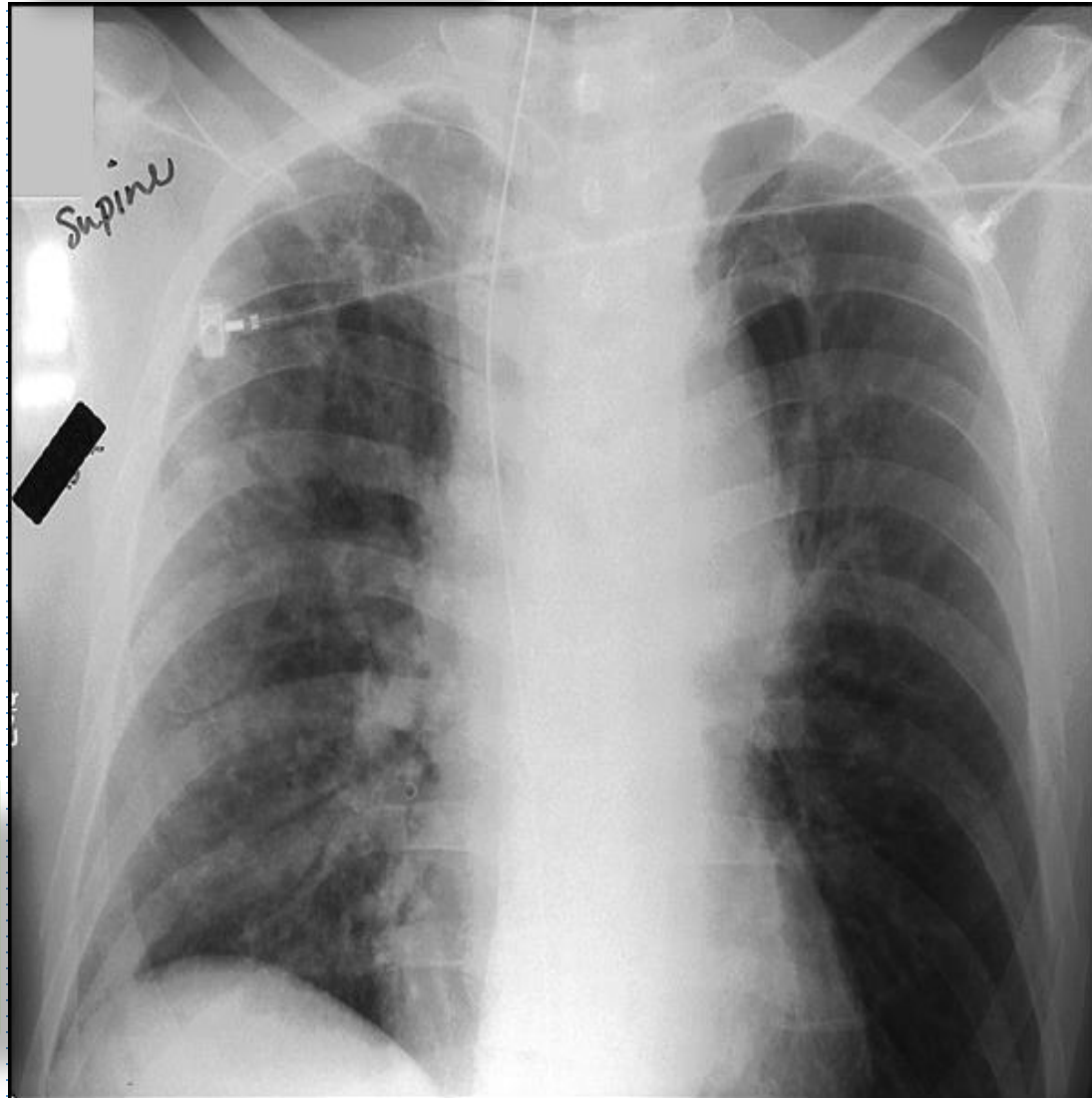




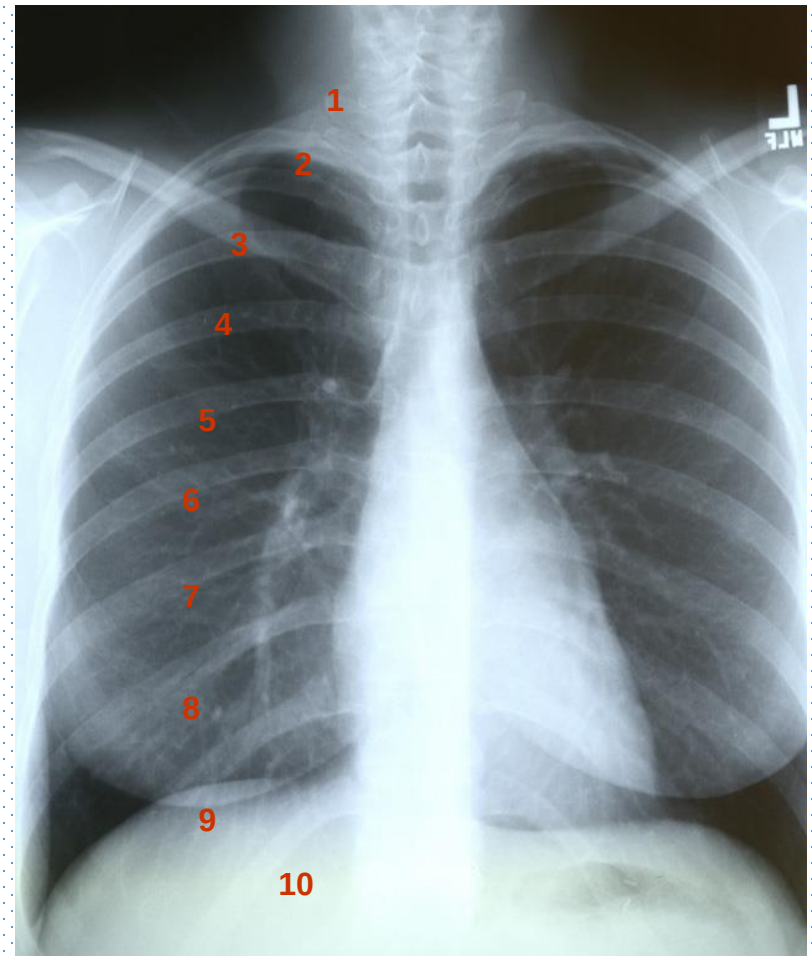
Chest X-Rays for PGMEE

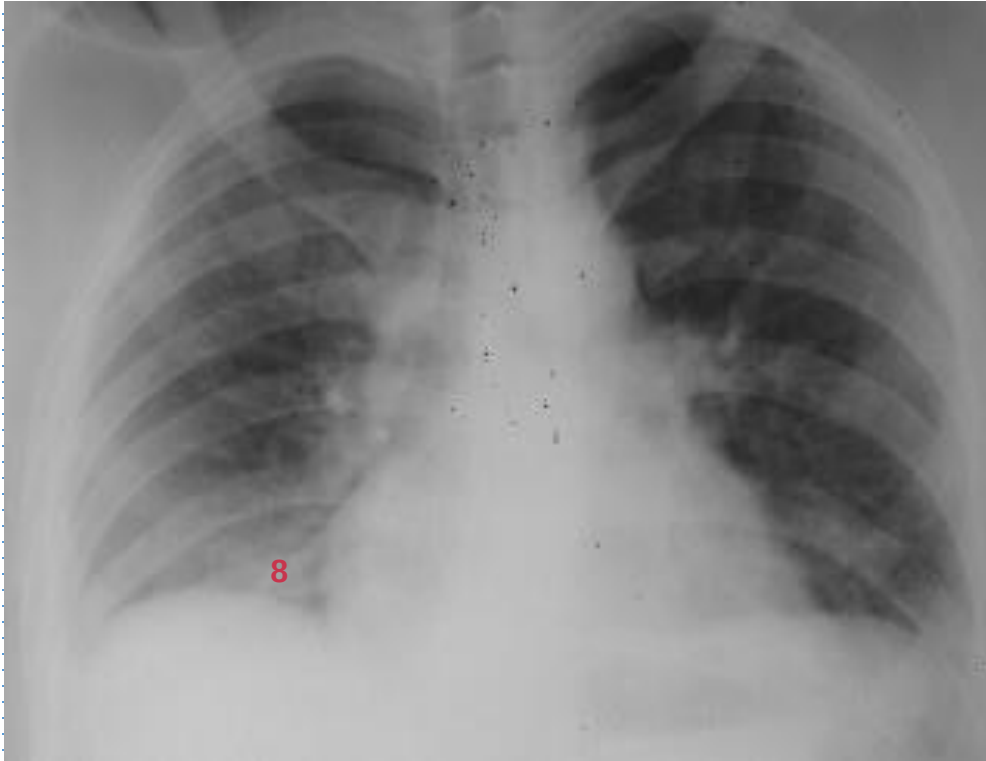
Plain Chest Radiographs

By - AcrossPG

• 6. Inspiration

- Should be able to count 9-10 posterior ribs
- Heart shadow should not be hidden by the diaphragm





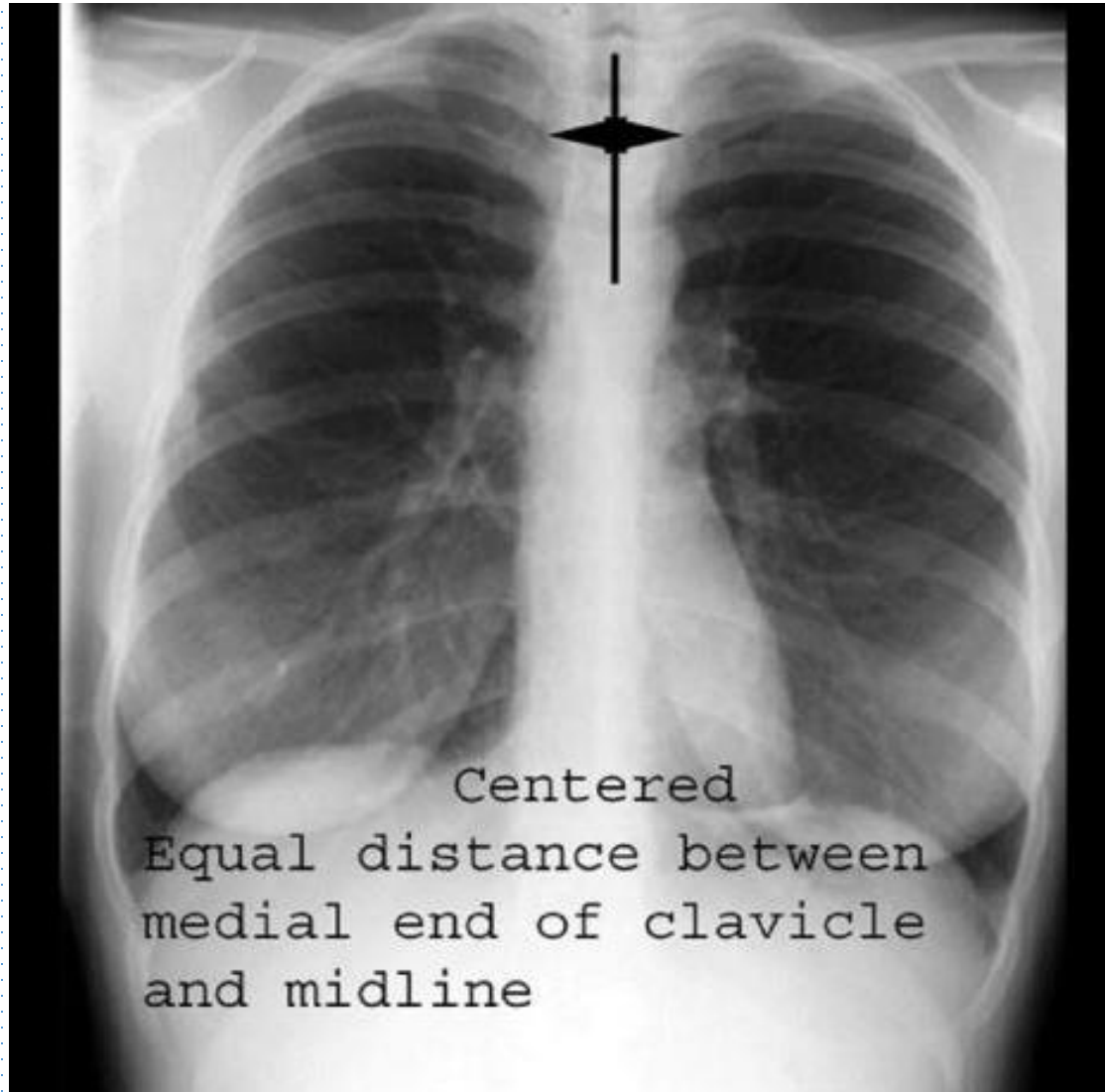
Poor inspiration can crowd lung markings producing pseudo-airspace disease

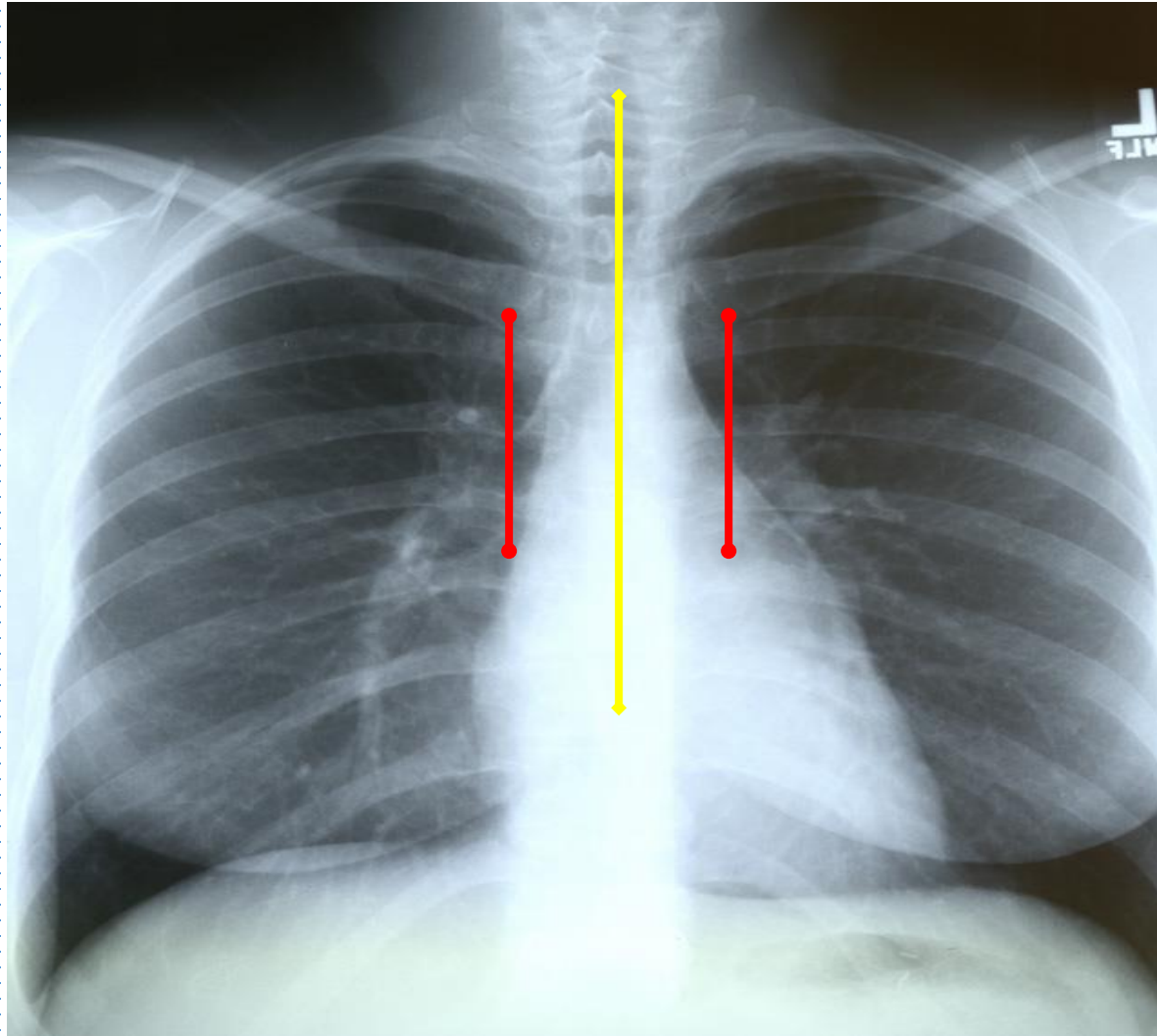
About 8 posterior ribs are showing
With better inspiration, the “disease process” at the lung bases has cleared



9-10 posterior ribs are showing

Rotation



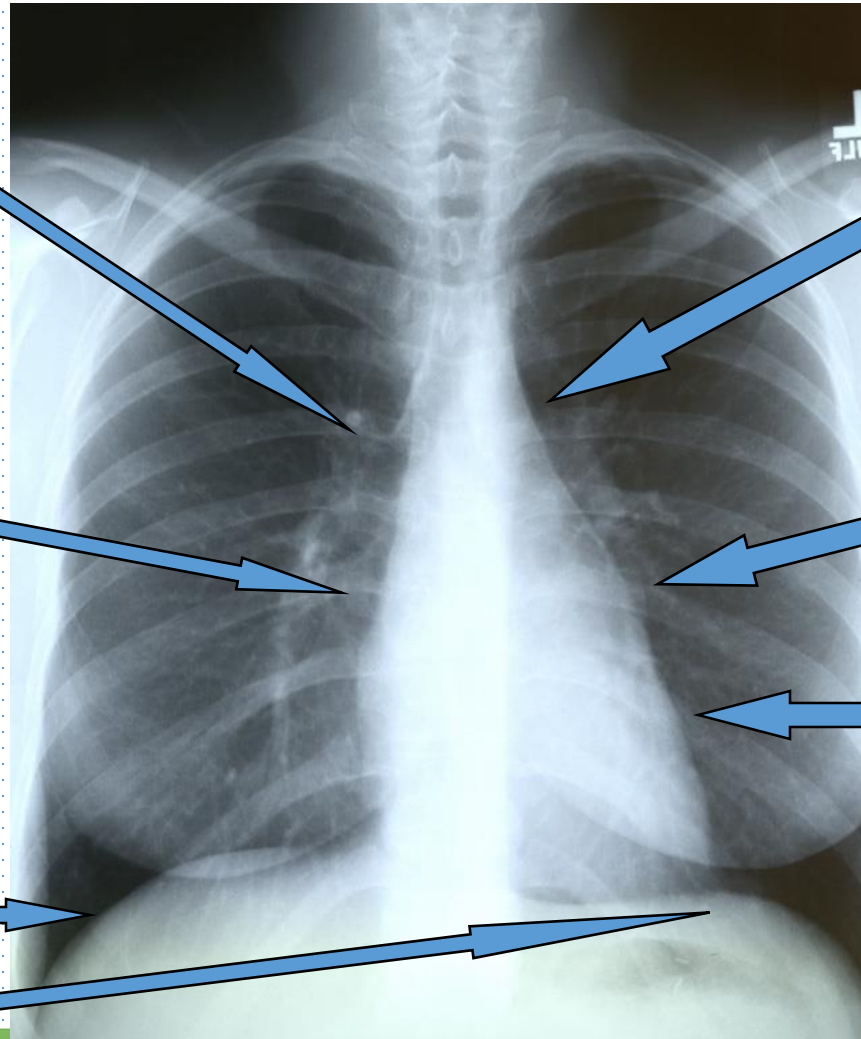


Lung Fields: Using Structures / Silhouettes

Upper right heart border /
ascending aorta
(anterior RUL)

Right heart border
(medial RML)

Anterior
hemidiaphragms
(anterior
lower lobes)



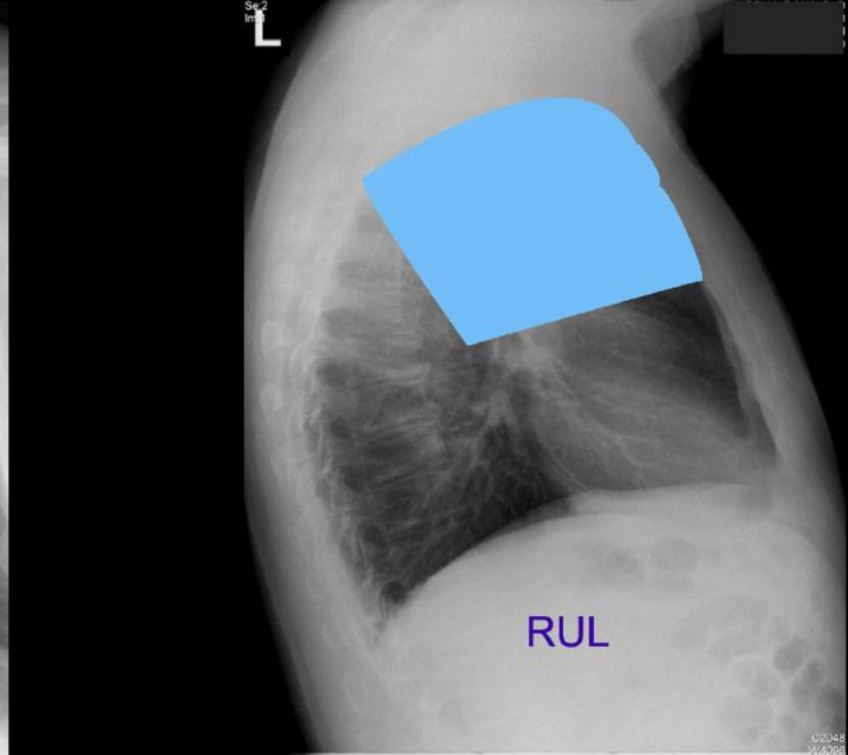
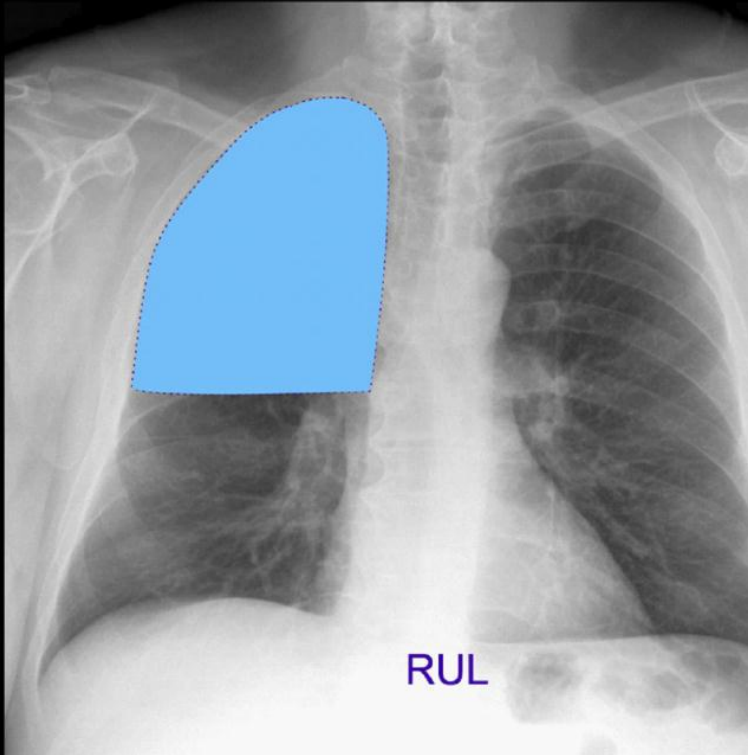
Aortic knob
(Apical portion
of LUL)

Upper left
heart border
(anterior
LUL)

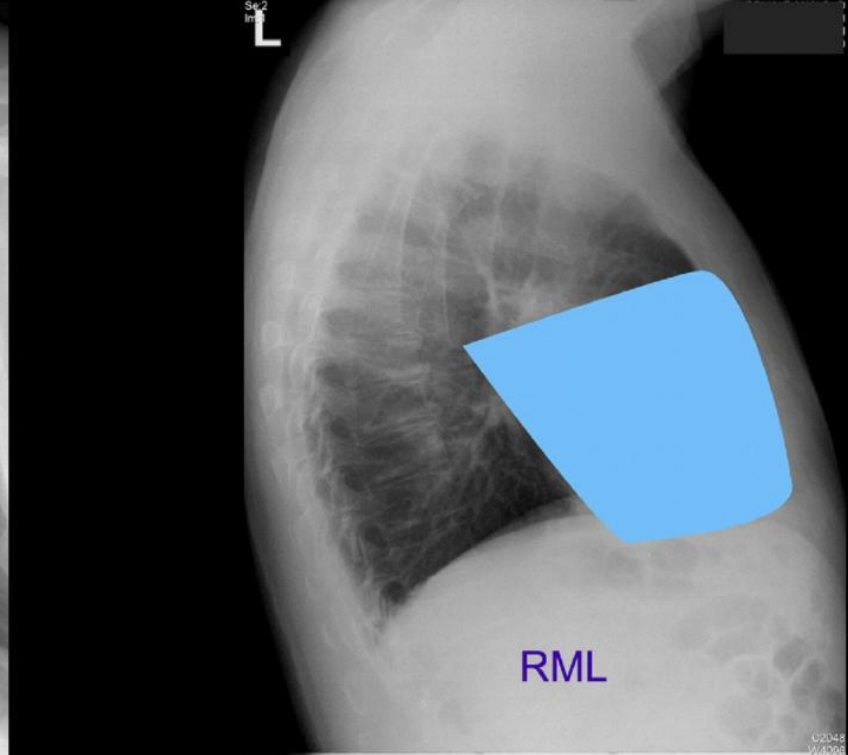
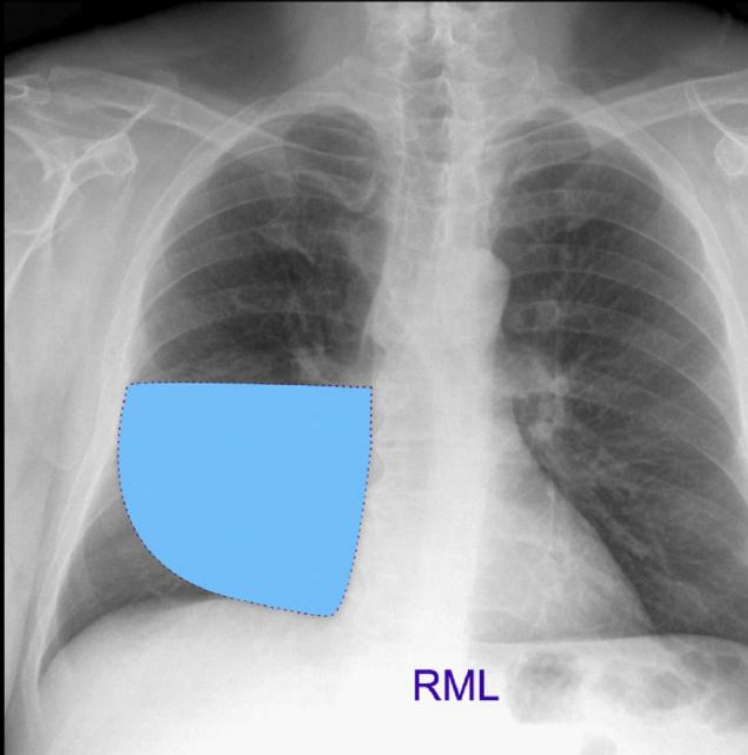
Left heart
border
(lingula;
anterior)

Lobes

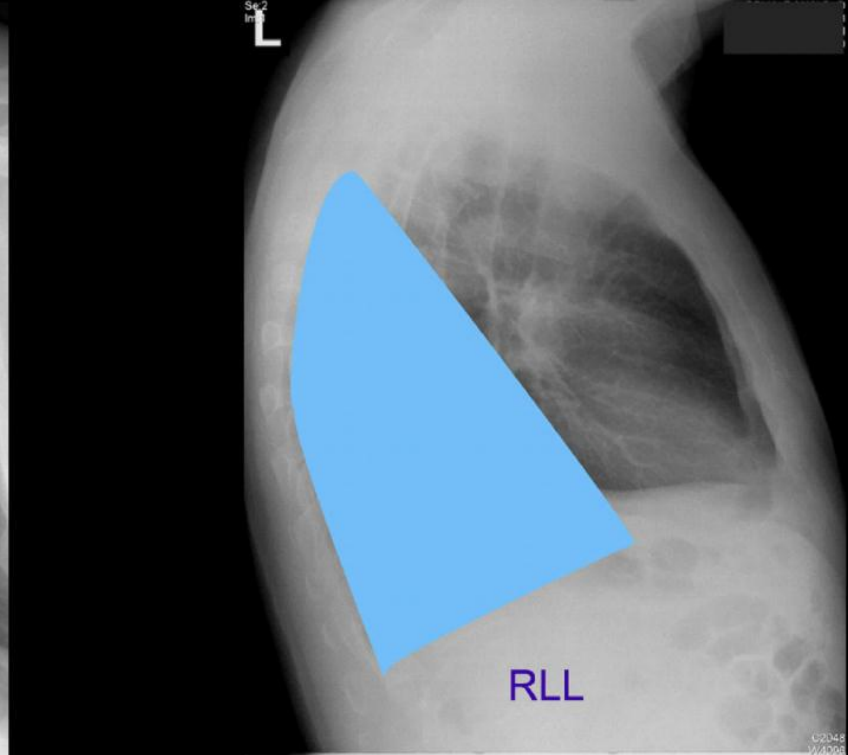
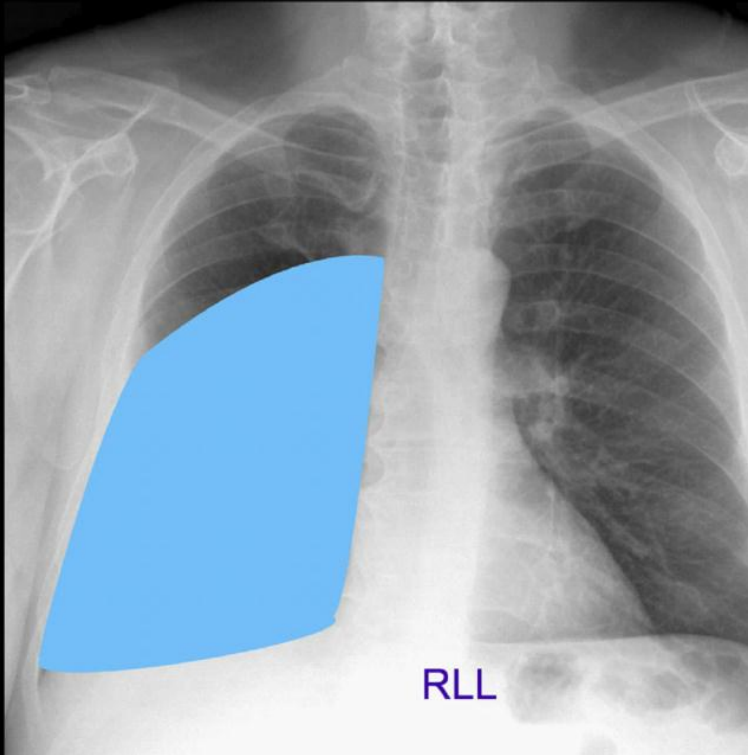
- Right upper lobe:



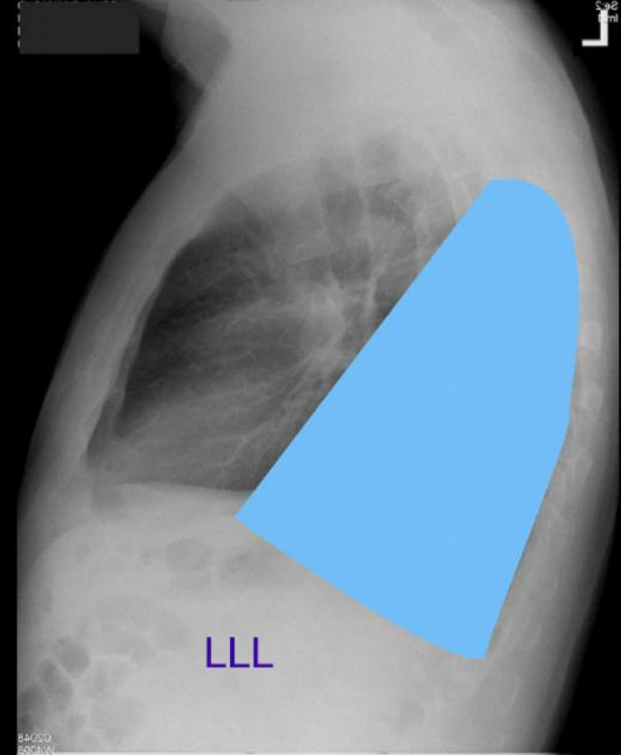
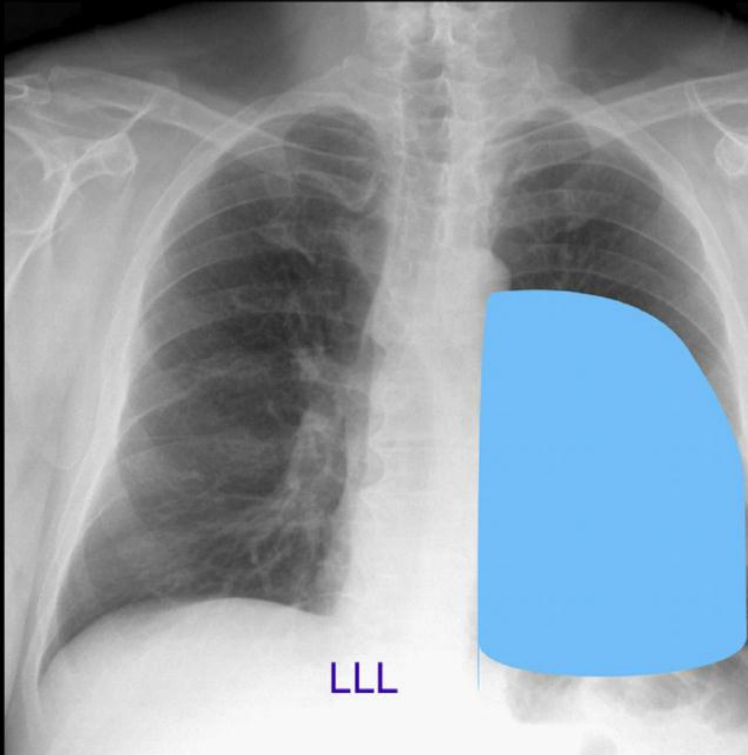
- Right middle lobe:



- Right lower lobe:

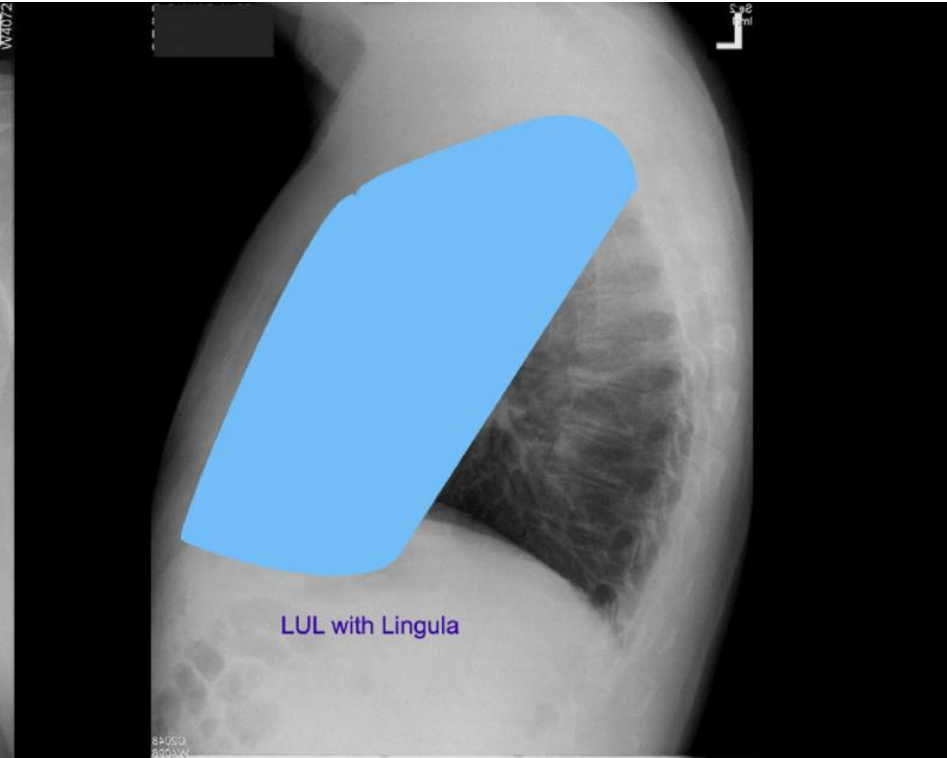
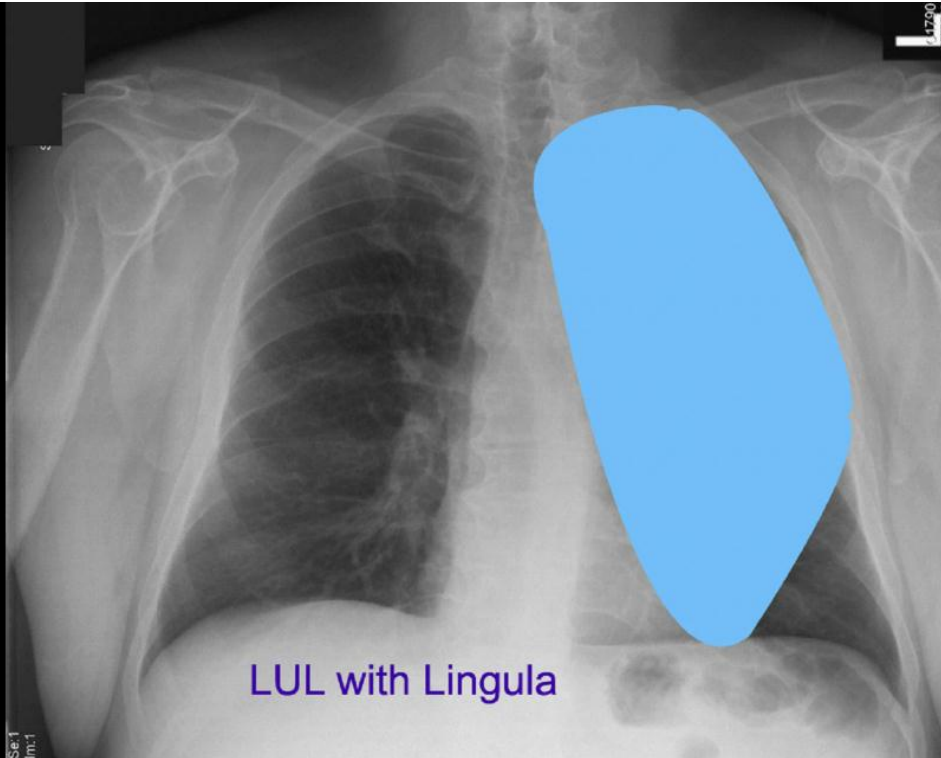


- Left lower lobe:

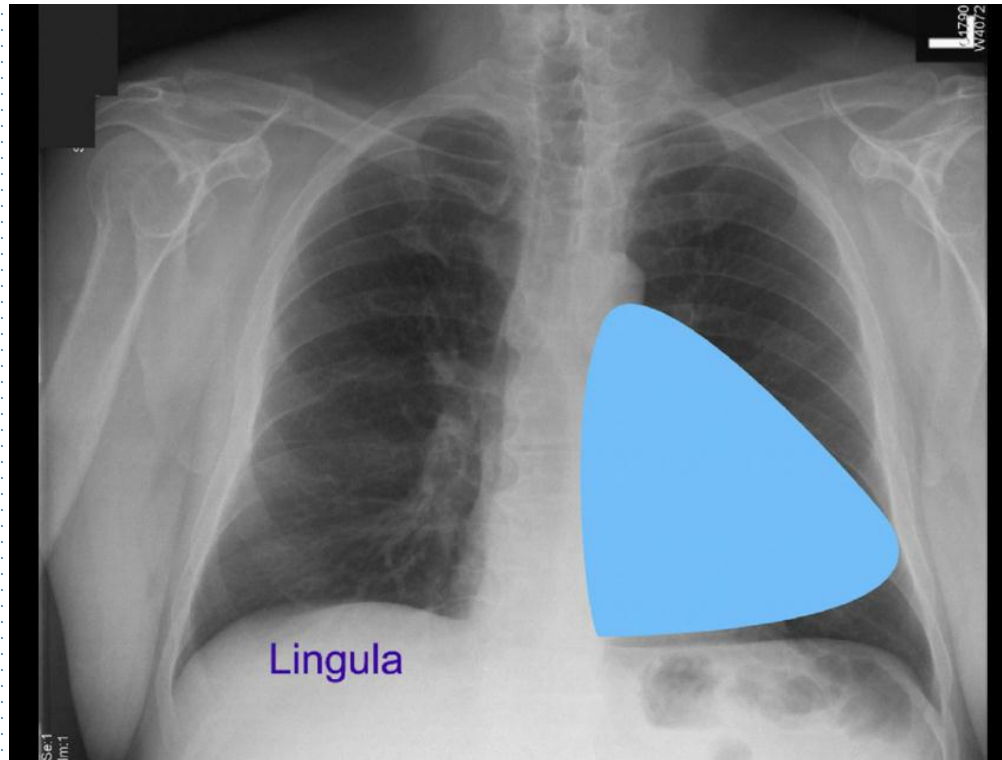


Lobes (continued)

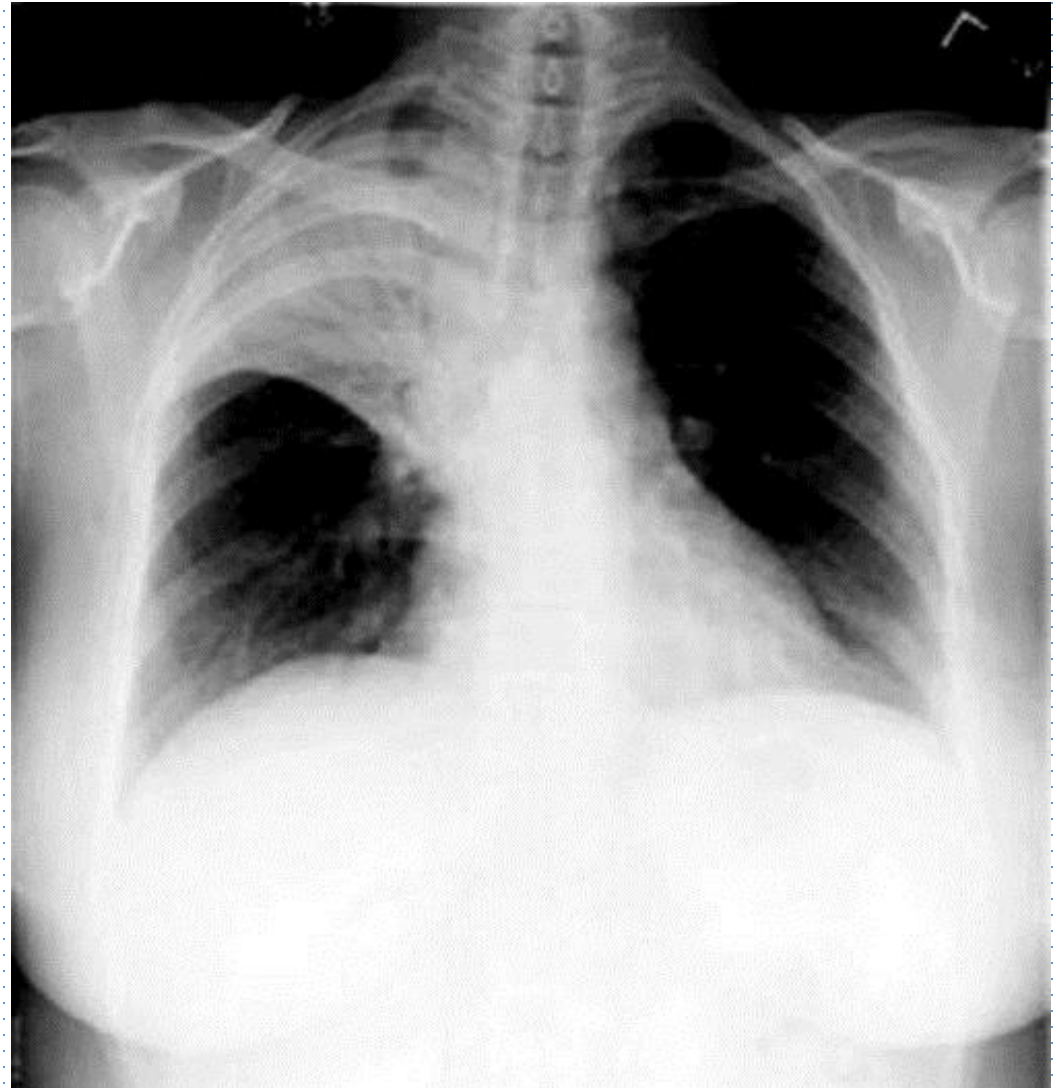
- Left upper lobe with Lingula:



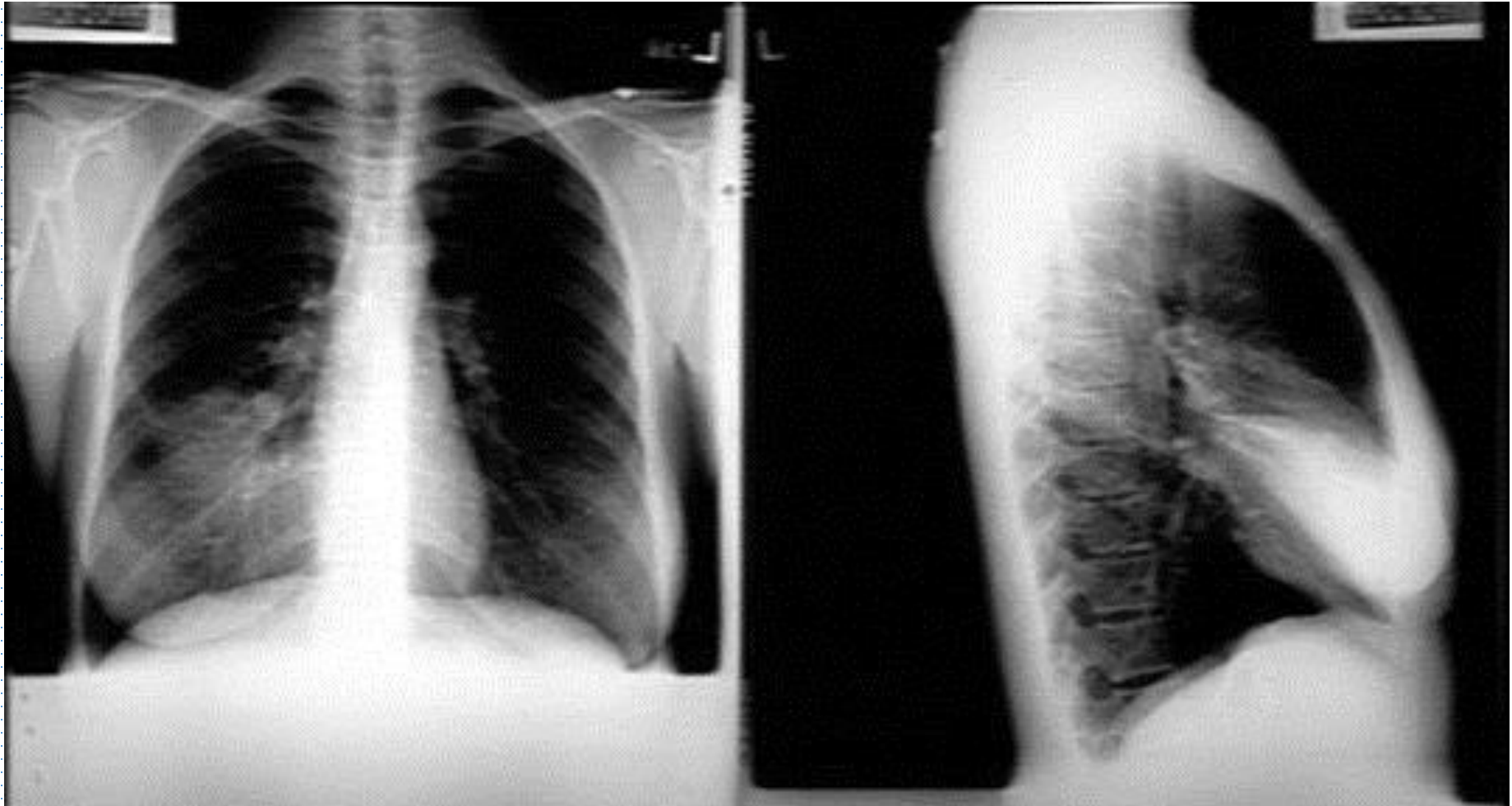
- Lingula:



RUL pneumonia



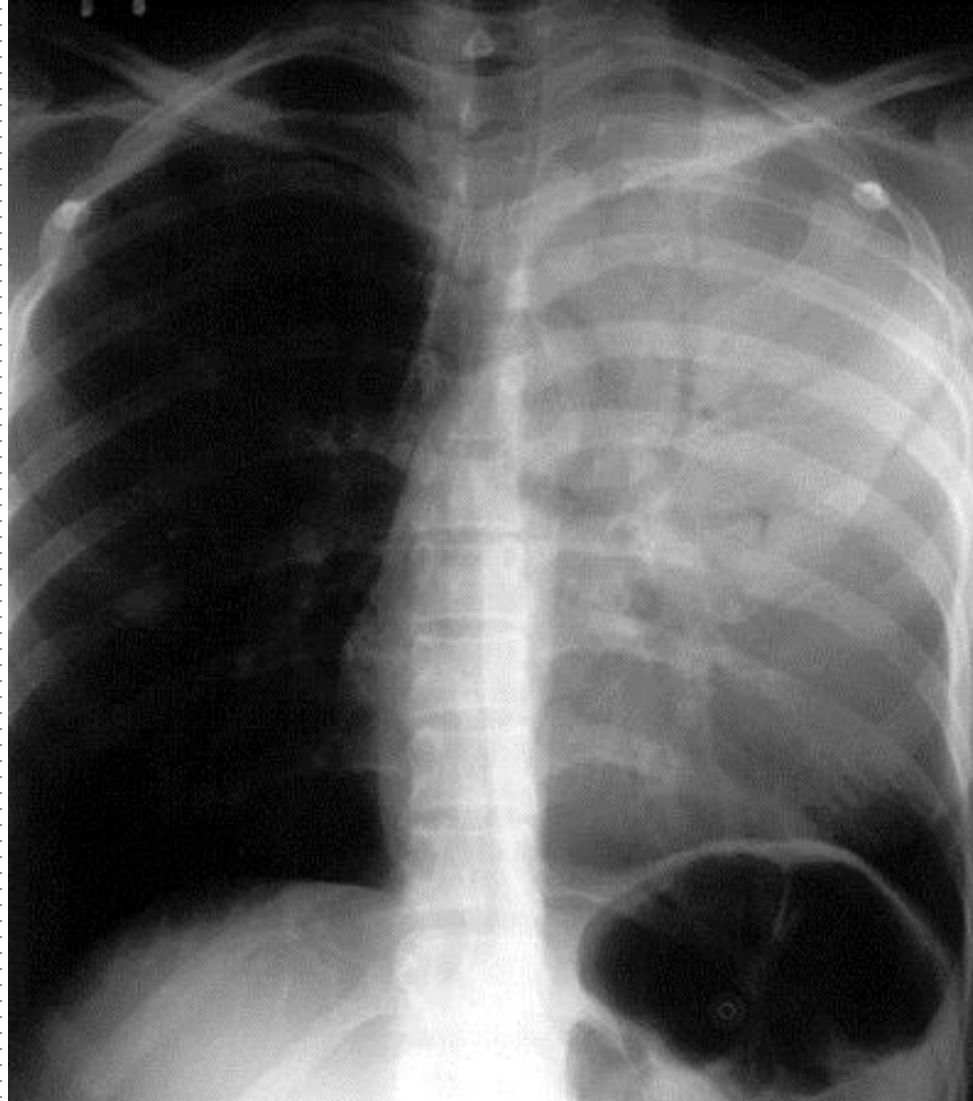
RML pneumonia



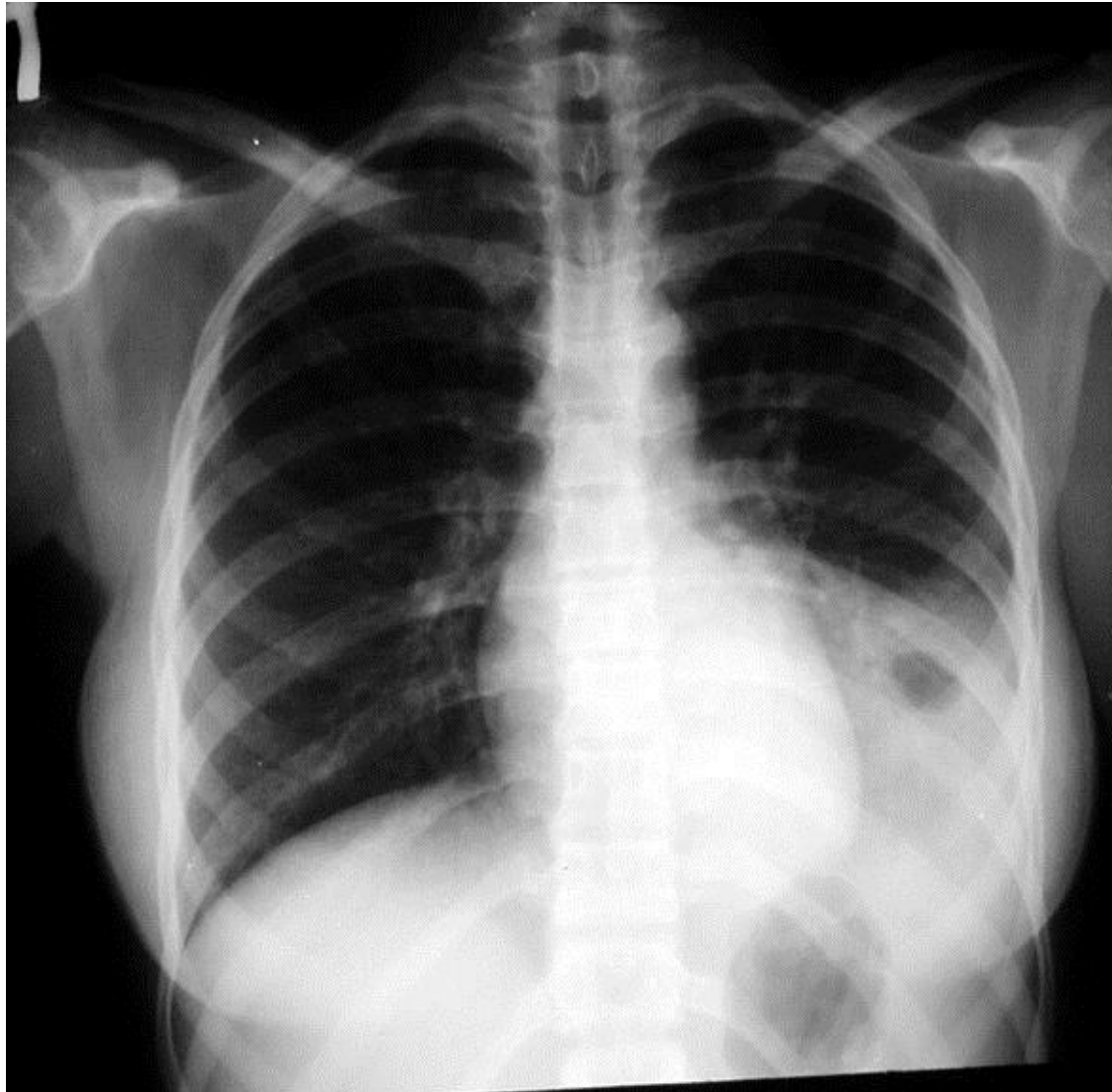
RLL pneumonia



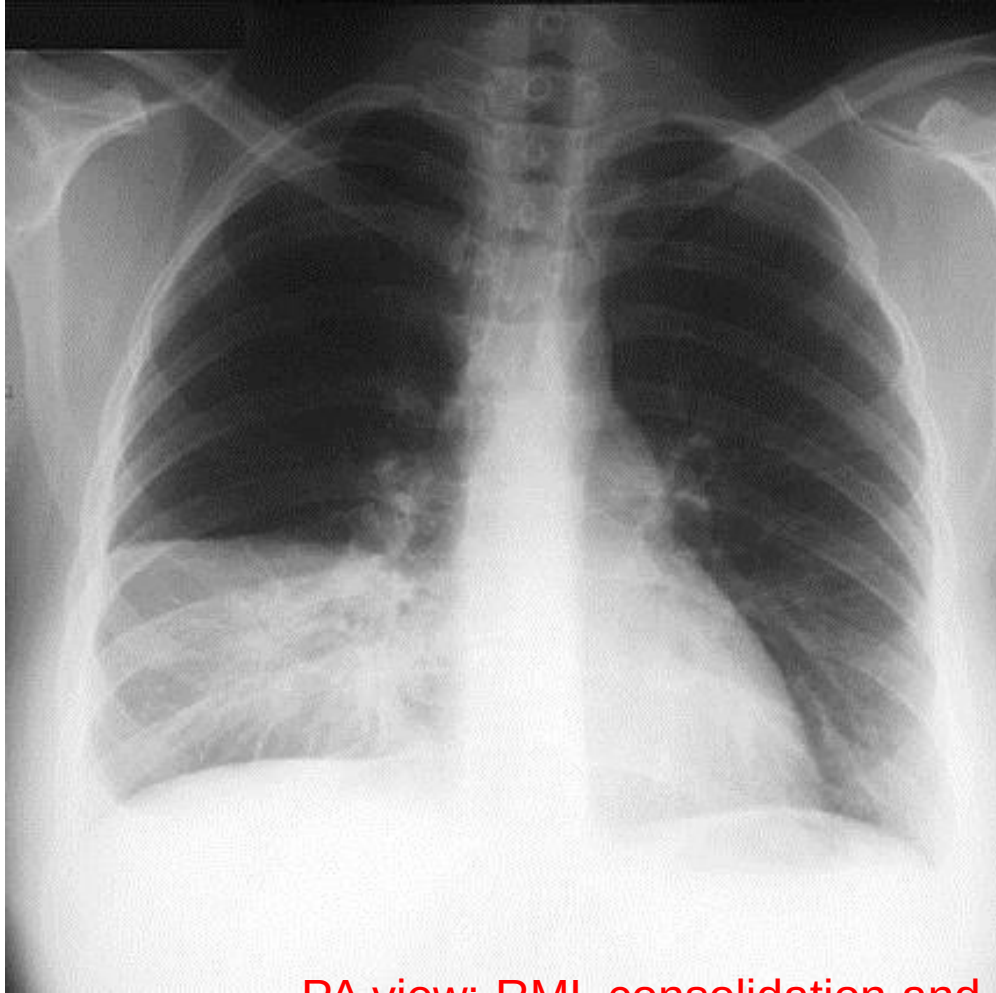
LUL pneumonia



LLL pneumonia



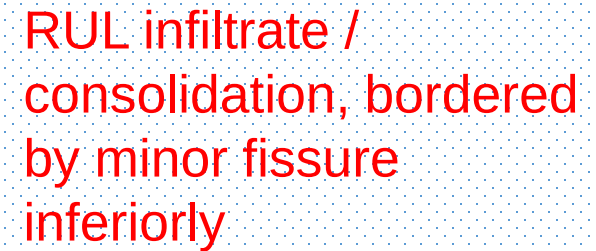
RML pneumonia



PA view: RML consolidation and loss of heart silhouette

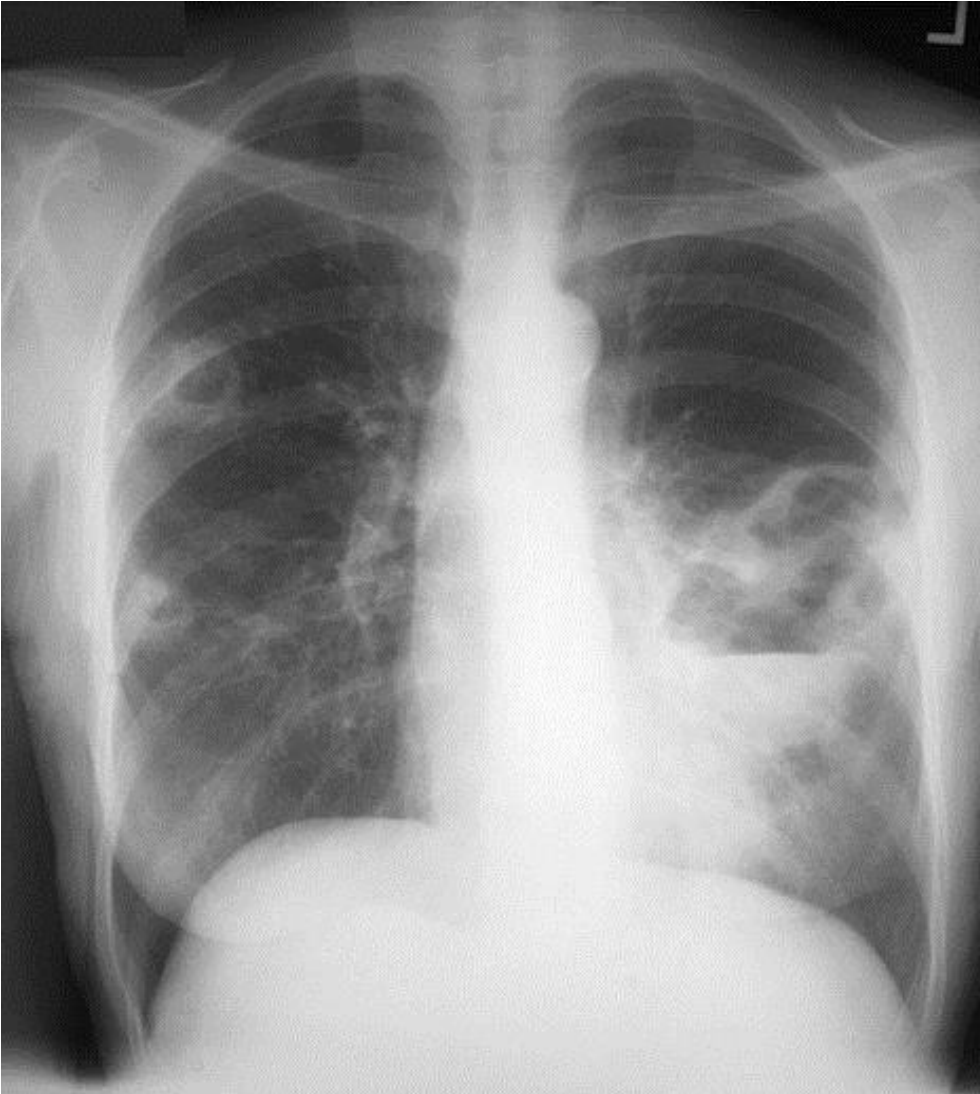
Lateral View: RML wedge shaped consolidation

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 .com



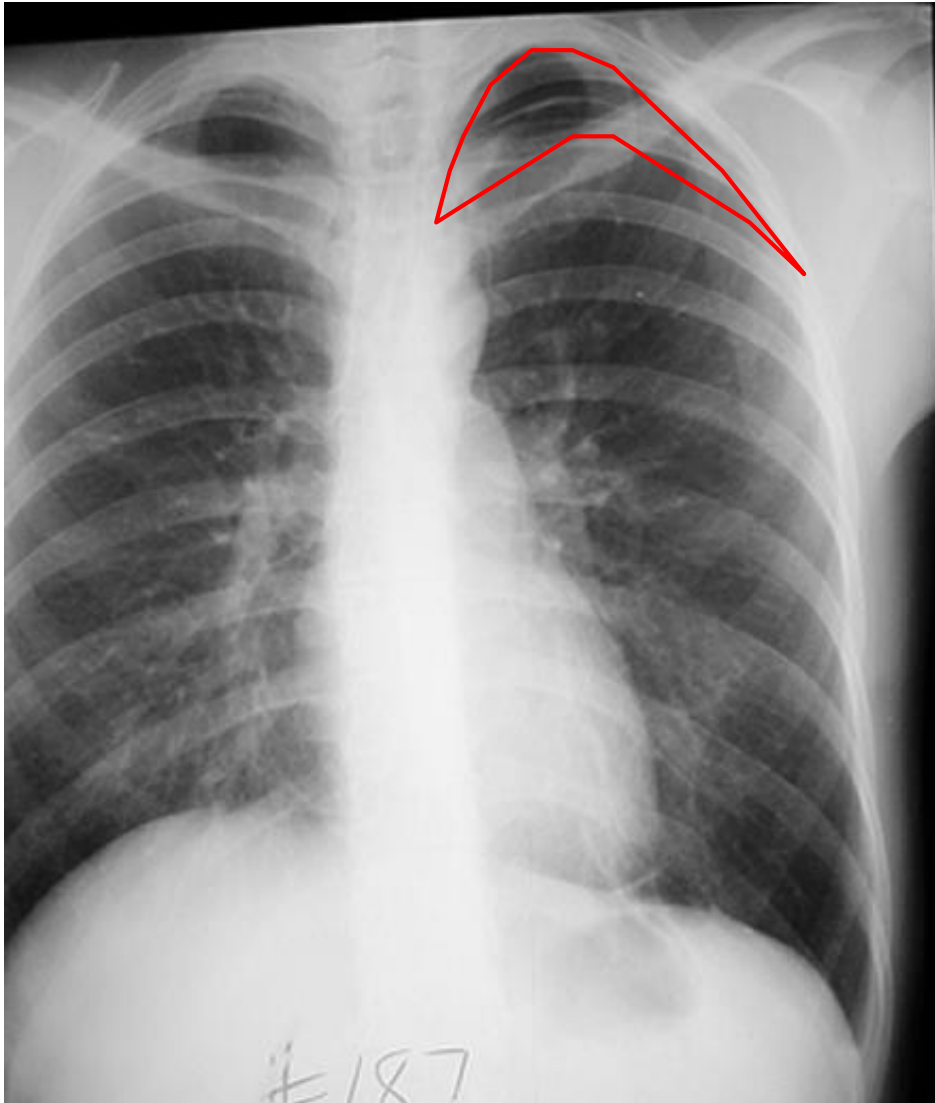
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Tuberculosis



Multiple bilateral
cavitory lesions
with air-fluid levels
c/w pulmonary
abscesses

Left spontaneous pneumothorax



Well demarcated paucity of pulmonary vascular markings in right apex

This 28 y.o. female was jogging this morning when she experienced sudden onset of shortness of breath.

Diagnosis: *Left Spontaneous Pneumothorax*

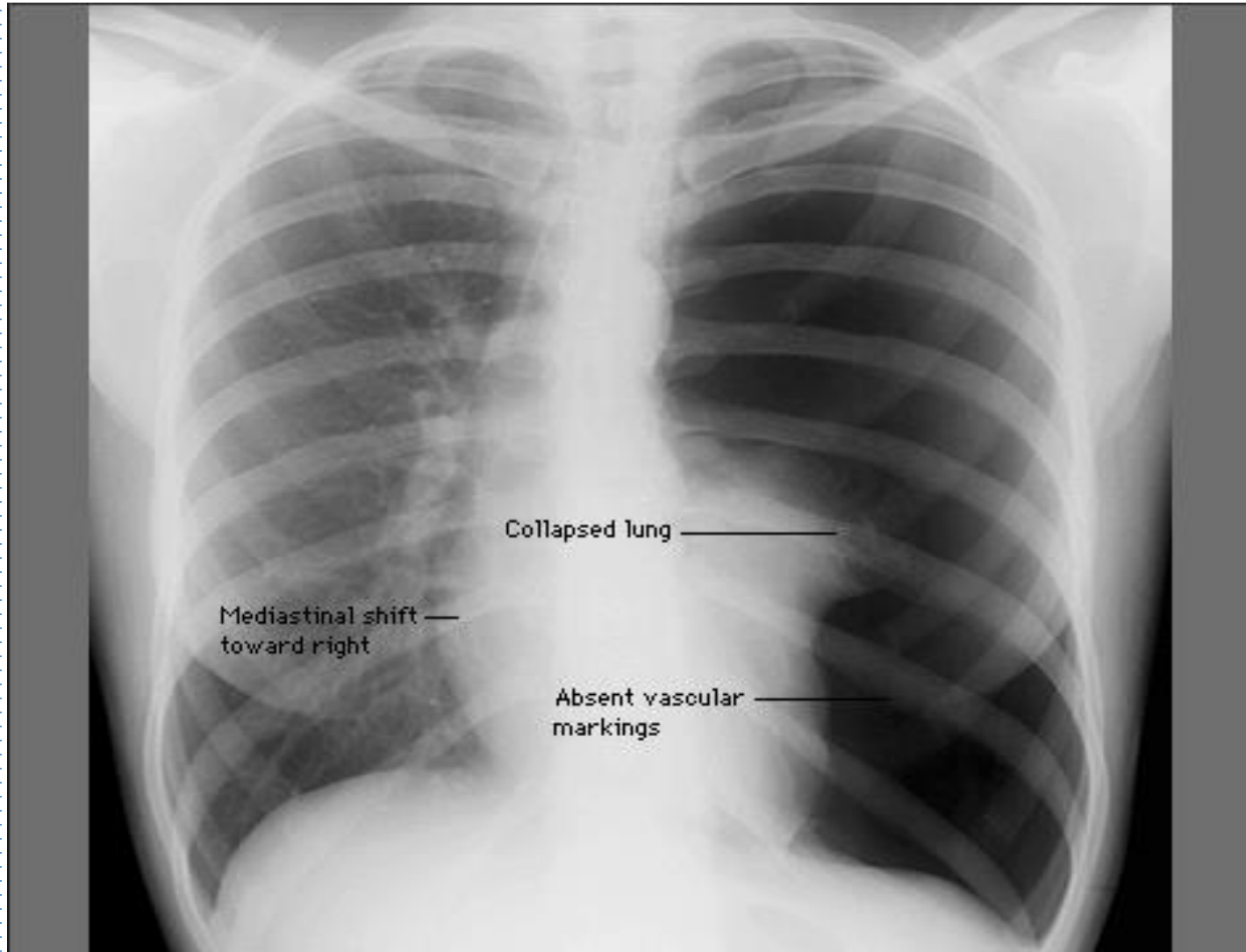
Trivia Question: How much air is required to see a pneumothorax on a chest radiograph?

Answer: About 500 ml

Question: Besides pleural blebs featured in this case, what are some other causes of a pneumothorax?

Answer: Bullae, emphysema and interstitial lung disease can also cause spontaneous pneumothoraces. Traumatic and iatrogenic causes include penetrating wounds, line placements, lung biopsies and mechanical ventilators.

Left spontaneous pneumothorax

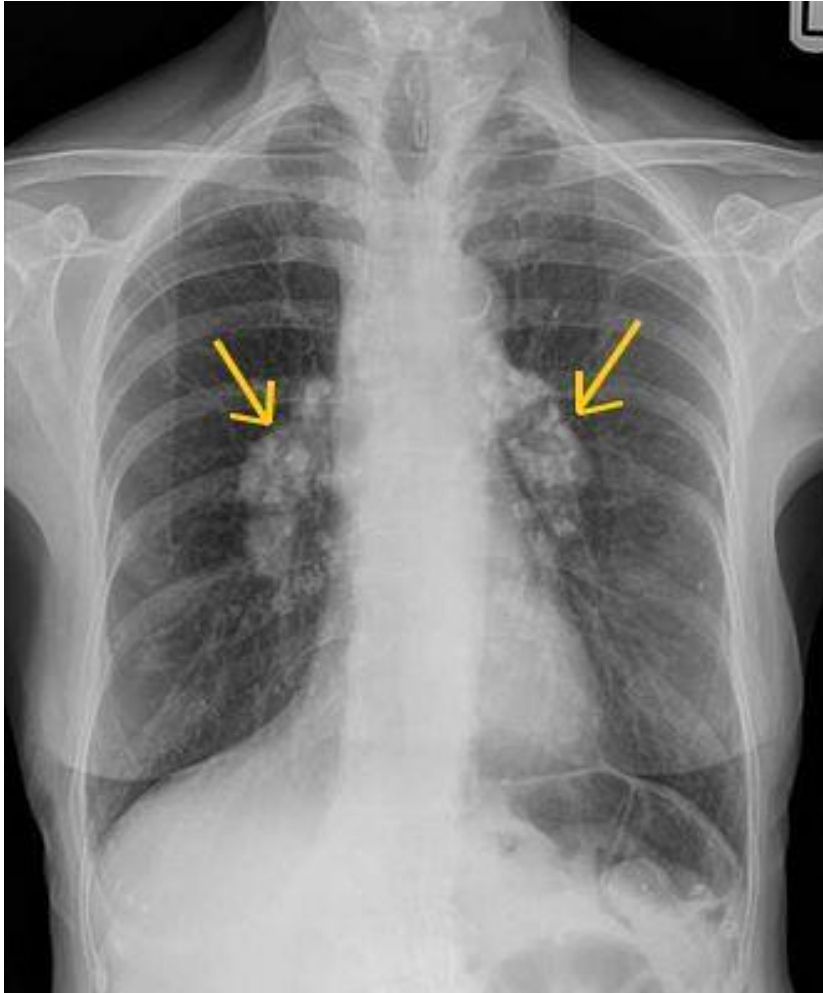


RML pneumonia

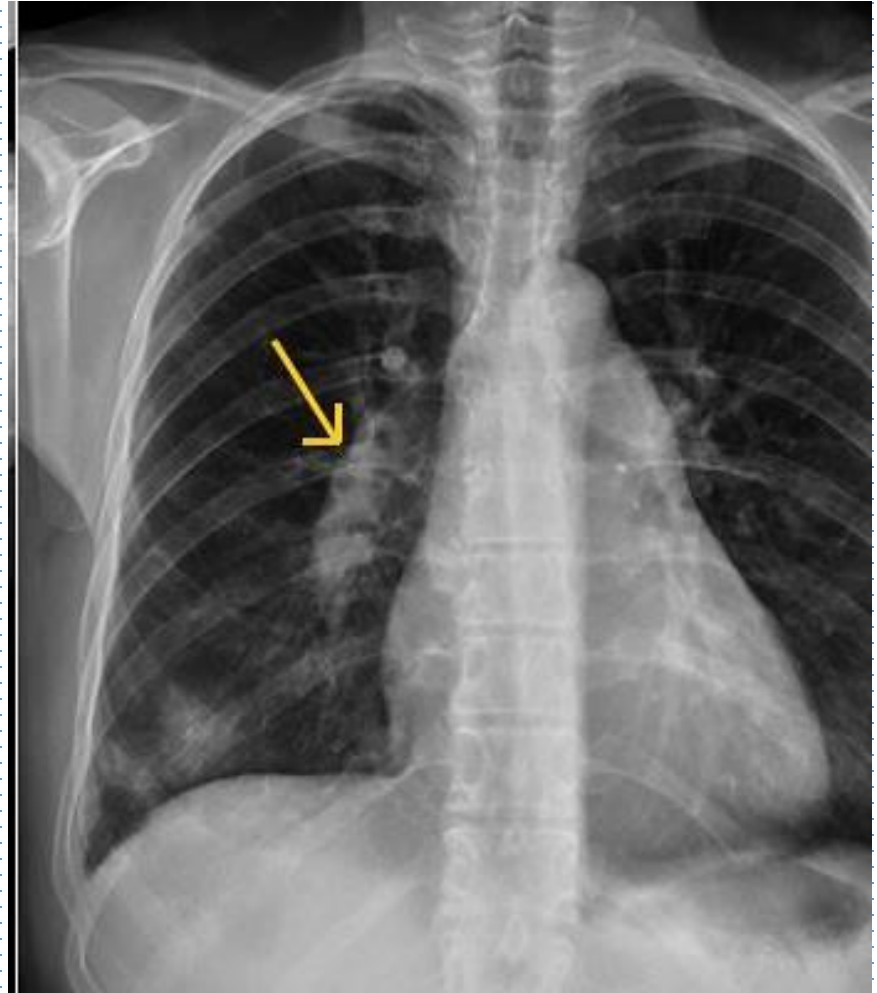


RML consolidation that appears wedge shaped on lateral view

Hilar Mediastinal Lymph Nodes

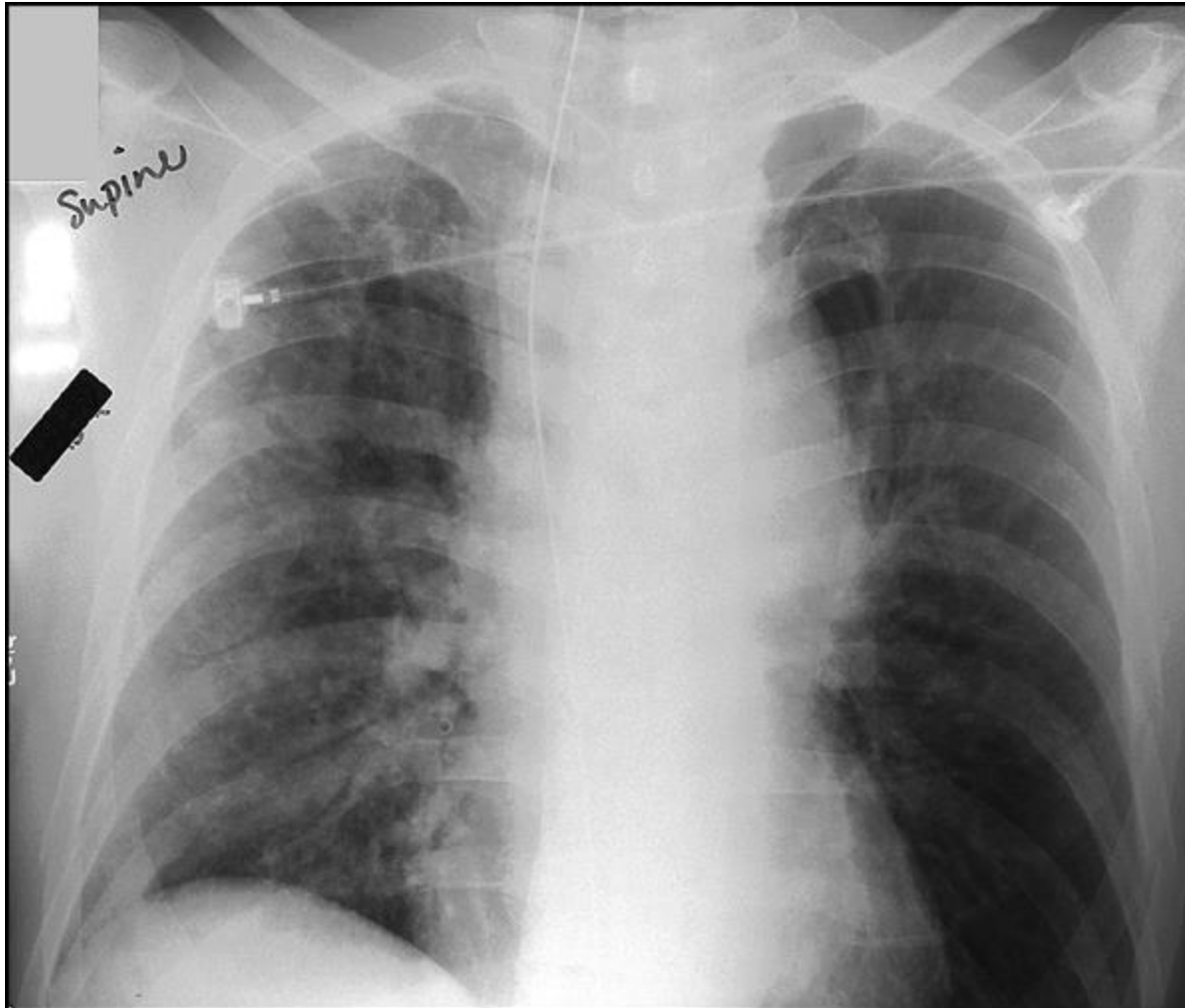


In case of Sarcoidosis



In pul. Atery hypertension

Patient presented to ER Case of airplane crash.



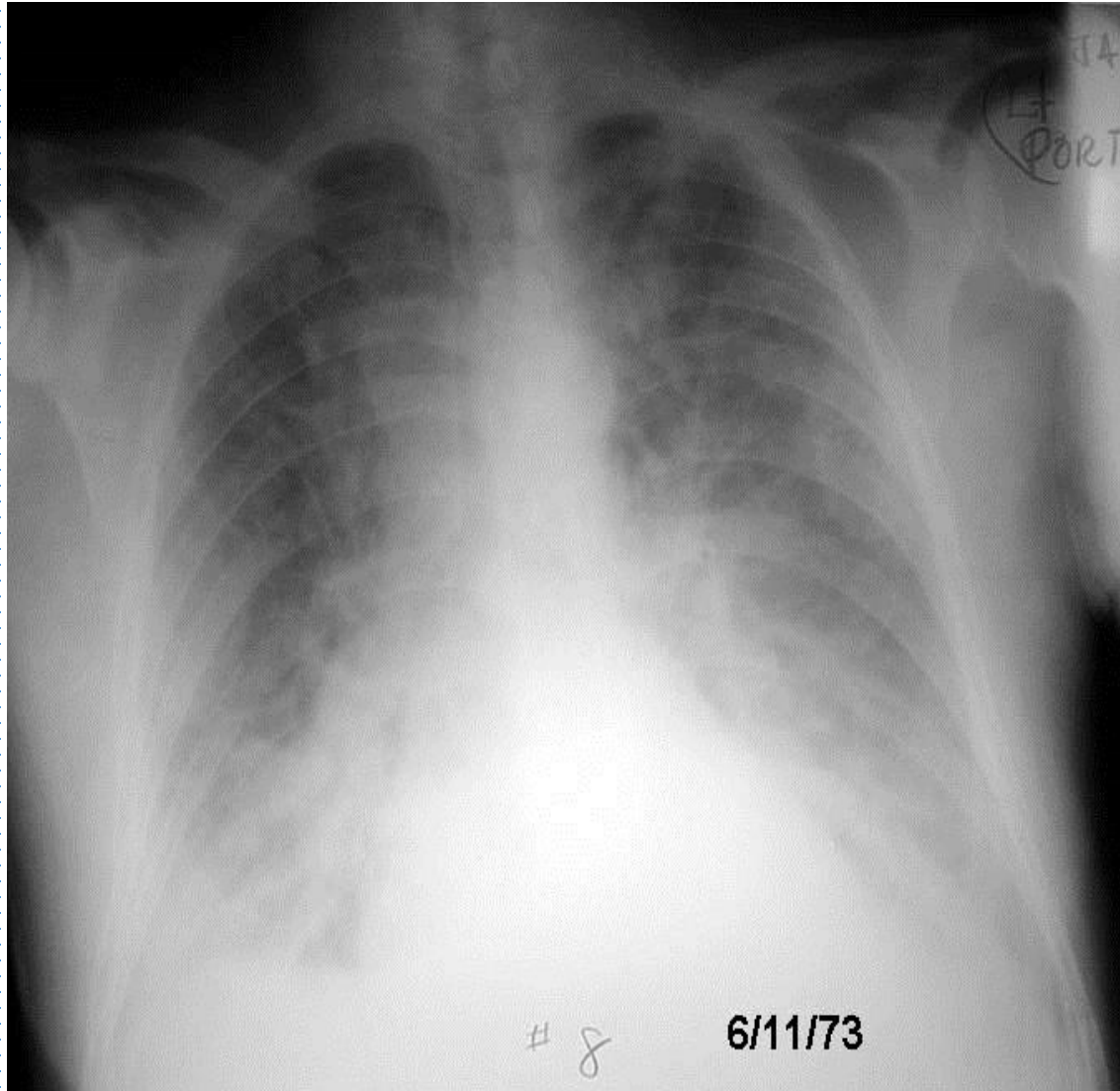
Widened mediastinum

Concern for aortic injury

Pleural Effusion



Heart failure



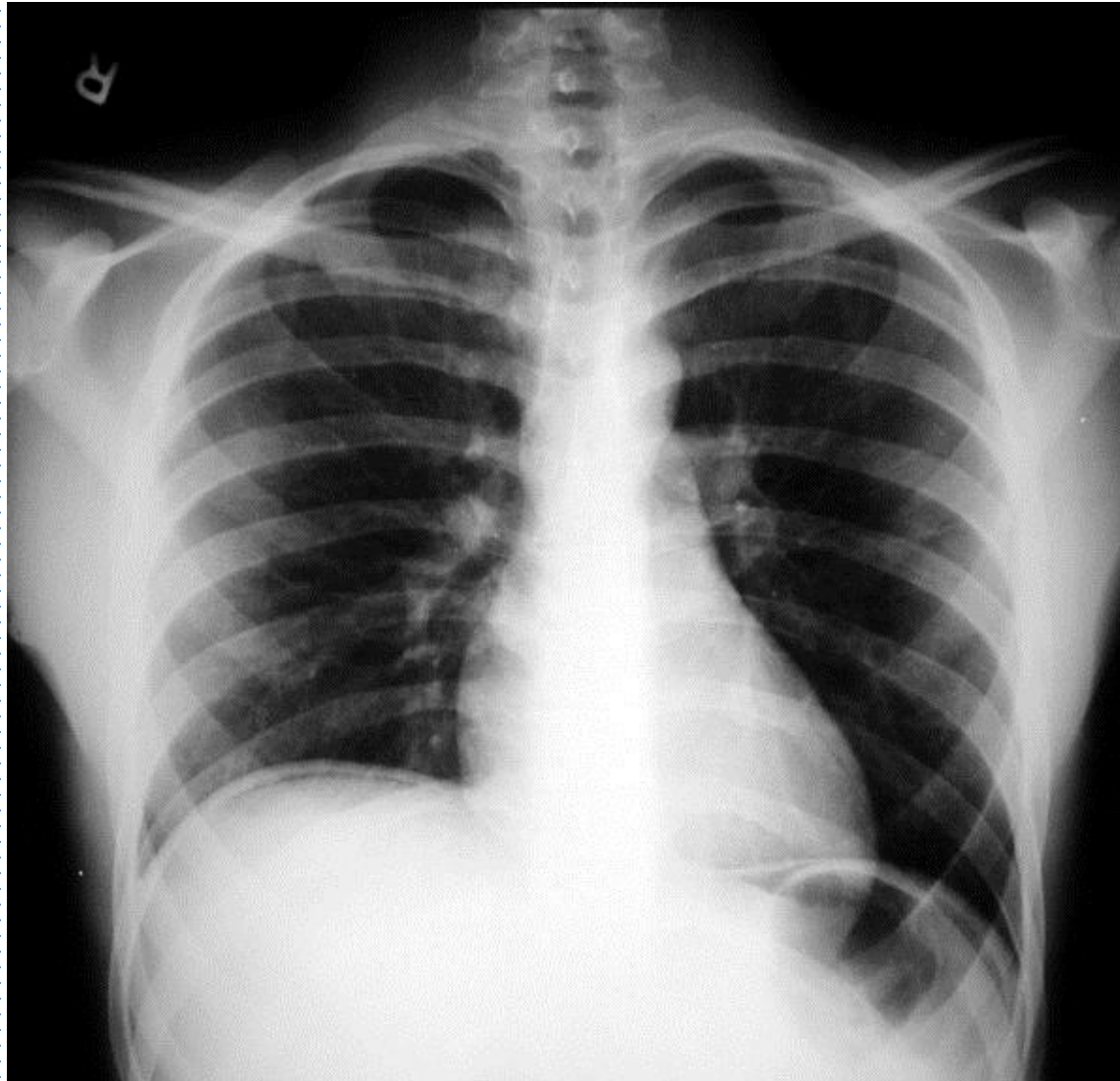
Pneumothorax



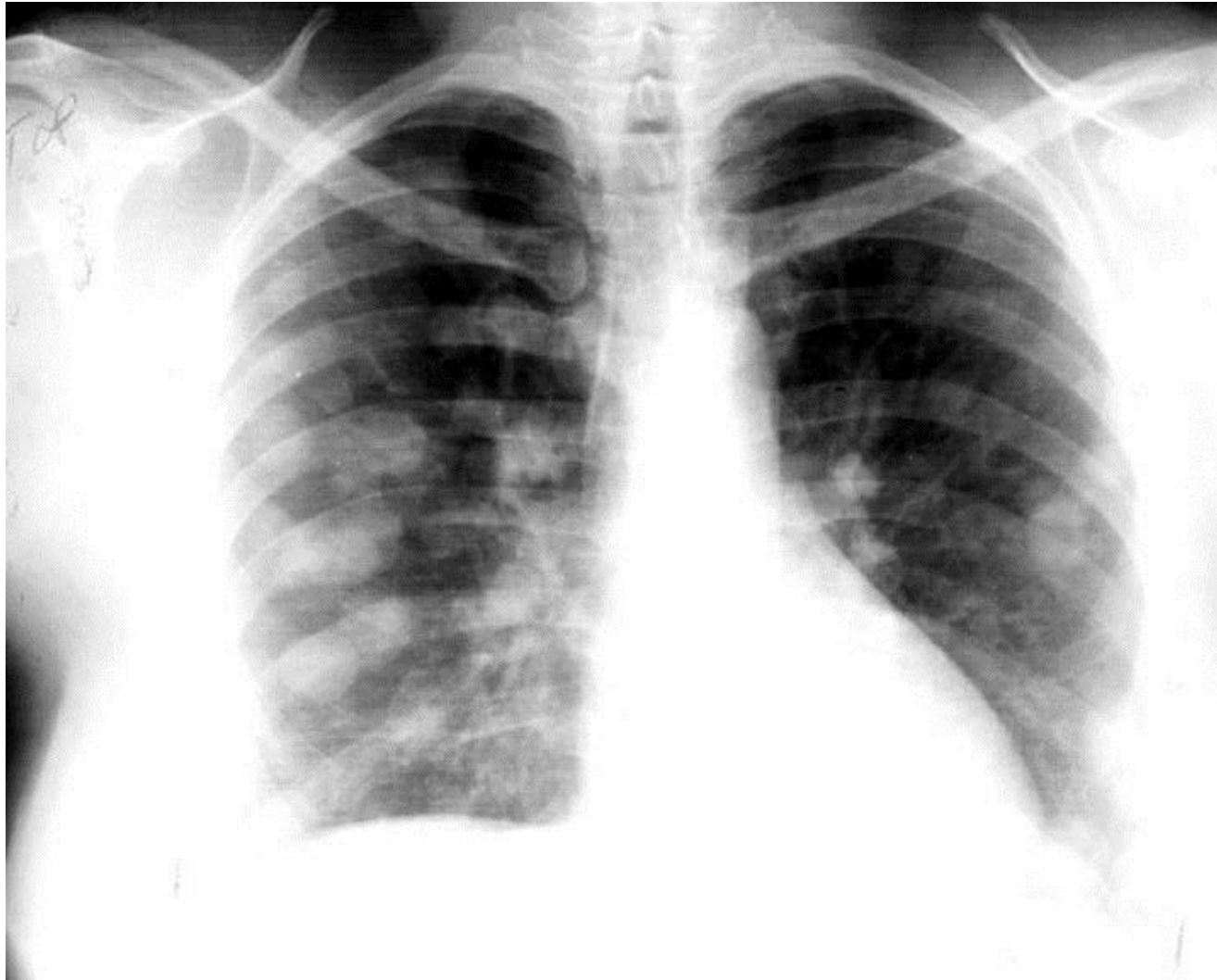
RUL collapse



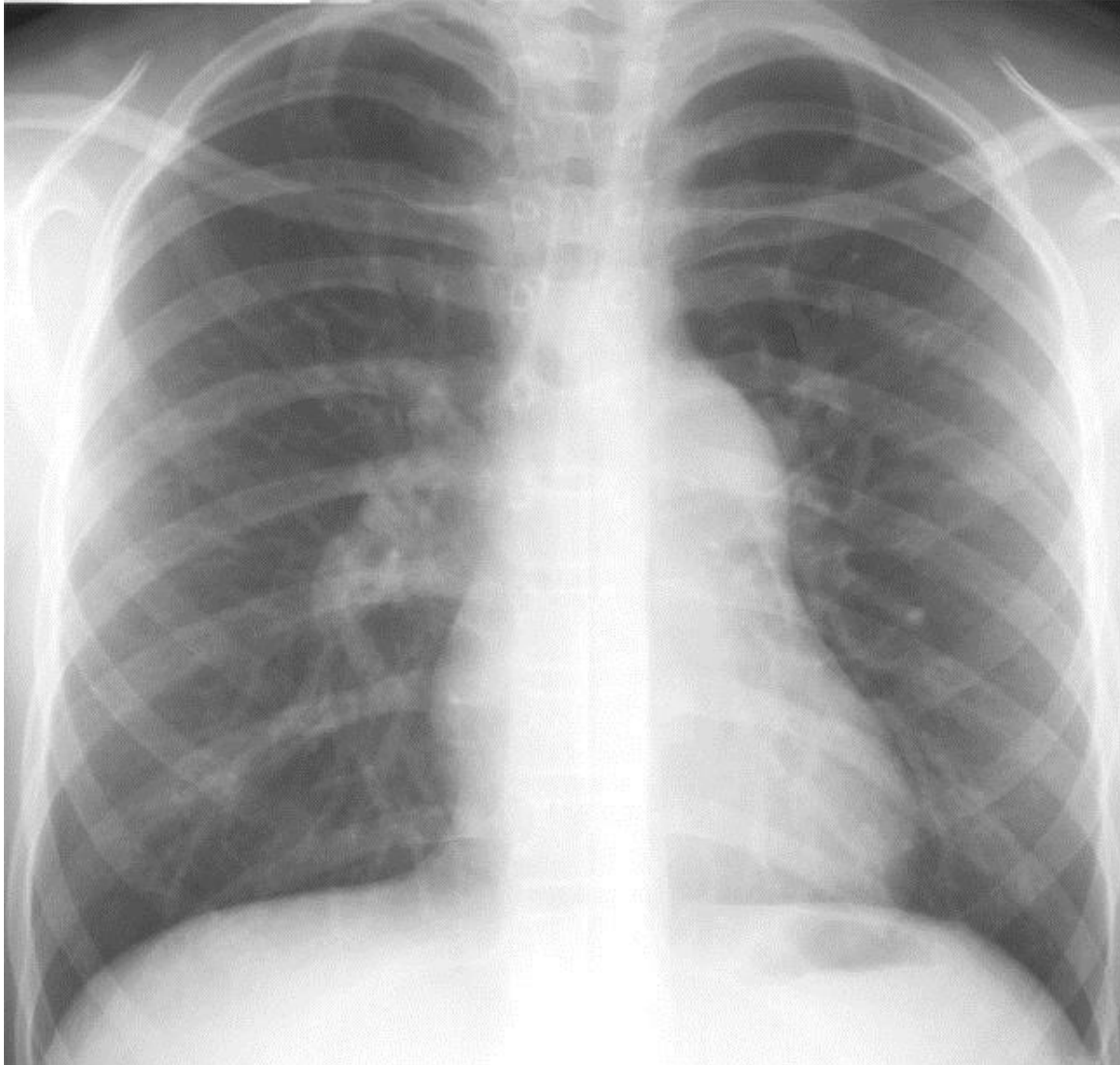
Air under the diaphragm



Multiple Masses (Metastasis)

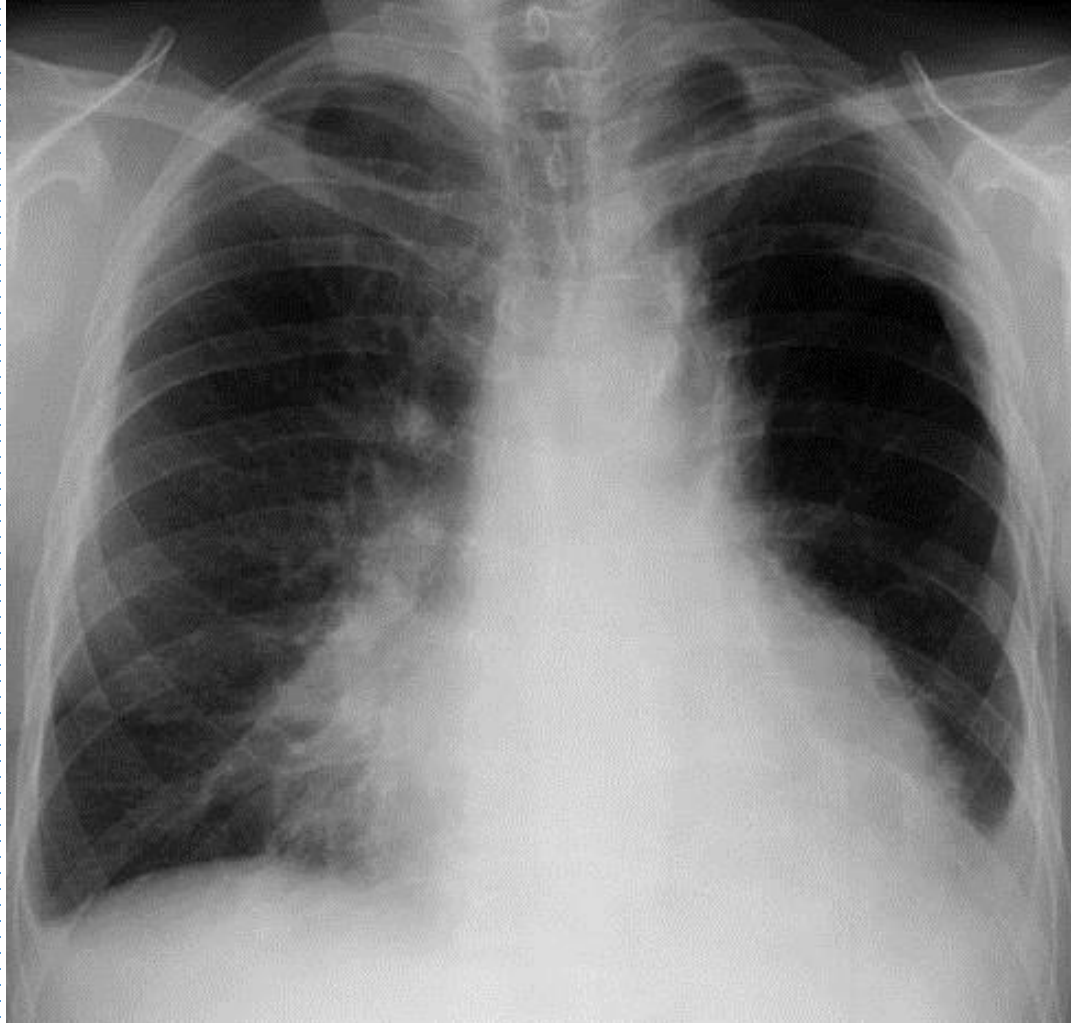


? Pulmonary embolism



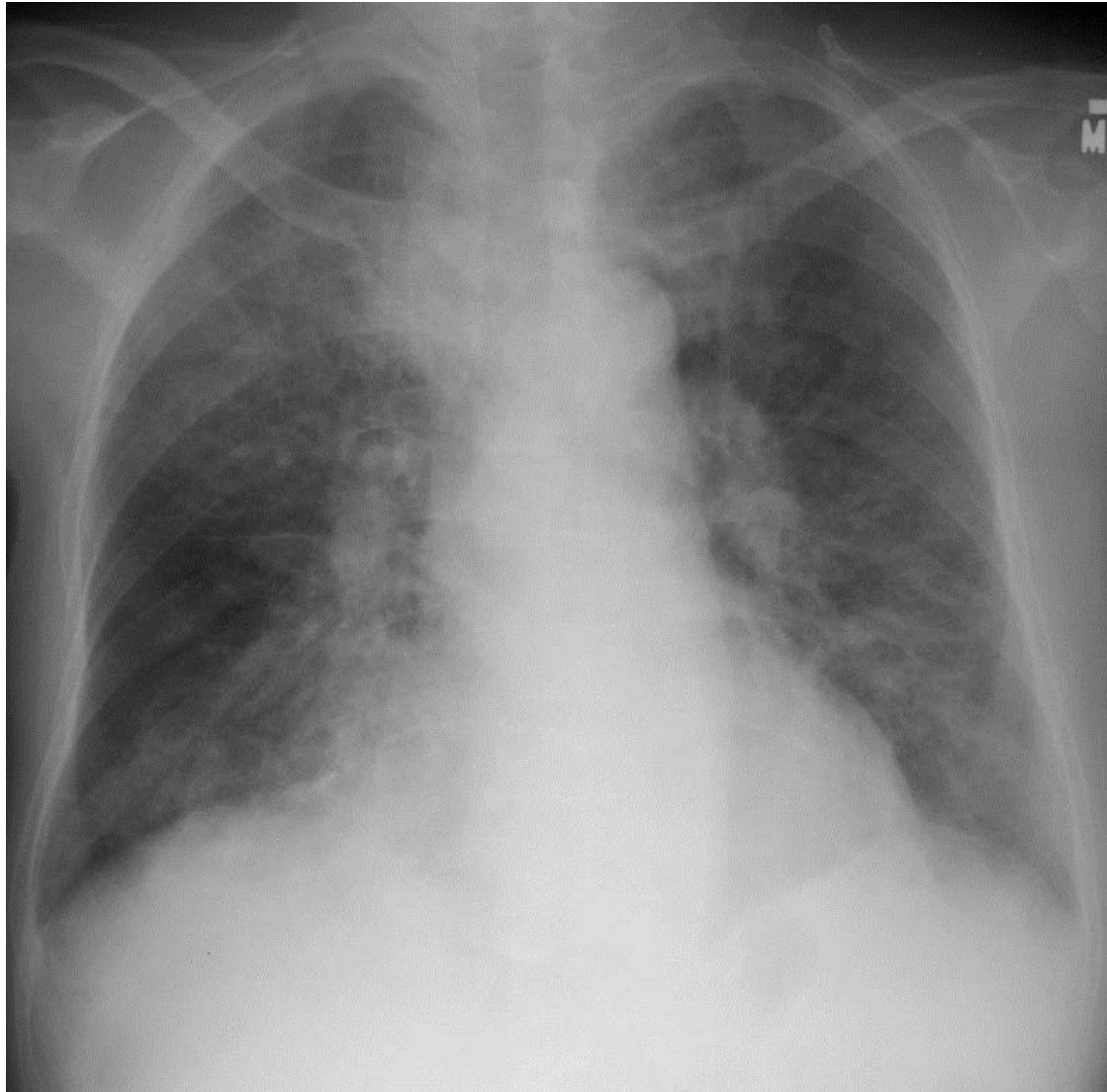
Dilatation of the
main pulmonary
artery with
decreased
peripheral
vascular
markings

Bilateral aspiration pneumonia



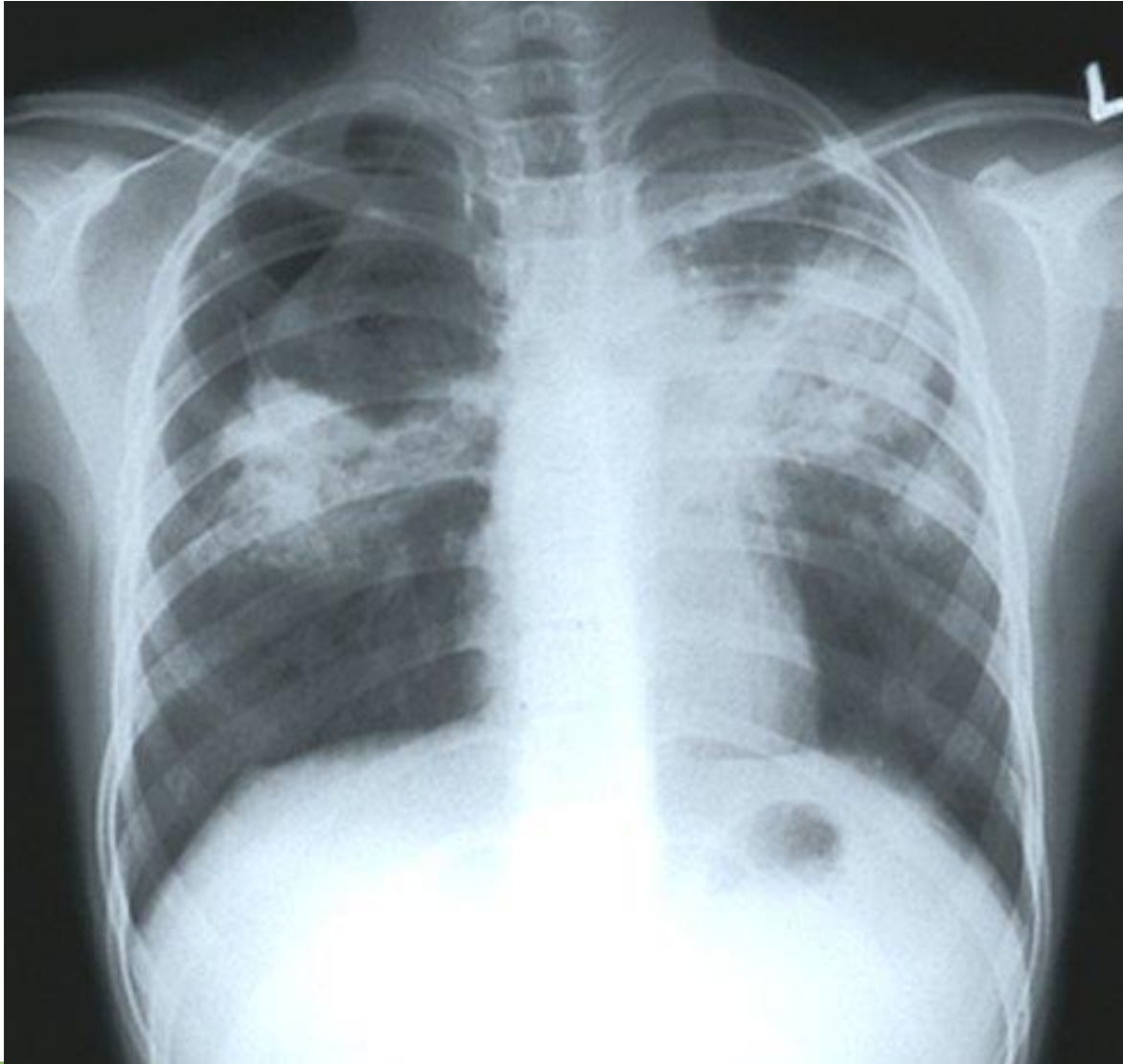
Obscuring of the right and left heart borders; infiltrate at the bases

Pneumocystis carinii pneumonia

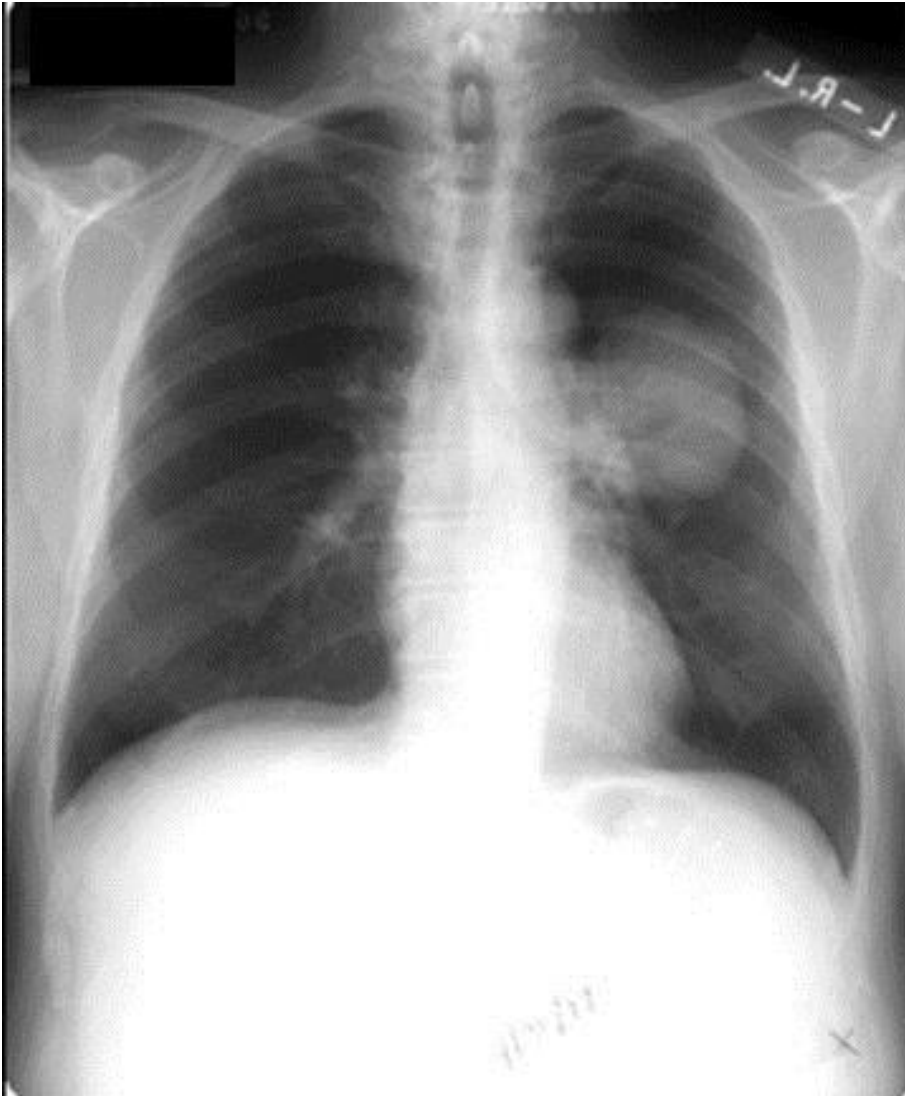


Diffuse bilateral fluffy
interstitial infiltrates

Severe pulmonary TB



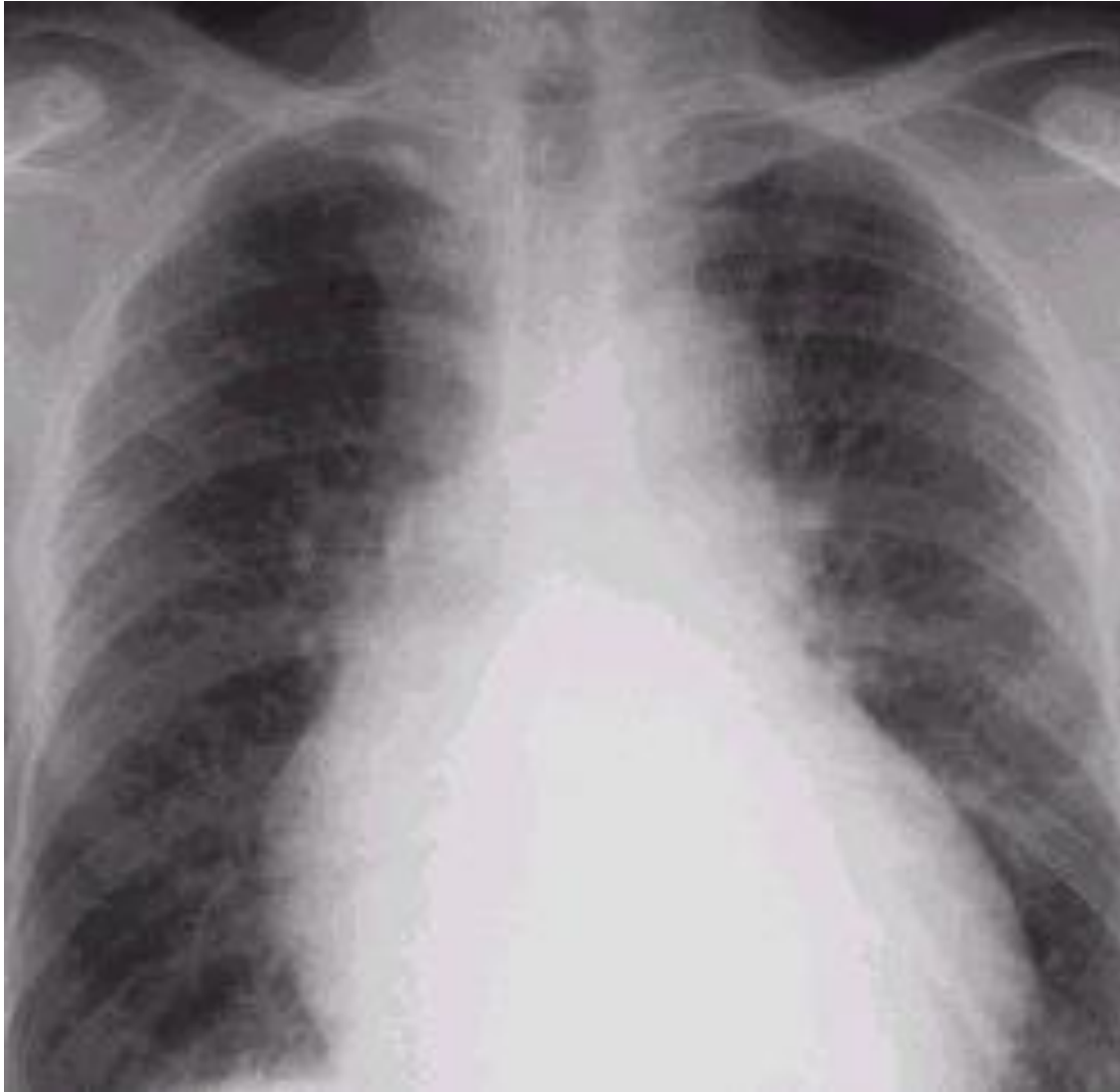
Left lung opacity



Diagnosed
as lung
cancer

The chest x-ray shows a shadow in the left lung, which was later diagnosed as lung cancer

CHF

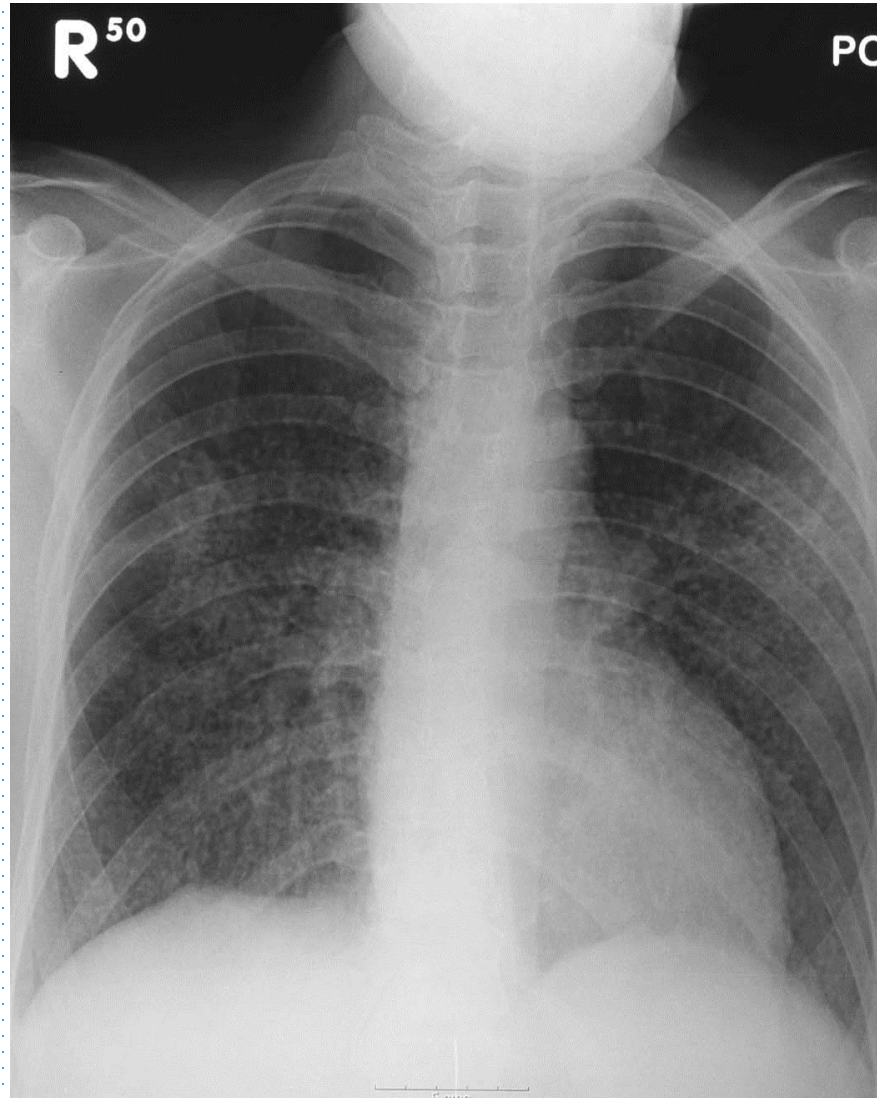


Cardiomegaly,
increased
pulmonary
vascular
markings, fluid in
the horizontal
fissure

Cavitating lesion



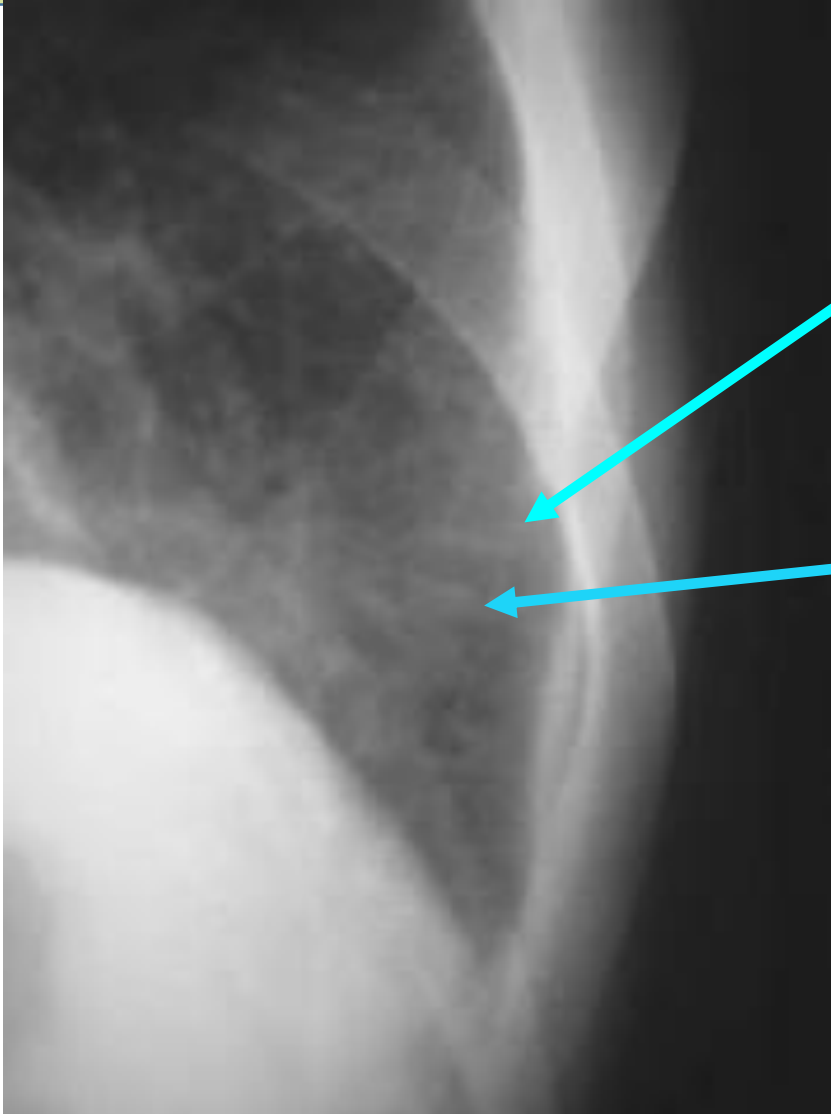
Miliary shadowing



Hiatus hernia



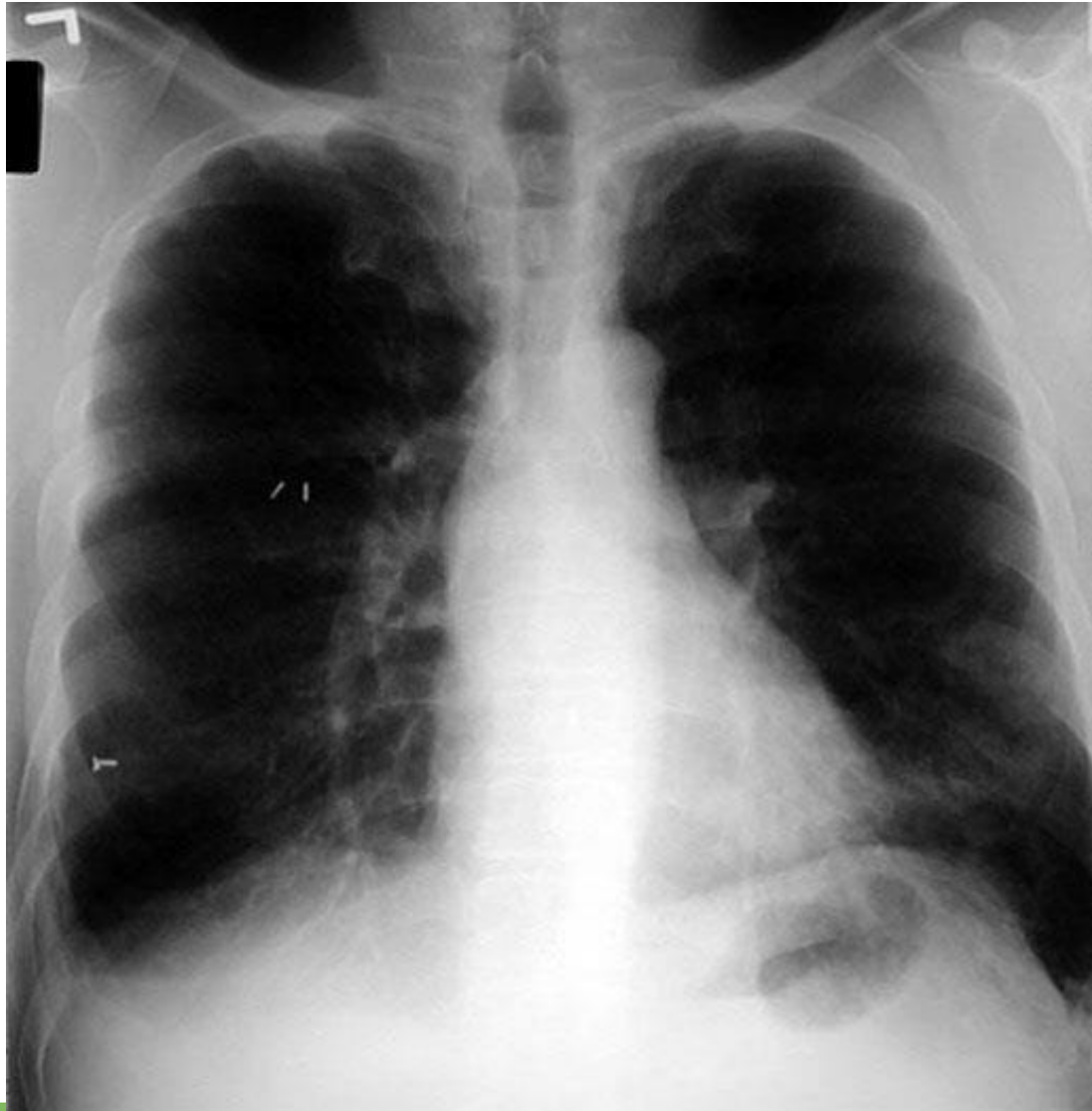
What do the arrows indicate?



Kerley B Lines

**Short (1 -2 cm)
white lines at the
lung bases,
perpendicular to the
pleural surface
representing
distended
interlobular septa**

Dextrocardia





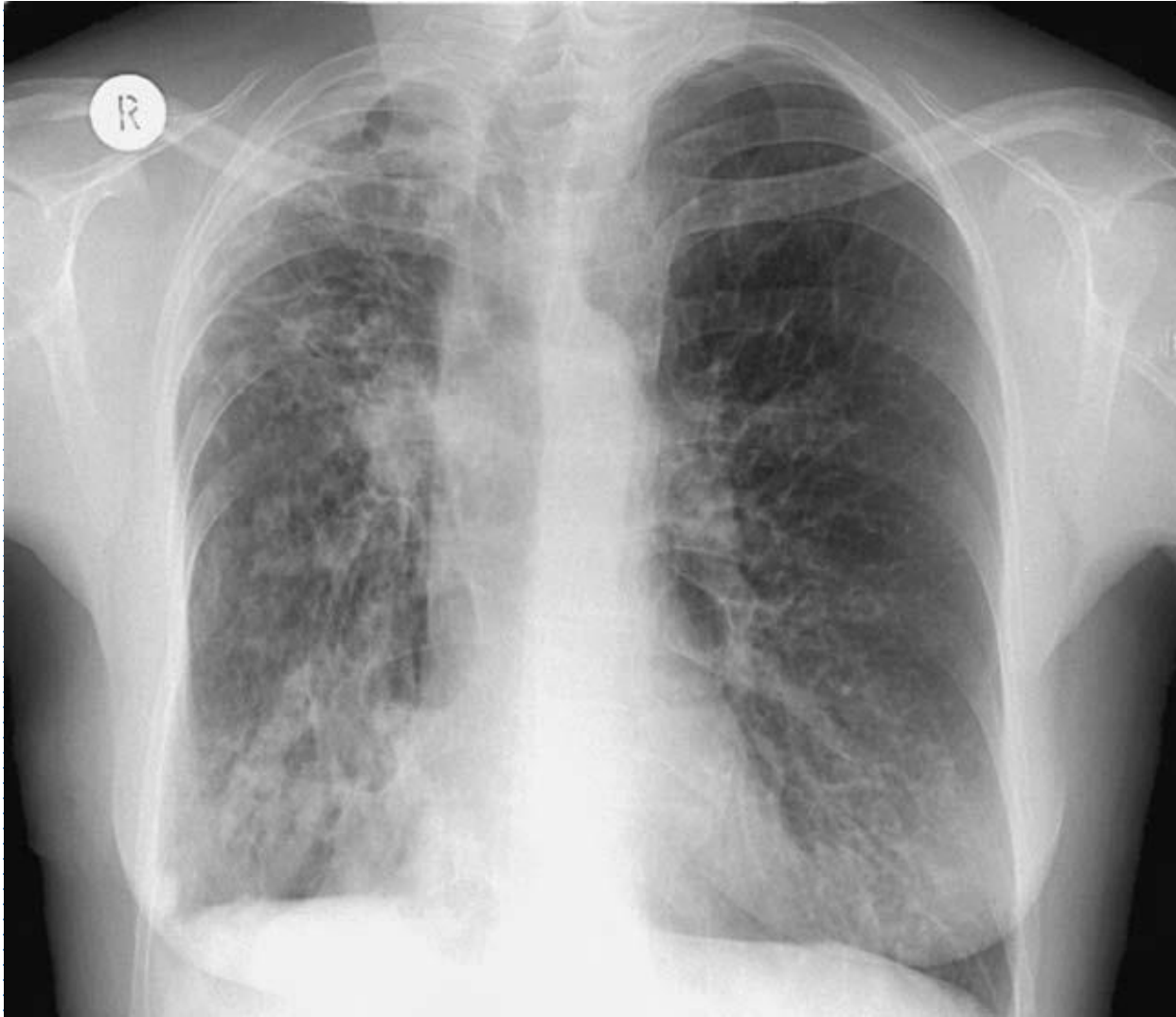
Achalasia. An additional soft tissue density line is seen parallel to the right mediastinal contour. The gastric fundus bubble is absent.

Aortic arch aneurysm.



a soft tissue mediastinal mass in the region of the aorta, measuring 4–10 cm. Wide tortuous aorta >4.5 cm. Curvilinear calcifications outlining the aortic wall. Left pleural effusions, left apical cap or left lower lobe collapse.

Bronchiectasis



Bronchiectasis. There is widespread bronchial wall abnormality in both lungs, but particularly in the right lung. In the right lower zone, there is marked bronchial wall thickening (remember that the normal bronchial wall should be 'pencil line' thin) with 'tram lines' visible.

Emphysema



The lungs are hyperinflated with flattening of both hemidiaphragms. On the lateral view, the chest appears 'barrel-shaped' due to an increase in the retro-sternal air space.

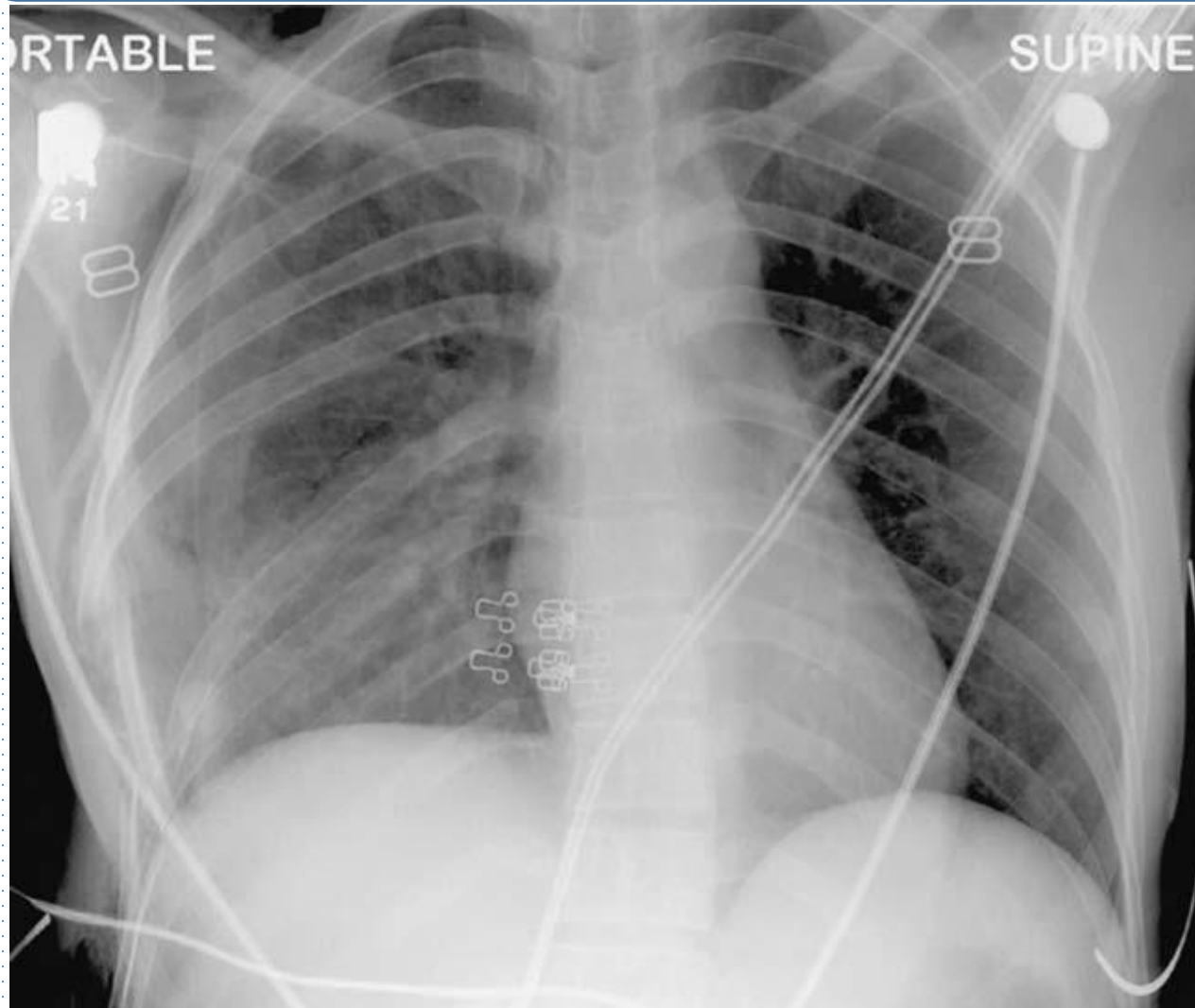
Acute extrinsic allergic alveolitis



Acute extrinsic allergic alveolitis. A 37-year-old bird keeper, who had a 2-month history of cough, wheeze and mild SOB lasting for a few hours each day.

There are bilateral small ill-defined ground glass nodules throughout both lungs. The features are non-specific and may represent infective changes, but the history and X-ray features are typical of a hypersensitivity pneumonitis (or acute EAA).

Flail Chest



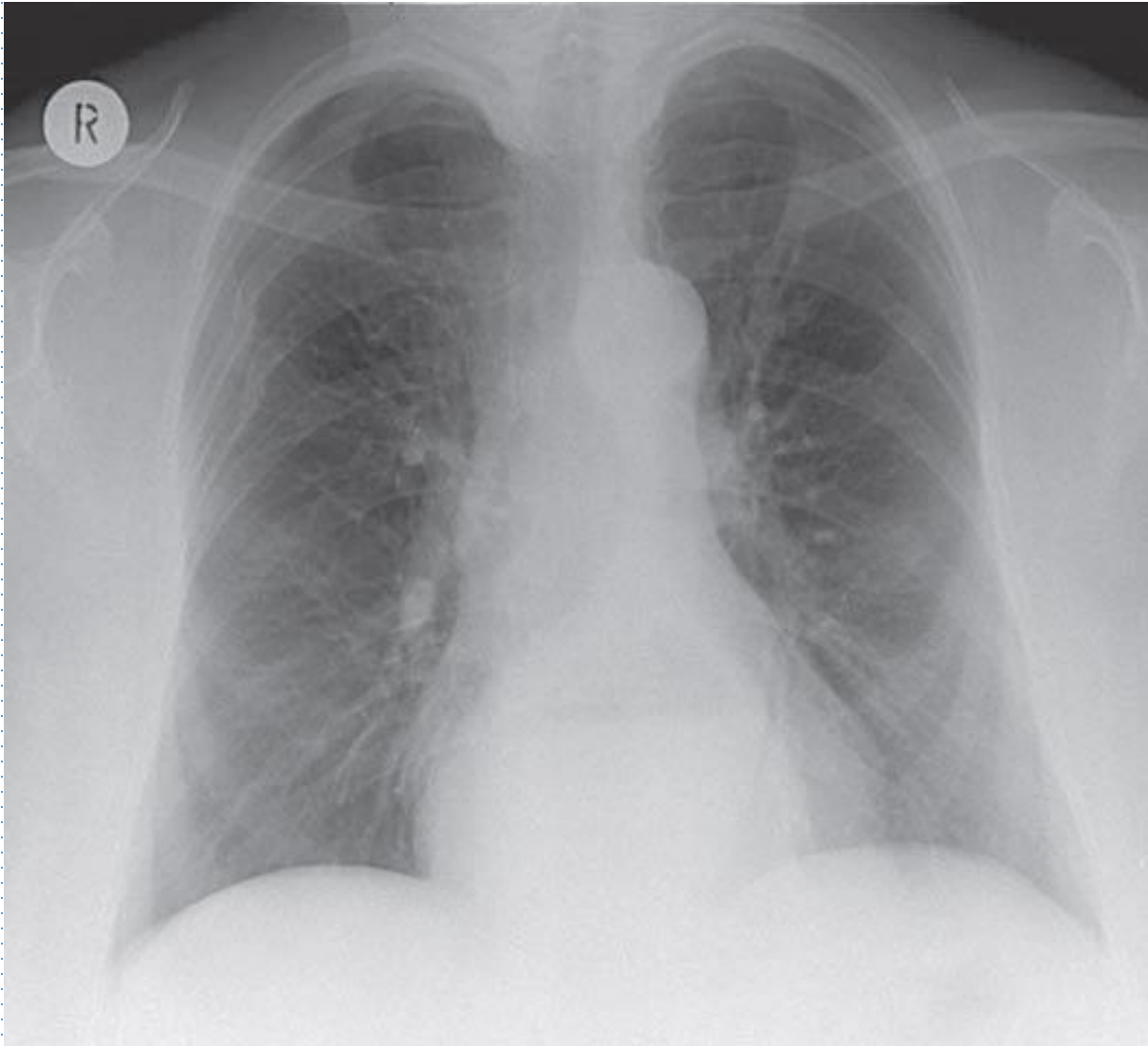
Flail chest –
Multiple right-sided rib fractures. Note the double fracture of the right fifth rib.

Haemothorax



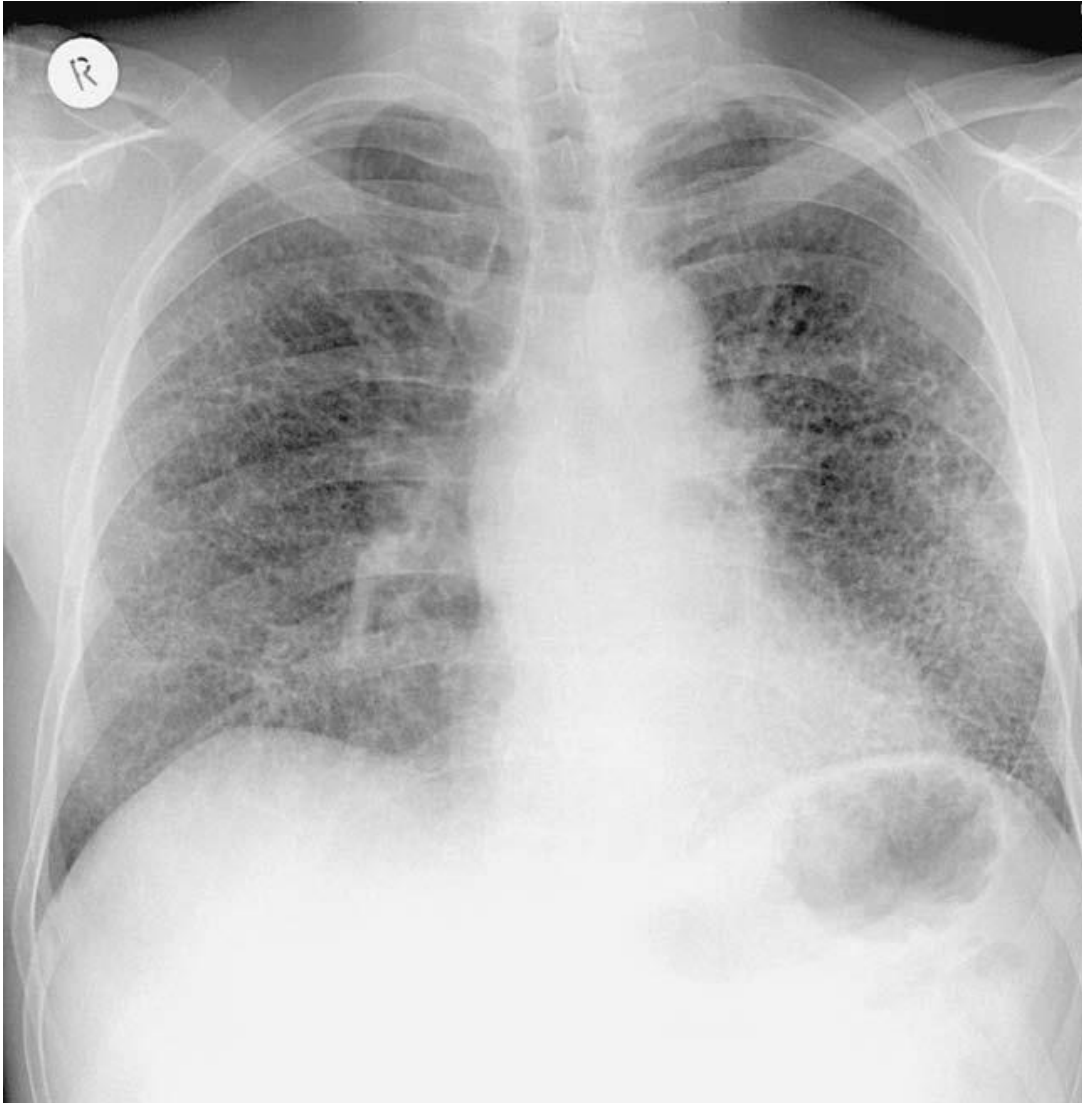
Haemothorax.
Traumatic aortic rupture and multiple rib fractures.
Generalised increase in density of the left hemithorax secondary to haemorrhage.

Hiatus hernia



Hiatus hernia.
There is a mass
projected behind
the heart in one of
the 'hidden areas'.

Idiopathic pulmonary fibrosis

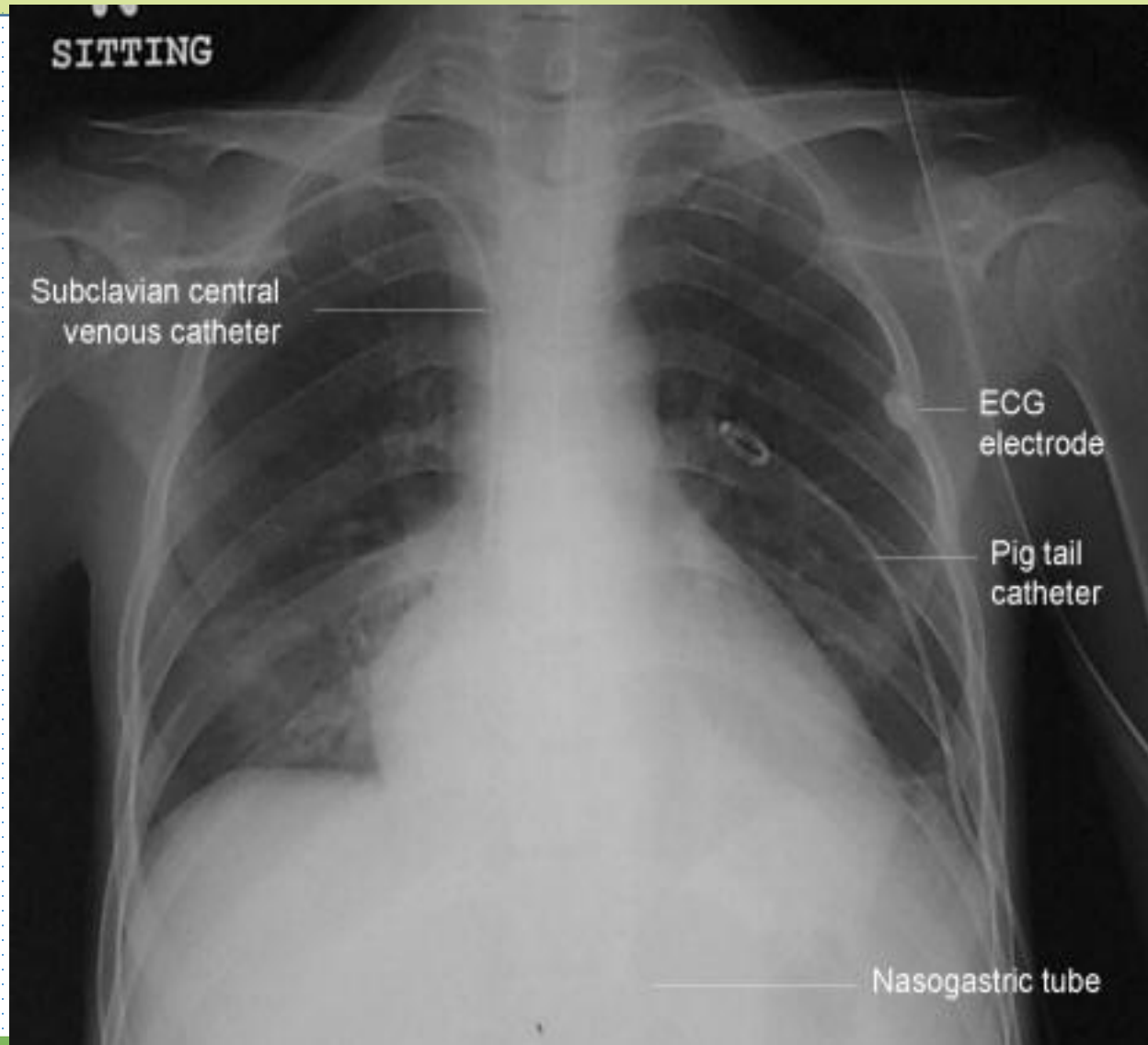


Idiopathic pulmonary fibrosis. Small volume lungs with extensive reticular shadowing and early 'honeycombs' in the lower zones.

Kartagener syndrome



Kartagener syndrome.
Dextrocardia and left lower lobe bronchiectasis.



For any queries related to X Rays or other
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