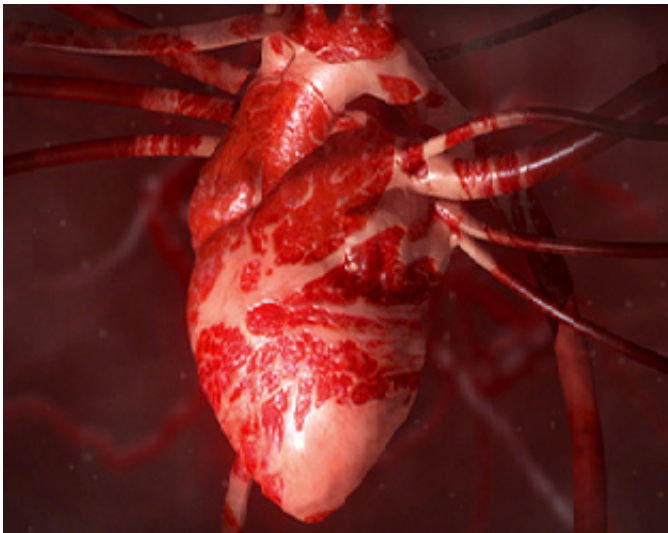


# Protein supplement may cut risk of heart disease and stroke

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Credit: University of Reading

People could reduce their risk factors of heart disease and stroke by drinking protein supplements normally favoured by bodybuilders, scientists at the University of Reading have found.

By drinking a whey protein supplement derived from [milk](#), [study participants](#) with mild hypertension had an estimated 8% reduction in risk of [heart disease](#) and [stroke](#), the study found.

Those taking the supplement had lower blood pressure and cholesterol and healthier blood vessels.

The findings could be good news for the 18 million adults in the UK living with high blood pressure, which can cause cardiovascular diseases responsible for 155,000 deaths in the UK every year.

Ágnes Fekete, the researcher who carried out the study at the University of Reading, said: "The results of this trial are very exciting. It shows the positive impact that dairy proteins can have on blood pressure.

"Long-term studies show that people who drink more milk tend to be healthier, but until now, there has been little work to evaluate how dairy proteins affect blood pressure in particular."

## **Significant impact**

The research was carried out at the University of Reading's Hugh Sinclair Unit of Human Nutrition, led by Professors Julie Lovegrove and Ian Givens.

Professor Givens said: "By giving [people](#) a high dose of whey protein, similar to the amount used by athletes, we were able to see a significant impact over an eight-week trial.

"We will now be looking to further understand the impacts of milk proteins on other markers of cardiovascular health and over a longer period of time."

The study looked at the impact of drinking two protein shakes per day for eight weeks on a range of heart and vascular health markers, including blood pressure, arterial stiffness and cholesterol. Those that took part in the double blind, randomised controlled trial drank 56g of protein each day, which is equivalent to protein supplements used by [bodybuilders](#).

The trial measured 38 pre and [mild hypertension](#) participants. It found a number of significant positive effects on markers of cardiovascular health, including:

Significant reductions in blood pressure (BP) over the 24 hours after consuming the protein shakes. For systolic BP -3.9 mm Hg; for diastolic BP -2.5 mm Hg, compared with after control intake.

Decreased total cholesterol - a type of fat found in the bloodstream that at elevated levels increase the risk of cardiovascular disease (-5%) compared with effect of the control

Decreased triacylglycerol - a type of fat found in the bloodstream that at elevated levels increase the risk of cardiovascular disease (- 12%) compared with the effect of the control.

The study used commercially available whey protein powder mixed with water, and tested alongside a casein supplement - a different form of milk protein - and a control group using a supplement containing maltodextrin, a form of carbohydrate, in a randomized, controlled, double-blinded, three-way-crossover dietary intervention.

## **Bodybuilders**

High-performance sportsmen and women, including bodybuilders, often take whey protein supplements as part of their training regimes to help them build muscle mass.

The protein supplements contributed 214 kilocalories to the study participants' daily energy intake - around 10% of their recommended daily calorie intake. However, there was no significant weight gain during the eight-week study period because the participants were asked to exchange the protein for other foods in their diet.

Professor Julie Lovegrove, Director of the Hugh Sinclair Unit of Human Nutrition at the University of Reading, said: "One of the important impacts of this study is that whey protein may have a role, as part of a healthy diet, to reduce [risk factors](#) for cardiovascular disease, although further studies are required to confirm these results."

Suzane Leser, Head of Nutrition for Volac, said: "The outcomes confirm that the health benefits of whey protein are relevant for the new wave of older adults taking up exercise to work on their health, and for a generational shift of current sports nutrition consumers to whom training will one day move from being only about muscle performance and size, to muscle maintenance, mobility and metabolic health, as they get older."

The study is published in the *American Journal of Clinical Nutrition* and is freely accessible to the public.

**More information:** A. A. Fekete et al. Whey protein lowers blood pressure and improves endothelial function and lipid biomarkers in adults with prehypertension and mild hypertension: results from the chronic Whey2Go randomized controlled trial, *American Journal of Clinical Nutrition* (2016). [DOI: 10.3945/ajcn.116.137919](https://doi.org/10.3945/ajcn.116.137919)

Provided by University of Reading

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