

Practitioner to Patient explanation



Your healthcare team believes that this examination is “justified”, which means the clinical benefits of having this procedure most likely outweigh the potential Radiation risks.






Your age, size and reason for examination will influence the amount of radiation used & the radiation dose will be personalised & “optimised” for you.



Radiology professionals are trained to use the **lowest amount of radiation** to achieve the best possible images.

(SCOR,2019) (RPII,2014)(RCR, 2019) (IIRRT. 2020)

	NON IONISING RADIATION	 NEGLIGIBLE RISK	 MINIMAL RISK	 VERY LOW RISK	 LOW RISK
Examples <small>(RCR,2017)</small>	MRI US	Chest X-Ray Limb X-Ray Lumbar spine x- Ray Mammography	IVU Nuclear Medicine Bone-scan CT Head	CT Chest CT abdomen	CT TAP. Some Interventional cases Some Nuclear- medicine scans Some PET/CT scans
Comparison to background radiation <small>(4.03 mSv per year in Ireland - RPII, 2014)</small>	No known radiation risk	A few days worth	A few weeks worth	A few years worth	5-10 years worth
Lifetime additional Potential Risk of cancer/exam <small>(RCR,2017) (NCR, 2017)</small>	No known radiation risk	Less than 1 in 20,000 chance of causing cancer	1 in 20,000 to 1 in 4,000 chance of causing cancer	1 in 4,000 to 1 in 2,000 chance of causing cancer	Less than 1 in 2000 chance of causing cancer
Typical effective doses <small>(RCR, 2017)</small>	0	0-1 mSv	1-5 mSv	5-10 mSv	10+ mSv
Examples of Effective Doses <small>(RCR,2017)</small>	0	Limbs < .01mSv Chest: 0.015mSv T-spine: 0.4mSv L-spine: 0.6mSv	Bone-scan: 3mSv Barium enema: 2.2mSv	CT chest: 6.6 mSv CT abdomen: 5.6 mSv	CT TAP: 10mSv Whole body Pet/CT: 18mSv
Equivalent CXR's <small>(RCR,2017)</small>	0	1 to 100	100 to 200	200 to 400	400 to 1200 +
Transatlantic Flights <small>(1 transatlantic flight =0.08mSv, Public Health England,2011)</small>	0	0-12.5	12.5-62.5	62.5-125	125+

(References:)

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