

Low-carb diet may help diabetes patients achieve better weight loss and glucose control in short term

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A randomized controlled trial of more than 100 persons with type 2 diabetes found that a low-carbohydrate, high-fat, calorie unrestricted

diet helped patients achieve better weight loss and glucose control over a 6-month intervention compared to a high-carb, low-fat diet. The changes were not sustained 3 months after the intervention, suggesting a need for long-term dietary changes to maintain meaningful health benefits. The findings are published in *Annals of Internal Medicine*.

More than 480 million people worldwide are affected by type 2 diabetes. More than half of persons with diabetes also have nonalcoholic fatty liver disease (NAFLD), which can progress to cirrhosis and impair liver function. Prior studies suggest that weight loss improves both diabetes control and NAFLD and restriction of carbohydrate intake improves the control of blood sugar levels.

Researchers from the University of Southern Denmark, Odense, Denmark, randomly assigned 165 persons with type 2 diabetes to either a LCHF diet or a HCLF diet for 6 months. Participants in both groups were asked to eat the same number of calories equal to their energy expenditure. Participants on the low carb diet were asked to eat no more than 20% of their calories from carbohydrates but could have 50- 60% of their calories from fat and 20-30% from protein. Patients on the low-fat diet were asked to eat about half of their calories in carbohydrates and the rest evenly split between fats and proteins.

The authors found that persons on the low carb diet reduced hemoglobin A1c by 0.59 percent more than the low-fat diet, and also lost 3.8 kg more weight compared to those in the low-fat group. The low carb dieters also lost more body fat and reduced their waist circumference. Both groups had higher high-density lipoprotein cholesterol and lower triglycerides at 6 months. However, changes were not sustained 3 months after the intervention, suggesting that dietary changes need to be sustained over the long term to maintain effects. The liver was not affected by the high fat intake in the low-carb group: The researchers found no difference on the amount of liver fat or inflammation between

the two groups.

More information: Effect of Calorie-Unrestricted Low-Carbohydrate, High-Fat Diet Versus High-Carbohydrate, Low-Fat Diet on Type 2 Diabetes and Nonalcoholic Fatty Liver Disease, *Annals of Internal Medicine* (2022). [DOI: 10.7326/M22-1787](https://doi.org/10.7326/M22-1787)

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