

# **CT Scans: They are responsible for 2 per cent of all cancers**

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CT (computed tomography) scans are the cause of up to 2 per cent of all cancers. The effect could be far worse among children, who are more sensitive to irradiation.

The scans, which seem to especially cause cancers of the lungs and colon, produce a radiation dose similar to that of the atom bombs that were dropped over Hiroshima and Nagasaki in 1945.

Each scan produces a radiation dose of around 15 mSv in an adult, and 30 mSv in a newborn child, and as standard treatment is for two to three scans, the overall dose reaches 45 mSv. Survivors of Nagasaki and Hiroshima were exposed to doses slightly below 50 mSv.

Around 11 per cent of all CT scans are carried out on children to determine if they have appendicitis, and researchers fear that, even if they do not develop cancer immediately, they are still at greater risk as adults as their radiation load continues to increase.

In the US alone, 62 million scans are performed every year, mainly to check on seizures, chronic headaches and trauma, an extraordinary increase since 1980 when just 3 million scans were performed.

Researchers from Columbia University Medical Center in New York base their cancer estimates on radiation exposure from survivors of the atomic bomb blasts, and from a major study into the health of 400,000 workers in the nuclear industry.

They also reckon that up to a third of all CT scans are unnecessary or could be replaced by safer technology such as ultrasound.

If that's so, it means that 20 million adults and 1 million children are unnecessarily irradiated every year in the US – and also being exposed to the risk of cancer.

(Source: New England Journal of Medicine, 2007; 357: 2277-84).