

Children are more radio-sensitive than adults and children undergoing CT scans have triple the risk of leukemia and brain cancer after two or three CT scans according to a recent article in the Lancet. Doctors think the benefits usually outweigh their risks, but "radiation is known to carry a hard-to-calculate, elevated, long-term probability of induced cancers", according to Marta Hernanz-Schulman, MD, chair of the American College of Radiology Pediatric Imaging Commission.

Children are especially vulnerable to ionizing radiation because they absorb more radiation per volume of tissue than adults. Ionizing radiation applied to children is especially damaging as children are growing and have more radio-sensitive cell divisions occurring than an adult. Additionally, a longer life awaits children than adults, presenting them with more time for radiation-induced cancers to develop.

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