

## **Comparison of Adult And Pediatric Doses From Different CT Scanners**

The modern medical imaging armamentarium offers a great many choices. Depending on the clinical scenario, plain film, MR, CT, US, conventional angiography or nuclear medicine may be the appropriate examination. Accuracy and patient safety are always prime considerations. In any X-ray technique including CT scanning, there is a trade off between image quality requiring a greater radiation exposure, and the need to limit exposure for patient safety.

In an attempt to decrease the radiation exposure to children undergoing CT scanning, we compared different exposure factors using both single slice (axial) technique and multislice helical scanning. Standard phantoms were used to judge spatial and contrast resolution. The results of our study were used to adjust the CT scan technique to minimize radiation exposure to children while maintaining diagnostic image quality.

Pediatrics: Because the cancer risk from radiation has recently been shown to be greater than previously thought, the optimization of CT technique should be a high priority in all radiology departments.

Results of optimization will be presented using a GE CT-I helical scanner, GE Nxi twin slice scanner and Marconi MX-8000 scanner.