

'Western' diet linked to increased risk of colon cancer recurrence

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Colon cancer patients who eat a diet high in red meat, fatty products, refined grains, and desserts — a so-called “Western diet” — may be increasing their chance of disease relapse and early death, report researchers at Dana-Farber Cancer Institute.

The study, published in the Aug. 15 issue of the *Journal of the American Medical Association*, involved 1,009 patients with stage III colon cancer that has been treated with both surgery and chemotherapy. Stage III colon cancer is characterized as being localized to the large bowel area with cancer cells in the lymph nodes near the tumor. The investigators found that those who most closely followed a Western diet were three-and-a-half times more likely to have colon cancer recur than those whose diets were least Western-like.

“We know from previous research that diet and lifestyle influence people’s risk of developing colon cancer,” says the study’s lead author, Jeffrey Meyerhardt, MD, MPH, of Dana-Farber. “This is the first large observation study to focus on the role of diet in recurrence of the disease. Our results suggest that people treated for locally advanced colon cancer can actively improve their odds of survival by their dietary choices.”

The participants, who were enrolled in a large, phase III clinical trial sponsored by the National Cancer Institute of follow-up (“adjuvant”) chemotherapy, had their tumors surgically removed within the two months prior to enrolling in the study. They reported their dietary intake

on specially designed questionnaires at two different time points – during the period they were receiving chemotherapy and six months after the completion of chemotherapy.

Meyerhardt and his colleagues identified two major dietary trends within the group: A “prudent” pattern characterized by high intakes of fruits and vegetables, poultry, and fish, and a “Western” pattern characterized by high amounts of red and processed meats, sweets and desserts, French fries, and refined grains. Participants didn’t fall neatly into one category or the other, but were scored in each by how closely they matched the Western and prudent models.

The survival benefit for those whose diets least resembled the Western pattern held true even after researchers controlled for factors such as gender, age, body mass, degree of cancer spread to lymph nodes, and physical activity level. Investigators do not know why such a diet is associated with a poorer outcome, but speculate that it may be related to increased insulin levels and insulin-like growth factors. Insulin and related growth factors have been linked to the formation and growth of some types of tumors.

In contrast to the negative effect of a Western diet, researchers found that following a prudent-pattern diet did not significantly influence cancer recurrence or mortality. “The message is that patients in this category can improve their prospects by avoiding certain foods,” comments Meyerhardt, who is also an assistant professor of medicine at Harvard Medical School. Meyerhardt adds that more research is needed to better understand what components of diet are most responsible for the study findings, and why.

Source: Dana-Farber Cancer Institute

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