

X-Ray Imaging Procedures: Background Dose Equivalents

Diagnostic procedure (<i>with effective dose - mSv</i>)	Background equivalent	Indicative risk of fatal cancer	Risk terminology
Eating a banana (0.0001mSv)	25 mins	1 in 200 million	Negligible risk
Hands and feet (<0.001mSv)	<4 hours	1 in 20 million	Negligible risk
Dental, intra-oral (0.001mSv)	4 hours	1 in 20 million	Negligible risk
Dental, OPG (0.01mSv)	1.6 days	1 in 2 million	Negligible risk
Shoulder AP and axial (0.011mSv)	1.8 days	1 in 1,800,000	Negligible risk
Chest, single PA (0.014mSv)	<2.5 days	1 in 1,400,000	Negligible risk
Flight to Hong Kong (0.05mSv)	<8.5 days	1 in 400,000	Minimal risk
Cervical spine (0.08mSv)	13 days	1 in 250,000	Minimal risk
Mammography (0.21mSv)	35 days	1 in 95,000	Very low risk
Pelvis (0.28mSv)	1.5 months	1 in 71,500	Very low risk
Abdomen x-ray (0.43mSv)	2.4 months	1 in 46,500	Very low risk
Lumbar spine (0.6mSv)	3.2 months	1 in 33,500	Very low risk
Barium swallow (1.5mSv)	8.2 months	1 in 13,300	Very low risk
Femoral angiography (2.3mSv)	1 year	1 in 8,700	Low risk
UK average annual natural background dose (2.2mSv)	1 year	1 in 9,000	Low risk

The above data is for imaging procedures for patients 16 TO 69 YEARS OLD

For PEDIATRIC patients, risks associated with x-ray imaging procedures are *increased* by a factor of TWO

For patients aged 70 OR OVER risks associated with x-ray imaging procedures are *reduced* by a factor of FIVE

Data for effective dose and risk terminology based on HPA data (HPA-CRCE-028 - Radiation Risks from Medical X-Ray Examinations as a Function of the Age and Sex of the Patient, B F Wall et al, 2011). Risk data from [Patient dose information: guidance - GOV.UK \(www.gov.uk\)](http://www.gov.uk)