

# Diabetes study: 'Mindful eating' equals traditional education in lowering weight and blood sugar

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(Medical Xpress)—Eating mindfully, or consuming food in response to physical cues of hunger and fullness, is just as effective as adhering to nutrition-based guidelines in reducing weight and blood sugar levels in adults with Type 2 diabetes, a new study suggests.

In a comparison study of the effectiveness of the two types of [behavioral interventions](#), participants lost about the same amount of weight – an average of between 3 1/2 and 6 pounds – and lowered their long-term [blood sugar levels](#) significantly after three months.

One treatment group followed an established diabetes self-management education program, with a strong emphasis on nutrition information. The other group was trained in [mindful meditation](#) and a mindful approach to food selection and eating. Both interventions, involving weekly group meetings, also recommended physical activity.

"The more traditional education program includes general information about diabetes, but with more emphasis on nutrition and food choice: What are different types of carbohydrates and fats and how many am I supposed to have? What should I look for when I read a food label? What are healthy options when dining out? That was the traditional diabetes education program," said Carla Miller, associate professor of [human nutrition](#) at Ohio State University and lead author of the study.

"We compared it to an intervention where mindful meditation was applied specifically to eating and [food choices](#). This intervention group did not receive specific nutrition goals. We said we want you to really tune into your body before you eat. Take a few minutes to assess how hungry you are and make conscious choices about how much you're eating. Stop eating when you're full.

"We studied two very different approaches, and we found they both worked. This means people with diabetes have choices when it comes to eating a healthy diet," Miller said.

The research is published in the November issue of the *Journal of the Academy of Nutrition and Dietetics*.

Participants were adults between age 35 and 65 years and had been diagnosed with [Type 2 diabetes](#) for at least one year. To be eligible, they had to have a body mass index, a measure of weight relative to height, of 27 or more, indicating they were overweight, and a hemoglobin A1c (HbA1c) reading of at least 7 percent. HbA1c measures blood glucose levels in the previous two to three months; normal HbA1c is 5.6 percent or lower.

Study participants were randomly assigned to a treatment group. Twenty-seven completed the mindful eating program, and 25 completed the traditional diabetes self-management program called "Smart Choices." Each intervention involved eight weekly and two biweekly 2 ½-hour sessions with trained facilitators.

Trainers of the mindfulness program encouraged participants to cultivate "inner wisdom," or mindful awareness related to eating, and "outer wisdom," which referred to personal knowledge of optimal nutrition choices for people with diabetes. Each session included guided meditation oriented toward participants' experiences and emotions

associated with food. Participants received CDs for help with home meditation practice.

"We have so many environmental cues to eat in America that we've tuned out our normal physiological signals to eat. Being mindful means stopping long enough to become aware of these physiological cues," Miller said. "We also tried to generate awareness, staying in the moment, and living and eating in response to hunger instead of habits and unconscious eating."

The mindful intervention also included basic information about what is known as medical nutrition therapy: the relationships among calories consumed, carbohydrate and fat intake, weight regulation and high blood sugar.

In contrast, the Smart Choices program focused specifically on the condition of diabetes itself, including factors that can lead to the diagnosis, common complications (which include heart disease, kidney and nerve damage, eye problems and stroke), the importance of blood sugar control, and appropriate food choices when blood sugar levels spike. Every session included a medical nutrition therapy discussion such as calorie-intake goals, percentages of carbohydrates and fats in an ideal diet, and portion control. Many sessions included a 15- to 20-minute walk to further emphasize the recommendation for regular physical activity. Problem-solving regarding choosing healthy foods in high-risk situations, such as the holidays, were a focus of the program.

The interventions took place over three months. Researchers assessed participants' health measures and dietary habits immediately after the programs concluded and then again three months later at the study's end.

Weight loss and improvements in HbA1c levels were similar for both groups at the six-month follow-up point. Smart Choice participants as a

group lost more weight, an average of 6 pounds, than did the mindful eating group, which lost an average of 3.5 pounds – but the difference was not significant when analyzed statistically, Miller said.

HbA1c levels dropped in both groups as well, by between about 0.7 and 0.8 percent. "That was a clinically meaningful reduction in Hba1c, equivalent to what you would get on some diabetes medications," Miller said. "If the reduction were sustained over time, it would mean a dramatic reduction in complications associated with diabetes."

Both groups also similarly reduced calorie intake and lowered their consumption of foods with a high glycemic index, which are digested quickly and can drive up blood sugar.

Miller said that because nutrition education is particularly important to people with a new diabetes diagnosis, she sees the mindful meditation and eating option as a potential supplement to basic diabetes education that patients need.

She also said that participants adapted well to the concept of mindfulness even though it is generally considered an alternative health practice.

"One of the things we were evaluating was how well this was accepted by people who had no experience with it. It was very well accepted by participants in that group," she said. "And this tells us that people with [diabetes](#) have choices.

"The fact that both interventions were equally effective suggests that we should let people choose. If mindful meditation is appealing and people think that approach is effective, then it very well could be the best choice for them."

Provided by The Ohio State University

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