

Results from 3 large cohort studies and a recently updated meta-analysis provide additional evidence that higher dietary glycemic index and glycemic load diets are associated with an elevated risk of Type 2 Diabetes.

High glycemic index and glycemic load diets increase the risk of Type 2 Diabetes

Type 2 diabetes (T2D) has been a worldwide public health concern for several decades. It is projected to be the seventh leading cause of death by 2030. Many good studies have shown that a healthy diet and lifestyle can be even more effective at preventing T2D than medical or pharmaceutical interventions.

In a recent study published online in the *American Journal of Clinical Nutrition*, researchers examined the association of dietary carbohydrate quality, using glycemic index (GI) and glycemic load (GL), and the risk of Type 2 Diabetes.

Researchers followed 164,659 women from 1991-2008 that took part in the Nurses Health Studies I and II, and 40,498 men from the Health Professionals Follow-Up Study. All were free of diabetes, cardiovascular disease and cancer at the beginning of the study periods. Periodic questionnaires were used to analyze diet and lifestyle. The researchers updated a meta-analysis which also included the results from the 3 cohort studies.

After compiling the results of the 3 population studies, it was found that the adults with diets in the highest quintile (20%) of energy-adjusted GI had a 33% higher risk of T2D than those with diets in the lowest 20% of GI. Subjects in the highest GL group had a 10% higher risk of T2D than those in the lowest group. Consumption of a combination diet that was high in GI or GL but low in cereal fiber had a 50% greater risk of T2D. When comparing the highest with lowest categories of GI and GL in the updated meta-analysis researcher found an increased risk of T2D of 19% and 13% respectively.

The results from these studies confirm that consuming a high-GI/GL diet is associated with a higher risk of Type 2 Diabetes, especially when cereal fiber intake is also low.

Shilpa N Bhupathiraju et al. Glycemic index, glycemic load, and risk of type 2 diabetes: results from 3 large US cohorts and an updated meta-analysis. *Am J Clin Nutr*. Published Apr 30, 2014, doi: 10.3945/ajcn.113.079533 [Epub ahead of print]