

Patient Shielding Practice Changes during X-rays

Frequently Asked Questions (FAQs) for Patients, Parents and Caregivers

The hospitals within Waterloo Wellington region will no longer be using lead aprons/shields on patients having x-rays. We are changing our practice and updating our department policies in response to recommendations made by the Canadian Association of Medical Radiation Technologists, the Canadian Association of Radiologists, the Canadian Organization of Medical Physicists and Safety Code 35.

Historically, the practice of using lead shielding was important in reducing dose to nearby radiosensitive organs. Now, with new technology and research about radiation sensitivity of certain tissues, it was concluded that lead shielding is not effective in reducing radiation dose.

As a patient, parent or caregiver, we understand that you may have questions or concerns about this change and hope these FAQ's will be beneficial in addressing your concerns. Please feel free to discuss any further questions or concerns with a member of the health-care team.

FAQ's for patients

Why do you not shield patients with lead aprons anymore?

- Patients receive 20-25 times less radiation today compared to 70 years ago due to advances in technology and the use of digital imaging.
- Advances in research have shown that certain tissues within the body are less sensitive to the effects of diagnostic levels of radiation than previously reported.
- Modern equipment uses technology that can automatically sense how much radiation is required for certain body parts being imaged. Additional exposures may be needed if the lead shielding covers the sensor or required anatomy.

Will radiation exposure to my ovaries or testicles affect my future children?

- New research shows that the ovaries and testicles are less sensitive to radiation than what was originally thought.

These recommendations are endorsed by:

Canadian Association of Radiologists | Canadian Association of Medical Radiation Technologists
Canadian Organization of Medical Physicists | Safety Code 35 | International Commission on Radiological Protection

O: April 2025



- Effects on children have been researched and studied extensively over many years and there is no evidence showing negative effects.

Do I require shielding if I am pregnant?

- Research has shown there are no benefits to shielding your abdomen as there is no harm to you or your baby.

Can I still ask to be shielded if I want or if I want my child to be shielded?

- While we do not recommend shielding, we will respect the request to be shielded as long as we can do so without affecting the information demonstrated on the exam.

Why am I given a lead apron when I am in the room accompanying a patient?

- The provider has determined imaging is required to develop a care plan for the patient. The provider has also determined that the benefits of the x-ray exam ordered outweighs the risk of radiation exposure they will receive. As you are accompanying a patient, and have no medical reason to be exposed to radiation you are provided a lead apron.

I recently had an x-ray at a local independent health-care facility/dental office and was still provided lead shielding, why are they still using lead?

- Technologists must continue to comply with policies outlined within their facilities regarding the use of radiation protection devices. Each facility has policies and procedures to determine what radiation protection devices are needed for each type of exam. Our collective group of hospitals have collaborated and agreed with the research which determined our change in practice.

Please speak to your medical radiation technologist or medical provider if you have any questions.

For more information on discontinuing lead shielding, see the CAMRT position statement.



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