



## Balancing Radiation Doses



According to a new study, radiation doses for common CT scans can be safely and effectively reduced and more consistently administered by assessing and comparing doses across hospitals. The study is published in JAMA Internal Medicine.

**See Also:** [Assessment of Radiation Dose Reduction Awareness](#)

Over the last decade, there has been a steady increase in the use of CT scans in the U.S. However, radiation doses vary significantly between hospitals and there are few concrete standards on best dose levels. That is why medical experts find it difficult to determine the "right" dose radiation that would not only balance diagnostic accuracy but would also minimise radiation exposure. In most cases, institutions make independent decisions regarding which dose to use as there is no consistent standard.

The study, led by UC San Francisco, found substantially lower radiation doses for both chest and abdominal scans as well as for head scans.

"We estimate that if the improvements we saw were applied to all abdominal CT scans performed in the U.S., this would result in the reduction of approximately 12,000 cancers annually," said senior author Rebecca Smith-Bindman, MD, a professor in the UCSF departments of radiology, and of epidemiology and biostatistics, and the Philip R. Lee Institute of Health Policy Studies.

Prof. Smith-Blindman also explained that it is extremely important to reduce unnecessary and inconsistent radiation doses in order to improve patient safety. She highlights that there is no point for each institution to keep reinventing the wheel with regard to optimised doses. Leaders of each institution can both learn and help each other.

The American College of Radiology also advocates that CT scans should be performed with doses that are as low as possible. But since there are no explicit guidelines, CT radiation doses tend to vary across institutions and this leads to unnecessary radiation exposure.

Source: [University of California - San Francisco](#)

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