

Dose associated with typical paediatric exams

(Adapted from Childrens Hospital Ireland webpage)

Here is an example of the doses involved for Chest exams using different imaging modalities:

	Chest X-ray (mSv)	Chest CT (mSv)	Chest MRI
4 weeks – < 4 Y (5 – <15kg)	0.02	0.96	No radiation dose associated with MRI imaging
4 – < 10 Y (15 – <30kg)	0.01	1.97	
10 – < 14 Y (30 – <50 kg)	0.01	2.44	
14 – 18 Y (50 – 80 kg)	0.01	2.62	

Note: All referrals **MUST be justified in advance** by radiographers who are undertaking the exposure

This table gives examples of typical exams and the associated dose equivalent:

Imaging Exam	Dose Trefoil ^[1]	Equivalent Period of Exposure to Natural Radiation ^[3,4]
4yr Chest X-ray	☢	A few days
6mth Abdominal / Pelvis X-ray	☢☢	A few weeks
14yr old C-spine	☢	A few days
12yr old Scoliosis Spine	☢☢☢	A few months
6yr MCUG	☢☢☢	A few months
8 yrs old CT brain	☢☢☢	A few months
5 yrs old CT Abdomen	☢☢☢	A few months
5yr old NM (DMSA)	☢☢☢	A few months
1yr old NM (MAG3)	☢☢☢	A few months

For more information:

More information can be found on the Childrens Health Ireland webpage:

<https://www.childrenshealthireland.ie/your-hospital-visit/our-locations/chi-at-crumlin/>

Also you can refer to the links below:

RP 178 Referral guidelines for medical imaging: availability and use in the European Union <https://data.europa.eu/doi/10.2833/18118>

iRefer: <https://www.irefer.org.uk/> .

RCR Making the Best Use of Clinical Radiology

<https://www.acr.org/Clinical-Resources/ACR-Appropriateness-Criteria> | <http://www.imagegently.org/>