

Starchy, high carbohydrate diet associated with recurrence of colon cancer

November 7 2012

Colon cancer survivors whose diet is heavy in complex sugars and carbohydrate-rich foods are far more likely to have a recurrence of the disease than are patients who eat a better balance of foods, a new study by Dana-Farber Cancer Institute researchers indicates.

The connection is especially strong in patients who are overweight or obese, the authors write. More than 1,000 patients with advanced (stage III) [colon cancer](#) participated in the study, one of the first to examine how diet can affect the chances that the disease will recur. The findings are being published online by the [Journal of the National Cancer Institute](#) and will appear later in the journal's print edition.

Although the results point to a potential hazard, for colon cancer patients, of a [high-carbohydrate diet](#), the take-home message is not a conclusive "Eat less sugar," said lead author Jeffrey Meyerhardt, MD, MPH. "Our study certainly supports the idea that diet can impact the progression of colon cancer, and that patients and their doctors should consider this when making post-treatment plans. But further research is needed to confirm our findings."

Recent studies have shown that colorectal cancer survivors whose diet and [activity patterns](#) lead to excess amounts of insulin in the blood have a higher risk of [cancer recurrence](#) and death from the disease. High [insulin levels](#) can be produced by eating too many starchy and sugar-laden foods. In a previous study of advanced-stage colon cancer patients, Meyerhardt and his colleagues found that those with a typical "Western"

diet—marked by high intakes of meat, fat, [refined grains](#), and sugar desserts—were three times more likely to have a cancer recurrence than those whose diets were least Western. The new study was conducted to explore which component of the [Western diet](#) is most responsible for the increased risk of recurrence.

The study involved 1,011 [stage III](#) colon cancer patients who had undergone surgery and participated in a National Cancer Institute-sponsored Cancer and Leukemia Group B clinical trial of follow-up chemotherapy for their disease. Participants reported their dietary intake during and six months after the trial.

Researchers tracked the patients' total carbohydrates, as well as their glycemic index (a measure of how quickly blood sugar levels rise after eating a particular food), and glycemic load (which takes into account the amount of a carbohydrate actually consumed), and looked for a statistical connection between these measures and the recurrence of colon cancer.

They found that participants with the highest dietary levels of glycemic load and carbohydrate intake had an 80 percent increased risk of colon cancer recurrence or death compared with those who had the lowest levels. Among patients who were overweight or obese (had a body mass index above 25 kg/m²), the increase was even greater.

"In light of our and other's research, we theorize that factors including a high glycemic load may stimulate the body's production of insulin," Meyerhardt said. "That, in turn, may increase the proliferation of cells and prevent the natural cell-death process in cancer cells that have metastasized from their original site."

Meyerhardt added that while the study doesn't prove that diets high in glycemic load and carbohydrate intake cause recurrence of colon cancer,

the results strongly suggest that such dietary factors play a role. "Our findings may offer useful guidance for [patients](#) and physicians in ways of improving patient survival after treatment."

Provided by Dana-Farber Cancer Institute

Citation: Starchy, high carbohydrate diet associated with recurrence of colon cancer (2012, November 7) retrieved 19 November 2023 from <https://medicalxpress.com/news/2012-11-starchy-high-carbohydrate-diet-recurrence.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.