











# Radiation Dose from Common Imaging Examinations

Procedure		Approximate effective radiation dose	Comparable to natural background radiation for:	Comparable to natural background radiation for:	
ABDOMINAL REGION		Computed Tomography (CT) — Abdomen and Pelvis	10 mSV	3 years	Low
		Computed Tomography (CT) — Abdomen and Pelvis, repeated with and without contrast material	20 mSV	7 years	Moderate
		Computed Tomography (CT) — Colonography 6	6 mSv	2 years	Low
		Intravenous Pyelogram (IVP)	3mSv	1 year	Low
		Radiography (X-ray) — Lower GI Tract	8 m Sv	3 years	Low
		Radiography (X-ray) — Upper GI Tract	6mSv	2 years	Low
BONE		Radiography (X-ray) — Spine	1.5mSv	6 months	Very Low
		Radiography (X-ray) — Extremity s	0.001mSv	3 hours	Negligible
CENTRAL NERVOUS SYSTEM		Computed Tomography (CT) — Head	2 mSv	8 months	
		Computed Tomography (CT) — Head, repeated with and without contrast material	4 mSv	16 months	Low
		Computed Tomography (CT) — Spine	6mSv	2 years	Low
CHEST		Computed Tomography (CT) — Chest	7 mSv	2 years	Low
		Computed Tomography (CT) — Lung Cancer Screening	1.5 mSv	6 months	Very Low
		Radiography — Chest	0.1 mSv	10 days	Minimal
DENTAL		Intraoral X-ray	0.005 mSv	1 day	Negligible
HEART		Coronary Computed Tomography Angiography (CTA)	12 mSv	4 years	Low
		Cardiac CT for Calcium Scoring	3mSv	1 year	Low
MEN'S IMAGING		Bone Densitometry (DXA)	0.001 mSv	3 hours	Negligible
NUCLEAR MEDICINE		Positron Emission Tomography — Computed Tomography (PET/CT)	25mSv	8 year	Moderate
WOMEN'S IMAGING		Mammography	0.4 mSv	7 weeks	Very Low
BODY COMPOSITION		Whole Body Scan (DXA)	0.01m Sv	1 day	Negligible

**Note:** This chart simplifies a highly complex topic for patients' informational use. The effective doses are typical values for an average-sized adult. The actual dose can vary substantially, depending on a person's size as well as on differences in imaging practices. It is also important to note that doses given to pediatric patients will vary significantly from those given to adults, since children vary in size. Patients with radiation dose questions should consult with their radiation physicists and/or radiologists as part of a larger discussion on the benefits and risks of radiologic care.

For detailed recommendations visit [radiologyinfo.org](http://radiologyinfo.org)

Provided By



Body Composition dose information from Blake GM, et al. Comparison of effective dose to children and adults from dual X-ray absorptiometry examinations. *Bone* 2006;38:935–942

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