Ionizing Radiation Dose Ranges

Whole body, acute: G-1 destruction; lung damage; cognitive dysfunction (death certain in 5 to 12 days)*

Cancer Radiotherapy

Whole body, acute: circulating blood cell death; moderate G-1 damage (death probable 2-3 wks)*

Acute Radiation Syndromes

Whole body, acute: marked G-1 and bone marrow damage (death probable in 1-2 wks)*

*Note: Whole body acute doses assume no medical intervention (G-1 = gastrointestinal)

Medical Diagnostics

X-ray films
A – Chest (PA & Lat) 0.1 - 0.23
B – Dental Panoramic 0.7
C – Lumbar Spine 0.7 - 1.9
D – Mammogram 0.6 - 2.9

Radiotracer Imaging
E – Heart Stress (Te-99m) 6 – 12
F – Bone (Te-99m) 4 – 15
G – Dual Isotope Stress Test 40 – 45
H – PET: F-18 FDG (bladder) 55 – 80

CT Scans (X-ray)
(multiple scan average dose)
I – Chest CT 20 – 30
J – Head CT 30 – 50
K – Abdominal CT 22 – 60
L – Full Body CT 50 – 100

Fluoroscopy/Procedures
M – Barium Contrast G.I. 10 – 22
N – Cardiac Catheterization 12 – 40
O – TIPS Procedure 400 – 1400

Absorbed Dose: 100 rads = 1 Gray
1 rem ~ 1 rad for x- and gamma-rays
Dose Equivalent: 100 rem = 1 Sievert
(absorbed dose x radiation quality)
