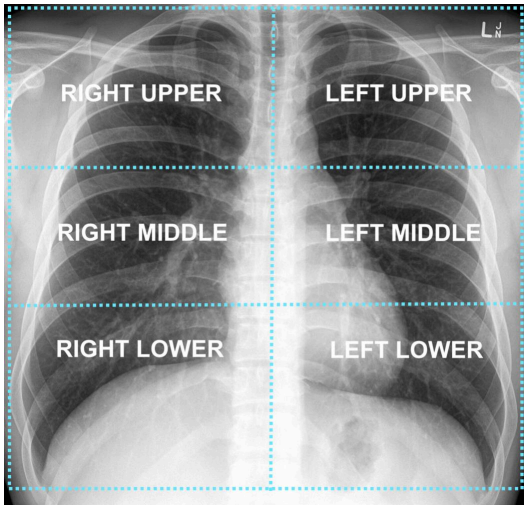
Localization of Lesions on Chest X-Ray

Understanding the position of a lesion within the lung is crucial for accurate interpretation. To achieve this, examine both the PA and lateral films.

On the PA Film:

1. The lesion's position can be described in terms of zones:
    - Upper zone: Above the right anterior border of the 2nd rib
    - Middle zone: Between the right anterior borders of the 2nd and 4th ribs
    - Lower zone: Between the right anterior border of the 4th rib and the diaphragm
2. While descriptive, this method does not provide information about the lobes of the lung.
3. Examine the borders of the lesion. If it's adjacent to a dense (white) structure, the silhouette sign may occur. For example, if the lesion is in the right lung and obscures part of the heart border, it's likely in the right middle lobe. If it obscures the diaphragm border, it's in the right lower lobe.



Zones of the Lung Feilds

Each lung feild is divided in to three zones.

On the Lateral Film:

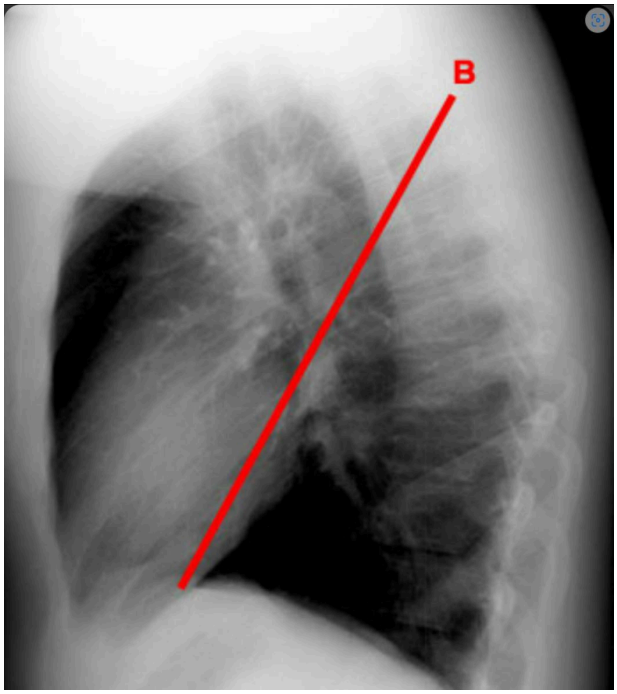
If CT localization is not an option, a lateral film is necessary.

If the lesion is in the right lung:

1. Identify the oblique fissure. If the lesion lies posterior to the oblique fissure, it must be in the lower lobe, regardless of its height on the PA film.
2. If the lesion lies anterior to the oblique fissure, it may be in the upper or middle lobe. Identify the horizontal fissure. If the lesion is below the horizontal fissure, it's in the middle lobe; if above, it's in the upper lobe.

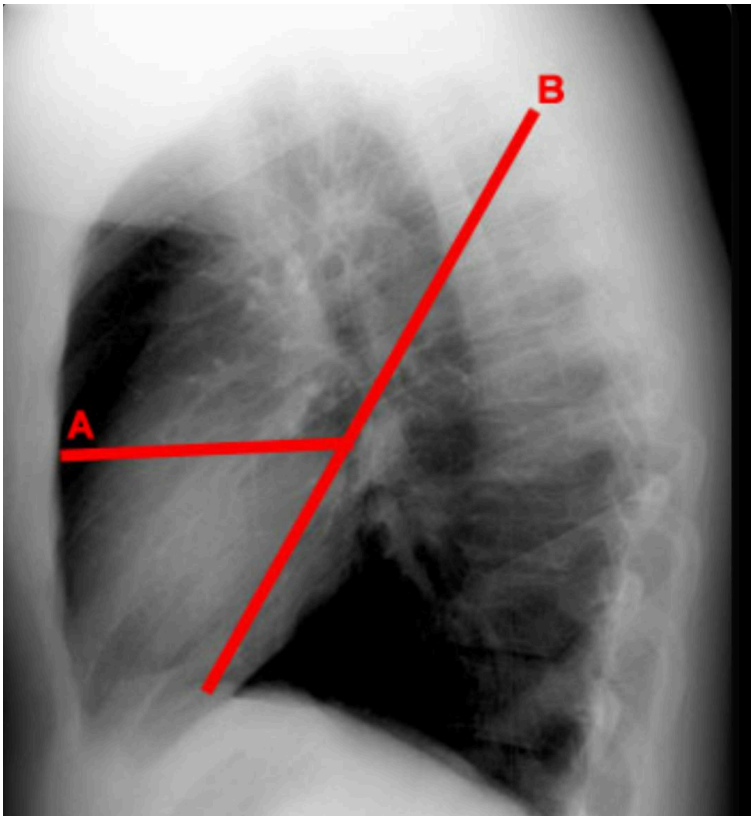
If the lesion is in the left lung:

- Identify the oblique fissure. If it's behind the oblique fissure, the lesion must be in the lower lobe. If it's anterior, it's within the upper lobe; there is no middle lobe on the left.



Lateral X-ray of Left Lung

On the lateral view, both lungs are superimposed. Think about them separately, the left lung has only a major fissure as shown. The right lung will have both the major and minor fissure.



Lateral X-ray of Right Lung

On the lateral view, both lungs are superimposed. Think about them separately, the left lung has only a major fissure as shown. The right lung will have both the major and minor fissure.