



## Getting into the X-ray

The importance of grayscale

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### What will I gain from this video?

After watching this video, you will know how to identify various structures in a chest X-ray based on their grayscale appearance.

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### Seeing nature



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## The X-ray world



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## B&W images

Weakest intensity →



Strongest intensity →



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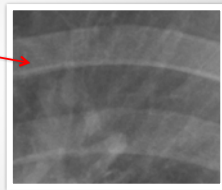
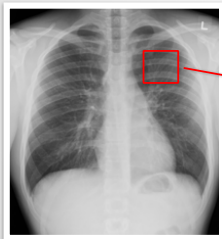
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## X-ray grayscale



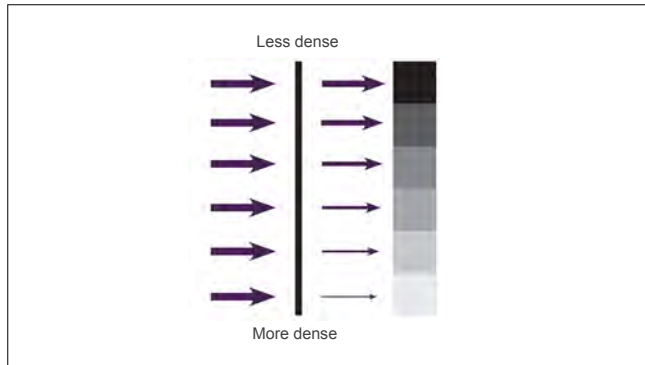
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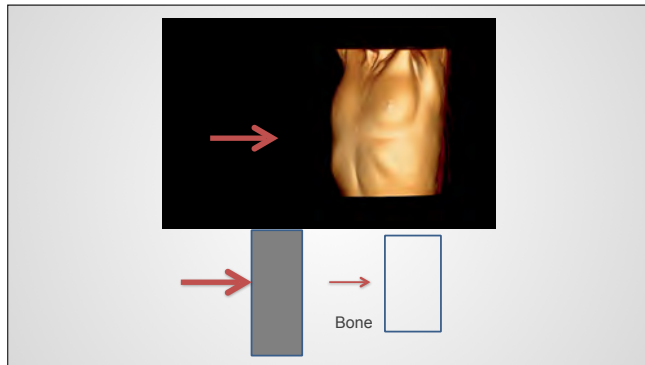
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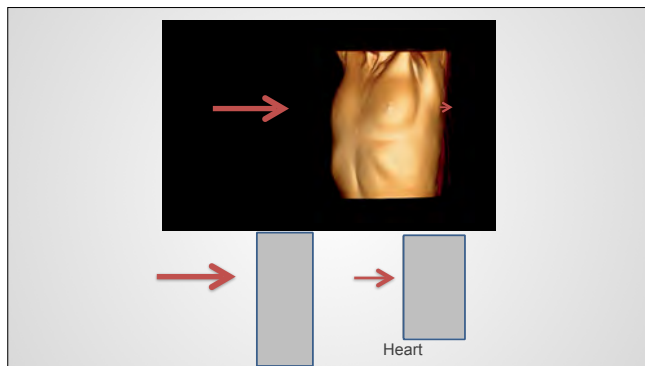
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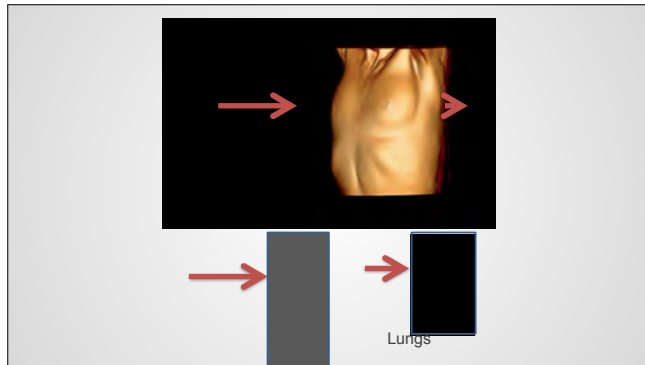
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### The X-ray image in grayscale

- 1. Air
- 2. Fat
- 3. Soft tissue
- 4. Bone
- 5. Metal

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### Practical hints

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### Practical hints

- Air in the room—**black**



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### Practical hints

- Air in the room—**black**
- Bones—**white**



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### Practical hints

- Air in the room—**black**
- Bones—**white**
- Heart & soft tissues—**gray**



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## Practical hints

- Air in the room—**black**
- Bones—**white**
- Heart & soft tissues—**gray**
- Markers— **very white**



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**The X-ray image itself holds useful hints about grayscale and radiodensity:**

- Look above shoulders—the air in the room is black; therefore, you can expect the air in the lungs to be black.
- Easily recognized bones such as the clavicles are white.
- The heart is soft tissue density and is gray.
- X-ray markers are made of lead and are very white.

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