

# Treating prediabetes might prevent full-blown disease

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Either by lifestyle changes or meds, returning blood sugar to normal has lasting effects, study found.

(HealthDay) -- Treating prediabetes aggressively with lifestyle changes and medications may prevent its progression to diabetes, a new study finds.

People with prediabetes who had their [blood sugar](#) returned to normal were 56 percent less likely to develop full diabetes in the five years after treatment, researchers say.

Prediabetes is a condition where [blood sugar levels](#) are higher than normal, but not as high as seen in full-blown diabetes.

"The biggest risk for people with prediabetes is that about 70 percent of them will develop [type 2 diabetes](#) over their lifetime," said lead researcher Dr. Leigh Perreault, an associate professor of medicine at the University of Colorado-Denver.

"This is singlehandedly fueling the diabetes epidemic," she added.

According to the U.S. [Centers for Disease Control and Prevention](#), an estimated 79 million Americans -- about 35 percent of the [adult population](#) -- have prediabetes. In addition, about 11 percent of these

people go on to develop full diabetes each year, the agency notes.

The report by Perreault and colleagues was published in the June 9 online edition of *The Lancet* to coincide with the planned Saturday presentation of the study findings at an [American Diabetes Association](#) meeting, in Philadelphia.

For their study, Perreault's team used data from the Diabetes Prevention Program Outcomes Study, which included more than 3,000 patients with prediabetes and was funded by the U.S National Institutes of Health.

People in that trial were randomly assigned to one of three groups: one group was asked to make lifestyle changes; a second group was given the drug [metformin](#), which lowers blood sugar; and the third group was given an inactive placebo. The goal of the program was for participants to reduce their blood sugar levels to a normal range.

The new study looked at these individuals years later to see if the gains they made during the trial were maintained.

The researchers found that patients who were able to return to normal blood sugar levels, even for a short period, could prevent or slow progression to full type 2 diabetes.

People who reduced their blood sugar had a 56 percent reduction in progression to diabetes during nearly six years of follow-up regardless of how those normal blood sugar levels were achieved and even when it was only for a short time, the researchers found.

It didn't matter how people got back to normal, whether with diet and exercise or with metformin or placebo, Perreault said. As long as they went back to normal they had the benefit, she noted.

Dr. Natalia Yakubovich, an assistant professor at McMaster University in Hamilton, Ontario, and co-author of an accompanying journal editorial, said that "if these findings are confirmed in other studies, an ability to regress to normal glucose regulation can help identify people at lower risk of developing diabetes, while those people who do not regress despite conventional therapies might need to be treated more aggressively to prevent diabetes."

However, she added, "whether the regression improves other long-term health care outcomes such as heart disease, kidney disease or blindness is currently unknown and needs further study."

Another expert, Dr. Joel Zonszein, a professor of clinical medicine at Albert Einstein College of Medicine and a physician at the Clinical Diabetes Center at Montefiore Medical Center, both in New York City, added that "the analysis stresses the significant long-term reduction in diabetes risk when someone with prediabetes returns to [normal blood-sugar levels], supporting a shift in the standard of care to early and aggressive glucose-lowering treatment in patients at highest risk.

"My recommendation for my patients with early [diabetes](#) is therapeutic lifestyle changes plus aggressive anti-diabetic agents [often in combination]," he said.

This study supports the idea that early and aggressive glucose-lowering not only prevents complications, but also may preserve insulin function, thus requiring fewer medications later, Zonszein said.

Dr. Minisha Sood, an endocrinologist at Lenox Hill Hospital in New York City, noted that it is currently the standard of care to treat prediabetes with [lifestyle changes](#) and in some cases metformin.

"Early control and regression to normal glucose levels does confer benefit," she said.

Medicare and private insurance typically provide coverage for blood sugar testing and for medications.

**More information:** For more about [prediabetes](#), visit the American Diabetes Association.

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