

# Alliance

**For Radiation Safety  
In Pediatric Imaging**

June 11, 2013



## Founding Organizations

The Society for Pediatric Radiology  
American Association of Physicists in Medicine  
American College of Radiology  
American Society of Radiologic Technologists



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To Parents and Caregivers,

On June 10, 2013, a new report was published and posted on the internet about the use of CT in children in the United States. The article was written by Dr. Diana Miglioretti and her team of scientists. She tried to answer several questions about CT and its use in children in the United States. The first question was "is the number of CT scans in children increasing in the United States?"

She found that while the number of CT scans in children had initially increased from the year 1996 to 2005, and did not change from 2005 to 2007, the number of CT scans in children is now declining.

Another question she asked was "what was the radiation exposure that the children received?"

She found that there was a lot of variation (different hospitals did not use the same CT scan methods on the same age patient for the same part of the body). She says that hospitals should use Image Gently protocols (guidance) to try to bring the radiation dose down. She wanted hospitals that do CT scans on children to scan a similar way. She believes that if hospitals would do this, then children would be better off. It would be better if no child received a higher radiation dose from CT than needed.

Her last question was "Can we use the information that we learned from this study, to see if there is an increased number of cancers in children due to the CT scans?" This is a very difficult question to answer.

As Dr. Miglioretti says the estimates of increased number of cancers "are in no way definitive". However, they do say that reducing the number of CT scans with the higher radiation doses would really help lower radiation dose for children.

As you can see from this discussion, the scientists have gotten information from a large number of children. Their study helps doctors and scientists to learn more about possible effects from CT scans in children.

What is very confusing for parents is whether or not to allow their child to have a CT scan if they are sick. The most important thing is for parents to feel comfortable asking their own doctor or the doctor who is seeing their child:

- What is the name of the medical imaging test?
- Does the test use radiation to create the image?
- Are there other tests or actions (such as watching the child for several hours) that could be substituted for the CT scan?
- Will my child receive a “kid-sized” radiation dose?
- Have the facility and radiology professionals done all they can to lower radiation dose as much as possible to answer their doctor’s question?

If parents get answers to their questions, and the medical benefit to the child outweighs the potential small risk, parents should not hesitate to permit the scan. Sometimes not doing a scan may harm a child. A partnership between the parent, their doctor and the radiologist who will read the CT scan is the best way to make sure that a CT scan should be performed.

Sincerely,  
The Alliance for Radiation Safety in Pediatric Imaging

\*\* The Alliance for Radiation Safety in Pediatric Imaging (the Image Gently campaign) mission is to raise awareness and to provide free online education materials to those who perform medical imaging in children to lower their radiation doses to as low as possible. Image Gently also provides parent education materials to keep parents better informed – including an imaging record card to help you keep track of the imaging care that your child receives. We also work with groups such as the United States Food and Drug administration and the makers of imaging equipment to advocate about the importance of radiation safety for children. Please visit our website at [www.imagegently.org](http://www.imagegently.org).