

Healthy diet reduces risk of cardiovascular disease by a third in over-40s

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Credit: Wikipedia.

Men and women who adapt their daily diet to meet current UK dietary guidelines could reduce their risk of a heart attack or a stroke by up to a third, according to a new study by King's College London.

The study, published in the *American Journal of Clinical Nutrition*, recruited healthy middle-aged and older men and women to compare the effects on risk factors for [cardiovascular disease](#) (CVD) of following a diet based on UK health guidelines compared with a traditional British diet. The predicted risk of CVD over the next 10 years for the [participants](#) was estimated to be about 8% in the men and 4% in the women.

In the randomized controlled trial, researchers measured the blood

pressure, vascular function and CVD [risk factors](#) (such as cholesterol) in 162 healthy non-smoking men and women (aged 40-70 years) who followed a traditional British diet (control group) or an adapted one over a twelve-week period. Those on the modified diet ate oily fish once a week, more fruit and vegetables, replaced refined with wholegrain cereals, swapped high-fat dairy products and meats for low-fat alternatives, and restricted their intake of added sugar and salt. Participants were asked to replace cakes and cookies with fruit and nuts and were also supplied with cooking oils and spreads high in monounsaturated fat.

Adherence to the dietary advice was confirmed both with dietary records and by measuring specific biomarkers in the participants' blood and urine. The latter indicated an increase in potassium and fibre intake in the dietary group along with a drop in sodium (salt) and saturated fat and added sugar intake. However, total sugar intake remained unchanged owing to the increase in sugar intake from fruit.

The average body weight in the group who followed the modified diet fell by 1.3 kg whilst that in the control group rose by 0.6 kg after 12 weeks, resulting in an overall difference in weight of 1.9 kg between the two groups; the equivalent difference in Body Mass Index (BMI) was 0.7 between the groups. Waist circumference was 1.7 cm lower in the dietary group compared to the control group.

Significant falls in systolic blood pressure/diastolic [blood pressure](#) of 4.2/2.5 mm Hg for daytime and 2.9/1.9 mm Hg for night time were measured in the dietary group compared with the control group; the average heart rate was found to have lowered by 1.8 beats per minute.

Levels of cholesterol also fell by 8%, although changes in the ratio of total cholesterol to high-density cholesterol were modest compared with the effects of drugs such as statins. No significant change was recorded

in markers for insulin sensitivity, which predicts the risk of developing type 2 diabetes.

Overall, the study concluded that healthy men and [women](#) aged 40 and over who adapt their daily diet to meet current UK dietary guidelines reduce their risk of heart disease by up to a third.

Emeritus Professor Tom Sanders, co-author from the Division of Diabetes & Nutritional Sciences at King's College London, said: 'Our findings apply to middle-aged and older people without existing health problems. This is important because most heart attacks and strokes occur in those not identified as being at high risk. We show that adherence to current [dietary guidelines](#) which advocate a change in dietary pattern from the traditional British diet (high in saturated fat, salt and sugar, low in fibre, oily fish and fruit and vegetables) would substantially lower that risk.'

Dr Alison Tedstone, Chief Nutritionist at Public Health England, said: 'PHE has always recommended a balanced diet that is low in [saturated fat](#), salt and sugar and includes oily fish and five portions of fruit and vegetables a day as part of a healthy lifestyle that includes keeping active and not smoking. This study clearly illustrates that following this advice will protect your health by significantly reducing your risk of heart disease.'

Provided by King's College London

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