



Airways, hila, and mediastinum

The mediastinum—common pathology

What will I gain from this video?

After watching this video, you will know how to identify common mediastinal abnormalities.

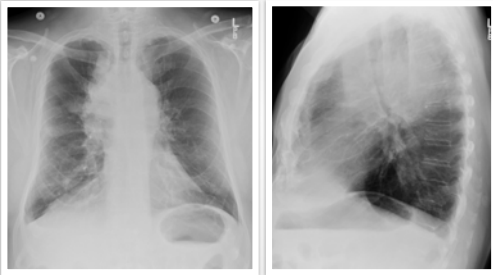
The radiological mediastinum is abnormal when:

- The **grayscale** image of the mediastinum is too white or too black
- The **size** or **shape** of the mediastinum is altered
- The **position** of the mediastinum is shifted

What causes the mediastinum to be too white?

- Tumor
- Calcification
- Hiatus hernia
- Mediastinal lipomatosis

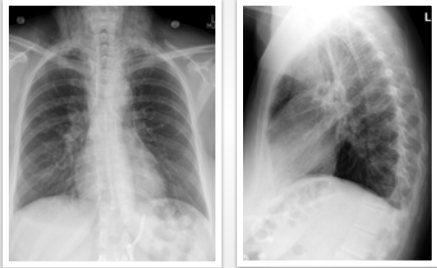
The grayscale image of the mediastinum is too white



What causes the mediastinum to be too black?

- Air
- Hiatus hernia

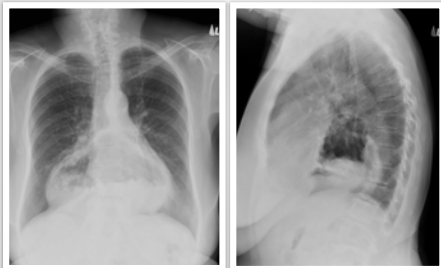
The grayscale of the mediastinum is too black



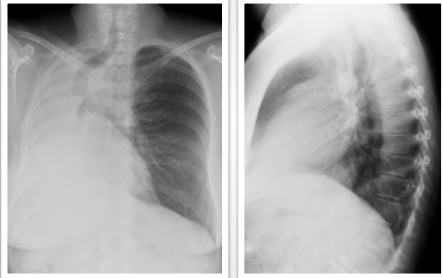
What changes the size and/or shape of the mediastinum?

- Tumor
- Adenopathy
- Goiter
- Aneurysm
- Unfolded (ectatic) aorta

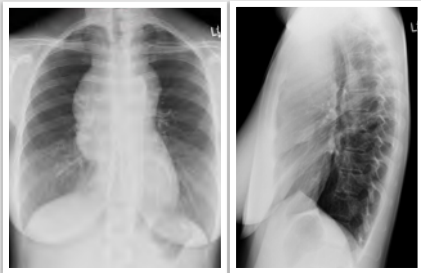
Change in size and/or shape of the mediastinum



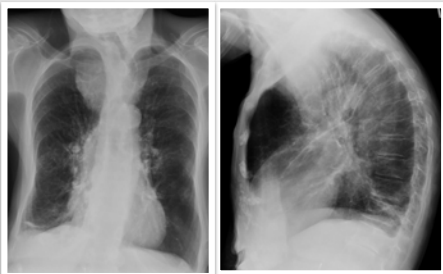
Change in position of the mediastinum



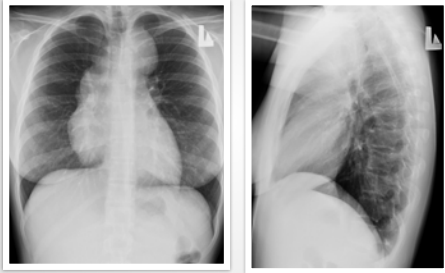
Localizing to the **ANTERIOR** mediastinum



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Localizing to the **ANTERIOR** mediastinum



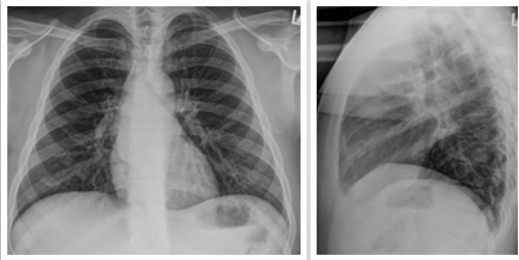
Differential diagnosis within the **ANTERIOR** mediastinum

Think "5T"s!

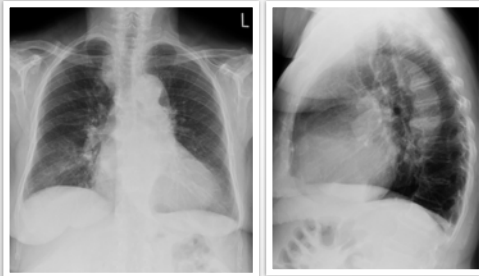
- Thyroid—goiter, thyroid tumor
- Thymoma
- Teratoma
- Testicular carcinoma metastases
- Terrible lymphoma

Also consider the possibility of aneurysm of the ascending aorta or mediastinal lipomatosis!

Localizing to the **MIDDLE** mediastinum



Localizing to the **MIDDLE** mediastinum



Differential diagnosis within the **MIDDLE** mediastinum

Think “anatomical structures”!

Nodes (adenopathy)—related to sarcoidosis, lymphoma, infection, metastatic disease

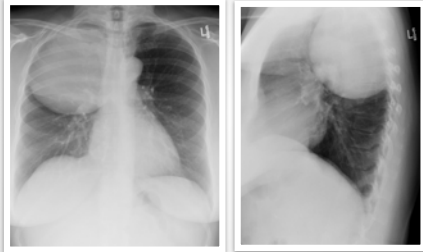
Bronchi—bronchogenic carcinoma, carcinoid

Esophagus—leiomyoma, carcinoma, hiatus hernia

Aorta—aneurysm, ectasia

Great vessels—aneurysm, ectasia

Localizing to the **POSTERIOR** mediastinum



Differential diagnosis within the **POSTERIOR** mediastinum

Think “nerves”!

Nerves—neuroma, schwannoma, ganglioneuroma

Nodes (adenopathy)—related to sarcoidosis, lymphoma, infection, metastatic disease

Vascular—aortic aneurysm

Paraspinal/spinal abnormalities—abscess, metastatic disease

Radiological signs related to the mediastinum

1, 2, 3 sign



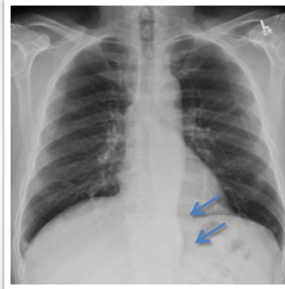
Radiological signs related to the mediastinum

Hilar overlay sign



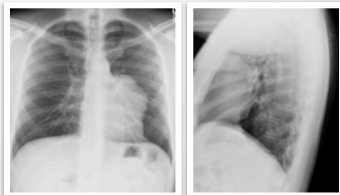
Radiological signs related to the mediastinum

Iceberg sign

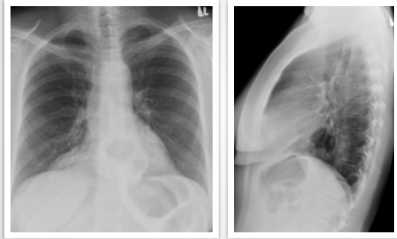


Radiological signs related to the mediastinum

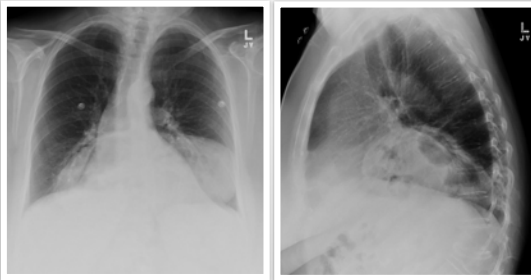
Silhouette sign



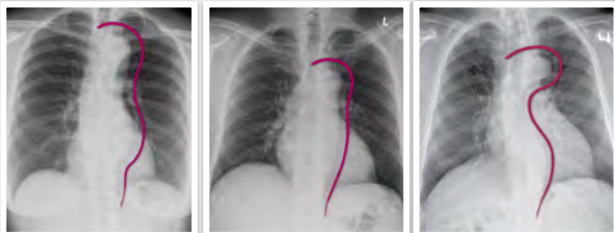
The many faces of hiatus hernia



The many faces of hiatus hernia



Swaying aorta



When looking for mediastinal pathology look for:

- Change in grayscale—too white or too black

When looking for mediastinal pathology look for:

- Change in grayscale—too white or too black
- Change in size and position of the mediastinum

When looking for mediastinal pathology look for:

- Change in grayscale—too white or too black
- Change in size and position of the mediastinum
- Loss of normal edges, lines, stripes

When looking for mediastinal pathology look for:

- Change in grayscale—too white or too black
- Change in size and position of the mediastinum
- Loss of normal edges, lines, stripes
- Additional edges will be formed by pathology

Anterior mediastinal mass: Think 5T's—Thymic lesions, Teratoma, Thyroid, Terrible Lymphoma, Testicular cancer metastasis

Middle mediastinal mass: Think anatomy

Posterior mediastinal mass: Think nerves
