



Vegetarians Have Lower Cancer Risk, UK Study

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A 12-year study that followed over 60,000 Britons, half of whom were vegetarian, suggests that vegetarians had a lower risk of developing cancer than meat-eaters. However, more studies are needed before we can use this evidence as sufficient reason to ask people to change their diets, say the researchers and other experts.

The study was the work of Dr Naomi Allen, an epidemiologist at Oxford University, and colleagues from the UK and New Zealand, and is published in the 16 June advance access issue of the *British Journal of Cancer*.

Allen told the press:

"This is strong evidence that vegetarians have lower rates of cancer than meat eaters."

For the study, Allen and colleagues used data from the British arm of the European Prospective Investigation into Cancer and Nutrition (EPIC) which is following half a million people throughout Europe.

For an average follow up of 12.2 years, they studied 61,566 British men and women, which included 32,403 meat eaters, 8,562 non-meat eaters who ate fish but not meat (the "fish eaters") and 20,601 vegetarians (ate neither fish nor meat).

Over the follow up period there were 3,350 incident cancers of 20 different types, including 2,204 among the meat eaters, 317 among the fish eaters and 829 among the vegetarians.

Using statistical tools they calculated the relative risk of developing cancer among the three groups, and adjusted for age and a range of other potential confounders such as smoking, alcohol, body mass index (BMI), exercise/physical activity, and in the case of the women only, whether they took oral contraceptives.

The results showed that overall, vegetarians were 12 per cent less likely to develop cancer than meat eaters, while fish eaters were 18 per cent less likely (however fish eaters was also a smaller sample and potentially a less reliable statistic).

Thus, while in the general population about 33 people in 100 will get cancer at some point in their lifetime, for people who don't eat meat this risk is about 29 in 100.

Such figures suggest a change of diet could prevent 2 million Britons from developing cancer.

But lead author Professor Tim Key, also from Oxford University, told the media we should not rely too strongly on these findings:

"At the moment these findings are not strong enough to ask for particularly large changes in the diets of people following an average balanced diet," he said, according to a BBC report.

For some cancers like leukaemia, stomach and bladder cancers, the risk was considerably lower, with vegetarians 45 per cent less likely to contract one of these cancers than meat eaters, but for other cancers such as prostate, breast and bowel cancer, the risk was much the same for vegetarians and meat eaters.

One of the things that stood out, was the fact that vegetarians appeared to have much lower risk of getting cancers of the lymph and blood. When these were grouped, vegetarians had about 50 per cent lower risk than meat eaters. And in one rare cancer in particular, multiple myeloma, a cancer of the



bone marrow, vegetarians were 75 per cent less likely to develop the disease compared to meat eaters.

And for these cancers the fish eaters had much the same risk as the meat eaters.

Speculating as to why this might be so, the researchers said it could be either because of something in meat, perhaps viruses or compounds that cause mutation, or it could be a protective effect in vegetables.

One area where vegetarians and fish eaters had a much higher risk of cancer was in the case of cervical cancer, where the risk was nearly double for these groups compared to meat eaters.

The researchers suggest this could be down to chance because of the small numbers involved, or it could be something about diet that affects the ability of the cancer-causing virus to take hold.

The researchers said they also found marked differences between meat-eaters and vegetarians in the propensity to cancers of the lymph and the blood, with vegetarians just over half as likely to develop these forms of the disease.

Sara Hiom, director of health information at Cancer Research UK, a charity that funded the research, told the press:

"These interesting results add to the evidence that what we eat affects our chances of developing cancer."

She said we already knew that eating a lot of red and processed meat increased people's risk of stomach cancer but she said we should be careful about interpreting the results of this study.

"The links between diet and cancer risk are complex and more research is needed to see how big a part diet plays and which specific dietary factors are most important," said Hiom, according to a report in the Telegraph.

However, she did say that the low number of vegetarians who developed cancer in this study would suggest that it might be wise to follow the advice of Cancer Research UK, and other groups, that people should eat:

"A healthy, balanced diet high in fibre, fruit and vegetables and low in saturated fat, salt and red and processed meat."

Dr Panagiota Mitrou, the World Cancer Research Fund's Science and Research Programme Manager told the BBC:

"The suggestion that vegetarians might be at reduced risk of blood cancers is particularly interesting."

But he also said the findings should be treated with caution, because we don't know enough about the underlying mechanisms that link diet and these types of cancer.

"Further studies of vegetarians are needed before we can be confident this is actually the case," said Mitrou.

"Cancer incidence in British vegetarians."

T J Key, P N Appleby, E A Spencer, R C Travis, N E Allen, M Thorogood and J I Mann.

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