

Is the vegetarian diet more effective for weight loss?

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Recent media headlines claim that a vegetarian diet may be twice as effective for weight loss compared to a conventional diet, according to a study by the Journal of the American College of Nutrition. However, media coverage does not account for study limitations, for instance adherence to the trial diets, or the health status of the participants.

The study

The study was based on a small trial consisting of 74 people with type 2 diabetes and overweight. The participants were divided into two groups and asked to follow either a vegetarian diet or a conventional diet recommended for those with diabetes. Both groups were prescribed the same overall daily calorie intake. The vegetarian diet consisted of 60% of energy from carbohydrates, 15% from protein, and 25% from fat, while the conventional diet consisted of 50% of energy from carbohydrates, 20% from protein, and less than 30% from fat.

The trial lasted six months, during which participants were prescribed diets restricted to 500 fewer calories a day than necessary for weight maintenance.

At the end of the trial, participants following the vegetarian diet had lost nearly twice as much weight as those following the conventional diet (6.2 kg compared to 3.2 kg). Both groups lost a similar amount of subcutaneous fat (under the skin). However, those following the vegetarian diet saw a greater decrease in other types of fat inside and on the surface of muscles, but also a greater muscle loss. The authors reported an improved blood sugar control that accompanied the weight loss.

Limitations

Although the vegetarian diet was reported to lead to greater weight and fat loss, the authors also reported that the conventional diet group did not follow the diet as strictly as the vegetarian group. From the already small sample size of 37 people per group, only 32% of participants (i.e. 12 people) highly adhered to the prescribed conventional diet, compared to 55% of participants (20 people) for the vegetarian group. High adherence was defined as a daily energy intake of no more than 100 kcal more than prescribed. This difference alone may explain the greater weight loss in the vegetarian group.

Furthermore, the authors did not reflect on the fact that the overall fat content was lower in the vegetarian diet, which could have affected the rate of weight and fat loss, and could have influenced the higher muscle loss. There was no follow up after the six months, so the long-term health consequences of this dietary regime in diabetic patients remains unclear.

Finally, this was a study of only 74 patients with type 2 diabetes and overweight. The sample size on its own makes a generalisation of the findings to the diabetes type 2 patients a challenge, unless the results

can be replicated on a larger sample. Extrapolation of the results to a population at large is downright impossible.

In simpler terms, while a vegetarian diet may still be proven to lead to higher weight and fat loss for people with diabetes, further research is necessary before this diet can be considered generally more effective than conventional calorie restricting diets.

General recommendations for tackling overweight

For people live with obesity of overweight, who wish to lose weight, the World Health Organization does not specifically recommend a vegetarian diet. Indeed, in the study described above, participants who followed the conventional calorie-restricted diet also lost weight by the end of the study.

The general WHO recommendations for individuals to reduce overweight and obesity are to limit their energy intake from fats and sugars; to increase consumption of fruit and vegetables, as well as legumes, whole grains and nuts; and to engage in regular physical activity (60 minutes a day for children and 150 minutes spread through the week for adults).

Sources

1. Kahleova et al. The Effect of a Vegetarian vs Conventional Hypocaloric Diabetic Diet on Thigh Adipose Tissue Distribution in Subjects with Type 2 Diabetes: A Randomized Study (2017) Journal of the American College of Nutrition. DOI: 10.1080/07315724.2017.1302367
2. World Health Organization. (2016) Overweight and Obesity.