

To Reverse Prediabetes do just 150 Minutes of Exercise a Week

Engaging in physical activity for over 150 minutes per week can significantly reduce the progression from prediabetes to [type 2 diabetes](#).



Study

With the aim of promoting public health through these strategies, the current study was designed to identify factors associated with the reversion of prediabetes to [normoglycemia](#) (normal blood glucose level) in adult individuals living with prediabetes.

The study involved a total of 130 prediabetic adults who participated in a cardiovascular risk program at a referral center in Cali, Colombia, between 2019 and 2023. Medical records of participants were analyzed to obtain information on sociodemographic and clinical characteristics. All participants received quarterly, multidisciplinary assessments including internal medicine, nutrition, psychology, and [physiotherapy](#). Physical activity was measured using the International Physical Activity Questionnaire (IPAQ). Dietary guidance was individualized, and a weight loss goal of 7% was targeted for overweight or obese individuals.

Results

The evaluation of [prediabetic adults](#) revealed that reversion of prediabetes to normoglycemia occurred in 21.5% of cases, prediabetes persisted in 64.6% of cases, and progression to type 2 diabetes occurred in 13.8% of cases over the 366-day study follow-up period.

The study identified age, [body mass index](#) (BMI), and glycated hemoglobin as potent predictors of the probability of prediabetes to normoglycemia reversion in the initial (bivariate) analysis. Participants aged 60 years or above, those with a BMI of over 25, and individuals with a glycated hemoglobin level of over 6% had a 59%, 67%, and 74% lower probability of restoring their normal blood glucose levels, respectively. However, in the final (multivariate) model, only BMI and glycated hemoglobin remained statistically significant predictors of reversion, while age was not significant after adjustment for other factors.

Among modifiable risk factors, physical activity exhibited a significant positive impact, and glycated [hemoglobin](#) and BMI exhibited a negative effect on the likelihood of reversing prediabetes to normoglycemia. Performing physical activity for at least 150 minutes per week (as validated by the IPAQ) was found to increase the probability by 4.15 times. In contrast, a glycated hemoglobin level of over 6% and a BMI of over 25 were found to reduce the likelihood by 86% and 75%, respectively.

Additionally, the study assessed the glucose/[triglyceride index](#) as a marker of insulin resistance, finding that a higher index was associated with a lower likelihood of prediabetes reversal. This marker may be a cost-effective tool for risk assessment in resource-limited settings.

Conclusion

The study highlights the importance of engaging in regular physical activity in reducing the risk of prediabetes progressing to type 2 diabetes. According to the study findings, excessive [body weight gain](#) and poor glycemic control are the two major factors that can significantly prevent the reversion of prediabetes to normoglycemia in prediabetic adults.

The participants in this study underwent specialist-conducted periodic assessment sessions in internal medicine, [nutrition](#), psychology, and physiotherapy, and received group education from healthcare professionals. These non-pharmacological strategies are known to have a significant positive impact on disease management and health promotion. The program included quarterly clinical and laboratory evaluations, as well as ongoing education on healthy eating, physical activity, and cardiovascular risk management.

Prediabetes is a preventable health condition that can be cost-effectively managed through non-pharmacological initiatives, including educational interventions, multidisciplinary follow-up, weight loss plans, nutritional recommendations, and physical activity training. The current study findings support this notion and contribute to public [health management](#) programs.

Glycated hemoglobin is a reliable marker of glycemic control over the preceding three months, considered a better predictor of cardiometabolic risk compared to other markers of glycemic control, such as fasting blood glucose levels. The study defined reversal to normoglycemia based on an HbA1c level of less than 5.7% and a fasting plasma glucose level of less than 100 mg/dL, using these as primary outcome criteria. Using this reliable marker, the current study reports that maintaining glycated hemoglobin levels at 6% or less can be beneficial for prediabetic adults in terms of restricting [disease progression](#).

Overall, the scientific evidence provided by the study regarding factors associated with prediabetes persistence and progression would facilitate policymakers in developing policies aimed at reducing disease burden and promoting public health. However, as a single-center, retrospective study with a relatively short [follow-up period](#), the findings should be interpreted with caution regarding their generalizability.

More population-based, large-scale studies with longer follow-up durations are needed to further expand these findings and more conclusively understand the causal association of these factors with [diabetes](#) management.

Source:

<https://www.news-medical.net/news/20250629/Just-150-minutes-of-exercise-a-week-could-reverse-prediabetes.aspx>