Fetal and Gonadal Shielding



Medical experts have recently concluded that patient shielding during diagnostic medical imaging, a common practice for more than 70 years, is no longer necessary.

In the 1950s, doctors began to shield reproductive glands and a pregnant woman's fetus during medical imaging. At the time, medical experts were unsure about the long-term effects of radiation exposure to an unborn fetus and to reproductive cells of the testes and ovaries. They were also concerned damaged reproductive cells could be passed to future generations.

Medical imaging technology has made significant advances over the past 70 years. Hospitals and imaging centers now have better imaging devices that use much less radiation. These new devices can reduce radiation exposure to the reproductive glands during pelvic imaging by as much as 96 percent. Today, scientists and researchers also know more about how radiation affects the human body. Scientific evidence shows that routine diagnostic imaging exams do not expose the patient or fetus to harmful levels of radiation. After years of research, there is no evidence of damage to gonads after routine medical imaging.

There is no evidence that shielding benefits patient health. In fact, shielding may do harm by covering a part of the body the radiologist needs to see. If this happens, the doctor may need to repeat the imaging exam.

As a result, the American Association of Physicists in Medicine (AAPM) recommends doctors stop using gonadal and fetal shielding during X-ray based diagnostic imaging. The AAPM represents medical physicists, who play an important role in ensuring medical imaging devices function properly and safely. Several medical groups, including the Radiological Society of North America and the American College of Radiology, support this recommendation.

Changing a decades-old practice is not easy. If you have had imaging exams with a shield, you may be fearful of having an exam without one. Pregnant mothers or parents of children being imaged may be especially anxious about this change. There are also many sources of misinformation online making it difficult to find accurate information. Finally, some states have not yet updated their regulations and still require shielding.

Patients can be confident that hospitals and imaging centers use the ALARA principle (As Low As Reasonably Achievable). This means doctors use the lowest amount of radiation necessary to make quality images. More and more hospitals have stopped using patient shields. However, imaging centers in states that still require the use of shielding will follow safe guidelines for their use. If you have questions about policies where you have your imaging done, please ask your doctor.

To learn more about the safety of medical imaging, see the Patient Safety (https://www.radiologyinfo.org/en/patient-safety) section.

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