Medical imaging in pregnancy

This fact sheet is for people who have presented to the emergency department with this condition.

This fact sheet provides general information. If you have specific concerns, speak to your healthcare professional for further information and advice.

What is medical imaging?

X-rays and CT scans are forms of imaging that expose you to radiation. Radiation is energy that travels as waves and tiny particles through air and some materials. These waves or particles can damage your cells and genes.

Each day you are exposed to radiation from natural and artificial sources. For example, the sun is a natural source of radiation. The measures of the unit of radiation in relation to your health are known as sieverts. Every Australian's background yearly exposure to radiation equates to about 2mSv (2 millisieverts).

During pregnancy a baby is exposed to normal low-dose environmental radiation. When you become ill, you and your unborn child become patients. Sometimes, due to a particular medical concern, your doctor may feel a form of imaging is needed. This imaging will expose you to radiation.

Risks

Most radiation exposure during medical testing is unlikely to harm a developing baby. Testing is only done if the risk to you or your baby is greater than not doing the test. The ‘risk’ is the increased chance of your unborn baby getting a cancer during their childhood.

The natural occurrence of having childhood cancer for all unborn children, is 1 in 500 – a 0.2% risk. As an example, if you have a CT scan of your pelvis the natural risk of getting a childhood cancer increases to a 1 in 200 chance or a 0.5% risk. This is the highest increase in risk. Other imaging options and associated risk percentages are shown in this table

Examination type	Risk childhood cancer per examination	Risk childhood cancer per examination (%)
USS/ MRI	0	0
CXR **XR thoracic spine** **CT head or neck**	<1 in 1,000,000	<0.0001
CTPA	1 in 1,000,000 to 100,000	0.0001 – 0.001
AXR **CT chest**	1 in 100,000 to 1,000	0.001 – 0.01
CT abdomen **CT lumbar spine**	1 in 10,000 to 1,000	0.01 – 0.1
CT abdomen and pelvis	1 in 1000 – 200	0.1 – 0.5

If you have any concerns or questions, or want more information, please ask your doctor.

What if I have an X-ray or scan and then find out I am pregnant?

Remain calm and talk to your doctor. The risk to your baby can be worked out using a formula and should be calculated by an expert. Most normal doses or a single exposure to radiation are not likely to be harmful to your baby.