

Clinical trial reveals low-fat diet is associated with reduced pancreatic cancer incidence in overweight women

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In a trailblazing clinical trial, researchers at Baylor College of Medicine have released the findings of the impact a low-fat diet has on pancreatic cancer risk in postmenopausal women. The study appears in the *Journal of the National Cancer Institute*.

The Women's Health Initiative Dietary Modification randomized clinical trial enrolled 48,835 postmenopausal [women](#), aged 50 to 79 years, from 1993 to 1998. All of the women originally involved in the clinical trial had diets consisting of high-fat foods at the time of enrollment. Women in the trial were randomly assigned to either the intervention group or the usual diet comparison group. The goal of the intervention group was to reduce fat intake and increase the intake of vegetables, fruits and grains, with intervention ending in 2005.

Using this cohort, the research team identified a subset 46,200 women and examined the effect of low-fat diets on [pancreatic](#) cancer incidence as a non-primary outcome of this trial.

"Based on previous observational studies, we knew diet may play a role in the risk for pancreatic cancer in both men and women," said Dr. Li Jiao, associate professor of medicine-gastroenterology at Baylor and first and corresponding author on the paper. "However, there has been no clinical trial designed to answer the question on whether changing diet can modify risk of pancreatic cancer. In order to address this question in

the real world, we analyzed the Women's Health Initiative-diet modification cohort, given its large size and long follow-up time. The follow-up for pancreatic cancer is through 2014 for our analysis."

After 15 years of follow-up, 92 pancreatic cases were identified in the intervention group, and 165 in the comparison group. The incidence of pancreatic cancer was lower in the intervention group than in the comparison group (35 per 100,000 versus 41 per 100,000 people per year).

"Our analysis revealed that intervening with a low-fat diet was particularly effective in reducing pancreatic cancer risk in overweight and obese postmenopausal women. Those who were in the [intervention group](#) had significantly reduced risk of pancreatic [cancer](#) compared to the comparison group," said Jiao, who also is a member of the Dan L Duncan Comprehensive Cancer Center at Baylor. "These results are in line with previous observational studies and dietary guidelines, and the clinical trial provides additional evidence that a low-fat diet may be an effective preventative measure for this disease in women. However, our study findings may not be generalizable to men."

Furthermore, reduced risk was not observed in [postmenopausal women](#) with a body mass index of lower than 25kg/m^2 , suggesting these women may have metabolic differences that should be explored in the future. It is noted that the sample size was small in this subgroup analysis.

The research team hopes these results will motivate at-risk women to develop a healthy, balanced diet as a preventative measure against [pancreatic cancer](#) and other inflammatory conditions.

More information: Li Jiao et al. Low-fat Dietary Pattern and Pancreatic Cancer Risk in the Women's Health Initiative Dietary Modification Randomized Controlled Trial, *JNCI: Journal of the*

National Cancer Institute (2017). [DOI: 10.1093/jnci/djx117](https://doi.org/10.1093/jnci/djx117)

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