

Plant-based or vegan diet may be best for keeping type 2 diabetes in check

October 30 2018



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A predominantly plant-based or vegan diet may be best for keeping type 2 diabetes in check, not least because of its potential impact on mood, suggests a systematic review of the available evidence, published in the

journal *BMJ Open Diabetes Research & Care*.

This [diet](#) is associated with improved psychological wellbeing, a reduction in some of the known risk factors for type 2 diabetes, and possibly some of those linked to cardiovascular disease, one of the main causes of early death in people with the condition, the findings indicate.

The International Diabetes Federation estimates that 642 million people will be living with diabetes by 2040. In the UK around 4.5 million people have been diagnosed with it; in the US the equivalent figure is more than 30 million.

Nearly 15 per cent of all global deaths are attributed to diabetes; and it killed 5 million people before the age of 60 in 2015. It is also frequently associated with depression, which in turn affects how well blood glucose levels are controlled.

While a predominantly plant-based diet-rich in fruits, vegetables, nuts, legumes, and seeds with no (vegan) or few animal products-has been linked to a significantly lower risk of developing type 2 diabetes, it's not clear if it might also be linked to improved mood and wellbeing.

To try and find out, the researchers trawled through the available evidence and found 11 relevant English language clinical trials, published between 1999 and 2017, comparing plant-based diets with other types of diet. The studies involved a total of 433 people in their mid-50s, on average.

Eight of the trials assessed the impact of a vegan diet and six included patients being given information on optimal nutrition to help them better understand the benefits of a plant based diet. The trials lasted for an average of 23 weeks.

A systematic critical analysis of the results showed that quality of life—both physical and emotional—improved only in those patients on a plant based/vegan diet. Similarly, depressive symptoms improved significantly only in these groups.

Nerve pain (neuropathy) eased in both the plant based and comparator diet groups, but more so in the former. And the loss of temperature control in the feet in those on the comparator diets suggests that eating predominantly plant based foods may have slowed the progressive nerve damage associated with diabetes, say the researchers.

Average (HbA1c) and fasting [blood glucose levels](#) fell more sharply in those who cut out or ate very few animal products and these participants lost nearly twice as much weight: 5.23 kg vs 2.83 kg. The fall in blood fats—a known risk factor for cardiovascular disease—was also greater in those on plant based/vegan diets.

The researchers point out several caveats to their findings, including the small sample sizes of the studies they reviewed and the reliance of the data on participant recall. But this review is the first to attempt to look at the psychological impact of a plant based diet in people with type 2 diabetes, and it draws on research from five different countries, they say.

In six of the studies, those following a plant based/vegan diet were able to cut down or discontinue the drugs they were taking for their diabetes and associated underlying conditions, such as high blood pressure.

Overall, the results indicated that even though the plant based diets were more difficult to follow, at least to begin with, participants stuck to them better than those in the comparator groups.

"Based on the evidence of the research analysis by this [systematic review](#)

, it can be concluded that plant-based diets accompanied by educational interventions can significantly improve psychological health, quality of life, HbA1c levels and weight, and therefore the management of diabetes," write the researchers.

"Furthermore, plant-based diets could potentially improve diabetic neuropathic pain and the levels of total cholesterol, [low density lipoprotein] cholesterol and triglycerides in [type 2 [diabetes](#)].

More information: *BMJ Open Diabetes Research & Care*, [DOI: 10.1136/bmjdr-2018-000534](#)

Provided by British Medical Journal

Citation: Plant-based or vegan diet may be best for keeping type 2 diabetes in check (2018, October 30) retrieved 11 May 2024 from <https://medicalxpress.com/news/2018-10-plant-based-vegan-diet-diabetes.html>

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