

Possible link found between diagnostic radiation and prostate cancer

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Researchers at The University of Nottingham have shown an association between certain past diagnostic radiation procedures and an increased risk of young-onset prostate cancer — a rare form of prostate cancer which affects about 10 per cent of all men diagnosed with the disease.

The study, the first of its kind to report the relationship between low dose ionising radiation from diagnostic procedures and the risk of prostate cancer, was funded by the Prostate Cancer Research Foundation (PCRF) and is part of the UK Genetic Prostate Cancer Study (UKGPCS). The results of the study have been published online in the *British Journal of Cancer*.

The study showed that men who had a hip or pelvic X-ray or barium enema 10 years previously were two and a half times more likely to develop prostate cancer than the general population. And the link appeared to be stronger in men who had a family history of the disease.

The research was led by Professor Kenneth Muir, from the Division of Epidemiology and Public Health at The University of Nottingham, in association with Dr Rosalind Eeles at The Institute of Cancer Research and The Royal Marsden NHS Foundation Trust.

Professor Muir said: "Although these results show some increase in the risk of developing prostate cancer in men who had previously had certain radiological medical tests we want to reassure men that the absolute risks are small and there is no proof that the radiological tests



actually caused any of the cancers."

Four hundred and thirty one men, diagnosed with young onset prostate cancer — men diagnosed with the disease before the age of 60 — took part in the study.

The exposure to radiation was part of normal medical procedures which were performed 5, 10 or 20 years before diagnosis. Procedures included hip and leg X-rays, for example taken after an accident, and barium meals and enemas which are used to diagnose problems with the digestive system.

At this stage the evidence linking diagnostic radiation procedures and prostate cancer is still weak. This research suggests that further investigation into this link should be undertaken.

X-ray procedures used for diagnostic purposes deliver very small amounts of radiation per procedure. Their use is minimised in current medical practice. For most people X-rays do not increase the risk of developing cancer.

Source: University of Nottingham

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