

Reduced-Fat, Balanced Diet May Cut Death Risk From Breast Cancer

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Long-term adherence to a reduced-fat diet that includes a robust daily intake of fruits, vegetables, and grains reduces the relative risk for death from breast cancer in postmenopausal women, according to investigators from the landmark Women's Health Initiative (WHI) study.

"A dietary change can favorably influence a woman's risk of dying from breast cancer," summarized lead investigator Rowan Chlebowski, MD, PhD, Los Angeles Biomedical Research Institute, Harbor-UCLA Medical Center, Torrance, California.

This is the first study that provides "randomized controlled trial evidence" that a dietary intervention can reduce the risk of dying from breast cancer, Chlebowski told reporters during a presscast that preceded the presentation of the study at the upcoming meeting of the American Society of Clinical Oncology (ASCO) in Chicago.

In the trial, 48,835 postmenopausal women (aged 50–79 years) who did not have breast cancer and whose intake of fat was about one third or higher of their total daily calories were randomly assigned to a usual-diet group or a dietary intervention group.

The goals of the intervention were to reduce fat intake to 20% of daily calories and to consume daily five servings of vegetables and fruit and six servings of grains.

This dietary intervention significantly reduced fat intake and increased fruit, vegetable, and grain intake. It resulted in a modest weight loss (3%) (for all, $P < .001$), the researchers report.

The dietary intervention lasted for a period of 8.5 years. During that time, there were 8% fewer breast cancers in the intervention group. Deaths from breast cancer were somewhat lower in the intervention group, but the rates were not significantly different, the researchers report. However, deaths after breast cancer (ie, breast cancer followed by death from any cause) were significantly reduced in the intervention group, both during the 8.5 years of intervention and the cumulative follow-up period.

At the presscast, Chlebowski focused on these new results from the longer follow-up. The median follow-up was 19.6 years, during which there were 3374 incident cases of breast cancer among all participants. Among the intervention group, there was a statistically significant 21% lower risk for death from breast cancer (breast cancer followed by death attributed to the breast cancer) compared to the usual-diet control participants (hazard ratio [HR], 0.79; 95% confidence interval [CI], 0.64 – 0.97).

Additionally, there was a significant 15% reduction in deaths from all causes after a breast cancer diagnosis in the intervention group (HR, 0.85; 95% CI, 0.74 – 0.96).

Lidia Schapiro, MD, Stanford University, California, who was co-moderator of the presscast, said the prevention study was "very important," despite the fact that the intervention group did not fully achieve the dietary fat-reduction goal of 20% (most women reduced daily consumption to 25% or less of all calories). Clinicians should encourage postmenopausal women "to put fruits, vegetables, and grains on their plates," she said.

"This study shows that diet can make a difference in the risk of dying from breast cancer. This study makes clear there are no downsides, only upsides to a healthier diet, and it adds to a growing volume of studies showing similar positive effects across cancer types," ASCO President Monica M. Bertagnoli, MD, commented in a statement.

However, an expert approached by *Medscape Medical News* had reservations about study results.

Ruth Etzioni, PhD, a biostatistician at Fred Hutchinson Cancer Research Center in Seattle, Washington, pointed out the study's primary endpoint was cancer incidence. The WHI investigators sought to compare incidence of breast cancer among women randomly assigned to intervention and control arms.

But that is not what was then being reported, she said.

"The present study has a different outcome and a different cohort," Etzioni told *Medscape Medical News* in an email.

In the new analysis, the WHI investigators compared the incidence of breast cancer deaths among breast cancer patients diagnosed in intervention and control, Etzioni said.

There's no randomization, even though the cases came from the originally randomized groups. Dr Ruth Etzioni

"There's no randomization, even though the cases came from the originally randomized groups," she observed.

Etzioni asked two pointed questions: "Are they interpreting the results as causal? Is this warranted, given that the study is ultimately observational and not randomized?"

During the presscast, Chlebowski discussed the fact that the new results do not address the primary endpoint. He believes "many people" would see the results regarding deaths from breast cancer as "reliable evidence," given the nearly 20-year follow-up and the fact that the investigators had thoroughly sought out death records.

Stanford's Schapiro said that the results "should be taken seriously," given the extraordinary qualities of the trial, including its length and size.

Which Foods?

Fang Fang Zhang, PhD, nutrition and cancer researcher, Friedman School of Nutrition Science and Policy, Tufts University, Boston, Massachusetts, said the results were "very exciting."

She observed that the new results agree with "consistent" evidence from observational studies that indicate that a healthy diet cuts the risk of developing cancer and of death among cancer patients.

However, it is not apparent "what exactly changed in terms of the food in this study," Zhang told *Medscape Medical News* after examining the study abstract.

The investigators report that total dietary fat among "most" women in the intervention arm was reduced from 32% or more to 25% or less of daily calories. "It would be helpful to know which food groups contributed to this reduction," she said. Was the fat reduction from cutting consumption of processed red meats or of dairy products? she wondered.

Chlebowski told reporters that the fat reduction was a combination of dairy reduction and smaller meat portions, although participants were not counseled to eat less meat.

He also said that, as with all lifestyle interventions, "you don't know which component was important." The broader message of the WHI study is one of "dietary modification rather than any individual component," he said.

Zhang hopes that the published study "provides more information on what food sources contributed to the reduction in total fat.

"Some fats are healthy fats," she continued, citing fats from fish as an example.

"If you just, say, reduce total fat, women can go about that in a lot of different ways," Zhang summarized.

Chlebowski said that among women in the intervention arm, there was an average 3% weight loss, but the weight loss did not affect risk for death.

The fact that there was weight loss is evidence that dietary change actually occurred, he added.

During the presscast, Chlebowski also discussed another analysis from the WHI study, which will also be presented at the upcoming ASCO annual meeting, that focusses on a subgroup of trial participants with poor metabolic factors, such as diabetes and high blood pressure (abstract 1539). This analysis shows that these high-risk groups are even more likely to benefit from the dietary intervention, he commented.

The study was funded by the National Institutes of Health. Chlebowski has worked as a consultant or advisor with Novartis, Pfizer, Genentech, Amgen, AstraZeneca, and Immunomedics. Two other trialists also have financial ties to industry.

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