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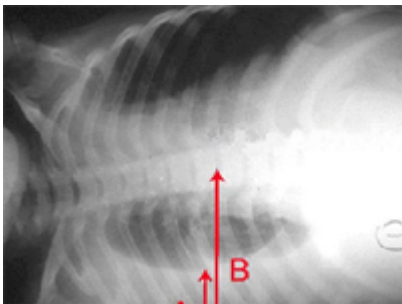
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Difference Between X-Ray and CT-Scan

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X-Ray vs CT-Scan

X-ray and CT Scan provides doctors with a view of the internal organs from which they can make a well informed diagnosis without having to perform intrusive surgery. The CT Scan is a more recent development that uses the same technology as X-ray, but uses a lot more X-ray images to recreate a better view than what an X-ray can provide. The

rotational motion of the scanner makes the target area clearer while blurring the surrounding area. A CT scan can also create a three dimensional view of the organ that is being scanned. This is done with the use of computers with specialized imaging equipment.

Unlike X-ray equipment which are rather straightforward and small, CT scan equipment are much bigger and considerably more complex because the scanner needs to rotate around the patient being scanned. The motion of the scanner and the resulting images are also handled by a specialized computer system that is programmed specifically for this purpose. As a direct consequence of this, CT Scan equipment costs a lot more than X-ray equipment and having a CT scan costs the patient more.

CT Scan also exposes the patient to greater risks compared to **X-ray**. Both equipment uses radiation which passes through the body of the patient being scanned. This can affect or damage the cells and can cause complications with extended exposure. Since a CT Scan means taking a much greater number of X-ray images, the patient is also exposed to more radiation. Because of this, patients are discouraged from undergoing CT scans when it is not really necessary or even full body scans.

Having an X-ray or a CT scan should only be done under the advice of a doctor as frequent scans can lead to complications. Although the risks and cost of getting a CT scan is greater than an X-ray, it can also provide a lot more information and a better chance of a correct diagnosis from the doctors.

Summary:

1. The CT Scan is an extension of the X-Ray technology
2. CT Scan uses multiple X-Ray images to create the final image

3. A CT Scan can focus on the target area better than an X-ray
4. Advanced CT Scan equipment can produce a 3d representation of the target while X-ray is strictly two dimensional
5. Equipment for CT Scan costs considerably more than X-ray equipment
6. CT Scan exposes the patient to a lot more radiation than X-ray

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2 Comments

1. **James**

August 21, 2014 • 8:45 pm

But x-ray doesn't shown organs. It shows BONES!!!! Radiotransparent is what organs are.

Reply

o *Naina*

January 26, 2015 • 1:47 am

That's not true. X-rays can show soft tissues (organs) as well as hard tissues (bones). Different things have different radio-density. Only AIR is radio-transparent while dense bone is radio-opaque. Different tissues have different radio-densities depending on the density of cells and water/air that they contain. X-rays are used to diagnose problems like pleural effusion (water in the area around the lungs) tumours (dense masses in the stomach, lungs, etc.)

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Written by : Ben Joan. and updated on November 1, 2009

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