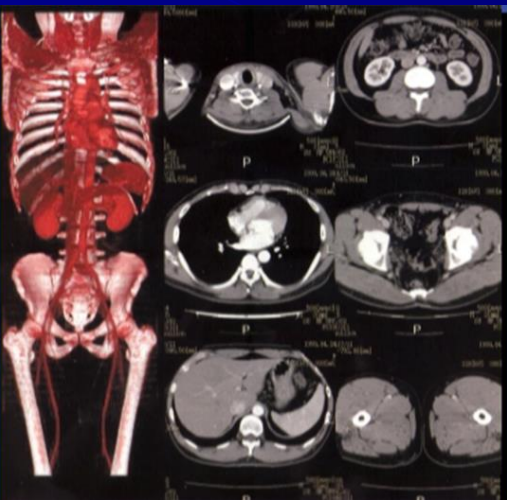




Using Xrays in medical imaging and therapy



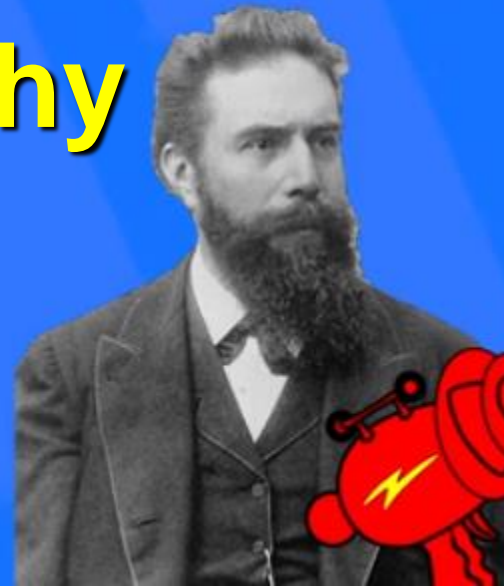
Pr R. SEBIHI

Medical physicist

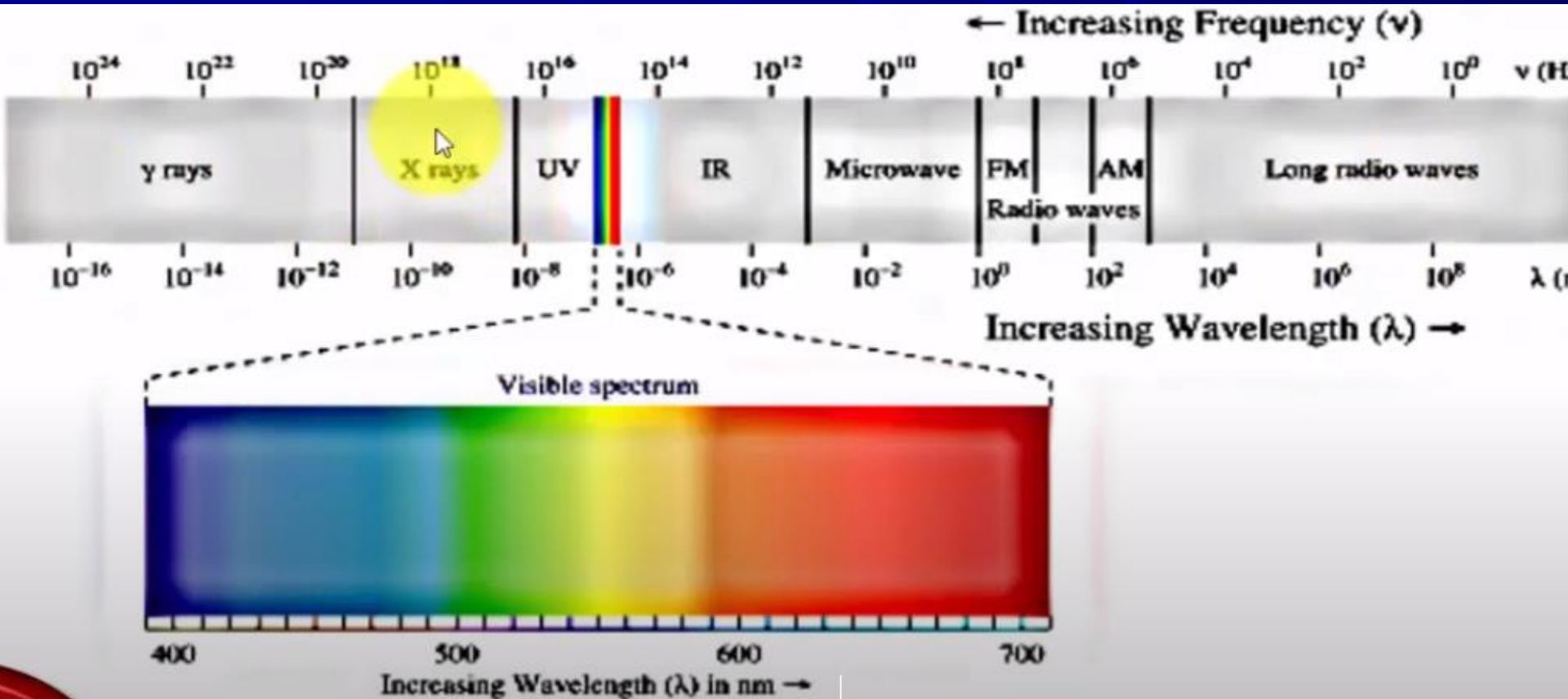
UM5, Faculty of Sciences, Rabat

**ROENTGEN'S
DISCOVERY**

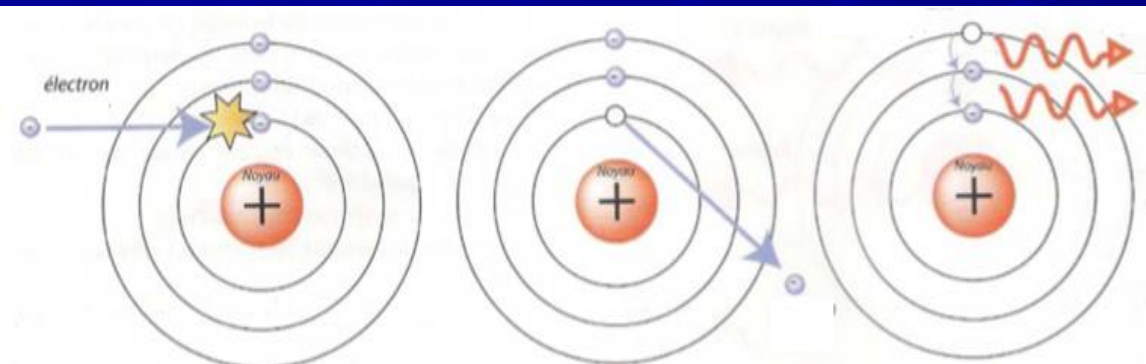
Radiography



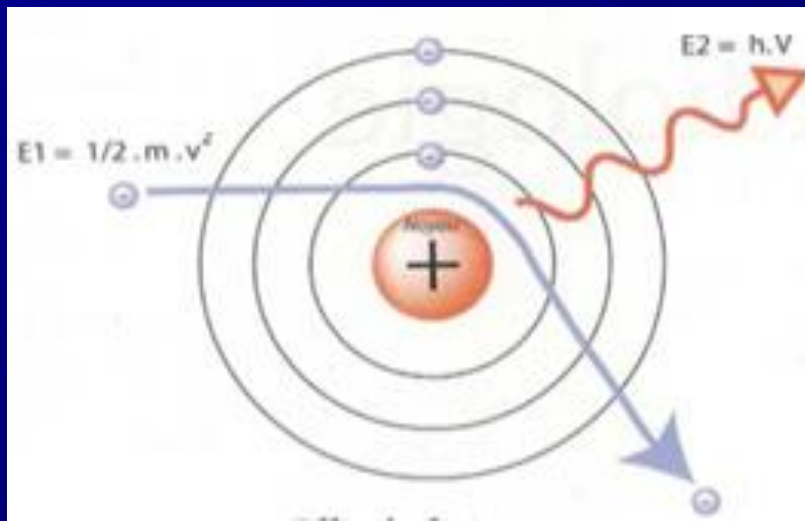
X rays radiations



X rays production



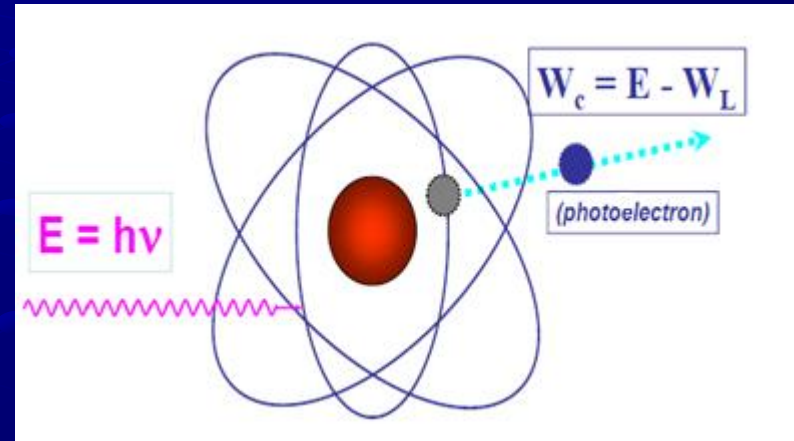
**Characteristic
X rays**



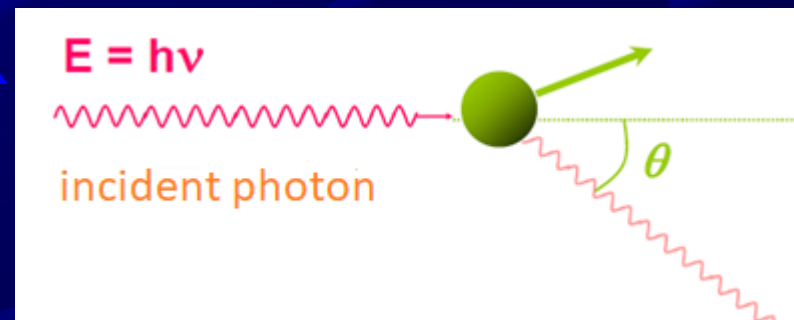
**Bremsstrahlung
X rays**

X rays interaction with matter

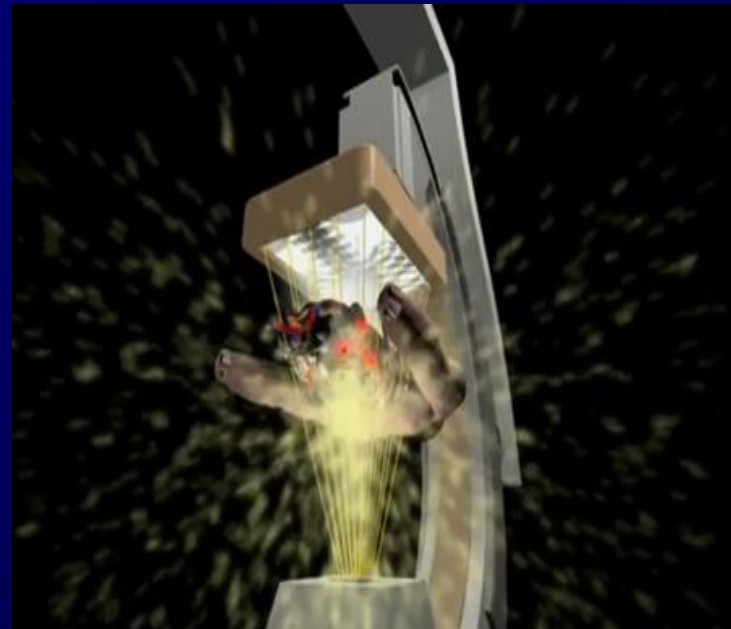
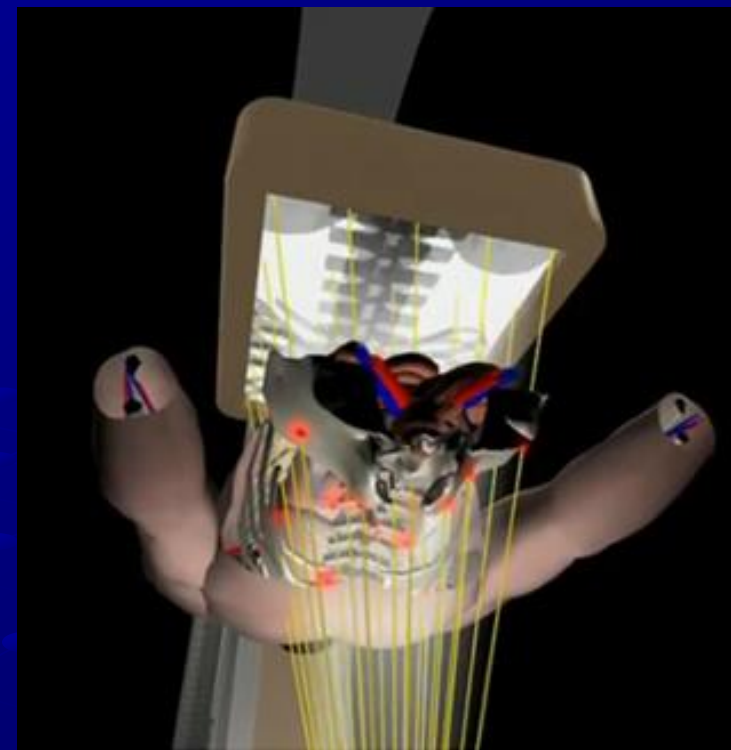
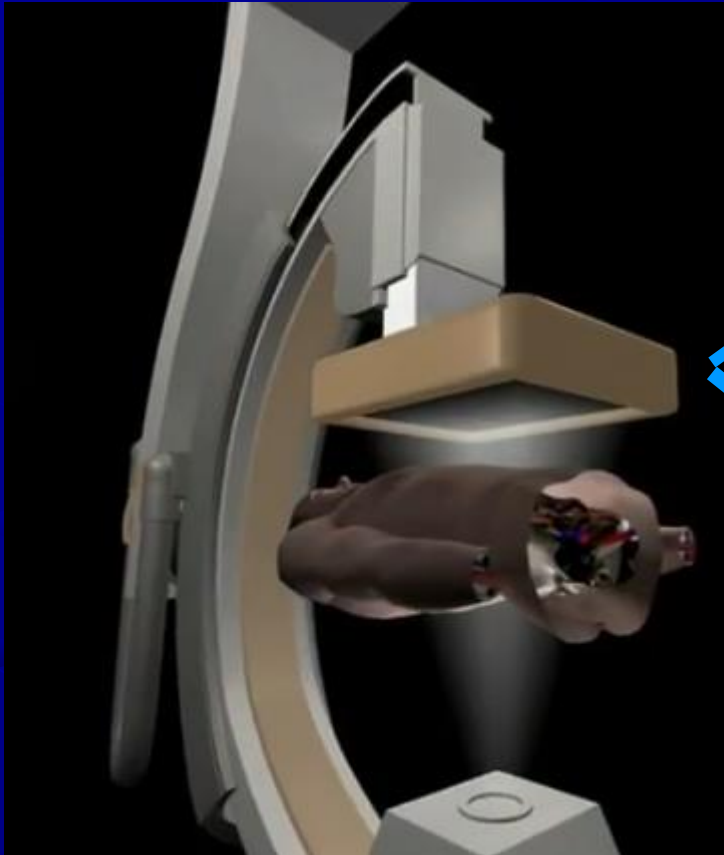
Photoelectrical Effect



Compton effect

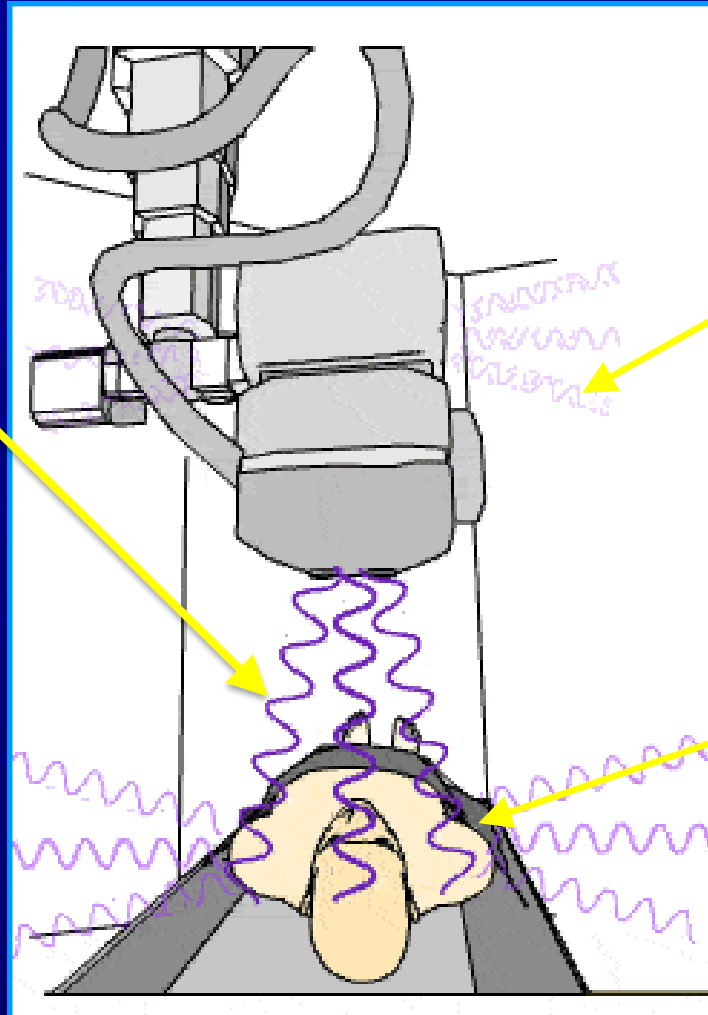


Primary beam Scattered radiation



What happened in the room of exam

Primary beam



Leackge radiation

Scattred radiation



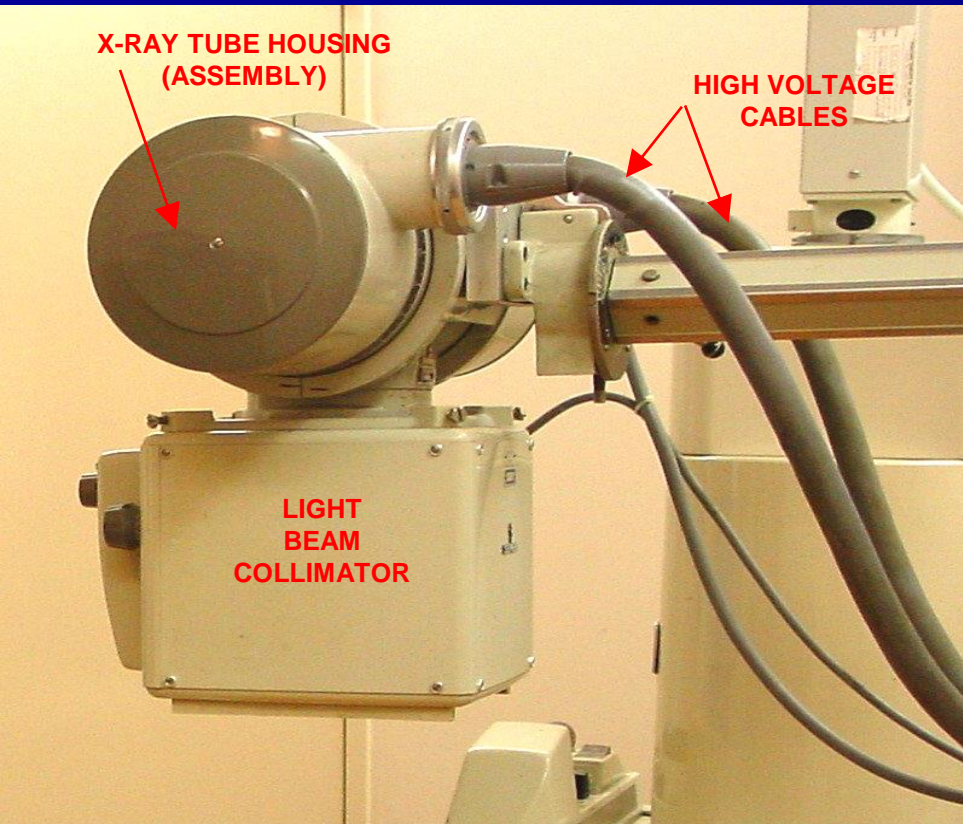
X rays tube



Radiodiagnostic



X rays tube



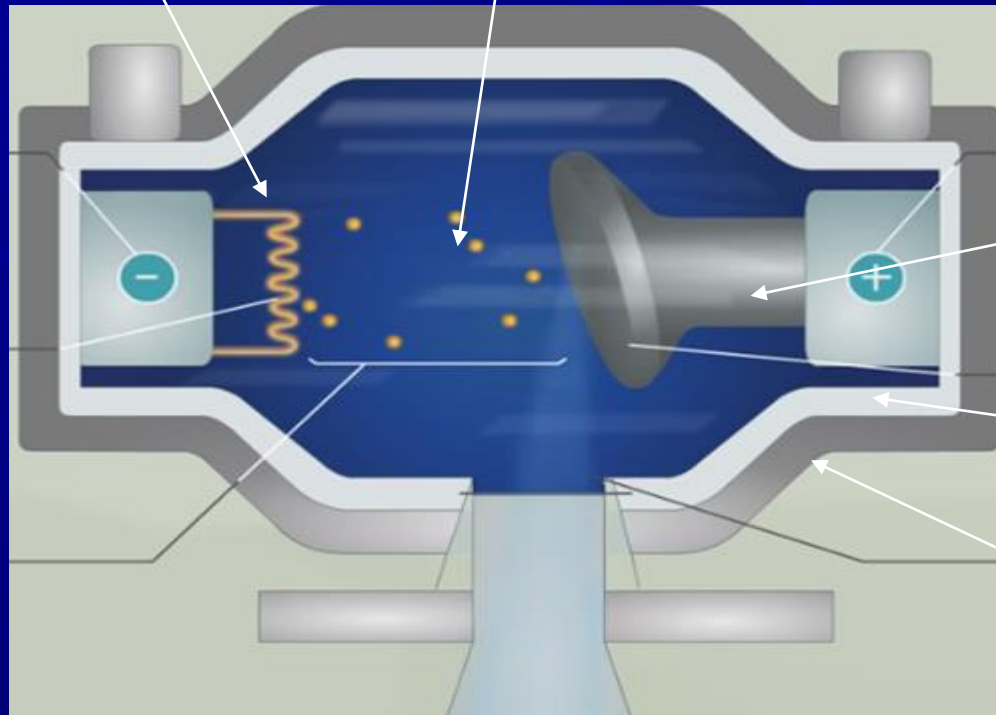
Conventionnel radiology

X rays tube



Cathode

electron

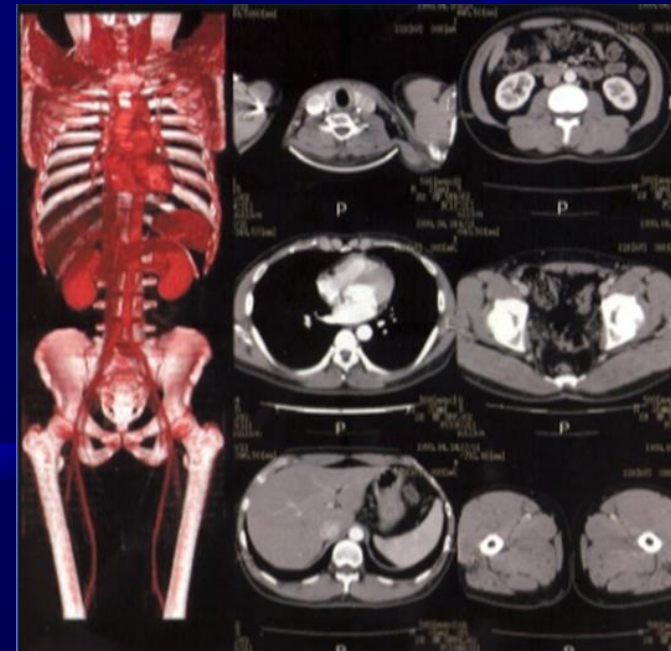
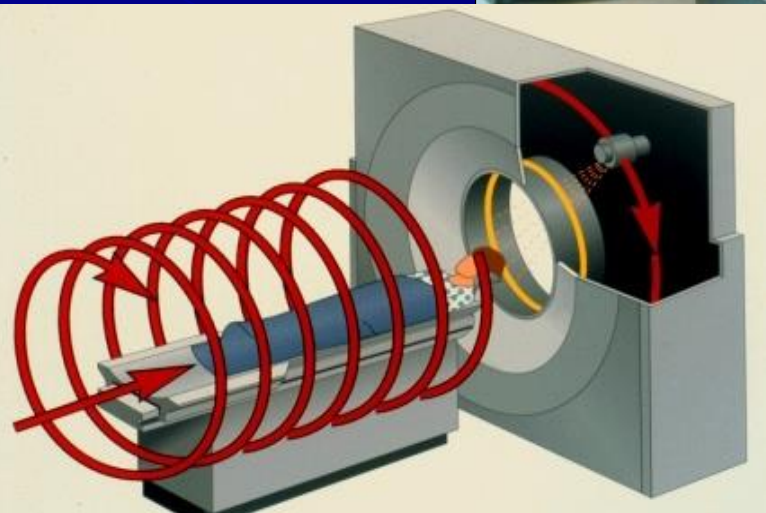


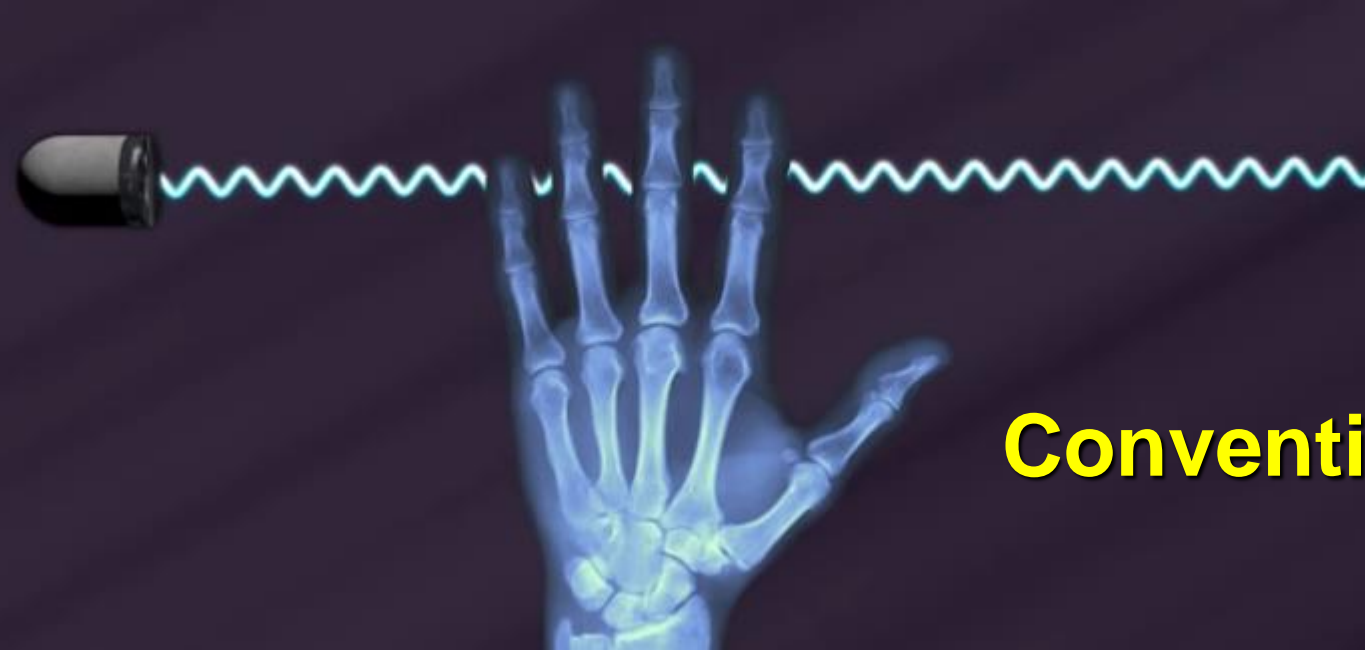
Anode:
Tungstene filamen

Glass envelope

Lead housing

CT Scan

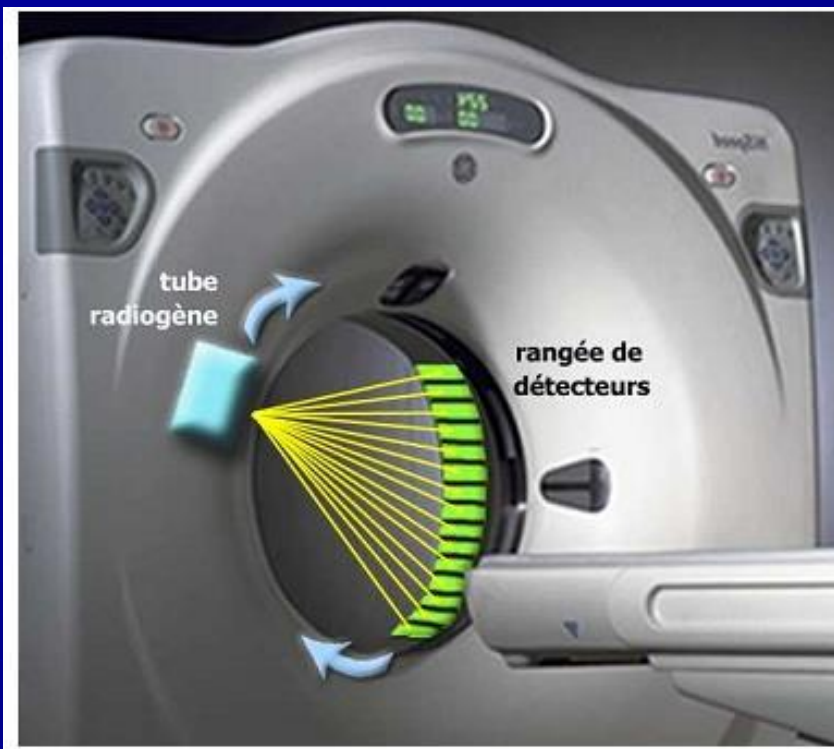




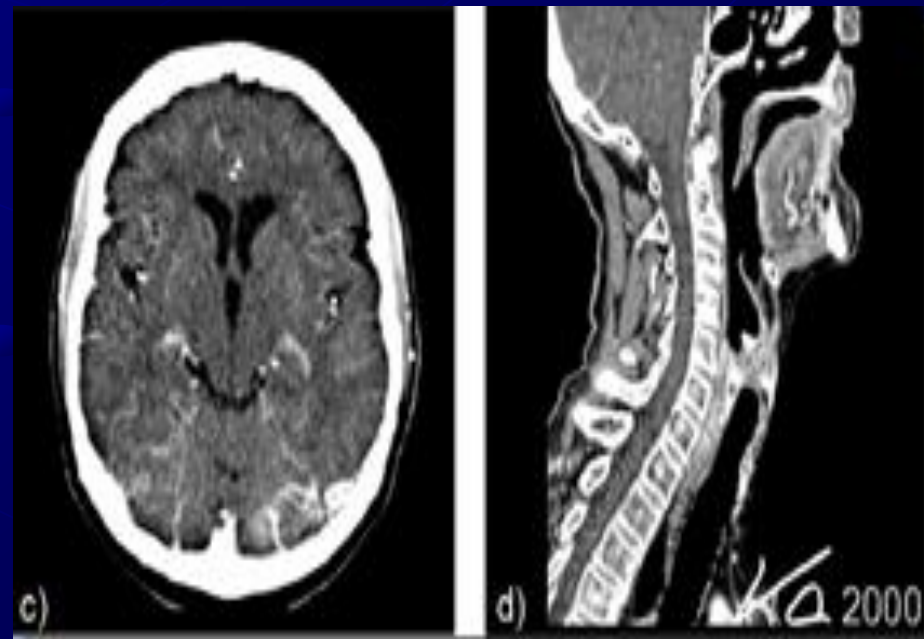
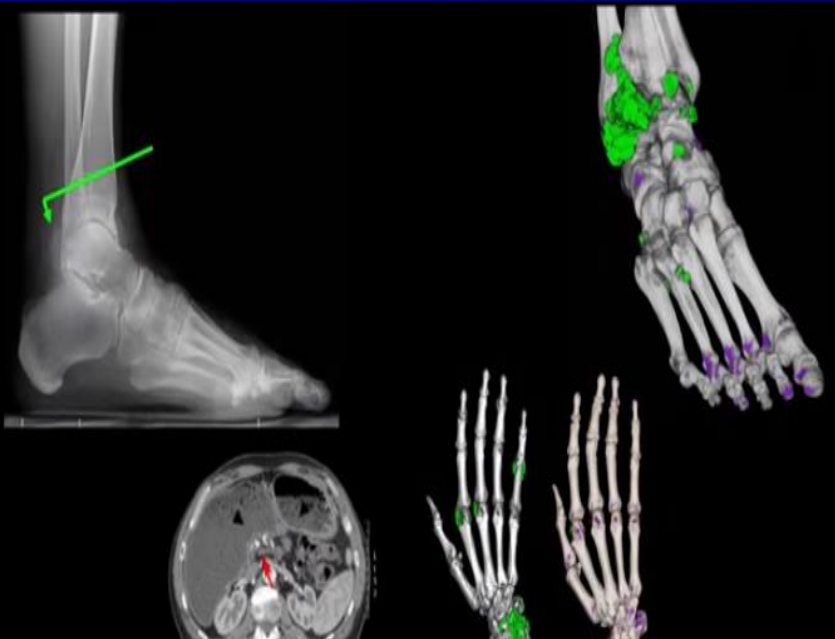
Conventional imaging

CT scan

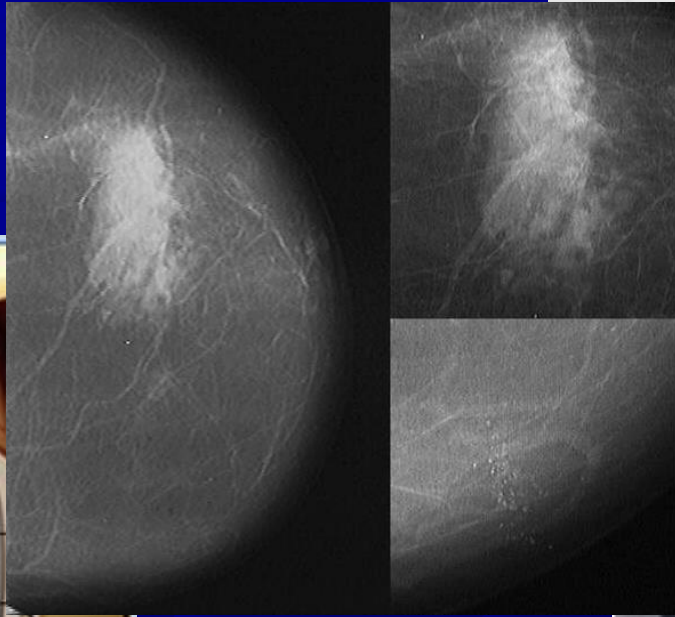


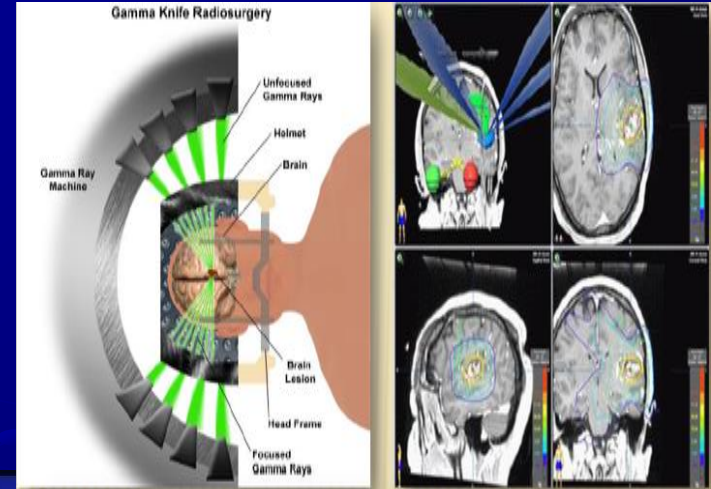


CT Scan images



Mammography





Treatment



Radiotherapy, brachtherapy



The role of medical physicist is so important!



Rayonnement Ionisant

