

Even a little less carb intake can help folks with type 1 diabetes

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It may not take as strict a diet as thought to keep type 1 diabetes under control: New Swedish research shows that a moderate low-carb diet still helped people with type 1 diabetes stick to blood-sugar targets.

"The study shows that a moderate <u>low-carbohydrate diet</u> lowers the average blood sugar level and that more patients can keep their blood



sugar within the target range, which is considered beneficial in reducing the risk of organ damage for people with type 1 diabetes," said study first author Sofia Sterner Isaksson, a dietician pursuing doctoral studies at the University of Gothenburg.

With type 1 diabetes, the pancreas makes little or no insulin to help blood sugar enter cells for use as energy. Without insulin, blood sugar builds up and can cause serious organ damage.

Researchers noted that, for safety's sake, anyone with type 1 diabetes considering major changes in carb intake should first consult their <u>health</u> <u>care provider</u>. They said that's especially true for children with type 1 diabetes.

For the study, they randomly assigned 25 men and 25 women with type 1 diabetes (average age: 48) to eat a traditional diet with 50% of energy from carbs or a moderate low-carbohydrate diet with 30% of energy from carbs. All had elevated <u>blood sugar levels</u>, and they took insulin shots or used an insulin pump.

A continuous blood sugar monitoring device was used to record blood sugar levels at least every 15 minutes over 16 weeks.

Both diets had healthy levels of fat and carbs and included veggies, fiberrich carbohydrates, unsaturated fats, nuts, seeds and legumes. A dietitian tailored the diet to each participant.

Researchers found that blood sugar levels were within the target range longer (68 minutes a day, on average) for those following a moderate low-carb diet than a traditional, higher-carb diet. Meanwhile, the time with higher blood sugar levels was slashed by 85 minutes a day.

Researchers found no adverse affects—<u>blood pressure</u> and cholesterol



readings were similar for both diets, and participants reported feeling slightly more satisfied with the moderate low-carb regimen. A form of acids called ketones also stayed at reasonable levels, reducing concerns that they can become too high when carbs are reduced in type 1 diabetes, the study found.

The findings were published recently in <u>The Lancet Regional Health</u> <u>-Europe</u> journal.

"A moderate low-carbohydrate diet can be a good treatment option for adults with type 1 diabetes with elevated <u>glucose levels</u>," Isaksson said in a university news release. "However, it is important that the diet is healthy, with a particular focus on fat and carbohydrate quality, and that the amount of carbohydrates is not too low, so it can be considered safe. Healthcare providers should therefore offer help and monitoring of the diet."

Study co-author Dr. Marcus Lind, a professor of diabetology at the University of Gothenburg, said there has been a lack of studies of different dietary treatments for type 1 diabetes.

"It is therefore important that we can present data showing that a moderate low-carbohydrate <u>diet</u> is effective and safe for adults with type 1 <u>diabetes</u>," he said.

More information: The U.S. Centers for Disease Control and Prevention has more about <u>type 1 diabetes</u>. Sofia Sterner Isaksson et al, The effect of carbohydrate intake on glycaemic control in individuals with type 1 diabetes: a randomised, open-label, crossover trial, *The Lancet Regional Health—Europe* (2023). DOI: 10.1016/j.lanepe.2023.100799



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