CT Scan (Computerized Tomography)
Risks and Benefits

CT Scans and Radiation Risk

A CT scan is an imaging procedure that uses radiation to get pictures of the organs in the body. A CT may be the only test that can provide the information needed to best diagnose and treat your child’s medical problem. There have been studies that suggested an association between low levels of radiation and cancer; the exact cause and effect link has not been defined. Children present a greater risk than adults because of how fast their bodies grow and how long they live. Here at Children’s Mercy Hospital, CT scans are done in a way to keep the radiation levels as low as possible to get the best results from the test. Even though the radiation level for a CT scan is low, there has to be some radiation. Your child’s doctor feels the information from this CT scan is more helpful than the potential risks from the CT scan.

Frequently Asked Questions

Is there an increased risk of cancer from medical radiation, especially CT scans?
While no one can point to a single person and say that his cancer was caused by medical radiation, it is possible that exposures to radiation during CT scans may slightly increase the risk for future cancer. The risk for developing cancer is variable, but 1 out of every 1000 children that have a single CT scan of the abdomen will develop a future cancer. This needs to be put into the context of other factors which increase the risk of developing cancer over one’s lifetime. For those same 1,000 children, 200 will eventually develop cancer even if they were not exposed to medical radiation (risk of 1 in 5). So the additional risk is very small, but the best available research shows that there is some risk.

If my doctor orders a CT scan, should I let my child have it?
Like any medical test, the information gained should outweigh the risk of having the test done. CT is a very powerful and valuable imaging tool that can provide important and even life-saving information. Sometimes, however, imaging tests like ultrasound and magnetic resonance imaging (MRI) can provide the same information as CT and not expose your child to any radiation. At times, the other tests may not be available or may be limited. Your child’s doctor has determined that a CT is the best choice for your child’s current situation.

What steps do you take to reduce radiation to my child?
Here at Children’s Mercy Hospital, we specialize in caring for children. All of our CT scans are designed specifically for the needs and protection of children. Our CT scans reduce radiation doses based on the age and size of the child. The scans are limited to only the area of specific medical concern. All of our CT scans are performed by specially trained doctors and CT technologists.

Who should I talk to about my concerns?
You should talk with your child’s doctor. He or she has determined that a CT is needed to better evaluate your child’s condition. If there is a question about which type of test is best for your child, our radiology physicians are available to talk with your child’s doctor. If you still have questions or concerns, please ask to speak with one of our CT technologists or radiologists.