

For fluoroscopy procedures: entrance skin dose and effective dose *per minute* have been estimated by McParland. In this analysis effective dose was estimated using DAP-to-ED conversion factors determined for a Philips V3000 Integris digital system. Entrance skin dose depends on additional technique factors.

Dual-Energy X-Ray Absorptiometry (DEXA) scans: Stanford Dosimetry, LLC also has useful, credible and free information for DEXA and some other radiological procedures from:
<http://www.doseinfo-radar.com/RADARDoseRiskCalc.html>

For X-Rays: For the following radiographic procedures, effective dose estimates have been tabulated (ref. Hall and Giaccia, Compagnone):

	Effective Dose (mSv)
Adult	
AP Abdomen	0.32
PA Chest	0.02
LAT Chest	0.05
AP Lumbar	0.33
LAT Lumbar	0.20
LAT Lumbo-sacral joint	0.09
AP Pelvis	0.39
AP Skull	0.02
LAT Skull	0.01
AP Urinary tract	0.22
Pediatric	
AP Abdomen (5-year old)	0.102
PA Chest (5-year old)	0.005
AP Chest (newborn)	0.01
LAT Chest (5-year old)	0.01
AP Pelvis (5-year old)	0.076
AP Pelvis (newborn)	0.021
AP Skull (5-year old)	0.015
LAT Skull (5-year old)	0.012

What about specialized kinds of studies?

Some unique uses of ionizing radiation, e.g. non-standard radioisotope for internal ingestion, may require referral for special quantification. If so, contact the JRSC office to obtain a list of approved consultant medical physicists: <http://rso.cumc.columbia.edu/> rsocumc@columbia.edu
 Phone: (212) 305-0303.

References

- Compagnone G, Pagan L, and Bergamini C. Effective dose calculations in conventional diagnostic x-ray examinations for adult and paediatric patients in a large Italian hospital. *Radiat. Prot. Dosimetry* **114**:164-167 (2005).
- Oak Ridge Institute for Science and Education <http://orise.orau.gov/reacts/dose-est-compedia.htm> (accessed 8/18/09).
- Hall EJ and Giaccia AJ. *Radiobiology for the Radiologist*, 6th Edition. Lippincott Williams & Wilkins. Philadelphia, PA. 2006.
- Khursheed A, Hillier MC, Shrimpton PC, and Wall. Influence of patient age on normalized effective doses calculated for CT examinations. *Br. J. Radiol.* **75**:819-830 (2002).
- McParland BJ. A study of patient radiation doses in interventional radiological procedures. *Br. J. Radiol.* **71**:175-185 (1998).
- McParland BJ. Entrance skin dose estimates derived from dose-area product measurements in interventional radiological procedures. *Br. J. Radiol.* **71**:1288-1295 (1998).