



PATHWAYS

A Study of Breast Cancer Survivorship

A NEWSLETTER FOR STUDY PARTICIPANTS

Fall/Winter 2014

Maintaining weight is a healthy focus for women with breast cancer

Women with breast cancer who maintained their weight were less likely to report changes in their physical abilities following diagnosis, according to the Life After Cancer Epidemiology (LACE) Study.

“People who gained or lost more than 10 percent of their pre-diagnosis body weight both showed physical functional limitations two years after diagnosis,” says Candyce H. Kroenke, ScD, MPH, staff scientist with the Kaiser Permanente Northern California Division of Research and senior author of the study.

Published recently in the *Journal of Cancer Survivorship*, the Kaiser Permanente study is the first to look at the role of weight gain on physical functioning after a breast cancer diagnosis.

About 12 percent of American women will develop invasive breast cancer; fortunately, improvements in treatment have resulted in overall survival rates approaching 90 percent.



Quality of life

“With more and more breast cancer patients surviving their cancer, quality of life has become an important consideration,” Kroenke says.

Researchers studied 1,841 early-stage breast cancer survivors who had provided information on weight and physical function both before and after their diagnosis (two years post-diagnosis, on average).

Study participants completed a questionnaire that asked them to rate their ability to perform various activities of daily living over the past month, such as pushing objects, stooping, crouching, kneeling, lifting, reaching or

extending their arms, and going from sitting to standing.

Overall, obese women (body mass index [BMI] of 30 kg/m² or greater) with breast cancer were twice as likely to report any physical limitations than women who were of normal weight (BMI less than 25 kg/m²). Women who had a 10 percent or greater weight gain following diagnosis were about 80% more likely to report physical limitations than those who stayed within 5 percent of their pre-cancer weight.



Furthermore, among normal-weight women without any other serious health conditions, a large weight loss (10 percent or more of pre-diagnosis weight) was associated with a higher risk of physical limitations, whereas among overweight/obese women, a large weight loss was associated with a possible lower risk of limitations.

“Many women gain weight after a breast cancer diagnosis,” Kroenke says. “The emphasis has been that weight gain is a bad thing, but there are indications that weight loss, which is associated with loss of muscle, can have a negative impact on quality of life.”

Weight and breast cancer

Kroenke noted that overweight or obese women with breast cancer who lose weight in a healthy way may gain some benefits. However, the take-home message from this study is that women with breast cancer should focus on maintaining their weight.

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Cover story continued

“We’re still trying to figure out the differences in implications for those who lose weight in the context of disease compared with those who lose weight intentionally,” Kroenke says. “Our study showed that even among overweight women, major weight loss following a breast cancer diagnosis is generally not recommended. It is possible that weight loss at that time may jeopardize your health.”

A large part of Kroenke’s research portfolio has focused on quality-of-life issues among breast cancer patients. Her study published in *Breast Cancer Research and Treatment* found that high-quality social networks were related to higher quality of life in breast cancer survivors. Another study found that the consumption of high-fat dairy products was linked to poorer breast cancer survival.

Co-authors of the study were Erin Weltzien, Marilyn L. Kwan, PhD, Adrienne Castillo, MS, RD, and Bette J. Caan, DrPH, all of the Kaiser Permanente Division of Research, and Arissa Young, now at Albert Einstein College of Medicine.

By Janet Byron, Senior Communications Specialist, Kaiser Permanente Division of Research ❧

For the most up to date information on the Pathways Study, please visit our website:

<http://pathways.kaiser.org> ❧

New Contact Information?

In order to keep in touch with you we must have your latest contact information. Please let us know if your phone number or home address has changed.

You can reach us by calling our toll-free number:

1-866-206-2979. ❧



PATHWAYS STAFF

Garrett Chin

Garrett Chin was a senior research assistant for Pathways for the past four years. Garrett left in August to pursue a Master’s degree in the department of biomedical sciences at Drexel University in Philadelphia, Pennsylvania. He is thankful for the kindness of all the Pathways participants he spoke with over the years, and continues to be inspired by their determination. When not studying, he enjoys swimming and rock climbing.



Adriana Martinez

Adriana Martinez graduated from the University of California, Berkeley with a degree in Integrative Biology. At Cal, Adriana was a tutor with the Biology Scholars Program (BSP), a program that provides tutoring and advising services for underrepresented groups in the fields of science, technology, math and engineering (STEM). In June, shortly after graduating, she joined us on the Pathways study. In her spare time, Adriana enjoys hiking all over the Bay Area, spending weekends at the beach, and hanging out with her 15-year-old brother.



Julie Pham

Julie Pham is a recent graduate from the University of California, Santa Cruz. She studied Psychology and Cognitive Science, but has a keen interest in the dynamics of research. Recently new to Pathways, she is enjoying getting to know the study and its participants. On her free time, Julie is a “food enthusiast” as she loves trying new cuisines in addition to traveling, crafting, and writing.



COLLABORATOR'S CORNER

by Bette J. Caan, DrPH

As a nutritional epidemiologist at Kaiser Permanente Northern California Division of Research, my work



has primarily focused on nutrition and body size in relation to breast and colorectal cancer; and women's health. Currently, I am the Principal Investigator on several research projects, including the Women's Health Initiative Cancer Survivor Cohort (WHI

CSC) study and the Life After Cancer Epidemiology (LACE) study, both of which examine the effects of modifiable lifestyle factors on recurrence and survival of breast and other cancers. The scope of these studies overlaps with the Pathways study, and led to my involvement with Pathways as a co-investigator since its inception in 2006. My research in breast cancer epidemiology has led to some exciting and informative findings. For example, in a study of soy intake and breast cancer survivors, we found that soy isoflavones consumed at levels comparable to those in Asian populations may be counter to what was previously thought. We found that isoflavones actually reduced the risk of cancer recurrence in women receiving tamoxifen and does not interfere with the benefits of tamoxifen. In looking at dietary patterns in breast cancer survivors, we found that women diagnosed with early-stage breast cancer might improve their overall survival by adopting more healthful food intake patterns—such as consuming high amounts of fruits, vegetables and whole grains, as opposed to a typical Western diet high in red meat, refined grains, and high-fat foods. Additionally, and perhaps counterintuitively, in studying weight and body composition, we found that while being overweight and mildly obese is related to developing breast cancer, it does not appear to be strongly related to breast cancer progression once someone gets the disease. As our knowledge base on breast cancer and lifestyle choices continues to grow, it's important to not only share our findings but to also use them in our everyday lives. I work every day to incorporate these healthy practices into my lifestyle. In addition to eating plenty of fruits and vegetables, I stay active by hiking the trails on Mt. Tamalpais and participating regularly in my favorite spin class—where the music is all oldies from the 50s and 60s. ☒

Pathways Study Update

The Pathways Study continues to be one of the major research studies examining factors that affect breast cancer prognosis. As you may know, we are in the final year of current funding of this grant from the National Cancer Institute. With completion of enrollment of our cohort of 4,505 women, the next several years will provide the greatest insight into how lifestyle choices, medical care, and other factors influence likelihood of recurrence and survival.

To build upon your important contributions to the Pathways Study, and to realize the study's full potential, we are applying for a grant to continue the Pathways Study for an additional five years. Although our first submission, reviewed in late October, is unlikely to be funded, we are planning a resubmission in March that will hopefully result in continued funding.

If we are funded, we plan to continue to follow all of you for the next several years, to check in and to see how your food or other lifestyle choices have changed. We also hope to collect a blood sample—we will ask again for your permission to do so—and conduct other activities that will make the Pathways Study and its rich resources available to the broader research community.

Thank you once again for your ongoing contributions to one of the best studies of breast cancer prognosis and survivorship. And we'll definitely keep you informed on the status of the study! ☒

Pathways Update: Who is Participating?

BASELINE INTERVIEW
4,505 completed

6 MONTH FOLLOW-UP
2,905 completed

12 MONTH FOLLOW-UP
3,910 completed

24 MONTH FOLLOW-UP
2,607 completed

48 MONTH FOLLOW-UP
2,510 completed

72 MONTH FOLLOW-UP
1,171 completed

96 MONTH FOLLOW-UP
383 completed





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