Mater Private Network

Patient Information Leaflet

Effective radiation dose in adults

Following are *approximate* comparisons of effective radiation dose in adults with background radiation exposure for several radiological procedures[1].

For this procedure:	**An adult's effective radiation dose is (approx.):**	**Comparable to natural background radiation for (approx.):**
Abdominal region:		
Computed Tomography (CT)-Abdomen and Pelvis	7.7 mSv	2 years
Computed Tomography (CT)-Abdomen and Pelvis, repeated with and without contrast material	15.4 mSv	4 years
Computed Tomography (CT)-Colonography	6 mSv	1.5 years
Intravenous Urography (IVU)	3 mSv	Less than 1 year
Radiography (X-ray)-Lower Gastro-Intestinal (GI) Tract	6 mSv	1.5 years
Radiography (X-ray)-Upper Gastro-Intestinal (GI) Tract	6 mSv	1.5 years

Bone:		
Radiography (X-ray)-Spine	1.4 mSv	4.5 months
Radiography (X-ray)-Extremity	Less than 0.001 mSv	Less than 3 hours
Central nervous system:		
Computed Tomography (CT)-Head	1.6 mSv	5 months
Computed Tomography (CT)-Head, repeated with and without contrast material	3.2 mSv	10 months
Computed Tomography (CT)- Head and Neck	1.2 mSv	4 months
Computed Tomography (CT)-Spine	8.8 mSv	2 years
Chest:		
Computed Tomography (CT)-Chest	6.1 mSv	1.5 years
Computed Tomography (CT)-Lung Cancer Screening	1.5 mSv	4.5 months
Radiography-Chest	0.1 mSv	Less than 10 days
Dental:		
Intraoral X-ray	0.005 mSv	Less than 1 day

Heart:		
Coronary Computed Tomography Angiography (CTA)	8.7 mSv	2 years
Cardiac CT for Calcium Scoring	1.7 mSv	4.5 months
Non-Cardiac Computed Tomography Angiography (CTA)	5.1 mSv	Less than 1.5 years
Nuclear Medicine:		
Bone Scintigraphy	6mSv	1.5 years
Positron Emission Tomography – Computed Tomography (PET/CT)	mSv	5.5 years
Mammography:		
Mammography	0.21 mSv	20 days
3D Mammogram	0.27 mSv	25 days
DEXA:		
Bone Densitometry (DEXA)	0.001 mSv	Less than 3 hours

1. Reference: Radiation Dose from X-Ray and CT Exams (radiologyinfo.org), Reviewed 01/11/2022

    a. The above reference describes radiation dose in comparison to the background radiation present in the USA. This document has been

edited to compare doses to the approximate background radiation in Ireland (roughly 4mSv per annum).