

After Diagnosis of Impaired Glucose Tolerance and Risk of Long-Term Death and Vascular Complications Status in Non-Diabetic

A team of researchers in China examined whether the years an individual retained the non-diabetic status after an initial diagnosis of [impaired glucose tolerance](#) (IGT) was associated with the risk of long-term outcomes such as cardiovascular disease or death.



Study

In the present study, the researchers analyzed post hoc data from the Da Qing Diabetes Prevention Study (DQDPS), which involved a six-year-long [lifestyle intervention](#) trial among individuals diagnosed with impaired glucose tolerance.

Here, the researchers used the data for 540 individuals enrolled in the DQDPS to determine the long-term risk of macro- and [microvascular disease](#) and mortality associated with non-diabetic status at two, four, and six years after the impaired glucose tolerance diagnosis.

The original study, DQDPS, enrolled individuals diagnosed with impaired glucose tolerance using an oral glucose tolerance test and conducted an intervention involving lifestyle modifications, with medical assessments conducted every two years to determine any change in the [non-diabetic](#) status.

Those who remained non-diabetic at each [biennial assessment](#) were asked to continue the lifestyle intervention. Lifestyle intervention was discontinued for diabetes patients during any of the assessments.

The long-term outcomes examined in the present study included the risk of cardiovascular disease, which included fatal and non-fatal stroke, [heart failure](#), and coronary heart disease involving fatal or non-fatal myocardial infarction. Composite microvascular disease was also one of the examined outcomes, and it was defined as the combined outcome of neuropathy, nephropathy, and retinopathy.

Retinopathy encompassed proliferative retinopathy, photocoagulation, or retinal disease-related blindness. A wide range of kidney-related diseases, such as renal dialysis, end-stage renal disease, kidney transplant, or [chronic kidney](#) disease-associated death, were included in nephropathy. Neuropathy consists of ulceration, gangrene formation in the foot, ankle, or leg, or amputation.

To assess cardiovascular death rates, the researchers used standardized questionnaire-based interviews with relatives and death certificates or medical records to verify the cause of death. A post hoc statistical analysis was conducted to determine the association between the duration of maintaining non-diabetic status and the risk of long-term [clinical outcomes](#).

Findings

The study found that maintaining a non-diabetic status for several years after being diagnosed with impaired glucose tolerance was associated with a significantly lower risk of cardiovascular complications or [mortality](#). Furthermore, maintaining the non-diabetic status for even four years significantly improved the risk of long-term clinical outcomes.

Individuals who managed to maintain their non-diabetic status for at least four years experienced a 26% reduction in the 30-year risk of macrovascular complications and a 37% and 38% decrease in the risks of microvascular complications and all-cause mortality, respectively. Furthermore, the risk of cardiovascular disease-related mortality was found to be significantly lower in individuals who remained non-diabetic for six years after the impaired glucose tolerance [diagnosis](#).

These findings suggested that for individuals who were at high risk of developing diabetes and had been diagnosed with impaired [glucose](#) tolerance, there was a four-year threshold to implement lifestyle interventions and maintain the non-diabetic status, which could significantly impact long-term outcomes such as cardiovascular disease and mortality. Exceeding this four-year threshold could further improve survival and lower the long-term risk of complications and death.

Conclusion

To summarize, the researchers performed a post hoc analysis of data from a long-term lifestyle [intervention trial](#) conducted among individuals diagnosed with impaired glucose tolerance to determine if the duration for which the non-diabetic status was maintained had an impact on lowering the risk of cardiovascular disease or mortality.

The findings suggested that if the non-diabetic status was maintained for at least four years, individuals who were at high risk of diabetes had a significantly lower risk of macro and microvascular complications and cardiovascular disease-associated mortality. More extended periods of remaining non-diabetes further improved [survival rates](#) and lowered the risk of cardiovascular complications.

Source

<https://www.news-medical.net/news/20240710/Four-years-non-diabetic-status-after-impaired-glucose-tolerance-diagnosis-cuts-cardiovascular-risks.aspx>