

CT Scans and Radiation Risk — Frequently Asked Questions

Is there an increased risk of cancer from medical radiation, especially CT scans?

While no one can point to a single individual and say that their cancer was caused by medical radiation, it has been suggested in some studies that exposure to radiation levels that occur during diagnostic CT scans may slightly increase the risk of future cancer. The evidence for this is still controversial, and needs to be interpreted against the risk of developing cancer over one's lifetime. For every 1,000 children, 200 to 400 will eventually develop cancer during their lifetime, regardless of exposure to medical radiation (risk of 20% to 40%). The theoretical increased risk of cancer over one's lifetime from a single CT scan is a small fraction of this baseline risk. Unnecessary radiation should be avoided, but for any child the risk/benefit ratio of each CT scan must be considered with regard to the child's specific clinical condition and concerns.

If my doctor requests a CT scan, should I let my child have it?

Like any medical test, the beneficial information gained from having the test should outweigh the risk of having the test performed. CT is a very powerful and valuable imaging technique that can provide important and even life-saving information. Sometimes, alternative imaging tests like ultrasound and magnetic resonance imaging (MRI) can provide similar information. However, there are many clinical situations where CT scans are the best test; you can discuss with your doctor if this is the case for your child. If your doctor has any questions, as to which is the best test for your child, our pediatric radiologists are available for consultation.

What steps do you take to reduce radiation to my child?

Here at SAMMC, our pediatric CT protocols are designed specifically for the needs and protection of children. Our CT protocols use reduced radiation doses determined by the age and size of the child and the body part being imaged, and are limited to the area of specific medical concern. Our CT scans are performed by CT technologists with experience in pediatric CT, and are overseen and interpreted by board- certified radiologists.

With whom should I discuss my concerns?

Any discussion should start with your child's physician. He/she has determined that a CT is needed to better evaluate your child's condition. If your referring doctor has a question regarding the suitability of a different study, our pediatric radiologists are available to answer any questions. If you still have questions or concerns, please ask to speak with one of our CT technologists or radiologists.

Where can I find more information?

The American College of Radiology and Radiological Society of North America maintain a radiology information resource website specifically designed for patients at www.radiologyinfo.org