

# Can healthy eating reduce diabetes risk?

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Credit: Wikipedia.

A diet rich in vegetables and fruit may reduce the risk of type 2 diabetes, according to research published in the *International Journal of Food Sciences and Nutrition*. The study identified a combination of foods that reduce biomarkers of inflammation and oxidative stress, known risk factors for type 2 diabetes. This dietary pattern, high in vegetables and fruit, and low in chips, sugar, and white bread, is also associated with reduced prevalence of type 2 diabetes.

Louise McGeoghegan and colleagues from the Institute of Health and Society and Human Nutrition Research Centre, Newcastle University analysed over 1,500 adult [survey](#) members from years one to four of the cross-sectional National Diet and Nutrition Survey (NDNS) Rolling Programme. The NDNS is an annual survey that runs in the United Kingdom and which was designed to assess the food consumption and

nutritional status of the British population. In the new published article, the authors analysed data on two blood biomarkers measured in the survey members: serum C-reactive protein to assess inflammation, and plasma carotenoid to evaluate oxidative stress. Using these biomarkers, they derived a dietary pattern that was linked to lower inflammation and higher anti-oxidant status, which was in turn found to be related to lower prevalence of type 2 diabetes. Interestingly, the percentage of energy intake from protein was higher in this pattern, although the authors caution that further research is needed to clarify the type of protein consumed and whether it was of plant or animal origin.

"This research points towards the importance of improving our understanding of the relation between diet as a whole and chronic disease outcomes such as type 2 diabetes," the authors say, adding, "Though we know that individual foods may reduce inflammation and oxidative stress, we know little of how foods interact together and in relation to nutrients to achieve a desired health outcome. The NDNS has been a valuable survey in advancing our understanding of how diet impacts our health, not only because of the comprehensive dietary information collected within this survey that enables us to see real-life examples of diets within the UK, but more so because it provides us with a detailed insight into specific health biomarkers. If such measures are to be continued in future, we will be able to understand even more how the diet of people with undiagnosed or diagnosed diabetes differs from people who do not have diabetes. We would like to thank Diabetes UK for funding the initial analysis of blood glucose which gave us this rare opportunity to study the relationship between [diet](#) and type 2 [diabetes](#) prevalence in the United Kingdom."

**More information:** L. McGeoghegan et al. Association between an anti-inflammatory and anti-oxidant dietary pattern and diabetes in British adults: results from the national diet and nutrition survey rolling programme years 1–4, *International Journal of Food Sciences and*

*Nutrition* (2016). [DOI: 10.1080/09637486.2016.1179268](https://doi.org/10.1080/09637486.2016.1179268)

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