High-Glycemic Diet Raises Colorectal Cancer Risk

Increased insulin levels resulting from a diet of high-glycemic foods markedly increased the risk of colorectal cancer in a large sample of American women, according to researchers at the University of California, Los Angeles.*

Well-established research shows that daily consumption of more than five servings of fruits and vegetables high in soluble fiber affords significant protection against chronic diseases such as diabetes and heart disease, as well as cancers of the colon, breast, and prostate. The "fiber hypothesis" suggests that a diet rich in fiber favorably alters gastrointestinal absorption and digestion, by reducing direct carcinogen exposure, preserving antioxidant activity, decreasing tumor-promoting secondary bile acids, and increasing tumor inhibition via short-chain fatty acid synthesis.

The glycemic index measures the rate of carbohydrate absorption by the gastrointestinal tract. High-glycemic foods stimulate a rapid, heightened release of insulin, which has been suggested as a major risk factor for diabetes and cancer. Simple sugars such as pasta and white bread are absorbed rapidly and rank high on the glycemic index, whereas complex carbohydrates such as fruits, vegetables, and whole grains are absorbed slowly and rank low on the index.

The UCLA researchers sought to determine how increased insulin levels caused by a high-glycemic diet affected the risk of contracting colorectal cancer. They prospectively followed nearly 40,000 women for eight years, recording detailed dietary information and noting the incidence of colorectal cancer. The study demonstrated a significantly increased risk of developing colorectal cancer in those who followed a high-glycemic diet. The researchers attributed this enhanced risk to total and non-fiber carbohydrates in the diet.

Blunting the pancreatic secretion of insulin with a diet of low-glycemic foods that are rich in soluble fiber—such as fruits, vegetables, nuts, legumes, and seeds—may pre-empt the development of cancer and metabolic diseases.

—Linda M. Smith, RN

Reference


Low Chromium Tied to Heart Disease, Diabetes Risk

Men with both heart disease and diabetest were found to have low chromium levels compared to healthy control subjects, according to research recently published in the journal Diabetes Care.1

Holistically oriented practitioners have long used the mineral chromium picolinate in the management of their patients with type II diabetes and decreased insulin sensitivity. In 1997, researchers conducted a randomized, placebo-controlled study to determine whether the use of chromium supplements could produce metabolic improvements in 180 men and women with type II diabetes. During this four-month study, the subjects took 100 mcg of chromium, 400 mcg of chromium, or a placebo each day. At the end of the trial, those taking chromium supplements saw a significant decrease in their fasting glucose levels, fasting insulin levels, and two-hour insulin levels, all of which pointed to improved insulin resistance.

In the newly published Diabetes Care study, men with both heart disease and diabetes were found to have low chromium levels via nail analysis. Researchers conducted cross-sectional analysis among men aged 40-75 years who had diabetes (688 patients), men who had diabetes and cardiovascular disease (198 patients), and healthy control patients (361 patients). In a concurrent case-control study, researchers examined 202 men with diabetes who developed heart disease against 361 healthy matched controls. The study authors study found that in both studies, men with diabetes and heart disease had lower levels of chromium when compared to healthy matched controls.

—Edward R. Rosick, DO, MPH, MS

References


Copyright of Life Extension is the property of Life Extension Foundation and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.