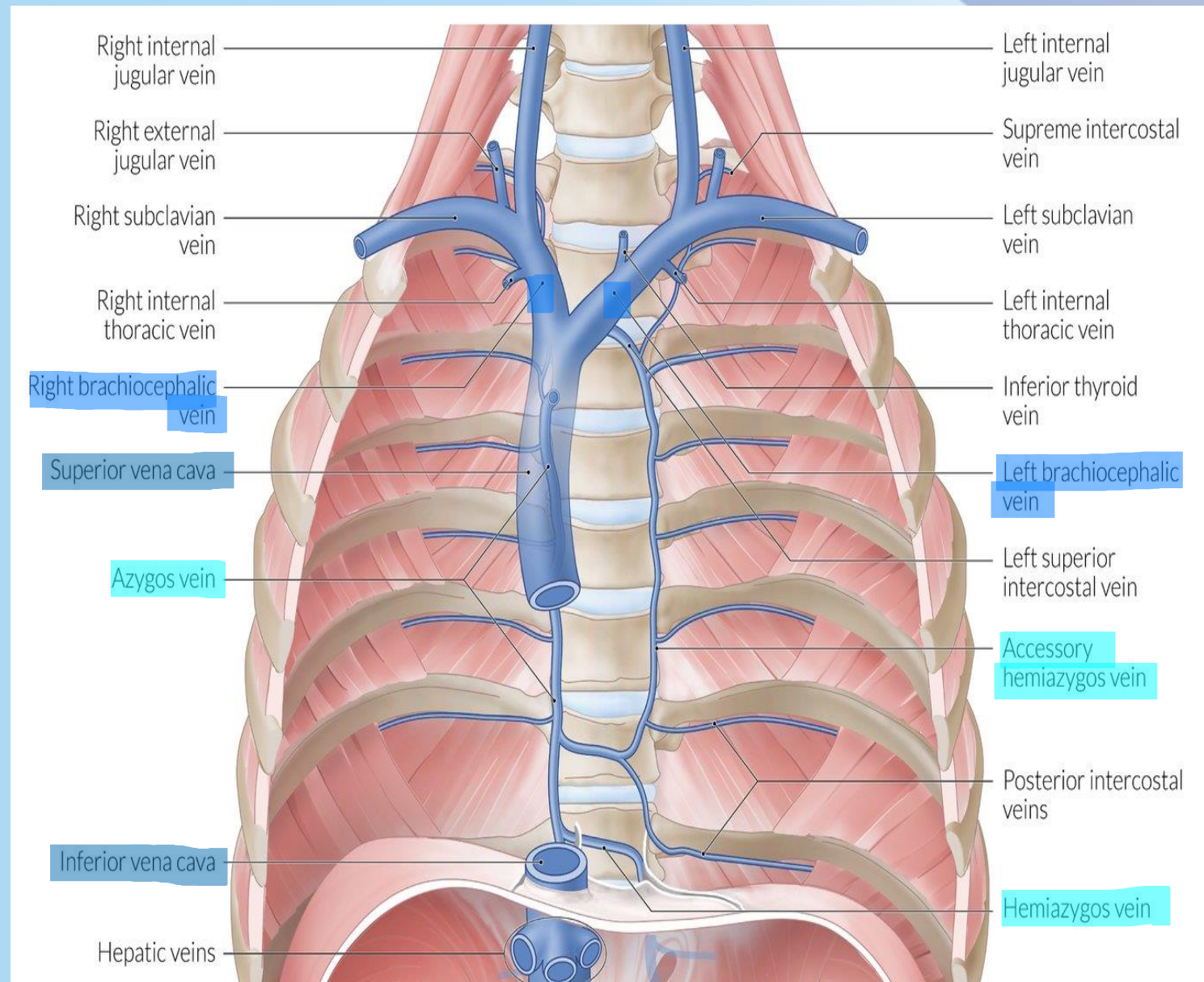
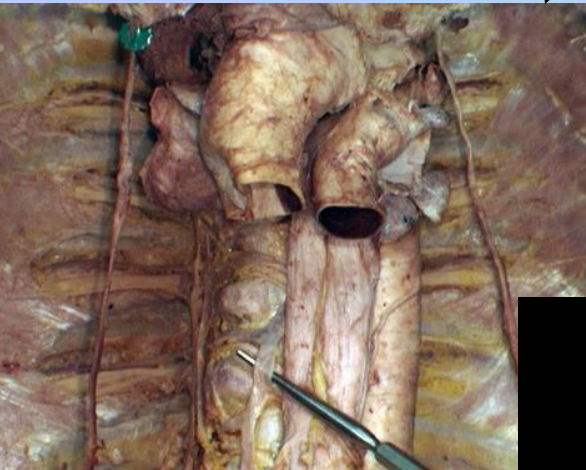
# Relevant Arteries



- Carotid goes to neck, so its 1<sup>st</sup>, **then** subclavian under clavicle
- Anterior & posterior intercostal wrap around front and back of rib cavity respectfully (name speaks for itself)

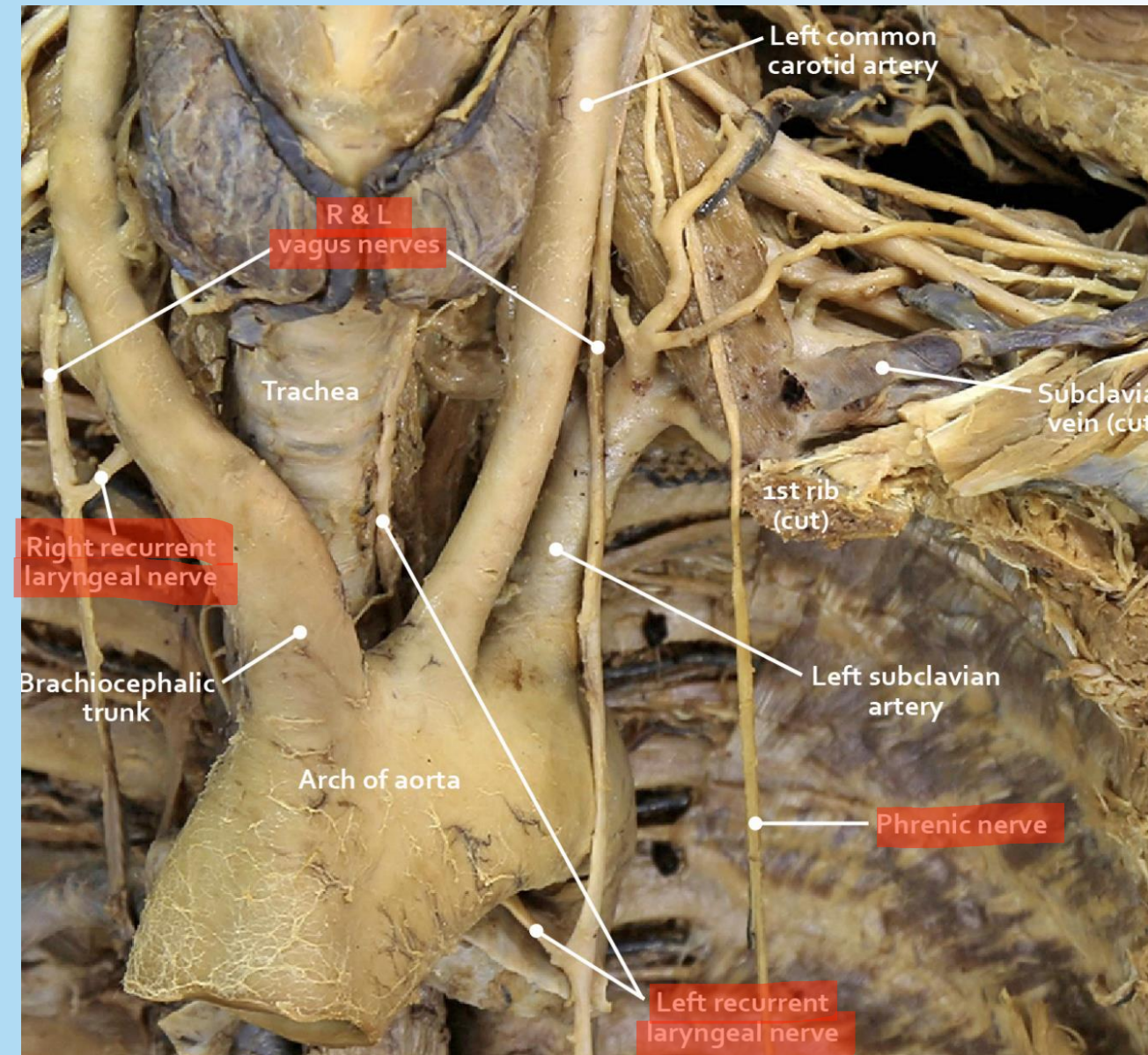
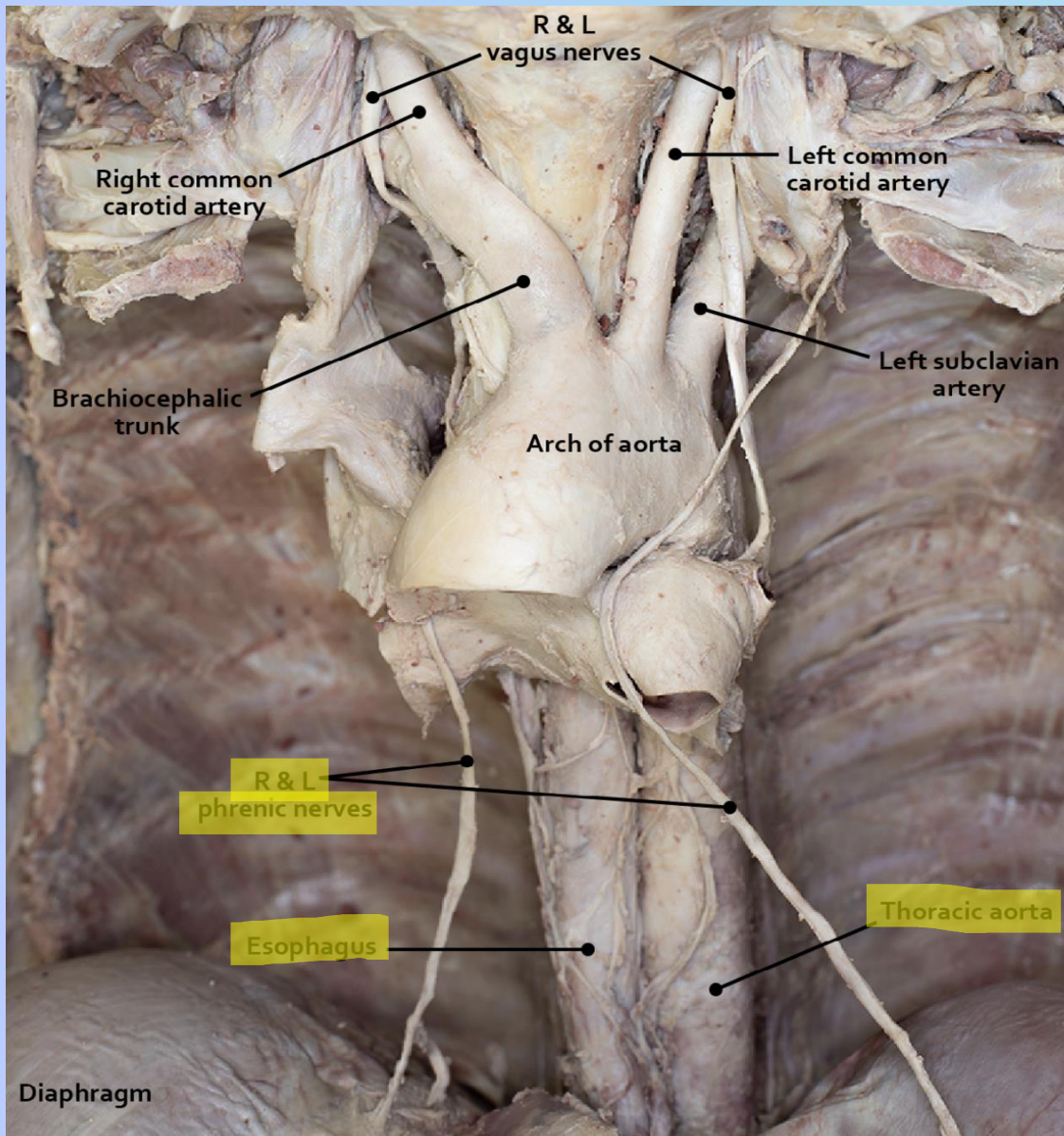
# Relevant Veins

- Azygos vein is **BEHIND** vena cava and is close to vertebrae

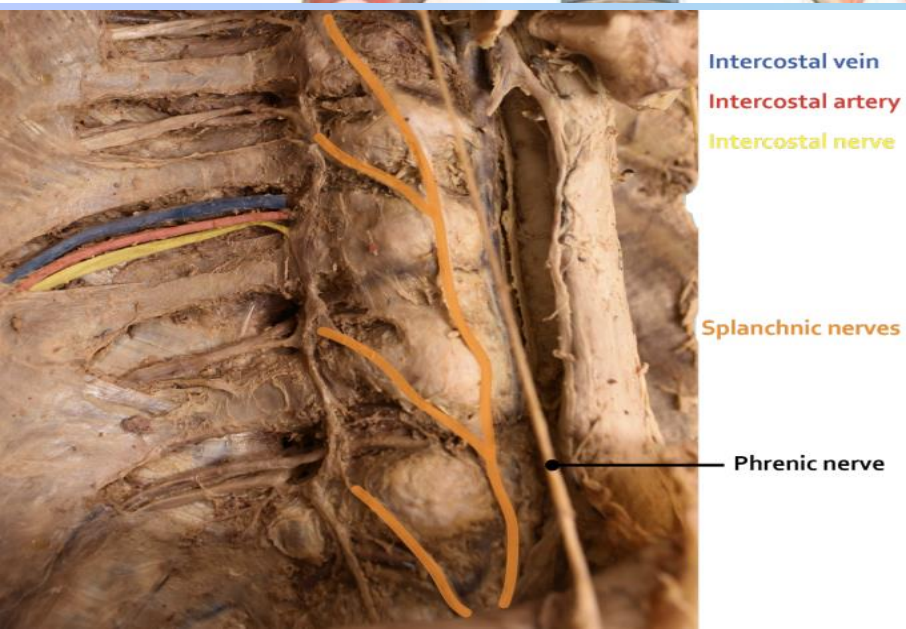
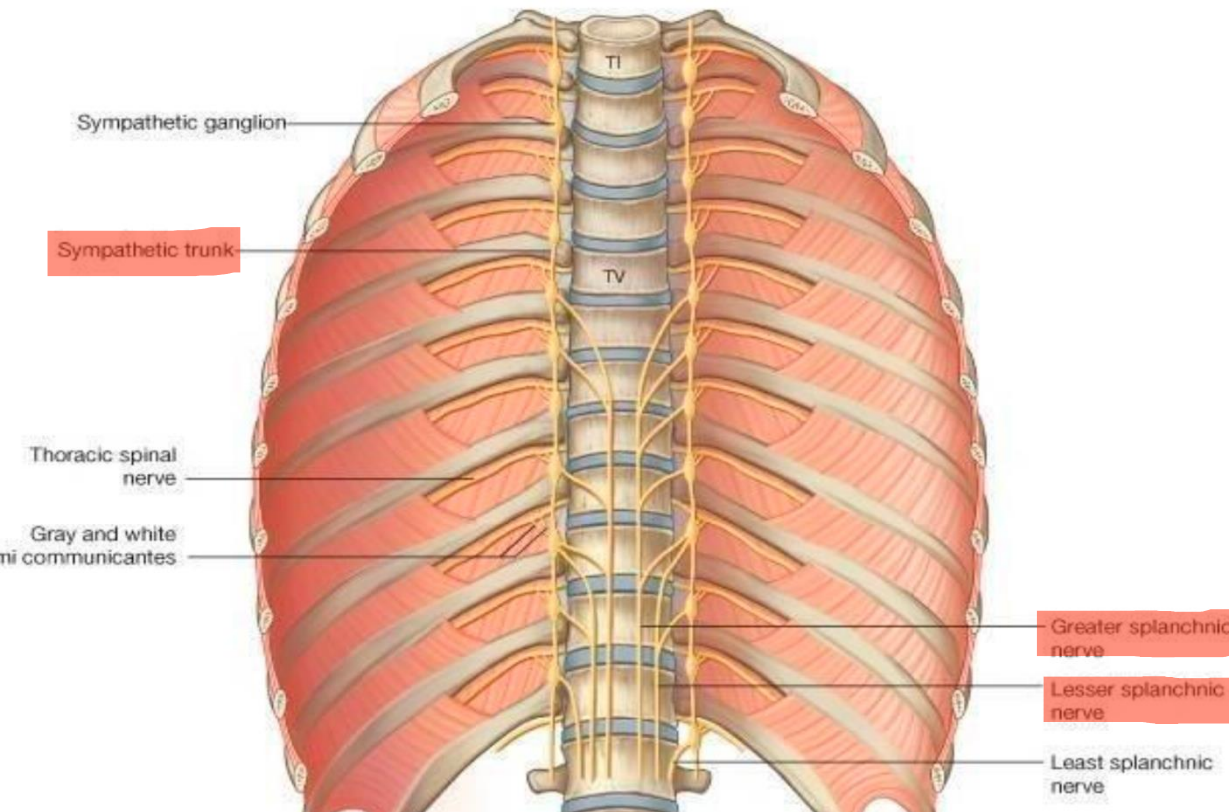


- Hemiazygos-lower and transverse on column

# Relevant Nerves



# Relevant Nerves



- Phrenic nerve-longest branch from C3-C5 plexus (vagus longest in the body)
- Right recurrent laryngeal nerve **HIGHER** than left recurrent laryngeal nerve
- Right recurrent - closer to brachiocephalic trunk
- Left recurrent - closer to arch of aorta
- **L**eft=**L**ower
- Posterior intercostal VAN - those branches are next to each other

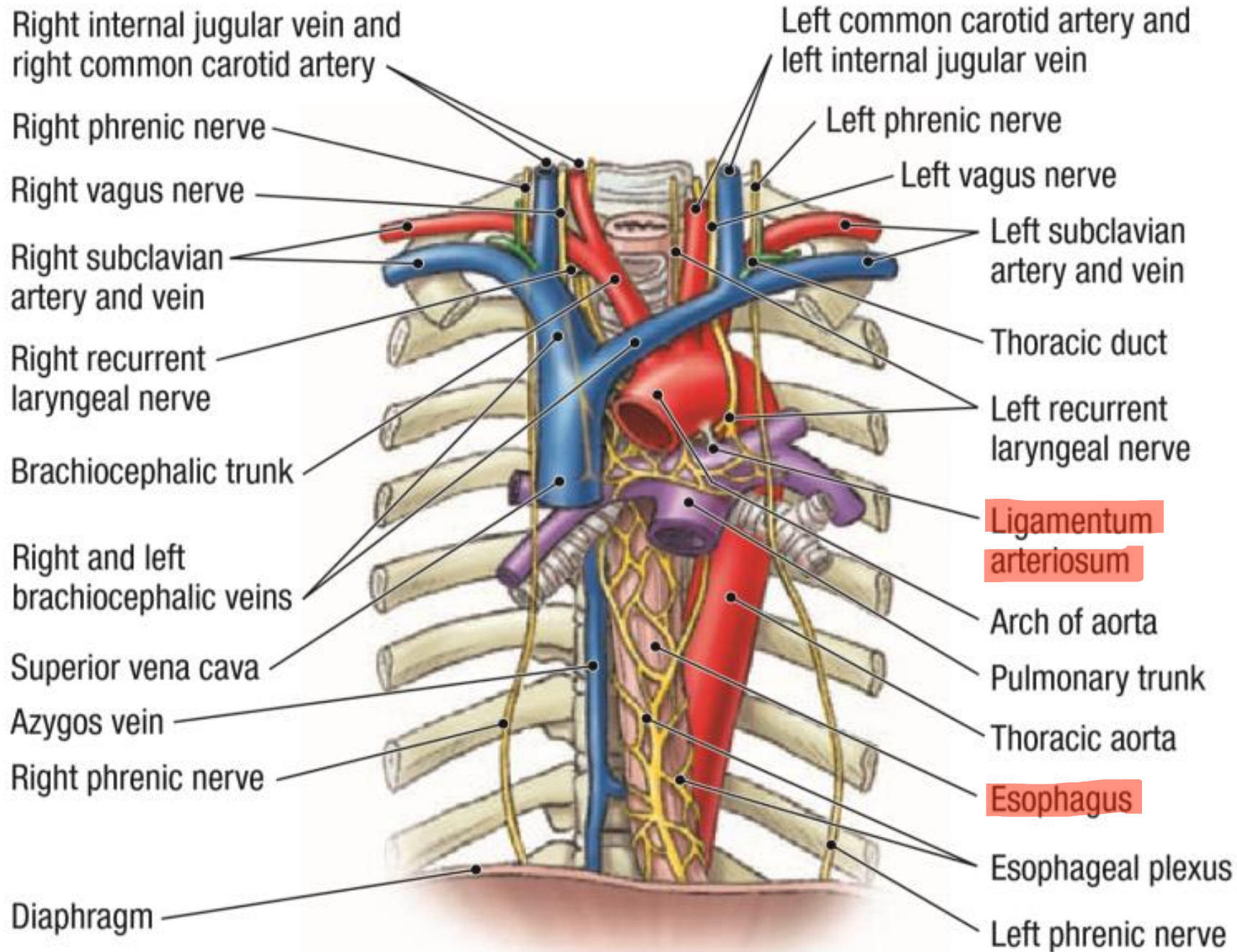
# What nerve can be responsible for this?

No one:

My left lung occasionally when I try to breathe in or out too much:



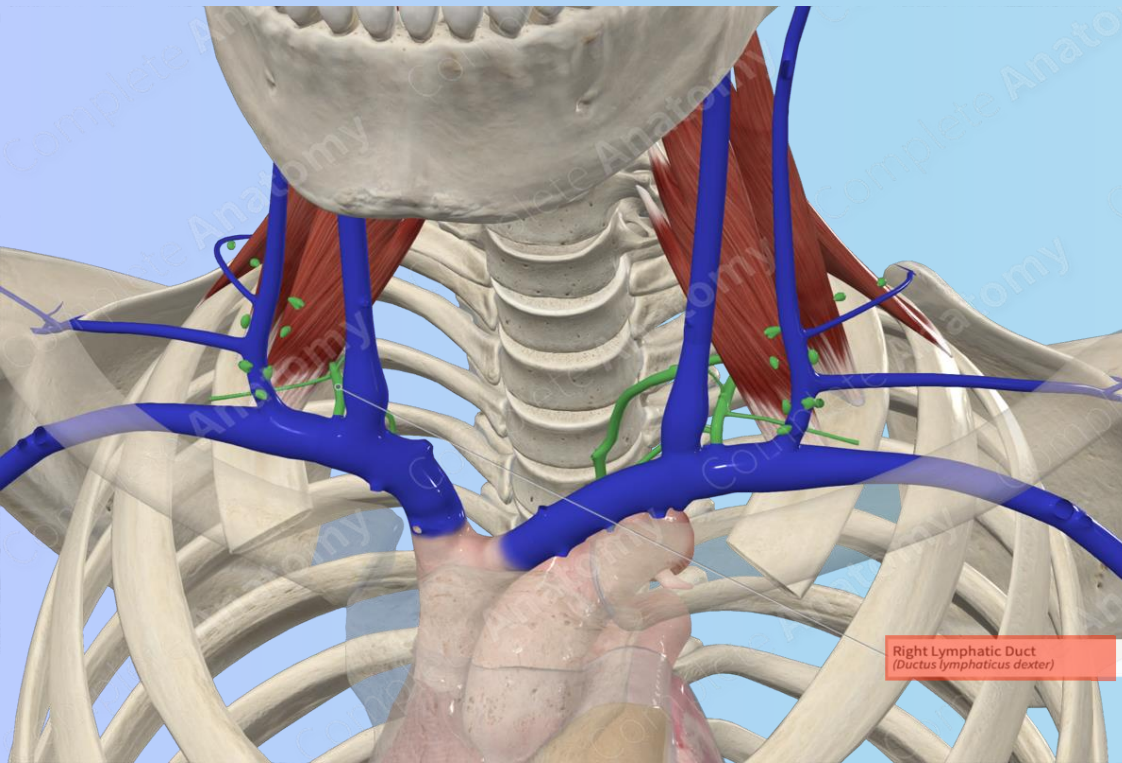
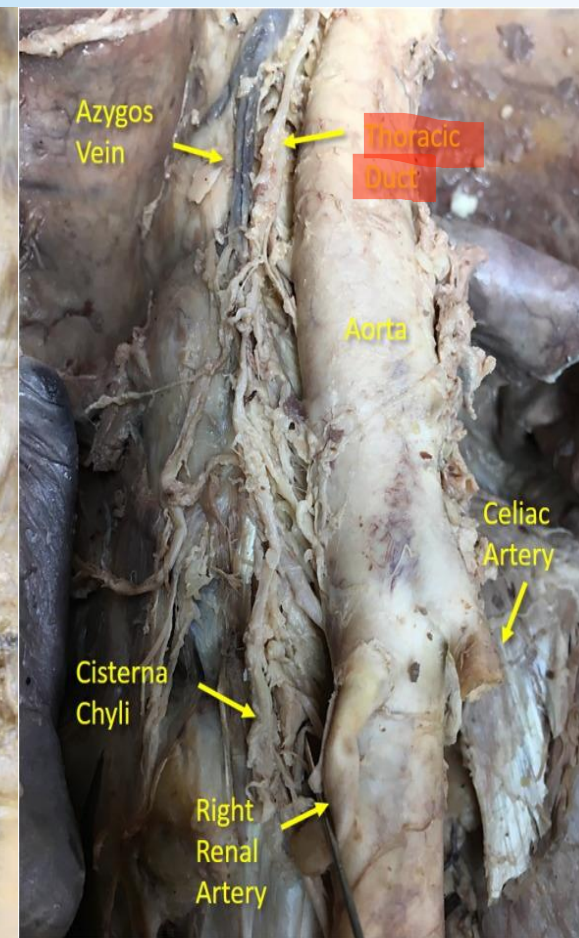
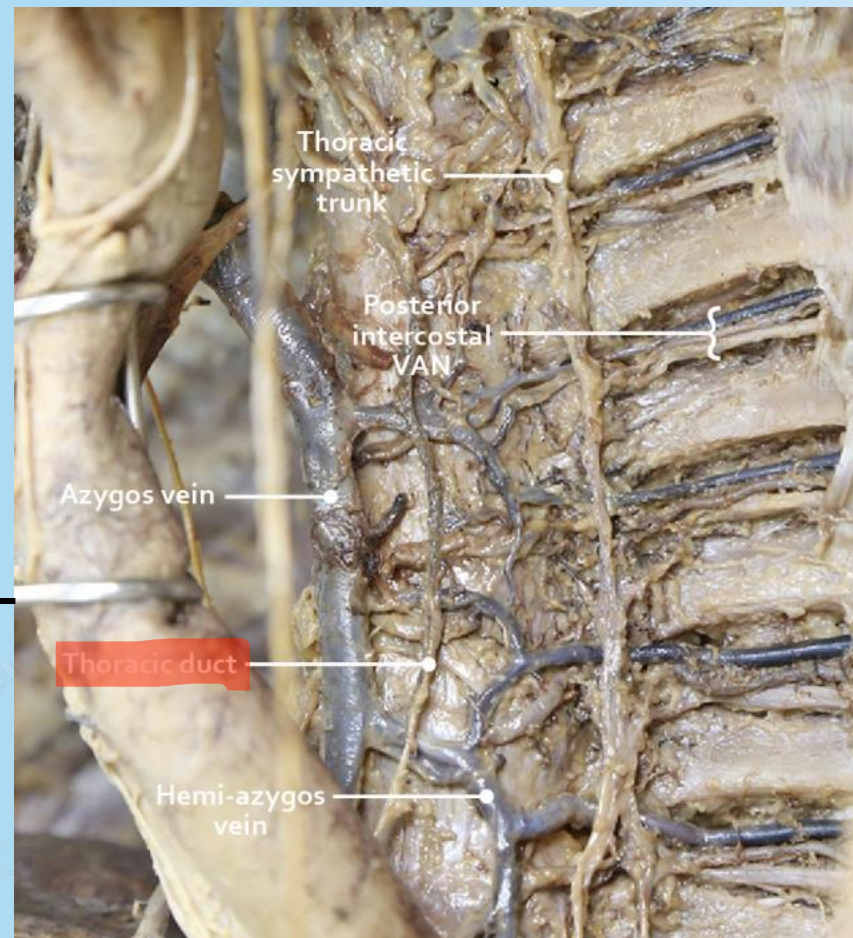
- Intercostal nerve☺



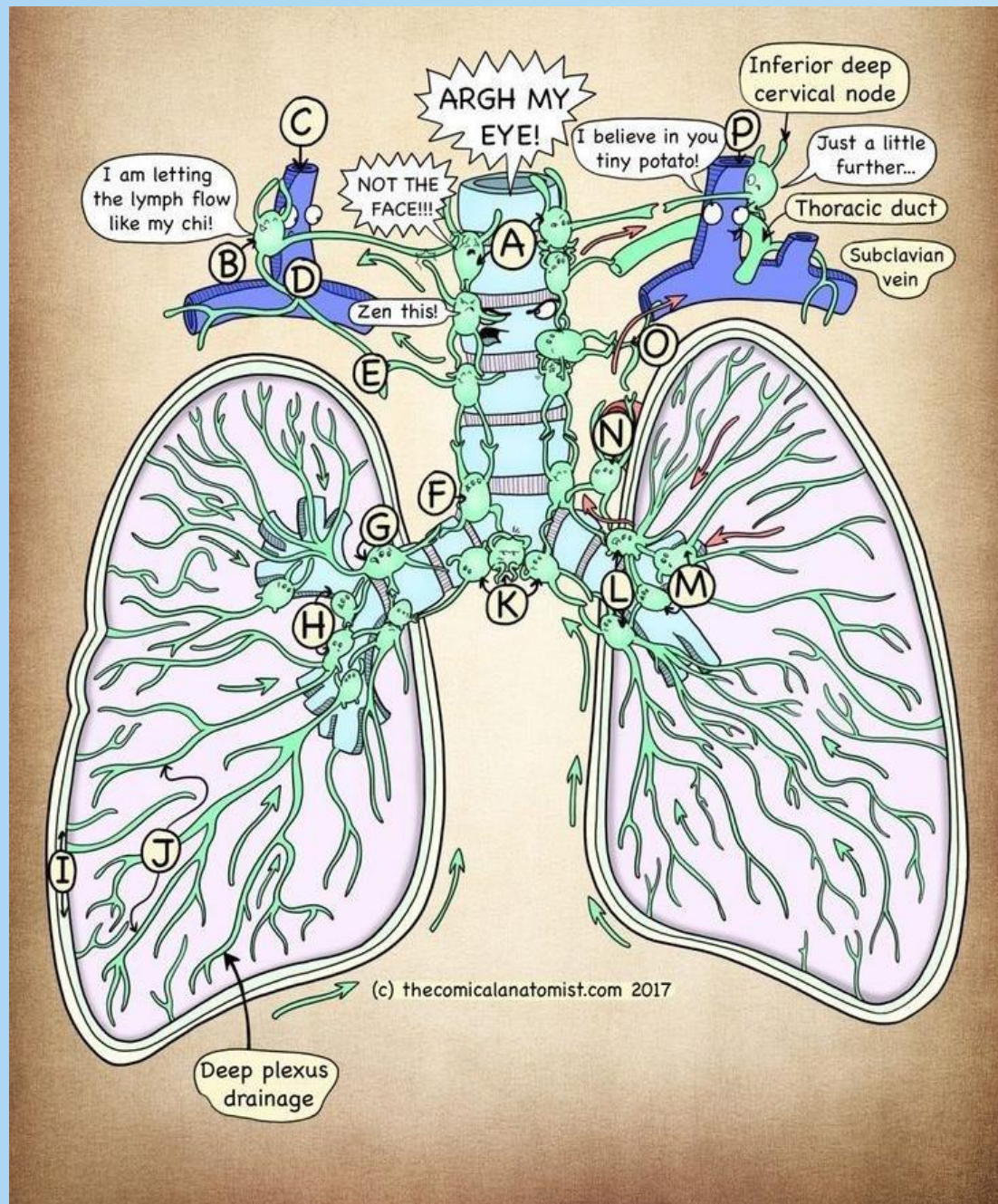
❖ Ligamentum arteriosum-connects in between aortic arch and pulmonary trunk

# Relevant Lymphatics

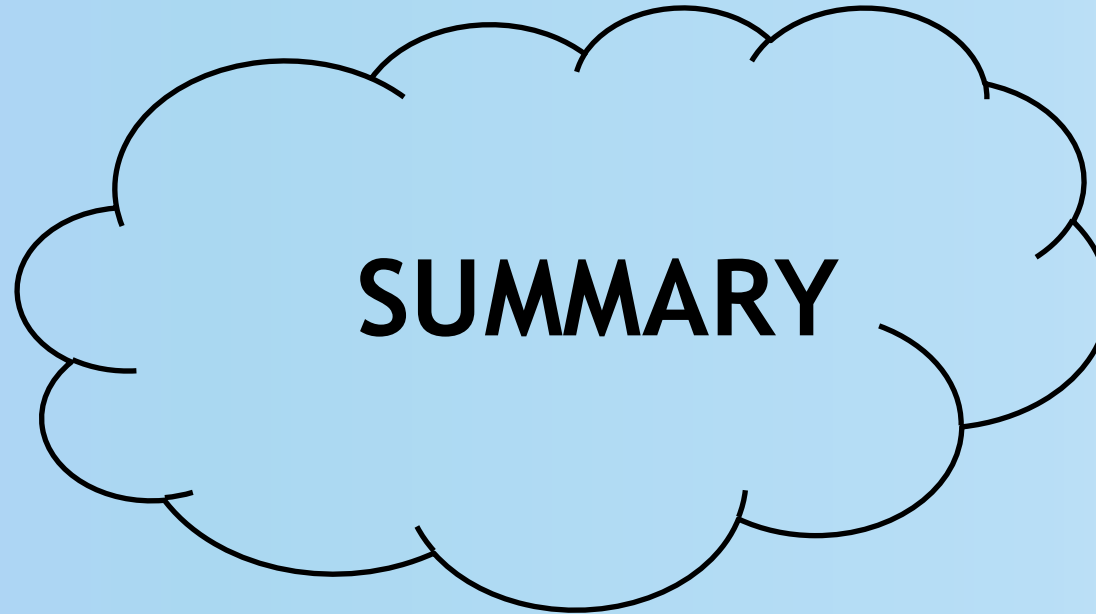
- **Thoracic duct** - to the right of azygous vein and to the left of thoracic aorta
- Merges at left subclavian and left internal jugular vein



- Right Lymphatic duct-between right subclavian vein and internal jugular
- OPPOSITE of thoracic duct



- Right vs Left



- Diaphragm

- Lymphatics

- Arteries, Veins & Nerves

# Thank you ♥

**ME: BREATHES**  
**ME: THINKS ABOUT IT**  
**MY LUNGS:**



# References:

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