

## Vegetarianism can reduce risk of heart disease by up to a third

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The risk of hospitalisation or death from heart disease is 32% lower in vegetarians than people who eat meat and fish, according to a new study from the University of Oxford.

Heart disease is the single largest cause of death in developed countries, and is responsible for 65,000 deaths each year in the UK alone. The new findings, published in the <u>American Journal of Clinical Nutrition</u>, suggest that a <u>vegetarian diet</u> could significantly reduce people's risk of heart disease.

'Most of the difference in risk is probably caused by effects on cholesterol and blood pressure, and shows the important role of diet in the prevention of heart disease,' explains Dr Francesca Crowe, lead author of the study at the <u>Cancer Epidemiology</u> Unit, University of Oxford.

This is the largest study ever conducted in the UK comparing rates of heart disease between vegetarians and non-vegetarians.

The analysis looked at almost 45,000 volunteers from England and Scotland enrolled in the European Prospective Investigation into Cancer and Nutrition (EPIC)-Oxford study, of whom 34% were vegetarian. Such a significant representation of vegetarians is rare in studies of this type, and allowed researchers to make more precise estimates of the relative risks between the two groups.



The EPIC-Oxford <u>cohort study</u> was funded by Cancer Research UK and the Medical Research Council and carried out by the Cancer Epidemiology Unit at the University of Oxford.

Professor Tim Key, co-author of the study and deputy director of the Cancer Epidemiology Unit, University of Oxford, said: 'The results clearly show that the risk of heart disease in vegetarians is about a third lower than in comparable non-vegetarians.'

The Oxford researchers arrived at the figure of 32% risk reduction after accounting for factors such as age, smoking, <u>alcohol intake</u>, physical activity, educational level and <u>socioeconomic background</u>.

Participants were recruited to the study throughout the 1990s, and completed questionnaires regarding their health and lifestyle when they joined. These included detailed questions on diet and exercise as well as other factors affecting health such as smoking and alcohol consumption. Almost 20,000 participants also had their blood pressures recorded, and gave blood samples for cholesterol testing.

The volunteers were tracked until 2009, during which time researchers identified 1235 cases of heart disease. This comprised 169 deaths and 1066 hospital diagnoses, identified through linkage with hospital records and death certificates. Heart disease cases were validated using data from the Myocardial Ischaemia National Audit Project (MINAP).

The researchers found that vegetarians had lower blood pressures and cholesterol levels than non-vegetarians, which is thought to be the main reason behind their reduced risk of heart disease.

Vegetarians typically had lower body mass indices (BMI) and fewer cases of diabetes as a result of their diets, although these were not found to significantly affect the results. If the results are adjusted to exclude



the effects of BMI, vegetarians remain 28% less likely to develop heart disease.

The findings reinforce the idea that diet is central to prevention of heart disease, and build on previous work looking at the influence of vegetarian diets, the researchers say.

## Provided by Oxford University

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