

Do I have a choice?

- As a parent or caregiver you *always* have a choice. However, it is important that you have all the information about your child's injury and symptoms. Here are some important things to remember and discuss with your medical professional:
- Is there a clear medical benefit for conducting a CT scan?
- Are there any other tests (such as an MRI or an ultrasound) or actions (such as observing your child for a time period) that would safely take the place of a CT scan?
- If you and your medical professional decide to proceed with a CT scan, ask to make sure that the CT scan setting is adjusted to the size and weight of the child so that the lowest possible dose is given.
- Explain to your child that the CT scanner is large and looks like a donut. The child will be laid flat on the table and will need to remain still while the table moves through the donut. The test itself is quick and pain-free, and it is often encouraged that you remain with your child. Sedation may be given to keep the child still during the test.
- Avoid multiple scans and keep track of your child's radiation exposure by using the pocket card attached below by listing all X-rays (including dental), CT scans and radiology tests, performed through the years.
- Talk to your child's doctors and nurses, be involved in the care plan and ask questions if you have concerns.



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GUIDE TO

Children's Safe CT IMAGING

CT scans are a good way for doctors to diagnose what is happening in our bodies, but they are not without risk especially when children are involved.



DATE	TYPE OF IMAGING	DOSE (IF APPLICABLE)



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Know the risks and #ScanSmart



A fun trip to the park or a day of soccer can quickly become scary if your child sustains a head injury. As a parent or caregiver it's important to understand why a medical professional may order a test called a CT scan for a child with a head injury and – just as important – why a CT scan may not be necessary and may even be harmful.

What is a CT scan?

A **Computerized Tomography (CT) Scan** uses a computer that takes several X-ray images of structures inside the body. These pictures can provide important information about your child's injury and treatment needed. However it is important to understand the risk and effects of radiation (ionizing Radiation) your child may be exposed to during this test.

What are the risks?

Exposure to ionizing radiation may increase the risk of developing cancer in the future.

All of us are exposed to small amounts of background radiation as part of our environment and daily life – for example, in rocks, air, soil and through household appliances. Consider that daily background radiation exposes us to about 0.01sMv (millisievert) of ionizing radiation.

***1 single view X-ray = 10 days of background radiation in one test**

***1 CT Scan = up to 8 months of background radiation in one test**

However, the amount of radiation exposure in a CT scan is much greater – and brings with it some added risks. Radiation exposure is 60-80 times greater in a CT scan compared to a routine X-ray.

The risk of developing cancer from a CT scan is small; however children are much more sensitive to radiation than adults. Remember, your child may have more scans and X-rays over time that could increase the risk of developing cancer. *So ask your physician "Is this scan necessary?"*

How will my child be examined?

- A child who goes to an emergency room with a head injury will be evaluated by the ER medical staff. Part of the evaluation will include the use of the Pediatric Head Injury/Trauma Algorithm also known as the PECARN Algorithm. The medical team will evaluate your child based on age and level of injury. They will look for:
- Changes in mental awareness (is the child confused, dizzy, sleepy, having headaches?)
- Injury (is the child bleeding, are there any deep cuts or open wounds on the head?)
- Are the child's symptoms getting worse?

Based on these observations the medical provider will decide if a CT scan is needed.

If testing is NOT required

Continued medical observation will be recommended.

If testing IS required

It is important to understand the type of test being recommended, the radiation risk, other options for decreasing risk and where to find additional resources.

What are the benefits?

If your child's medical professional believes the CT scan is appropriate, remember that the benefit to your child outweighs the risks. CT scans provide valuable information to the medical team which will help determine the best possible treatment options for your child. If a CT scan is ordered, you can work with the medical team to minimize the radiation exposure and #ScanSmart.

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There are ways to work with the medical team to ensure your child is exposed to the smallest amount of radiation possible. Stay **COOL** and ask questions.

Consider using other testing (without radiation) when appropriate

Only image the indicated area

Only scan once

Lowest amount of radiation based on child's size (child-dosing) should be administered