COMPUTED TOMOGRAPHY (CT) SCAN: Patient Information, SLGH

Your Health &Well being

Your computed tomography scan (CT) will help make a diagnosis or monitor your treatment.

A CT scan uses ionising radiation (X-Rays) to produce very detailed images.

A Radiographer will look after you and ensure you are safe during your scan.

About CT scans and Radiation

Our overriding concern is to ensure that the benefits of having the CT scan outweigh any risk involved with the CT scan itself.

Your healthcare team believe 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 the examination will influence the amount of radiation used and the radiation dose will be personalised and **'optimised'** for you.

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

All our equipment is tested and checked regularly to ensure it is safe and working well.

Your CT scan- What to expect?

You will be asked to confirm your details before the scan begins. You may be asked to remove jewellery or to change into a gown for the examination.

Please tell us if:

You have recently had a similar examination.

If there is any chance you have had a reaction to previous contrast injections or if you have been told you have poor kidney function.

You will lie still on a table and may have to hold your breath for a very short time.

For some CT scans you may receive a "CT contrast dye" which allows parts of your body show better on the scan. Some dye may be given as a drink. The dye may also be given through a small tube in your arm. It is advisable to drink extra water after your scan if you have received this dye.

You will not have any radiation in your body after the scan.

Please feel free to direct questions to the Radiographer on duty.

<u>Ladies</u>

If you are a female of childbearing age and you think that there is a possibility that you are pregnant, you should inform the Radiographer.

For certain (higher dose) examinations, you may be asked the date of your last period so the possibility of pregnancy can be ruled out. If your period is overdue or you are pregnant, the examination may be re-arranged.

If you are pregnant, some examinations may proceed where the benefits of the examination outweigh the risk and your doctor considers the x-ray examination too important to postpone. Precautionary measures can be taken to minimise exposure to your unborn child.

Putting it in perspective

Every day we are exposed to natural background radiation. This can be from the environment, the food we eat, the air we breathe, and even from outer space (cosmic radiation).

Each medical scan gives a small additional dose on top of the naturally occurring background radiation. The level and dose depends on the type of examination.

	Minimal radiation risk	**Very low risk**	**Low risk**
Example of CT scan type	CT Head	CT Chest CT Abdomen	CT TAP
Comparison to Background Radiation	A few weeks worth	A few years worth	5-10 years worth
Lifetime additional potential risk of cancer/exam	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 2,000 chance of causing cancer
Typical effective dose	1-5mSv	5-10mSv	10+ mSv
Examples of effective doses	2mSv	CT Chest:6.6mSv CT Abdomen:5.6 mSv	CT TAP:10mSv
Equivalent Chest X-Rays	100-200	200-400	400-1200+
Transatlantic flights	12.5-62.5	62.5-125	125+

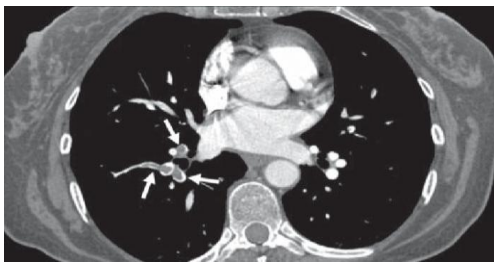
Carers

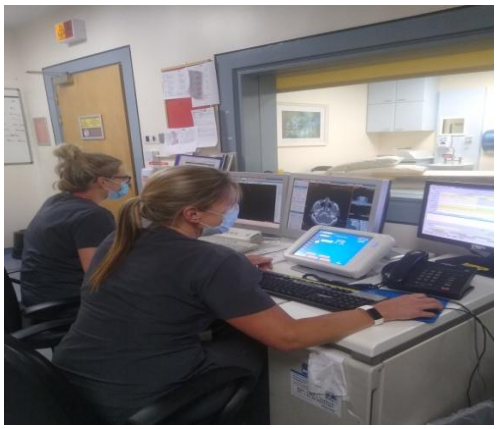
A carer, who remains in the x-ray room during the procedure, may receive a radiation dose. This will be a small fraction of the dose received by the patient and represents a very low risk.

In order to ensure that the dose to the carer is as low as possible, the Radiographer will ask you to wear a lead protective apron and will instruct you on how to position yourself during the procedure so as to minimise your dose.

Pregnant or potentially pregnant women should not act as carers. If you think you might be pregnant you should inform the Radiographer, and an alternative carer should be arranged.

For the same reason, Radiographers or other staff members should not normally act as helpers because of the potential for frequent exposures.





References

IIRRT – Your CT Scan Patient Information Poster: Feb 2020 , Risk/Benefit Communication Tool, Aug 2020

Radiation Doses Received by the Irish Population, RPII 2014