Decreases in Dietary Glycemic Index Are Related to Weight Loss among Individuals following Therapeutic Diets for Type 2 Diabetes.

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Abstract

This study assessed the effect of changes in glycemic index (GI) and load (GL) on weight loss and glycated hemoglobin (HbA1c) among individuals with type 2 diabetes beginning a vegan diet or diet following the 2003 American Diabetes Association (ADA) recommendations. The study was a 22-wk, randomized trial of 99 participants with type 2 diabetes who were counseled to follow 1 of 2 diet treatments. GI and GL changes were assessed based on 3-d dietary records. The relationships between GI/GL and changes in weight and HbA1c were calculated. In an intention-to-treat analysis (n = 99), the vegan group reduced GI to a greater extent than the ADA group (P < 0.05), but GL was reduced further in the ADA than the vegan group (P < 0.001). GI predicted changes in weight (P = 0.001), adjusting for changes in fiber, carbohydrate, fat, alcohol, energy intake, steps per day, group, and demographics, such that for every point decrease in GI, participants lost $\sim 0.2$ kg (0.44 lb). GI was not a predictor for changes in HbA1c after controlling for weight loss (P = 0.33). Weight loss was a predictor of changes in HbA1c (P = 0.047). GL was not related to weight loss or changes in HbA1c. A low-GI diet appears to be one of the determinants of success of a vegan or ADA diet in reducing body weight among people with type 2 diabetes. The reduction of body weight, in turn, was predictive of decreasing HbA1c.

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