

Omega-3 fatty acids may reduce risk of colon cancer

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Long-chain omega-3 fatty acids, primarily found in fish and seafood, may have a role in colorectal cancer prevention, according to results presented at the American Association for Cancer Research Frontiers in Cancer Prevention Research Conference, held Dec. 6-9, 2009, in Houston.

"Experimental data have shown benefits of long-chain [omega-3 fatty acids](#) in colorectal carcinogenesis, ranging from reduced tumor growth, suppression of angiogenesis and inhibition of metastasis," said Sangmi Kim, Ph.D., a postdoctoral fellow at the National Institute of Environmental Health Sciences, Research Triangle Park, N.C. "Our finding of inverse association between dietary intakes of long-chain omega-3 fatty acids and distal large bowel cancer in white participants adds additional support to the hypothesis."

Although experimental and clinical data suggest that long-chain omega-3 fatty acids possess anti-neoplastic properties in the colon, epidemiologic data to date has been inconclusive.

Kim and colleagues studied the link between polyunsaturated fatty acid intake and distal large bowel cancer using data from a population-based control study. They recruited 1,509 white participants (716 cancer cases and 787 controls) and 369 black participants (213 cancer cases and 156 controls) using the State Cancer Registry and Division of Motor Vehicles records.

Nineteen polyunsaturated fatty acids were assessed using a validated food frequency questionnaire, which included 124 questions on food items. The researchers used the questionnaire to collect information on the frequency and amount of foods typically consumed in the past 12 months.

Patients who consumed more long-chain omega-3 fatty acids had a reduced risk of distal large bowel cancer. Compared to the lowest quartile, fat intake in the highest quartile was linked with a 39 percent reduced risk of cancer.

The researchers detected these associations in white participants, but not in black participants.

"We were surprised that the association was not also observed among blacks," Kim said. "We considered several possible explanations but were not able to account for this difference with the data we had. This finding warrants future study, but we should be careful about drawing conclusions about potential racial differences in the benefit from long-chain omega-3 fatty acids from this study."

"An increase in [dietary intake](#) of long-chain omega-3 fatty acids, which mainly come from fish and seafood, may be beneficial in the prevention of distal large [bowel cancer](#)," Kim said.

Source: American Association for [Cancer](#) Research ([news](#) : [web](#))

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