

Lung and Pleura Anatomy with Radiographic Correlation

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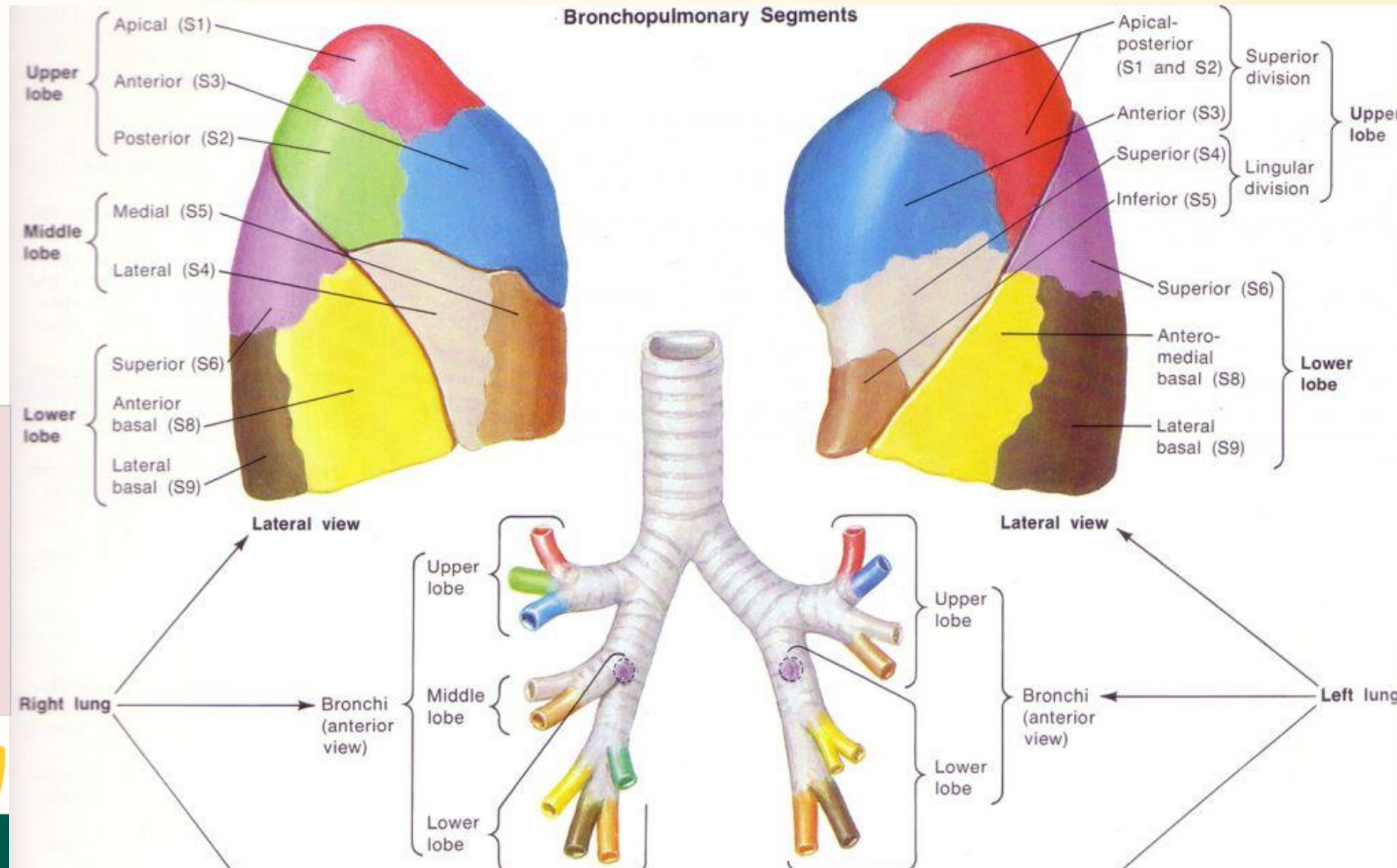
Detroit, Michigan



Pulmonary and airway anatomy



Pulmonary anatomy can be overwhelming when you are starting fellowship. This is normal 😊



Mnemonic

Right lung—**A PALM** Seed
Makes **A**nother Little **P**alm

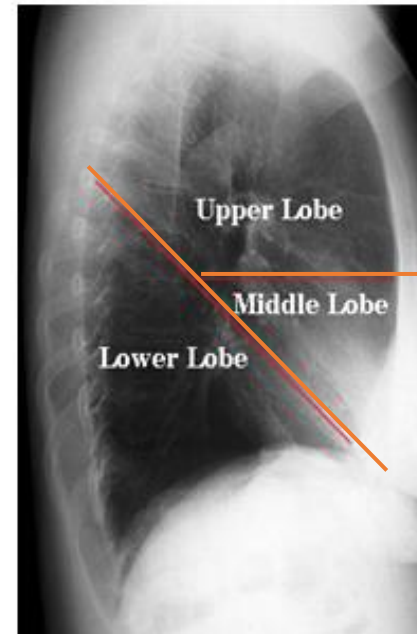
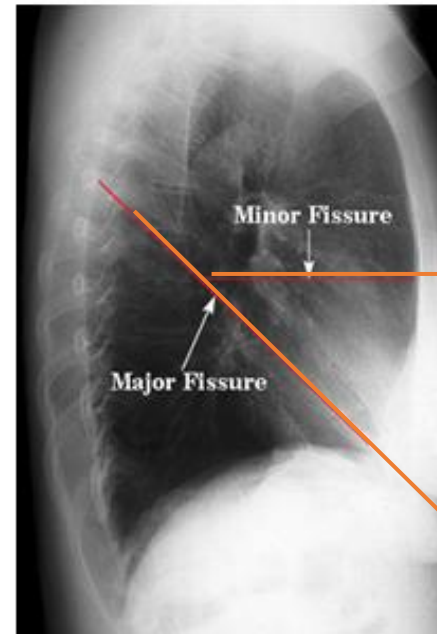
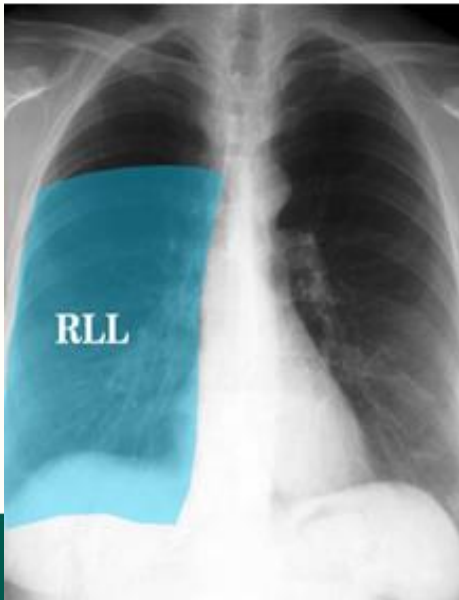
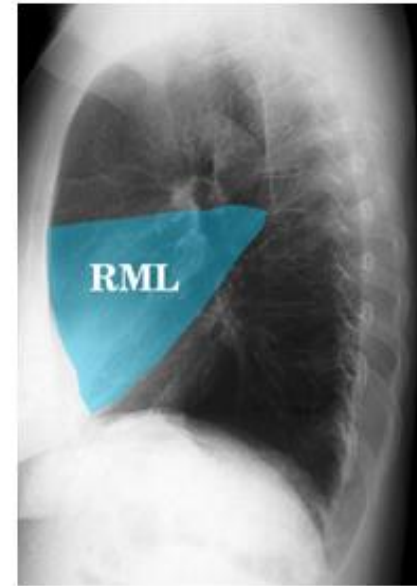
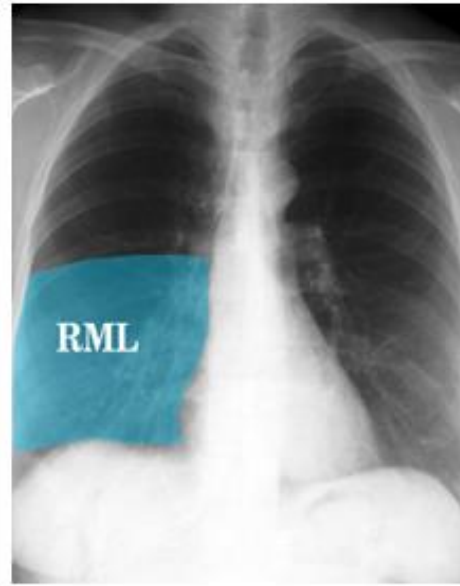
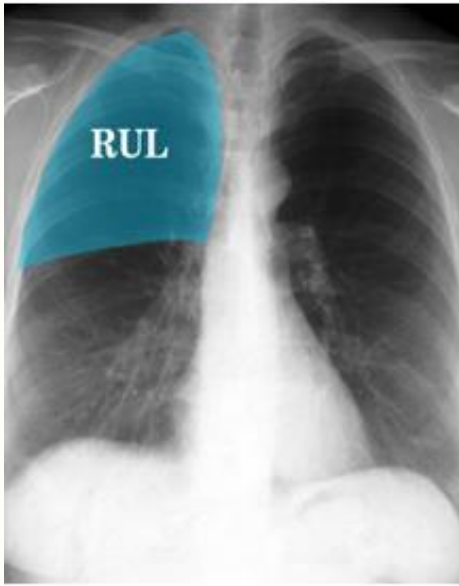
Anterior
Posterior
Apical
Lateral
Medial
Superior
Medial—basal
Anterior—basal
Lateral—basal
Posterior—basal

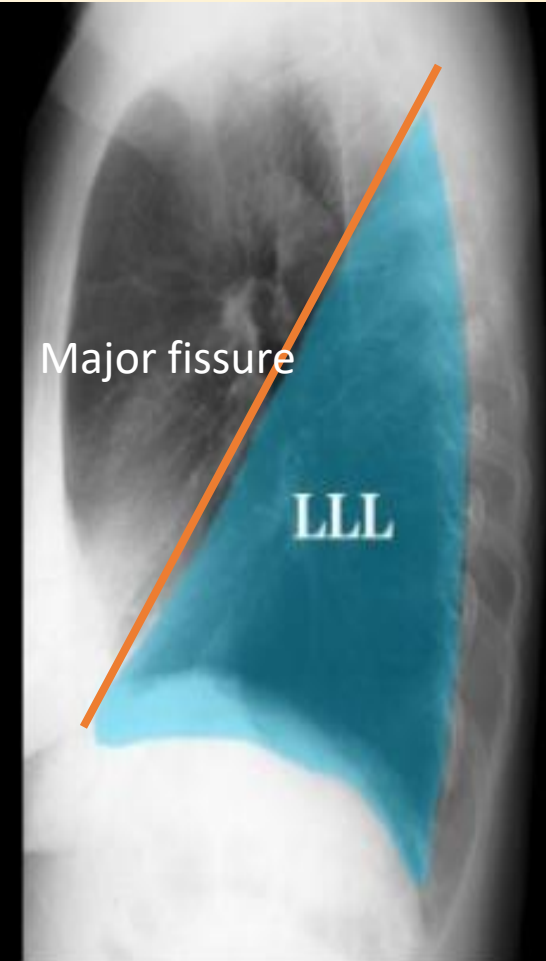
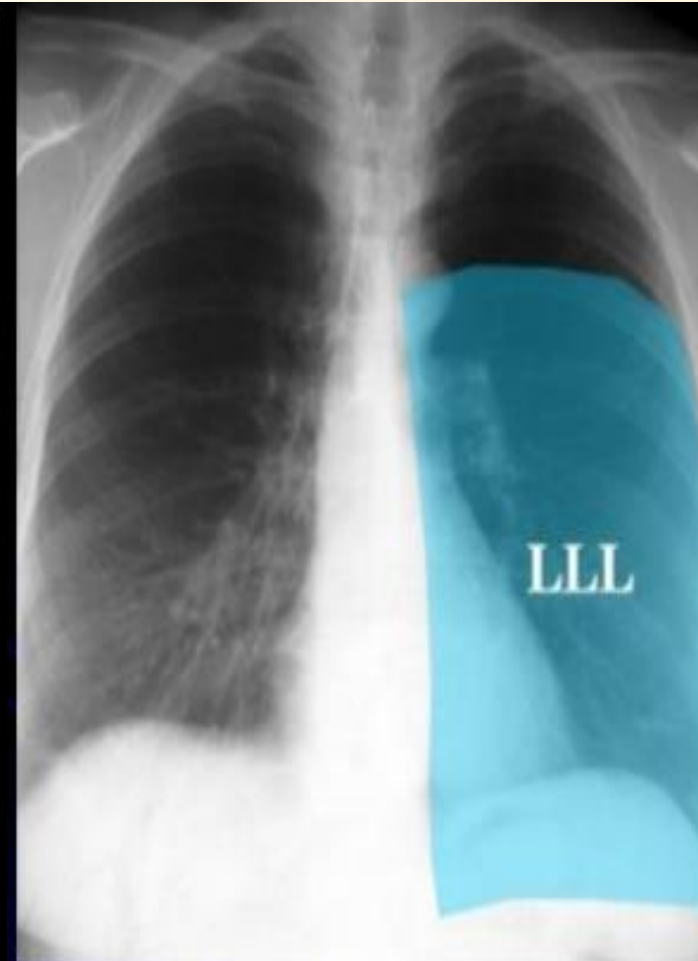
Mnemonic

Left lung—**All** Attendings
Sat In **Sun** And **Praised**
Lungs

Apicoposterior
Anterior
Superior—lingular
Inferior—lingular
Superior
Anteromedial—basal
Posterior—basal
Lateral—basal

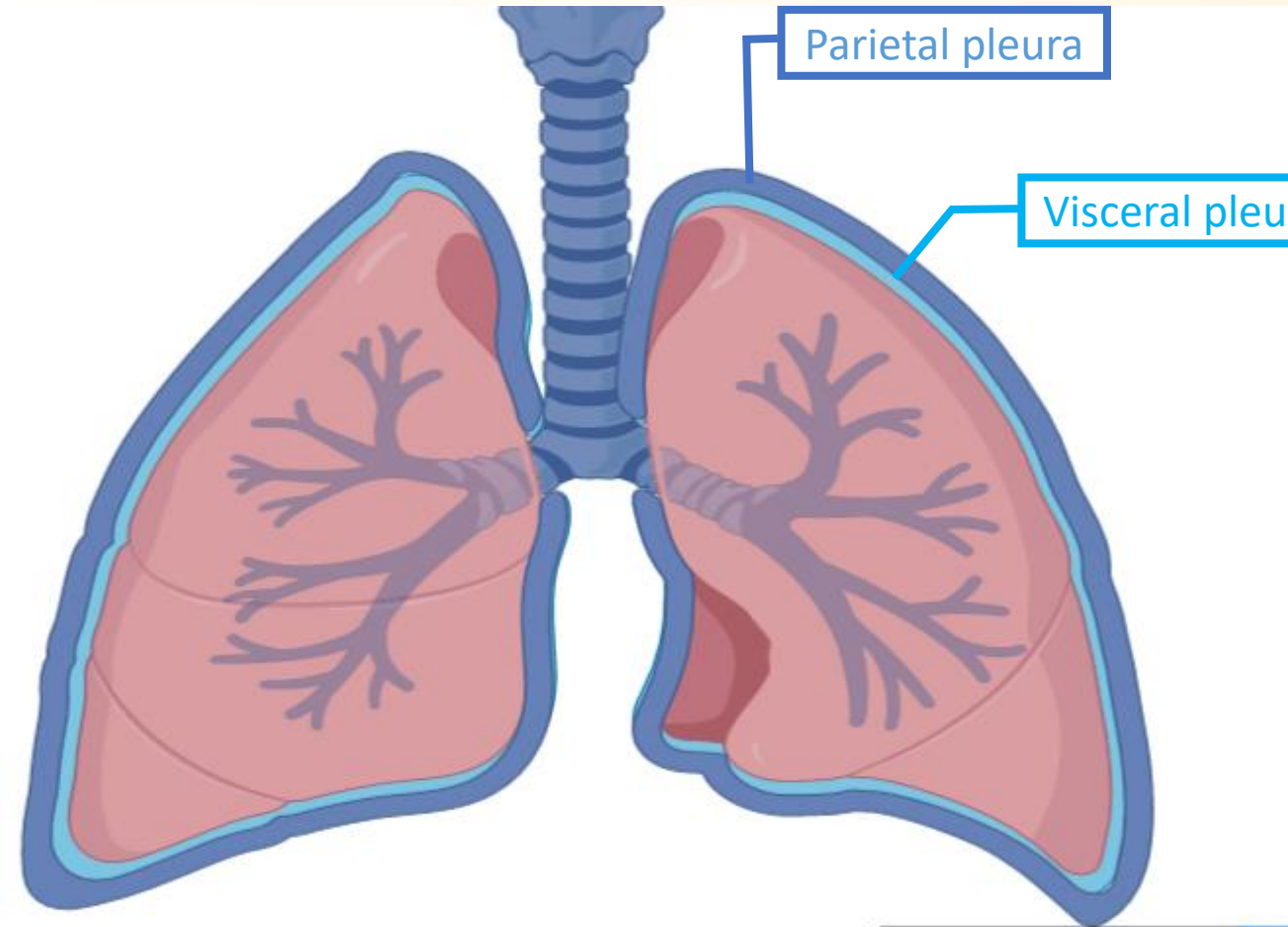






Pleura





Parietal pleura

Visceral pleura

Parietal pleura:

- lines the inner chest wall
- Has sensory innervation → sensitive to pain (thoracentesis)
- Blood supply → intercostal arteries

Pleural space:

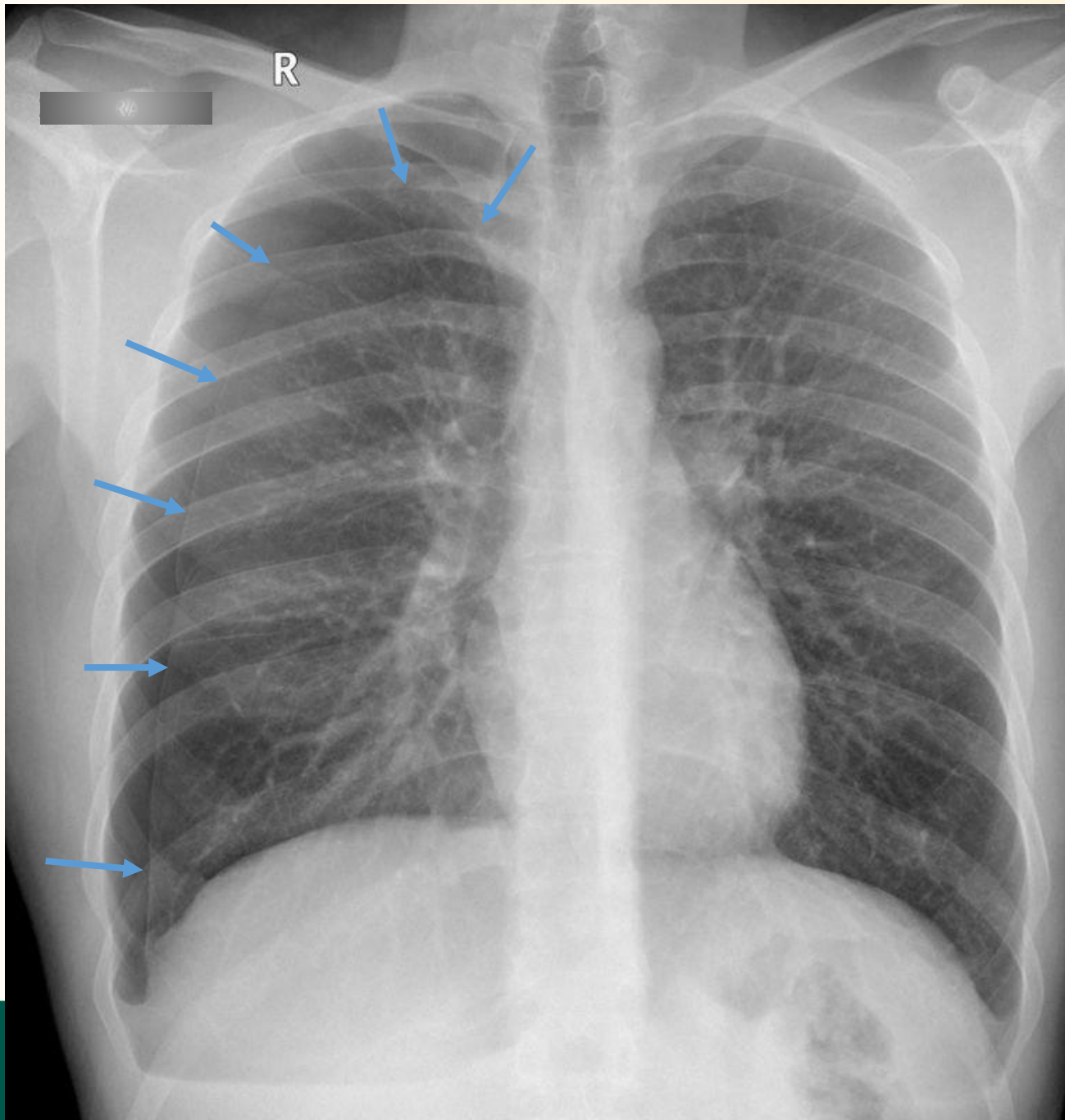
- Very thin fluid filled space
- Allows for smooth sliding of visceral and parietal pleura → creates surface tension → transmits movement of the chest wall and diaphragm to the lung
- Inhalation: External intercostals and diaphragm contract → chest expands → negative pressure → lung volume increases

Visceral pleura:

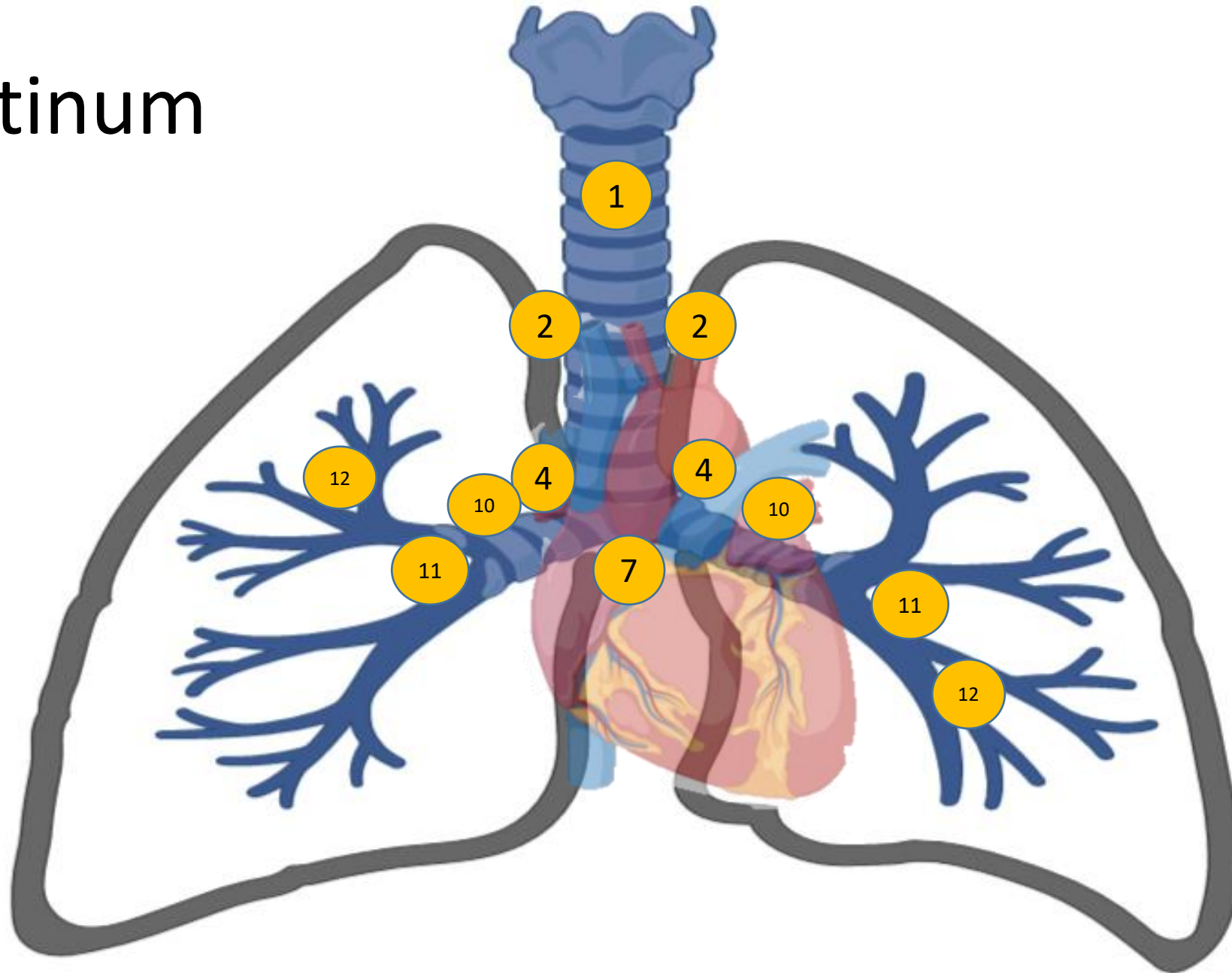
- Covers the outer surface of the lung
- NO sensory innervation
- Blood supply → bronchial circulation

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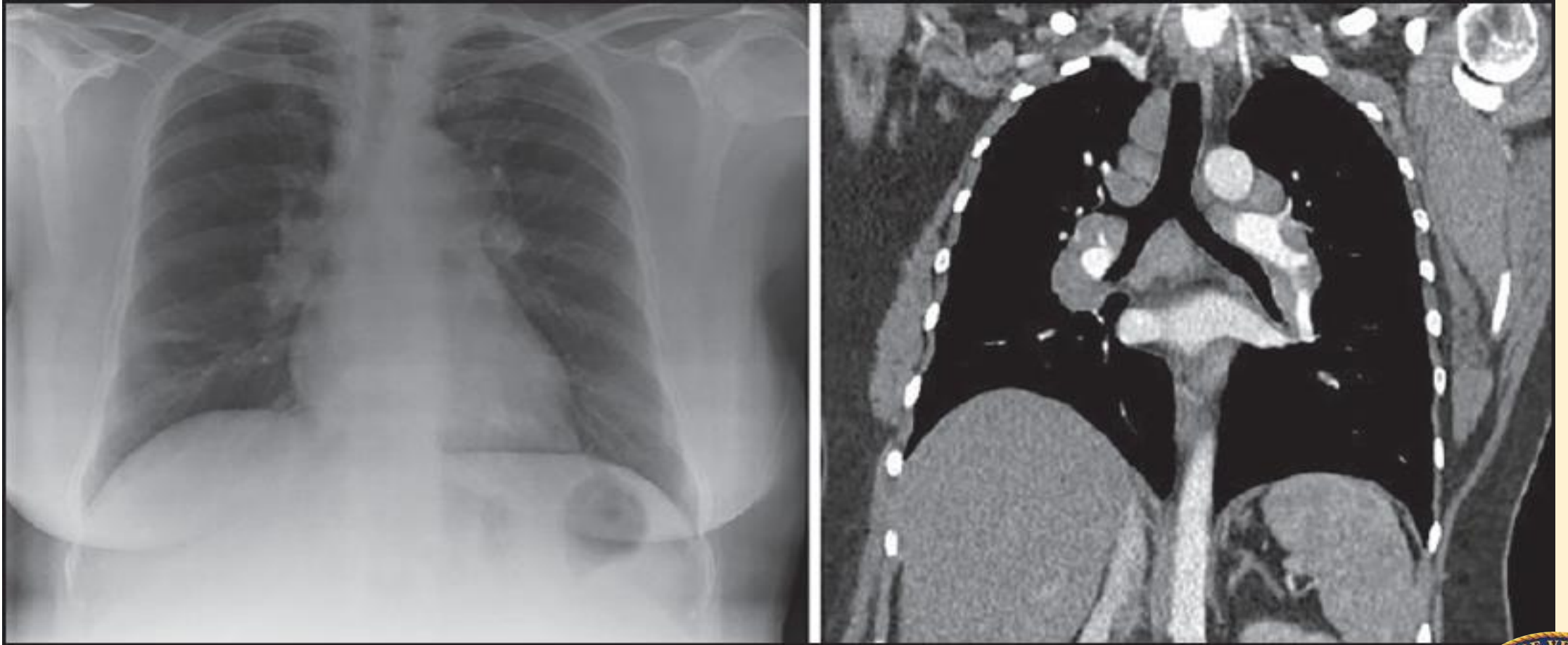




Mediastinum



35 YF with cough



Suut S, Al-Ani Z, Allen C, Rajiah P, De, AL-Harbi A, AL-Jahdali H, Khan AN. Pictorial essay of radiological features of benign intrathoracic masses . Ann Thorac Med 2015;10:231-42

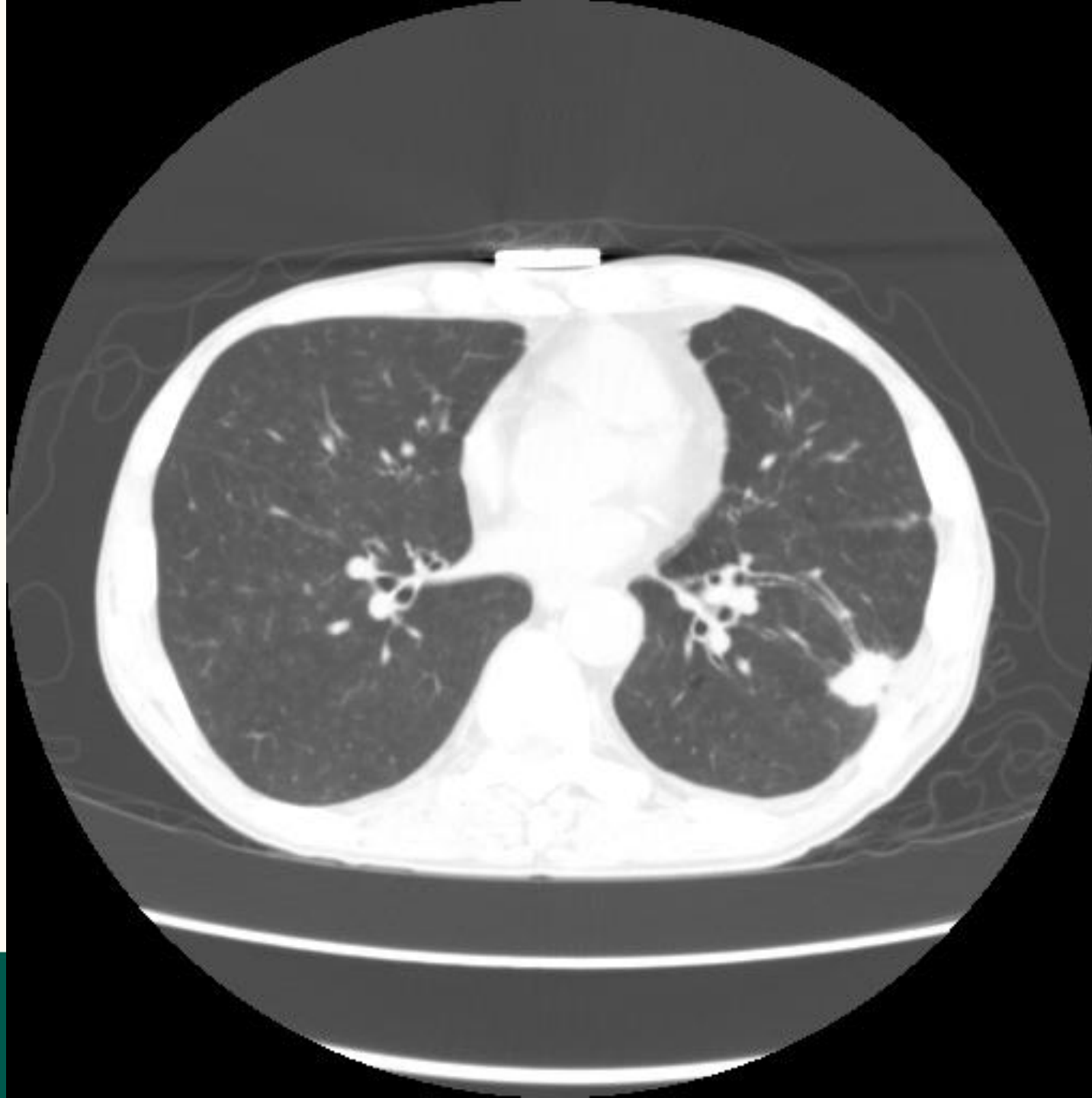


CT Imaging of the lung

- Localizing parenchymal abnormality (i.e. lung mass)
- Start at the abnormality and work backwards











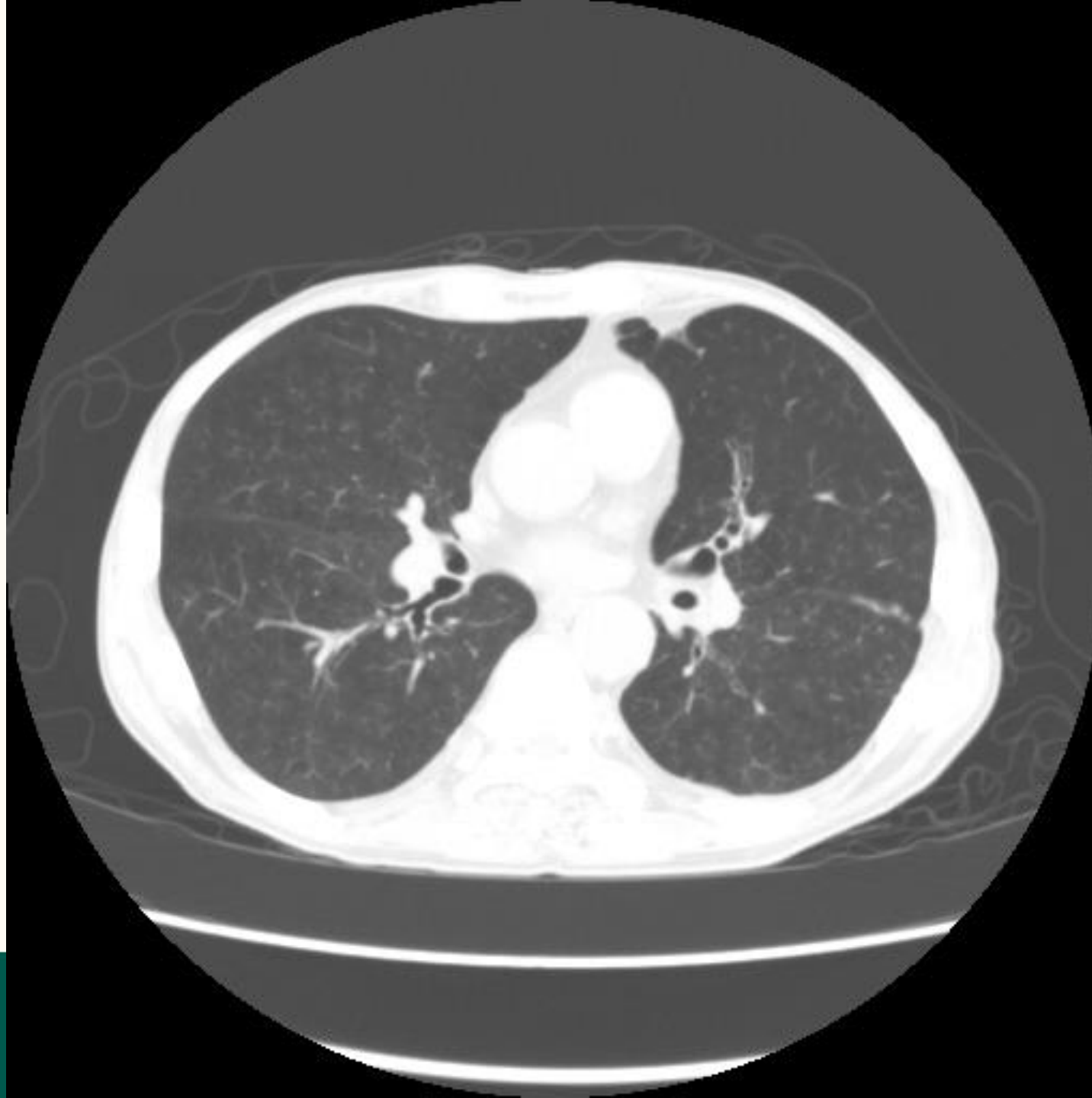




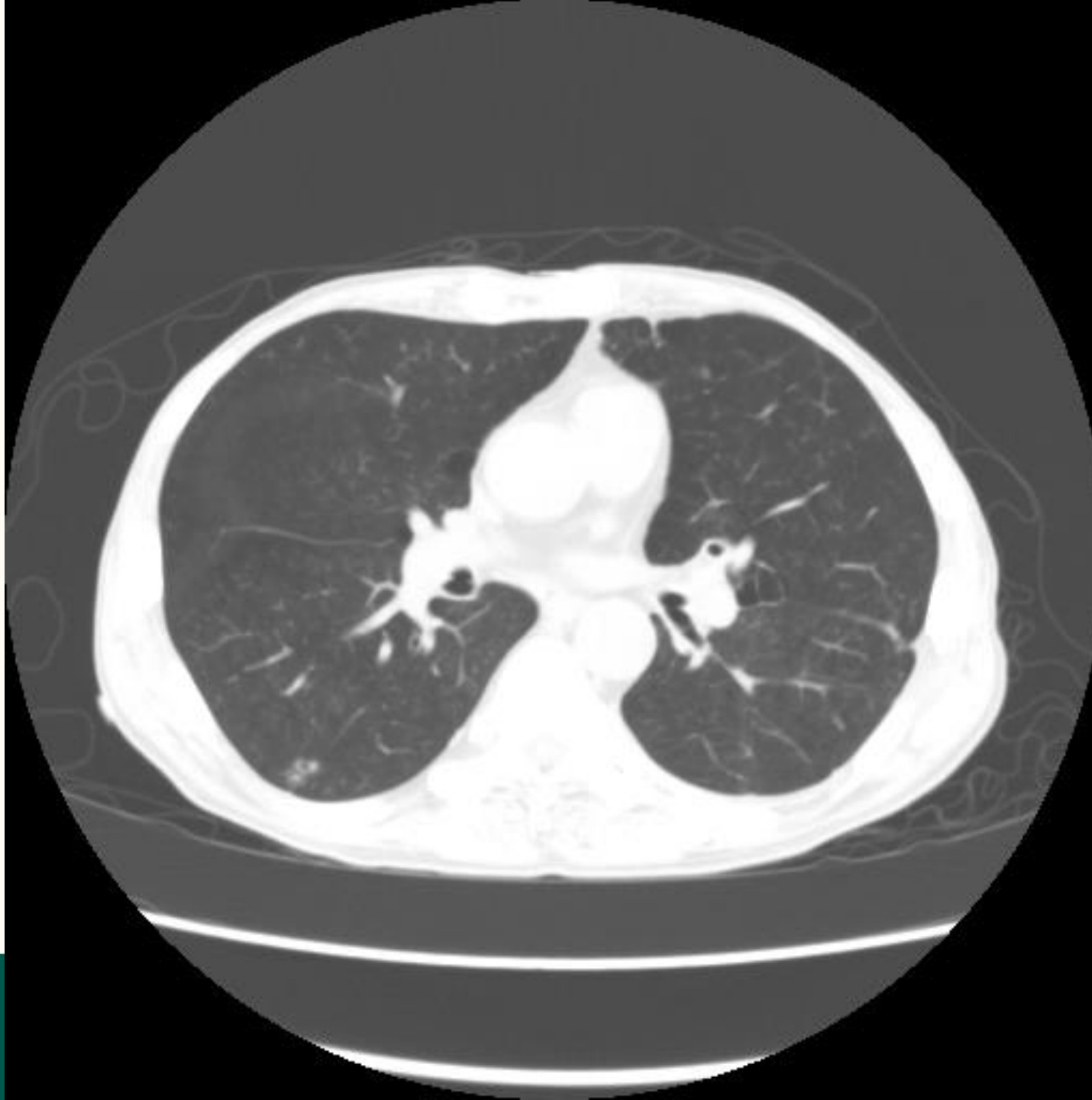




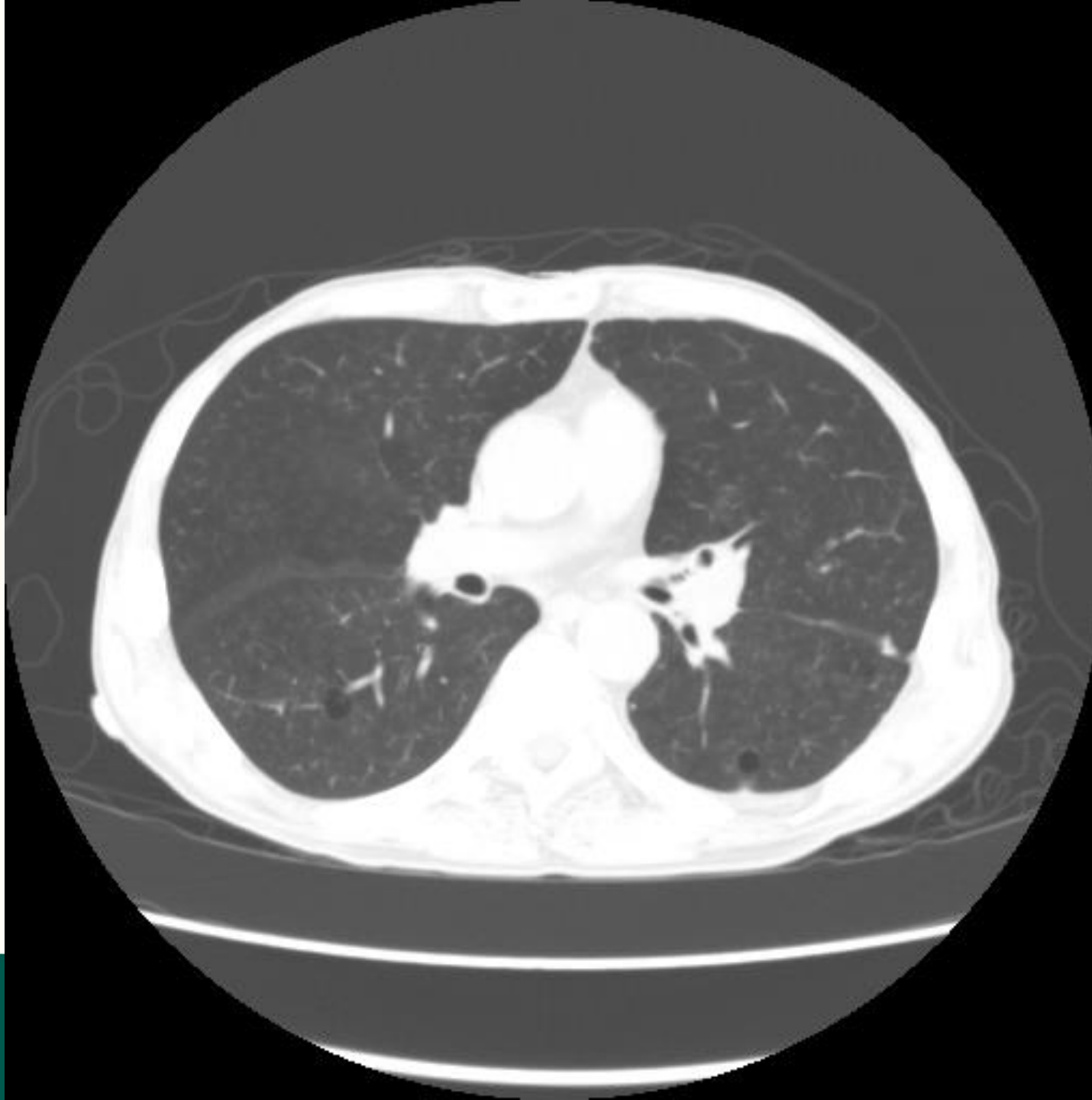


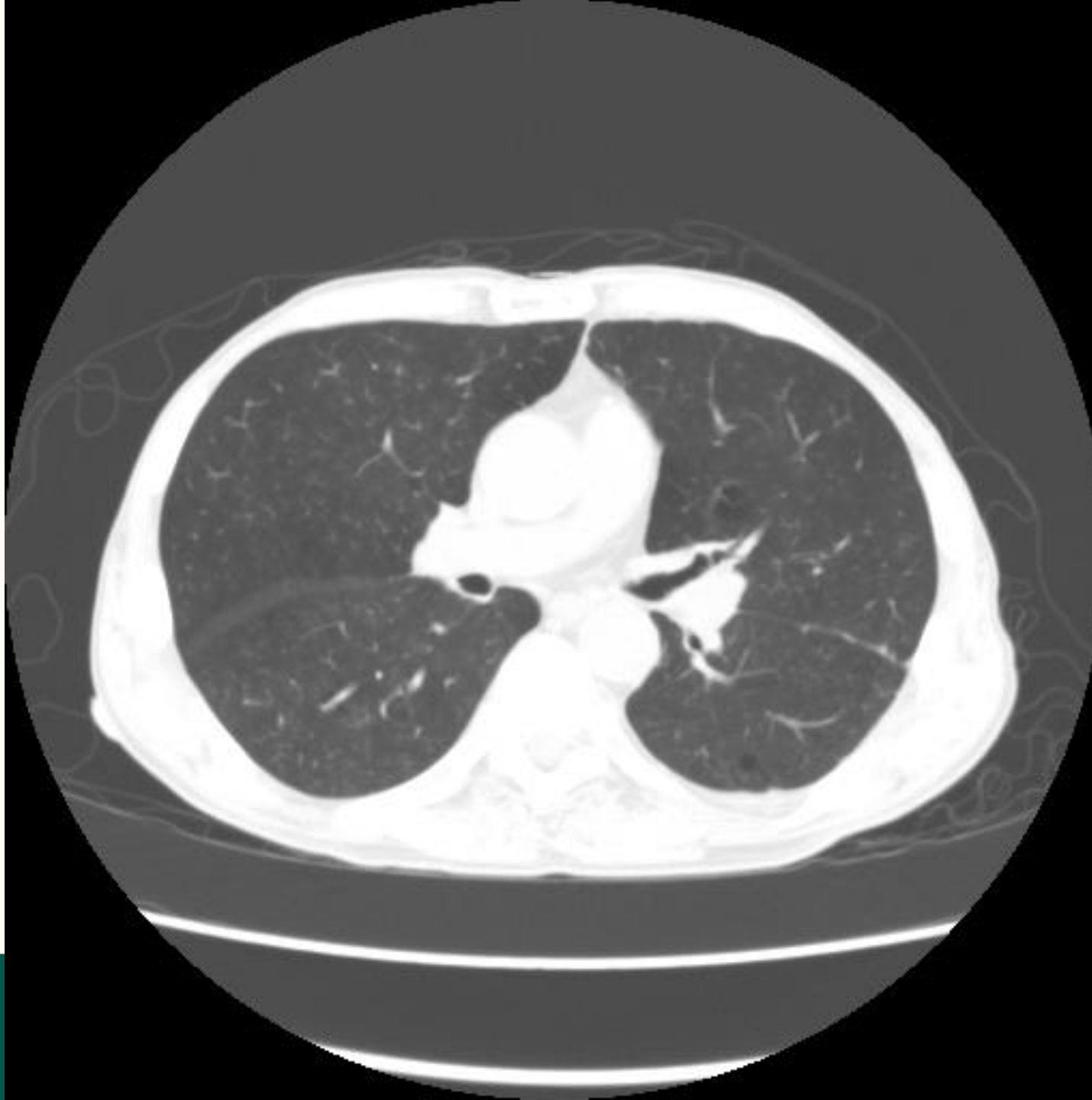


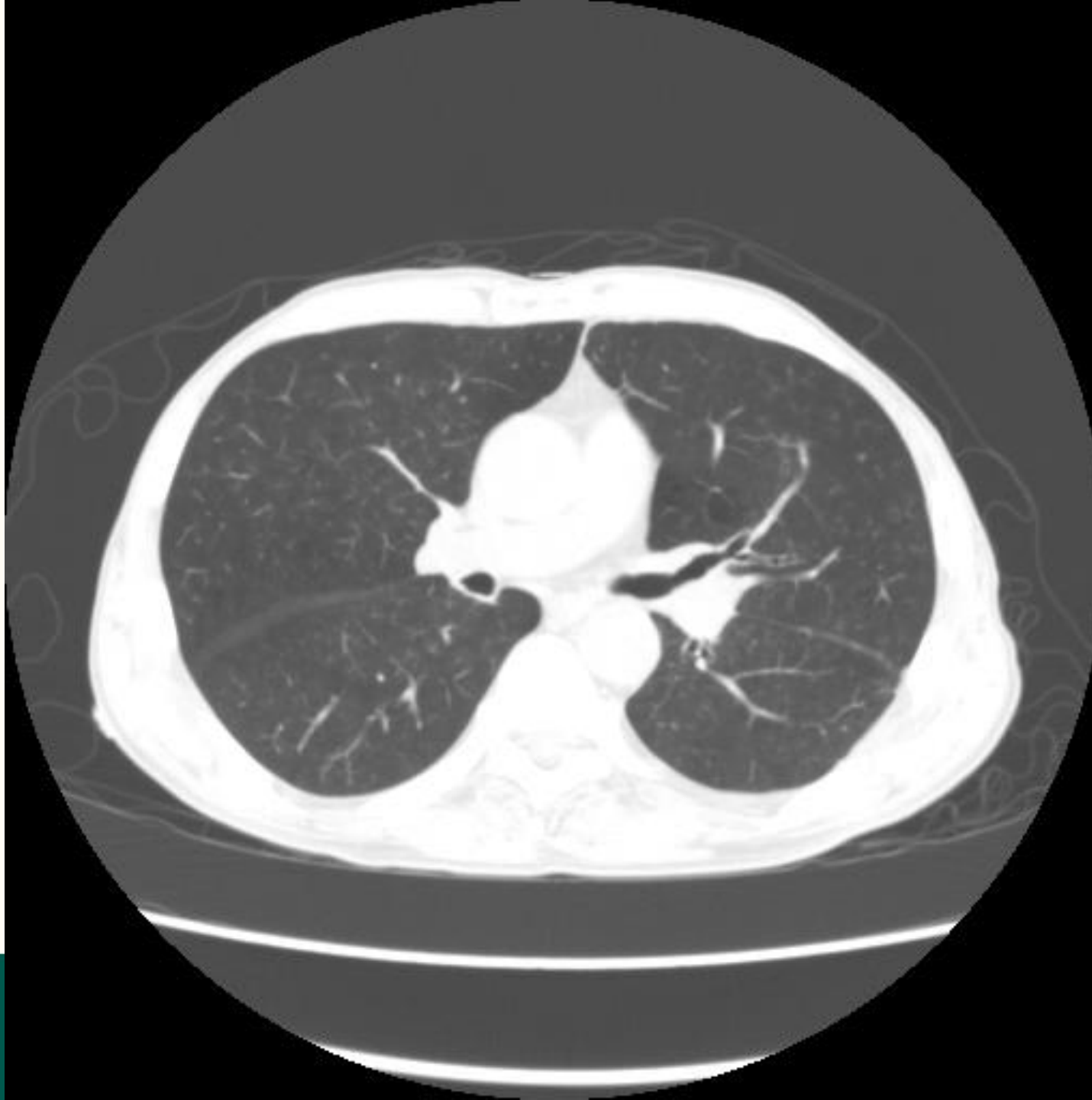
























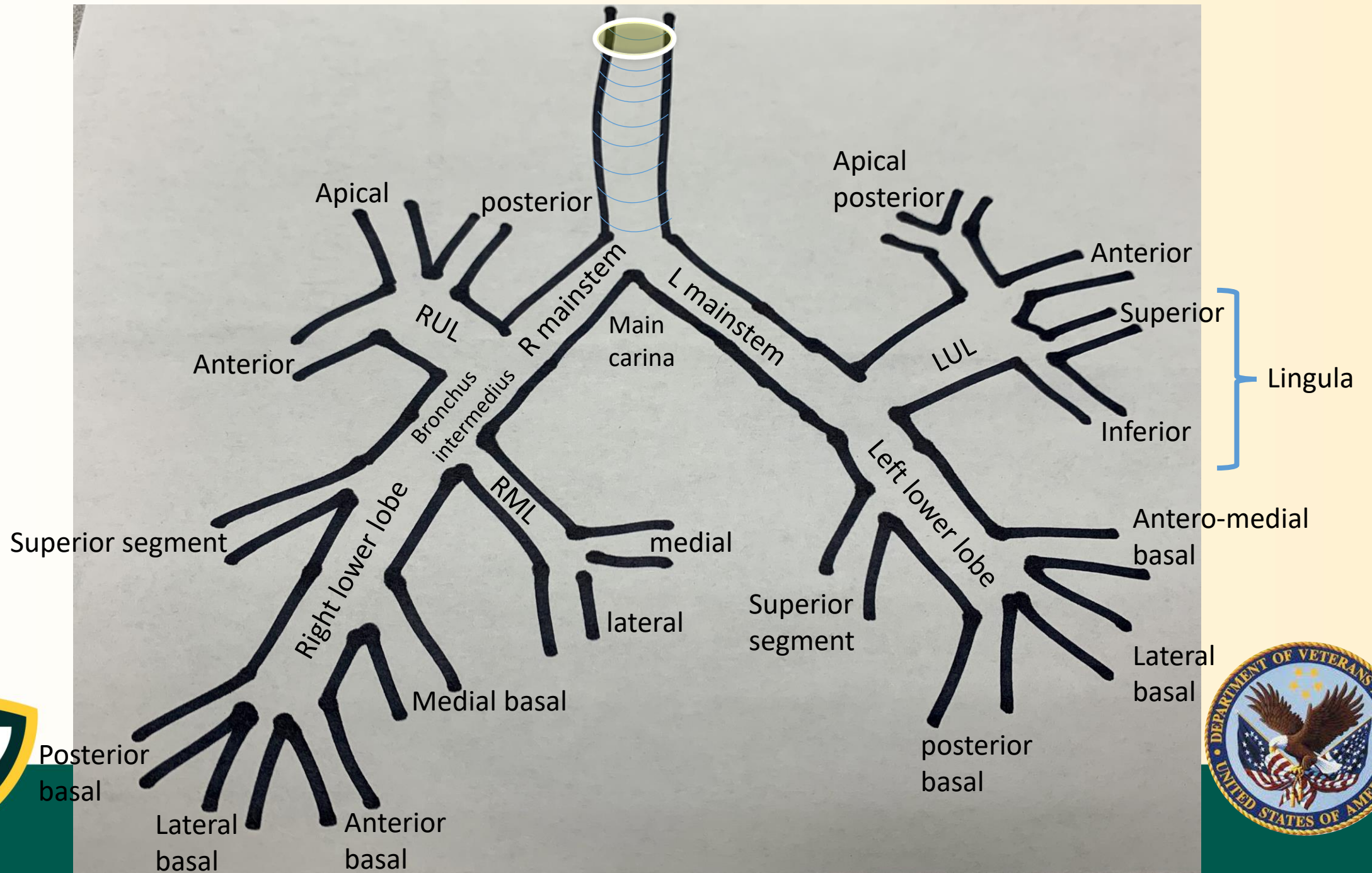






Practice naming the airways





- Mastering pulmonary anatomy is key to bronchoscopy. Practice, practice, and then practice some more.
- **Always** thoroughly review any pulmonary imaging prior to bronchoscopy.
- Keep in mind why you are doing the bronchoscopy and what you hope to accomplish at the end.
- Plan a pathway to your target and discuss it with your attending. Even if you're wrong, the effort is always appreciated.



End

