

Dietary patterns may be linked to increased colorectal cancer risk in women

October 24 2011

Researchers may have found a specific dietary pattern linked to levels of C-peptide concentrations that increase a woman's risk for colorectal cancer.

"High red meat intake, fish intake, sugar-sweetened [beverage intake](#), but low coffee, whole grains and high-fat dairy intake, when taken as a whole, seemed to be associated with higher levels of C-peptide in the blood," said Teresa T. Fung, S.D., R.D., professor of nutrition at Simmons College in Boston, who presented the data at the 10th AACR International Conference on Frontiers in [Cancer Prevention Research](#), held Oct. 22-25, 2011.

C-peptide is a marker of [insulin secretion](#) that can be measured in a person's blood. High levels of insulin may promote cell growth and multiplication. One of the major characteristics of cancer is aberrant cell growth. Higher levels of C-peptide, and therefore insulin, may promote [cancer cell growth](#).

"[Colon cancer](#) seems to be one of the cancers that are sensitive to insulin," Fung said. "This research has helped us to put together a fuller picture of what may be going on in terms of mechanisms and the relationship between food and colorectal [cancer risk](#)."

Fung and colleagues surveyed a sample of women every two years about general health information including whether or not they had been diagnosed with colorectal cancer. The researchers also assessed women's

diets in a separate questionnaire mailed to them every four years. The dietary questionnaire listed more than 130 types of foods and asked the women how often they were consuming each type.

After 22 years of follow-up, 985 cases of colorectal cancer and 758 cases of colon cancer were diagnosed among the women. The researchers found that those women who most often consumed high amounts of red meat, fish and sugar-sweetened beverages and low amounts of high-fat dairy, coffee and [whole grains](#) had a 35 percent increased risk for colorectal cancer.

The researchers also compared the dietary information of women who were lean and active with that of women who were overweight and sedentary.

"We found that people who were overweight or inactive seemed more sensitive to this [dietary pattern](#). Their risk for colorectal cancer was much higher than those people who were lean and active," Fung said. "Overweight people are already at risk for insulin resistance. We think that if you then add this unique dietary pattern on top of that, which was associated with higher C-peptide levels, they are much more prone to develop colorectal cancer."

Fung said people should pay attention to the foods they consume for a multitude of health reasons.

"Although avoiding the dietary patterns that we found is not necessarily the most comprehensive way to prevent colorectal cancer, it definitely targets one pathway of the disease," she said.

Provided by American Association for Cancer Research

Citation: Dietary patterns may be linked to increased colorectal cancer risk in women (2011, October 24) retrieved 19 April 2024 from <https://medicalxpress.com/news/2011-10-dietary-patterns-linked-colorectal-cancer.html>

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