

# Vegan diets boost weight loss, lower blood sugar in adults with overweight or type 2 diabetes

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A 12-week vegan diet may result in clinically meaningful weight loss and improve blood sugar control in overweight adults and those with type 2

diabetes, according to a meta-analysis of 11 randomized trials involving almost 800 participants (aged 18 or older), being presented at this year's European Congress on Obesity (ECO) in Maastricht, Netherlands (4-7 May). The study is by Anne-Ditte Termansen and colleagues from the Steno Diabetes Center Copenhagen, Denmark.

However, vegan diets that are rich in fruits, vegetables, nuts, legumes and seeds, with no all animal derived foods, did not affect blood pressure or triglycerides (a type of fat in the blood) compared to other diets.

For this study, the researchers conducted a [systematic review](#) and [meta-analysis](#) of all relevant English language randomized trials, published up to March 2022, comparing the effect of vegan diets to other types of diets on cardiometabolic risk factors—body weight, body mass index [BMI], blood sugar levels, systolic and diastolic [blood pressure](#), total cholesterol, [low-density lipoprotein cholesterol](#) (so-called 'bad cholesterol'), high-density lipoprotein cholesterol, and triglycerides.

Vegan diets were compared with either passive control groups (participants continuing normal diet with no dietary changes) or active control groups (participants following other dietary interventions such as Mediterranean diets, different diabetes diets, or portion-controlled diets).

Data were analyzed for 11 studies involving 796 individuals (average age ranging from 48 to 61 years) with overweight (BMI of 25 kg/m<sup>2</sup> or over) or type 2 diabetes. The trials lasted for at least 12 weeks (average duration 19 weeks) and considered [weight loss](#) of at least 5 kg (11lbs) clinically meaningful.

Analyses found that compared with control diets, vegan diets significantly reduced body weight (effect average -4.1 kg) and BMI (-1.38 kg/m<sup>2</sup>). But the effects on blood sugar level (-0.18 %-points), total

cholesterol (-0.30 mmol/L) and low-density lipoprotein cholesterol (-0.24 mmol/L) were rather small.

Further analyses found even greater reductions in [body weight](#) and BMI when vegan diets were compared with continuing a normal diet without dietary changes (-7.4 kg and -2.78 kg/m<sup>2</sup> respectively), than compared with other intervention diets (-2.7 kg and -0.87 kg/m<sup>2</sup>).

"This rigorous assessment of the best available evidence to date indicates with reasonable certainty that adhering to a vegan diet for at least 12 weeks may result in clinically meaningful weight loss and improve blood sugar levels, and therefore can be used in the management of overweight and type 2 diabetes", says Termanssen. "Vegan diets likely lead to weight loss because they are associated with a reduced calorie intake due to a lower content of fat and higher content of dietary fiber. However, more evidence is needed regarding other cardiometabolic outcomes."

The researchers note several caveats to their findings, including the small sample sizes of the majority of the studies, and that the vegan diets varied substantially by carbohydrate, protein and fat content, and none of the studies prescribed a control diet that exactly matched the intervention diet in all other aspects except veganism. Therefore, the effects of vegan interventions on cardiometabolic health may partly be caused by differences in macronutrient composition and energy intake between the groups.

Provided by European Association for the Study of Obesity

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