

## Do you need an x-ray between your diaphragm and your hips?



### No:

Do not worry, your baby is out of the reach of the x-ray beam and it is safe for you to have your x-ray done.

## Yes:

If your exam is not urgent we will consider waiting until after the baby is born. This is a discussion that will happen between your Radiographer and the doctor that referred you for the exam and involves taking into consideration your well-being and the need for immediate treatment.

## Steps we take to protect your baby:

To decide if we absolutely must go ahead with an exam that might involve radiation to a foetus the doctor who referred you will discuss with the radiology team the necessity of the exam and the potential harm it may cause. The biggest consideration in this discussion is how important it is for your treatment. If you need to have this x-ray done in order to get vital medical care then the need out-weighs the risk and we might decide to proceed. You will

be included in this conversation.

2

We can also take into consideration what stage the pregnancy is at. If we can wait a little while and perform the exam when the pregnancy is further on it will be safer.

3

During the exam we can keep the amount of radiation we need to use as low as possible, we can limit the parts of the body being x-rayed.

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### Some facts about radiation

- You are exposed to radiation every day from natural sources. This is called background radiation. Your annual dose from background radiation in Ireland is around 4mSv which is similar to 40 chest xrays.
- The younger you are the more susceptible you are to harm from radiation, therefore we take great care to protect unborn children.
- If you are pregnant there might be other imaging options available that do not use radiation. This can be discussed with the Doctor who referred you for the exam or the Radiographer.

# There are two types of radiation to be conscious of in an x-ray room

- The first is the primary beam. This is the part of the x-ray beam that we direct to the injured part of the body. We have control over the direction, size and intensity of this beam and only the body part needing to be x-rayed will be exposed to it.
- The second type is called scatter radiation. Unfortunately this is an uncontrolled part of our x-ray beam and it happens when some small parts of radiation 'bounce' off the patients' body. The radiation that behaves like this has very little power/energy and cannot be absorbed too deep into the body.

#### Potential risks

The kind of harm that can be caused that we most worry about is the risk of developing childhood cancer as a result of radiation exposure in utero. The following table will give you an idea of the potential risk. Please note that the natural risk of childhood cancer is 1 in 500.\*

Reference: www.hse.ie/eng/about/who/acute-hospitals-division/radiation-protection/radiation-doses-received-during-medical-procedures

X-ray Chest or upper spines X-ray Abdomen X-ray Lumbar spine CT hand/ neck etc CT chest CT Lumbar spine/Abdomen CT Pelvis <1 in 1,000,000 1 in 100,000 to 1 in 10,000 1 in 10,000 to 1 in 1,000 1 in 1,000,000 1 in 100,000 to 1 in 10,000 1 in 10,000 to 1 in 1,000 1 in 1,000 to 1 in 200

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