

## MINIMIZING YOUR RISK

If you think you may have received more radiation from diagnostic imaging procedure than would be usual or normal during your pregnancy, discuss the possible risks with your doctor.

**If you are pregnant, or think you may be,** tell your doctor and be sure to have a pregnancy test before having an imaging procedure.

If an imaging procedure is ordered, tell your doctor about any similar procedures you may have had recently. You may not need to repeat the tests.

If you are pregnant, inform the imaging technologist so that protective measures such as using a lead apron can be taken.

If you discover that you are pregnant after you have had an imaging test or treatment to your stomach or hips, consult with the doctor who ordered the test. Ask your doctor to contact a medical physicist or a health physicist who can calculate the radiation dose to your baby. Knowing the radiation dose and the developmental stage of your unborn child will help to determine the potential health risks.

If you have any questions or concerns about the procedure you are having, please discuss them with your doctor or the technologist.

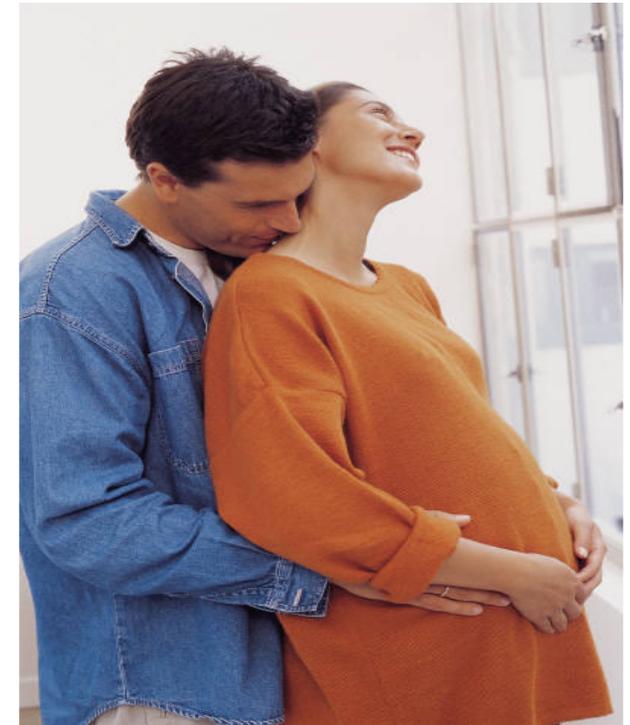


# Imaging Procedures and Pregnancy

## What You Need to Know

### REFERENCES:

Health Canada – Diagnostic X-Rays and Pregnancy  
Health Physics Society, Specialists in Radiation Safety –  
Radiation Exposure and Pregnancy  
Practical Radiation Protection & Applied Radiobiology  
by David Tilson  
Patient Care in Radiography 6th Edition by Ehrlich  
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Presented by  
The Niagara Health System  
Diagnostic Imaging Departments

You may be exposed to radiation from a medical imaging procedure or treatment. These include X-rays, CT's, Nuclear Medicine studies and treatments. Everyone is exposed to radiation from naturally occurring sources every day.

**If there is a possibility that you may be pregnant** and need a medical imaging procedure or radiation procedure, inform your doctor and the technologist immediately. The information included in this pamphlet will help answer your questions about health risks to your baby.



Your imaging technologist may ask if you might be pregnant or if you have

missed a menstrual period. To avoid unnecessary exposure, non-essential procedures could be delayed until you confirm that you are not pregnant.

There is reliable information available about the effects of radiation exposure during pregnancy. Most diagnostic tests result in very low exposures to the unborn child; there is no evidence that your child will be at greater risk for birth defects from x-rays or nuclear medicine tests.

However, an unborn child is more susceptible to the effects of radiation because their cells are rapidly dividing and growing into cells and tissue. Potential radiation effects will vary depending on the stage of development of the unborn child and the dose, and can include birth defects and certain illnesses, such as leukemia, later in life. Such defects would result from exposures hundreds and thousands of times greater than diagnostic tests.

The radiation dose an unborn child may receive depends on the procedure. Procedures remote from the unborn child such as x-rays of the chest or extremities, can be done safely at any time during a pregnancy. An x-ray of the lower body including the abdomen, lower back, pelvis and kidneys, may direct radiation near, or through the

unborn child. However, these types of x-rays involve only a small amount of radiation and are not a significant risk to the unborn child.

Special x-rays to the mother's stomach or hips such as some CT scans or lower abdominal exams should be evaluated, as there is the risk of slightly higher doses. If an x-ray cannot be delayed, special techniques may be used to minimize exposure to the unborn child.

Doses of radiation to an unborn child are not exact and must be estimated. There is a maximum dose that an unborn child can safely be exposed to throughout the course of a pregnancy. The technologist can gather the information and have a physicist inform you of the dose received from the exam.

