

Avoiding or controlling diabetes may reduce cancer risk and mortality

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Results of the NIH-AARP Diet and Health Study revealed that diabetes is associated with lower risk of prostate cancer in men but with higher risk of other cancers in both men and women. The data, to be presented at the AACR 102nd Annual Meeting 2011, held here April 2-6, also showed an association between diabetes and higher cancer mortality rates.

Previous epidemiologic studies have shown an association between diabetes and an increased risk for cancers including colorectal, liver and pancreas, according to Gabriel Lai, Ph.D., a [cancer prevention](#) fellow at the National Cancer Institute.

"Our results provide further evidence that abnormal insulin and glucose signaling may contribute to cancer initiation and development," he said. "There are myriad benefits from avoiding diabetes through exercise, diet and maintaining a healthy body weight. Our study confirms additional benefits in the form of reduced morbidity and mortality from certain cancers."

Lai and colleagues conducted a prospective study using data from more than 500,000 predominantly white, non-Hispanic men and women aged 50 to 71 years. From 1995 to 1996, the participants completed questionnaires about diet, lifestyle and whether or not they had diabetes. Researchers followed the patients for 11 years.

Results showed that diabetes was associated with an 8 percent increased

risk for cancer among women and a 4 percent decreased risk for men. In previous research, a decreased risk for prostate cancer was associated with diabetes, which researchers believe might be due to the lower [testosterone levels](#) associated with diabetes. After excluding [prostate cancer](#) from their evaluation, Lai and colleagues found that diabetes was associated with a 9 percent increased risk for cancer in men.

As for mortality, diabetes was associated with an 11 percent increased risk in women and a 17 percent increased risk in men.

"These risks appeared independent from other cancer risk factors, such as obesity and cigarette smoking," Lai said.

After evaluating by cancer site, the researchers found diabetes was associated with a significant increase in risk for colon, rectal and liver cancers among men and women. In men, diabetes was associated with an increased risk for pancreatic and bladder cancers; in women, it was associated with an increased risk for stomach, anal and endometrial cancers. No association was found between [diabetes](#) and lung, skin or other cancers.

"Follow-up studies to identify the biologic mechanisms involved should be performed to build upon confirmed findings," Lai said.

Provided by American Association for Cancer Research

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