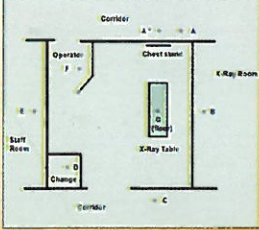




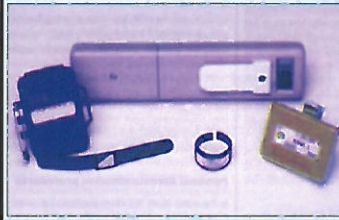
Protection Against X-rays



Exposure to radiation can be limited in three ways

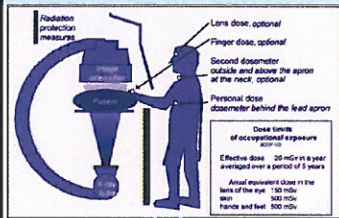


1) Time 2) Distance 3) Shielding



Different types of Personal Dosimeters

- Film Badge Dosimeters (FBD)
- Thermoluminescence Dosimeters (TLD)
- Electronic Dosimeters



Personal Protective Measures

Several personal dosimeters at different positions are recommended for interventional procedures.



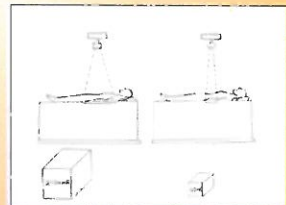
Protective Clothing

- Gowns, aprons and thyroid protectors made of a material (such as vinyl) which contains lead.
- Aprons should be equivalent to at least 0.25 mm Pb if the X-ray equipment operates up to 100 kV and 0.35 mm Pb if it operates above 100 kV.
- Apron may be of the style which is open, or contains less lead, at the back, due to the extra weight of lead required. It is assumed that the wearer is always facing the radiation source.

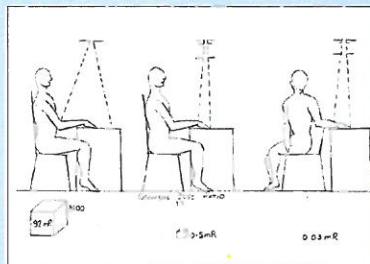


Protective devices

Screen and Goggles



Dose reduction due to right positioning



Dose reduction with proper Collimation