Healthy diet lowers heart disease risk in breast cancer survivors, study finds

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A new paper in *JNCI Cancer Spectrum* finds that following a healthy diet lowers the risk of cardiovascular disease in breast cancer survivors.
Cardiovascular disease is the top non-breast cancer related cause of death in women with breast cancer. There are more than 3.8 million female breast cancer survivors in the United States. These women are at higher risk for cardiovascular disease than women who have not had breast cancer.

This is likely due to the cardiotoxic effects of breast cancer treatment, as well as common risk factors for both breast cancer and cardiovascular disease, such as aging, lack of exercise, and smoking. Dietary guidance for breast cancer survivors is limited and until recently has been based primarily on research related to cancer prevention.

Researchers used data from the Pathways Study, a prospective cohort study of women diagnosed with invasive breast cancer, to examine associations between diet quality and cardiovascular-related events. The analysis included 3,415 women diagnosed with invasive breast cancer at Kaiser Permanente Northern California between 2005 and 2013 and monitored through 2021.

To assess diet quality, researchers used a scoring system based on the Dietary Approaches to Stop Hypertension (DASH) diet which was developed in the 1990s to manage and treat hypertension. The diet emphasizes fruits, vegetables, whole grains, lean protein, and low-fat dairy. It also limits sodium, red and processed meats, and sugar sweetened beverages.

The diet is similar to that recommended by the American Cancer Society, but also encourages consumption of low-fat dairy and nuts, and discourages sodium. The study evaluated heart health tied to these two diets as well as a plant-based diet, the 2020 Healthy Eating Index, and the alternate Mediterranean diet.

The researchers found that women whose diets were most similar to
DASH at the time of their breast cancer diagnosis had a 47% lower risk of heart failure, a 23% lower risk of arrhythmia, a 23% lower risk of cardiac arrest, a 21% lower risk of valvular heart disease, and a 25% lower risk of venous thromboembolic disease than the women whose diets were least aligned with DASH.

In a closer examination, the researchers found that higher consumption of low-fat dairy reduced the risk for cardiovascular disease-related death, after adjusting for all other food groups. They also found that the relationship between DASH and cardiovascular disease appeared to be modified by the type of chemotherapy treatment a woman received.

For example, women whose treatment included an anthracycline and had diets closely aligned with the diet had a lower risk of cardiovascular disease than women least aligned with DASH, a relationship that was not apparent among women on other types of chemotherapy regimens.

"Our findings suggest that we need to begin talking to breast cancer survivors about the potential heart benefits of the DASH diet," said the paper's lead author, Isaac J. Ergas, Ph.D., a staff scientist at the Kaiser Permanente Division of Research. "We know that breast cancer survivors have an elevated risk for cardiovascular disease, and the diet might be able to help improve the overall health of this population."

The paper is titled "Diet quality and cardiovascular disease risk among breast cancer survivors in the Pathways Study."
