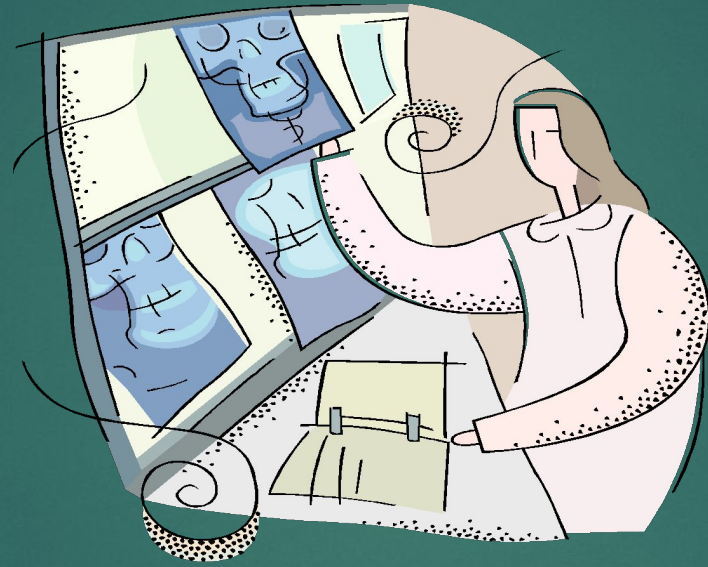


process equipment for medical textile industry



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Brief History of X-Ray

Discovered in 1895 by Wilhelm Konrad Roentgen

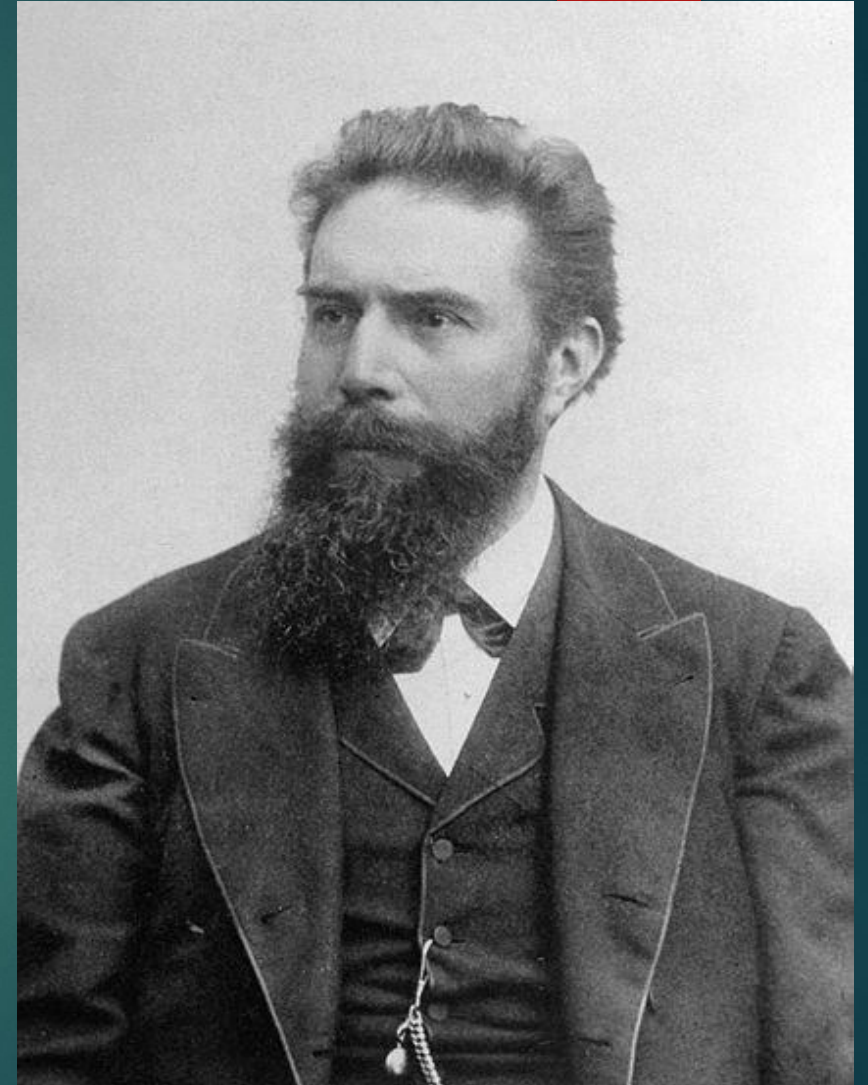
Electromagnetic wave

Travels 186,000 miles/sec

Short wavelength

Penetrates solid objects

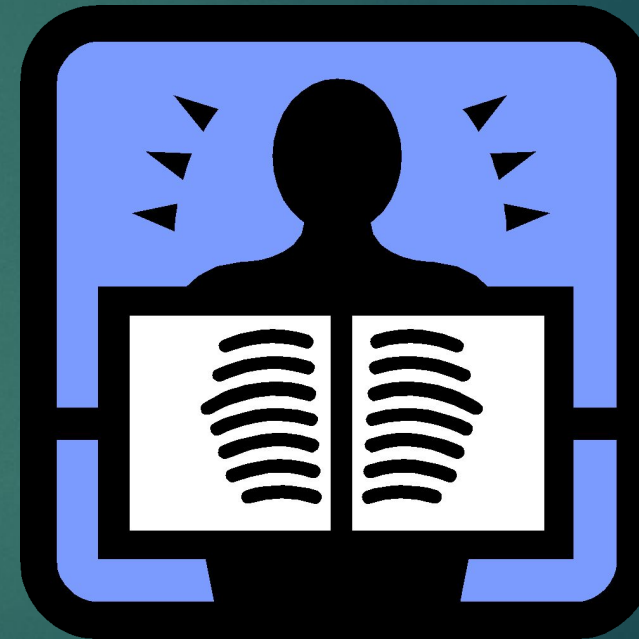
Reacts with photographic film





Fluoroscopy

- ▶ It is used for viewing organs or passage of substances through organs

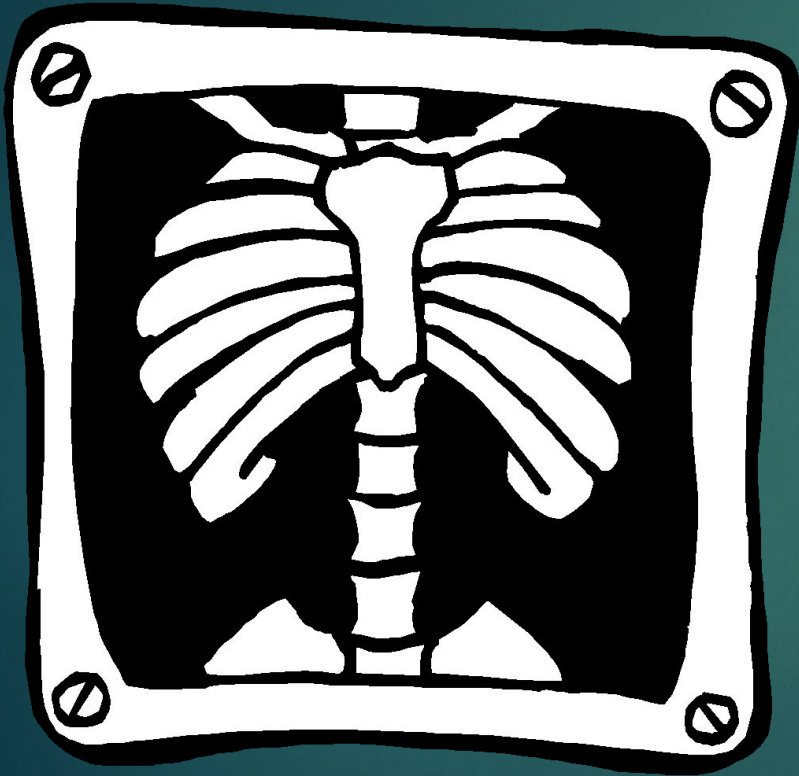


Computed tomography

Computed tomography (CT scanning) is a medical imaging modality where tomographic images or slices of specific areas of the body are obtained from a large series of two-dimensional X-ray images taken in different directions. These cross-sectional images can be combined into a three-dimensional image of the inside of the body and used for diagnostic and therapeutic purposes in various medical disciplines.



Radiograph



Bones contain much calcium , which due to its relatively high atomic number absorbs x-rays efficiently. This reduces the amount of X-rays reaching the detector in the shadow of the bones, making them clearly visible on the radiograph.



Adverse effects

Diagnostic X-rays (primarily from CT scans due to the large dose used) increase the risk of developmental problems and cancer in those exposed. X rays are classified as carcinogenic ones.



Radiation Safety and Dose

Reducing patient exposure

- Advances in technology
- Assessment of benefit-to-risk ratio
- Prevent serious damage from radiation by limiting radiation dose levels
- Individual dose limits set





**Words can be like X-rays if you use them properly--they'll go through anything. You read and you're pierced.”
~ Aldous Huxley**

Thank you for attention

