Public release date: 16-Dec-2006

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Reduced dietary fat intake may decrease breast cancer recurrence

Reducing dietary fat intake may decrease the chance of a breast cancer recurrence in women who have been treated for early-stage breast cancer, according to a randomized, phase III trial in the December 20 issue of the *Journal of the National Cancer Institute*.

The relationship between dietary fat intake and breast cancer is unclear, both for primary breast cancer development and breast cancer recurrence. Rowan T. Chlebowski, M.D., Ph.D., of the Los Angeles Biomedical Research Institute at the Harbor-University of California, Los Angeles Medical Center in Torrance, Calif., and his colleagues set out to determine whether a low-fat diet could prolong relapse-free survival in women with early-stage breast cancer.

Between February 1994 and January 2001, 2,437 women who had been treated for early-stage breast cancer were recruited from the Women 痴 Intervention Nutrition Study (WINS). They were randomly assigned to a dietary intervention group (40%), or a control group (60%). The new study reports an analysis of all information collected as of October 31, 2003 with an average of 5 years of follow-up, when funding for the intervention ceased.

The goal of the dietary intervention was to reduce dietary fat to 15% of total calories. Women in the intervention group attended eight biweekly, 1-hour counseling sessions to learn about a low-fat eating plan, and they kept written records of their daily fat gram intake. Dieticians contacted or met with the women every 3 months, and participants could attend optional monthly dietary group sessions. Women in the control group met with a dietician when they started the trial and were contacted by dieticians every 3 months.

At the beginning of the study, both groups consumed similar amounts of calories from fat 6 to 57 grams of fat per day (about 30% of total calories). After 1 year, the women in the dietary intervention group were consuming an average of 33 g/day (20.3% of total calories) compared with 51 g/day (29.2% of total calories) in the control group. The difference between the two groups was maintained throughout the trial. Average body weight was similar before the trial

started, but 5 years later, the women in the intervention group weighed an average of 6 pounds less than the women in the control group.

Ninety-six of 975 women (9.8%) in the intervention group had some form of relapse, compared with 181 of 1462 women (12.4%) in the control group. The researchers calculate that 38 women would need to adopt such a dietary fat reduction plan to prevent one breast cancer recurrence. "Women in the dietary intervention group had a 24% lower risk of relapse than those in the control group," the authors write.

Their data also suggest that women with hormone receptor \mathbb{E} egative breast cancers may have had the most benefit from the dietary fat reduction, but those results weren \mathfrak{k} statistically significant and will require further confirmation. The authors plan to address these and other questions in ongoing follow-up studies of the women.

They caution that the study relied on self-reports of dietary fat intake. Also, the reduction in body weight in the dietary intervention group may have had an effect on breast cancer recurrence, rather than dietary fat intake on its own.

"The WINS results indicate that a lifestyle intervention designed to reduce dietary fat intake can be successfully implemented in women with early-stage, resected breast cancer receiving conventional cancer management in a multicenter clinical trial setting," the authors write.

In an editorial, Anne C.M. Thiebaut, Victor Kipnis, and colleagues at the National Cancer Institute highlight the study 痴 limitations and note the questions that it raises. They also point out the difficulty of conducting clinical trials of such drastic lifestyle changes. "WINS demonstrates that such trials can be successfully conducted The totality of this evidence will help us better understand the fat 肪 reast cancer connection and ultimately provide more definitive public health recommendations," they write.

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EMBARGOED FOR RELEASE: 16 DECEMBER 2006 12:30 EST

NOTE: This press release and the accompanying article are being made available early to correspond with a presentation at the San Antonio Breast Cancer Symposium.

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Citations:

- Article: Chlebowski RT, Blackburn GL, Thomson CA, Nixon DW, Shapiro A, Hoy MK, et al. Dietary fat reduction and breast cancer outcome: interim efficacy results from the Women's Intervention Nutrition Study (WINS). J Natl Cancer Inst 2006; 98:1767.6.
- Editorial: Thi 饕 aut ACM, Schatzkin A, Ballard-Barbash R, Kipnis V. Dietary Fat and Breast Cancer: Contributions from a Survival Trial. J Natl Cancer Inst 2006; 98:1753.5.

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