



PATIENT RADIATION EXPOSURE INFORMATION
Radiation Safety Section

The table below lists: (1) several common radiographic projections; (2) upper Standard of Care radiation exposure limits per radiograph or, in the case of mammography, upper mean glandular dose limits; and (3) normal ranges of patient exposures and doses for these projections, as determined by the Radiation Safety Section. The Standard of Care limits are reviewed and approved by the Department's Ionizing Radiation Advisory Committee based on data that is collected by the Radiation Safety Section during routine inspections of x-ray facilities. Although the Standard of Care limits are not regulations, they are considered by the Department to be upper limits which should not normally be exceeded for average-size patients. Medical facilities with properly functioning x-ray machines, appropriately selected x-ray film and intensifying screens, and good film processing should have patient exposures at skin entrance, as measured in milliroentgens (mR), or radiation doses, as expressed in millirads (mrad), within the normal ranges reported below.

Projection	Standard of Care Limit per Radiograph	Normal Range
PA Chest (without a grid)	20 mR	3-10 mR
PA Chest (with a grid)	25 mR	5-20 mR
AP Lumbar Spine	500 mR	100-400 mR
AP Cervical Spine	125 mR	25-100 mR
DP Foot	35 mR	5-15 mR
Hand	15 mR	3-10 mR
Dental Cephalometric	25 mR	5-15 mR
Cranio-caudal Mammogram Mean Glandular Doses:		
Screen/film (without a grid)	100 mrad	25-75 mrad
Screen/film (with a grid)	200 mrad	75-150 mrad
Xerox	400 mrad	225-350 mrad

Please contact the Radiation Safety Section in either our Lansing office at (517) 241-1989, or Detroit office at (313) 456-4660 if you have any questions concerning current Standard of Care limits or the normal ranges of patient exposures and doses listed above.