Weight loss does not lower heart disease risk from type 2 diabetes

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Intervention stopped early in NIH-funded study of weight loss in overweight and obese adults with type 2 diabetes after finding no harm, but no cardiovascular benefits

An intensive diet and exercise program resulting in weight loss does not reduce cardiovascular events such as heart attack and stroke in people with longstanding type 2 diabetes, according to a study supported by the National Institutes of Health.

The Look AHEAD (Action for Health in Diabetes) study tested whether a lifestyle intervention resulting in weight loss would reduce rates of heart disease, stroke, and cardiovascular-related deaths in overweight and obese people with type 2 diabetes, a group at increased risk for these events.

Researchers at 16 centers across the United States worked with 5,145 people, with half randomly assigned to receive an intensive lifestyle intervention and the other half to a general program of diabetes support and education. Both groups received routine medical care from their own health care providers.

Although the intervention did not reduce cardiovascular events, Look AHEAD has shown other important health benefits of the lifestyle intervention, including decreasing sleep apnea, reducing the need for diabetes medications, helping to maintain physical mobility, and improving quality of life. Previous Look AHEAD findings are available

at www.lookaheadtrial.org.

"Look AHEAD found that people who are obese and have type 2 diabetes can lose weight and maintain their weight loss with a lifestyle intervention," said Dr. Rena Wing, chair of the Look AHEAD study and professor of psychiatry and human behavior at Brown University. "Although the study found weight loss had many positive health benefits for people with type 2 diabetes, the weight loss did not reduce the number of cardiovascular events."

Data are currently being analyzed to fully understand the cardiovascular disease results. Investigators are preparing a report of the findings for a peer-reviewed publication.

Few, if any, studies of this size and duration have had comparable success in achieving and maintaining weight loss. Participants in the intervention group lost an average of more than 8 percent of their initial body weight after one year of intervention. They maintained an average weight loss of nearly 5 percent at four years, an amount of weight loss that experts recommend to improve health. Participants in the diabetes support and education group lost about 1 percent of their initial weight after one and four years.

In September 2012, the NIH stopped the intervention arm, acting on the recommendation of the study's data and safety monitoring board. The independent advisory board, charged with monitoring the study data and safety of participants, found that the intensive lifestyle did no harm but did not decrease occurrence of cardiovascular events, the primary study goal. At the time, participants had been in the intervention for up to 11 years.

Because there was little chance of finding a difference in cardiovascular events between the groups with further intervention, the board

recommended stopping the intensive lifestyle intervention, but encouraged the study to continue following all Look AHEAD participants to identify longer-term effects of the intervention.

"The intervention group did not have fewer cardiovascular events than the group receiving general diabetes support and education, but one positive factor we saw was that both groups had a low number of cardiovascular events compared to previous studies of people with diabetes," said Dr. Mary Evans, director of Special Projects in Nutrition, Obesity, and Digestive Diseases within the NIH's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), the study's primary sponsor.

Type 2 diabetes—affecting nearly 24 million people in the United States alone—has increased in prevalence along with the country's epidemic of overweight and obesity. Cardiovascular diseases are the most common cause of death among people with type 2 diabetes. Look AHEAD is the first study to examine the long-term effects of a lifestyle intervention on major cardiovascular disease events and death in adults with type 2 diabetes.

"Look AHEAD provides important, definitive information about the long-term health effects of weight loss in people with type 2 diabetes," said NIDDK Director Dr. Griffin P. Rodgers. "Beyond cardiovascular disease, this study and others have shown many other health benefits of weight loss through improved diet and increased physical activity. For example, for overweight and obese adults at high risk for diabetes, modest weight loss has been shown to prevent or delay developing type 2 diabetes."

Participants were 45 to 76 years old when they enrolled in the study. Sixty percent of enrollees were women. More than 37 percent were from racial and ethnic minority groups. Researchers are now analyzing data to

measure effects of the lifestyle intervention on subgroups, including racial and ethnic groups and people with a history of cardiovascular disease.

Provided by National Institute of Diabetes and Digestive and Kidney Diseases