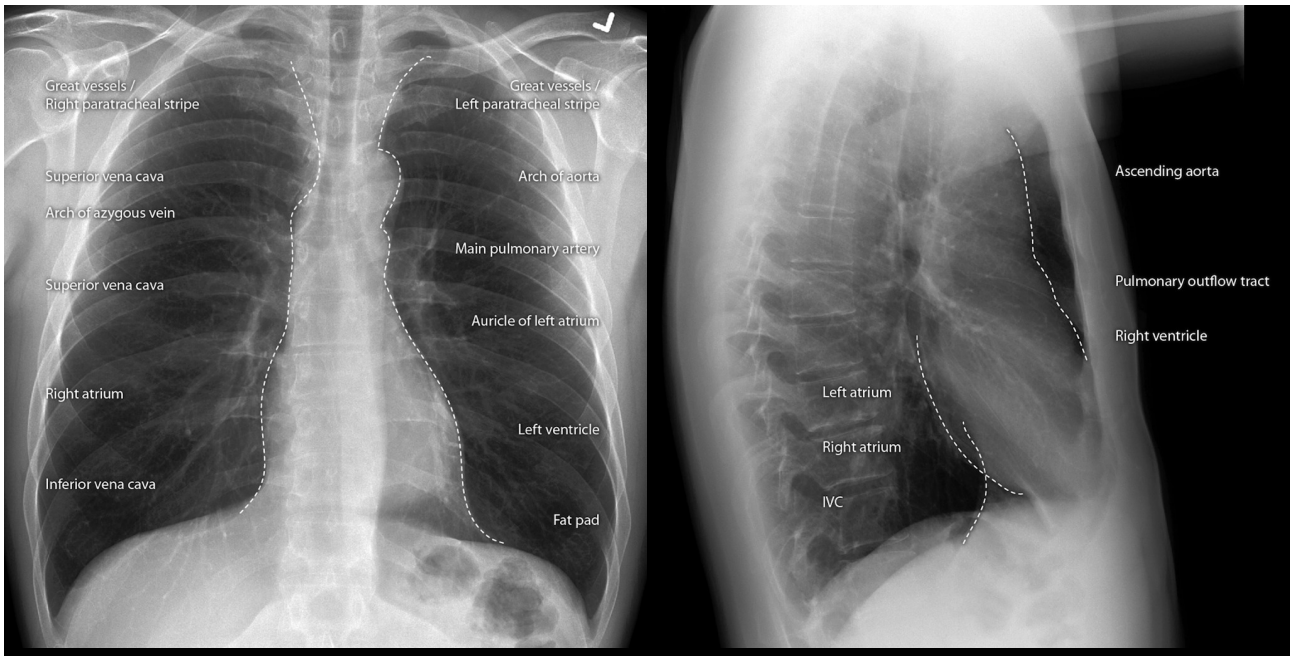
Chest X-Ray Interpretation



Left: Annotated PA Chest-Ray showing features of the Cardiomediastinum. **Right:** Annotated Lateral Chest X-Ray showing features of the Cardiomediastinum. **Source:** Radiopaedia: *Normal Contours of the Cardiomediastinum of Chest Radiography*

Framework

- **Patient Identification:** Is it the right patient? What date was the X-Ray taken?
- **Quality:** Rotation, Penetration, Inspiration (spinous processes between medial heads of clavicle, 8-10 ribs visible)
- **Trachea:** Is it midline or deviated?
- **Mediastinum:** Should be sharply delineated
- **Hila:** Right is lower, lymph nodes sometimes visible
- **Heart:** Should be <50% of thoracic width
- **Diaphragms:** Right is higher normally. Check for air under diaphragms (not fundic gas bubble)
- **Pleural Reflections:** Costophrenic angle should be sharp
- **Lung Fields:** Do lung markings extend to the edge of the thoracic cavity?
- **Bones and Soft Tissues:** Vertebrae should be visible through the heart. Also check for any fractures of other bone pathology. (Don't forget the clavicles!)

Other Notes

- Most commonly get PA and lateral films
- AP only used when patient can't get out of bed. Heart appears larger in this view
- Remember that there is a lot of lung hiding behind the heart and the diaphragm
- Fluid buildup in the bases may only be signified by loss of costophrenic angle sharpness

Tips and Tricks

- If the right heart border is lost, this suggests right middle lobe problems
- The left hemidiaphragm should be visible through the cardiac silhouette, as should the descending aorta
- Note any devices, etc. when reporting
- Check soft tissue, bone, apices, upper abdomen, behind the heart and the costophrenic angles as areas often missed/forgotten. Look for the uncommon things first!

Image Source: Tatco, V, Gaillard, F 2016, *Normal Contours of the Cardiomediastinum of Chest Radiography*, Radiopaedia, viewed 21 July 2016, <http://radiopaedia.org/articles/normal-contours-of-the-cardiomediastinum-on-chest-radiography>