

High blood sugar levels in older women linked to colorectal cancer

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Elevated blood sugar levels are associated with an increased risk of colorectal cancer, according to a study led by researchers at Albert Einstein College of Medicine of Yeshiva University. The findings, observed in nearly 5,000 postmenopausal women, appear in the Nov. 29 online edition of the *British Journal of Cancer*.

According to the [American Cancer Society](#), colorectal cancer is the third most commonly diagnosed cancer and the third leading cause of cancer death in both men and women in the U.S.

Statistics compiled by the U.S. Centers for Disease Control and Prevention for 2007 (the most recent year for which figures are available) show that 142,672 Americans were diagnosed with colorectal cancer, including 69,917 women; the 53,219 deaths from colorectal cancer that year were divided almost equally between men and women.

The Einstein study involved women who were enrolled in the National Institutes of Health's landmark Women's Health Initiative study. For these women, fasting blood sugar and insulin levels had been measured at baseline (i.e., the start of the study) and then several more times over the next 12 years.

By the end of the 12-year period, 81 of the women had developed colorectal cancer. The researchers found that elevated baseline [glucose levels](#) were associated with increased colorectal cancer risk—and that women in the highest third of baseline glucose levels were nearly twice

as likely to have developed colorectal cancer as women in the lowest third of blood glucose levels. Results were similar when the scientists looked at repeated glucose measurements over time. No association was found between insulin levels and risk for colorectal cancer.

Obesity—usually accompanied by elevated blood levels of insulin and glucose—is a known risk factor for colorectal cancer. Researchers have long suspected that obesity's influence on colorectal cancer risk stems from the elevated [insulin levels](#) it causes. But the Einstein study suggests that obesity's impact on this cancer may be due to elevated glucose levels, or to some factor correlated with elevated glucose levels.

"The next challenge is to find the mechanism by which chronically elevated blood glucose levels may lead to [colorectal cancer](#)," said Geoffrey Kabat, Ph.D., a senior epidemiologist at Einstein and lead author of the paper. "It's possible that elevated glucose levels are linked to increased blood levels of growth factors and inflammatory factors that spur the growth of intestinal polyps, some of which later develop into cancer."

More information: The paper is titled "A Longitudinal Study of Serum Insulin and Glucose Levels in Relation to Colorectal Cancer Risk among Postmenopausal Women."

Provided by Albert Einstein College of Medicine

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