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# Low-Fat or Low-Carb Diet? It Doesn't Really Matter

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[Comparative study of the effects of a 1-year dietary intervention of a low-carbohydrate diet versus a low-fat diet on weight and glycemic control in type 2 diabetes, by Nichola J. Davis and colleagues. \*Diabetes Care\* 32:1147–1152, 2009](#)

## **What is the problem and what is known about it so far?**

Type 2 diabetes is closely linked to overweight and obesity. For people who are overweight, losing weight is one of the most important ways to prevent diabetes or delay its development. There are many different strategies for losing excess weight. For people with diabetes, the best strategy for losing weight and controlling blood glucose is unclear. Research studies in people without diabetes have shown that low-carbohydrate diets result in weight losses similar to those achieved with other types of diets, such as low-fat diets. Based on this research, the American Diabetes Association states that either a low-carb or a low-fat diet may be effective for short-term weight loss. Because carbohydrates affect blood glucose levels, low-carb diets may be particularly good for people with diabetes. However, studies of low-carb diets in people with type 2 diabetes have been small, short-term, or poorly designed. More research in this area is needed.

## **Why did the researchers do this particular study?**

The researchers wanted to compare the effects of a low-fat diet and a low-carb diet over 1 year on both weight and blood glucose control in people with type 2 diabetes.

## Who was studied?

The study included 105 overweight adults with type 2 diabetes.

## How was the study done?

Participants followed either a low-fat or a low-carb diet. Researchers measured their weight, A1C, blood pressure, and cholesterol levels after 3, 6, and 12 months.

## What did the researchers find?

For both diets, the greatest weight loss occurred in the first 3 months. Weight loss was faster with the low-carb diet, but by the end of the year, total weight losses were similar between the two diets. Neither diet resulted in changes in A1C or blood pressure during the year. The low-carb diet increased HDL ("good") cholesterol levels more than the low-fat diet.

## What were the limitations of the study?

Participants on the low-fat diet were heavier at the start of the study than those on the low-carb diet. Although researchers took this into account in their analysis, there may have been other differences between the two groups that went unnoticed. Some of the information gathered, such as daily food intake, came from participants and may not have been completely accurate. Also, nearly 20% of participants dropped out before the end of the study, and not all provided an explanation for dropping out. If these participants withdrew because they gained rather than lost weight, it would have an important effect on the results of the study. Finally, the finding that neither diet improved A1C levels may have been because participants lost only a modest amount of weight (3.4% on average) or because of changes in their diabetes medicines during the year-long study.

## What are the implications of the study?

The long-term effectiveness of low-fat and low-carb diets seems to be similar. Although one may result in quicker weight loss at the beginning, there are no real differences by the end of a year. People with diabetes can follow any weight loss plan that works for them as long as it provides adequate nutrition and does not worsen their diabetes control or other conditions.

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