



PATHWAYS

A Study of Breast Cancer Survivorship

A NEWSLETTER FOR STUDY PARTICIPANTS

WINTER 2025

Breast Cancer, Diet, and Heart Health: How the Pathways Study is Informing Lifestyle Medicine

On October 29, 2024, Zero Breast Cancer at Collaborative for Health & Environment (CHE) and Kaiser Permanente



Northern California Division of Research hosted the 4th Pathways Forum, “Breast cancer, diet and heart health: How the Pathways Study is informing Lifestyle Medicine.” Researcher Isaac Ergas, PhD, (Kaiser Permanente Northern California Division of Research) shared Pathways Study findings and clinician Robin Zwerling-Baltrushes, MD, (Kaiser Permanente Oakland) spoke about Lifestyle Medicine. Lianna Hartmour, MA, (Zero Breast Cancer at CHE) hosted the Forum and led the Q&A with the two speakers, along with Pathways’ Principal Investigator Larry Kushi, ScD (Kaiser Permanente Northern California Division of Research). You can view the Forum on YouTube using this link: <https://zbclink.org/PathwaysWebinars>.

Pathways Study Findings on the Impact of Diet on Heart Health

With more than 4 million breast cancer survivors in the U.S.—a number projected to grow to 5 million by 2030—there is an urgent need to address the elevated risk of cardiovascular and cardiometabolic diseases faced by survivors. These risks stem from breast cancer treatments that are toxic for the heart and risk factors that overlap for breast cancer and heart disease. Cardiovascular and cardiometabolic diseases are among the leading causes of death for breast cancer survivors.

The Pathways Study is well-positioned to explore this topic as an ongoing prospective study that follows over 4,500

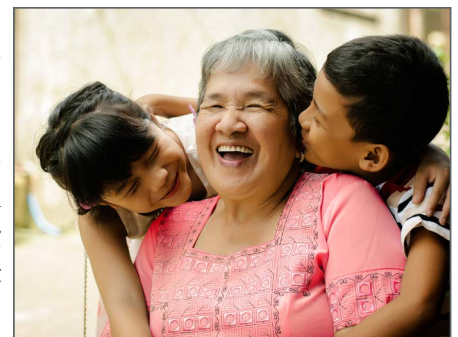
women diagnosed with invasive breast cancer at Kaiser Permanente Northern California between 2005 and 2013. The study investigates many areas related to lifestyle and genetic factors that influence outcomes after diagnosis.

In the diet and heart health study, Dr. Ergas and colleagues analyzed data from 3,415 participants to examine the role of diet quality at diagnosis on cardiovascular and cardiometabolic outcomes. They used five healthy dietary recommendations: Dietary Approaches to Stop Hypertension (DASH), Healthy Eating Index (HEI), American Cancer Society Nutrition Guidelines, Healthy Plant-Based Dietary Index, and Alternate Mediterranean Diet.

Common features of these high-quality dietary patterns include a focus on fruits, vegetables, whole grains, nuts, and legumes, while discouraging red and processed meats and added sugars. The DASH and HEI diets also focus on limiting sodium and promoting low-fat dairy, in the case of DASH, and total dairy, in the case of HEI.

The key findings included:

1. **Cardiovascular Outcomes:** Healthier diets at diagnosis were associated with a 25-50% lower risk of heart failure, arrhythmia, cardiac arrest, valvular heart disease, and venous thromboembolic disease. The DASH diet showed the strongest link in protecting against heart disease.
2. **Cardiometabolic Outcomes:** Healthier diets at diagnosis were associated with a 30-40% lower risk of hypertension, diabetes, and dyslipidemia. The HEI showed the strongest link in protecting against heart disease.



Continued inside

The findings underscore the importance of integrating diet quality assessments into clinical practice at the time of diagnosis and supporting continuous diet monitoring and improvement throughout the survivorship period. These results also contribute to the growing evidence base for Lifestyle Medicine, emphasizing the role of healthy eating patterns in reducing the burden of cardiovascular and cardiometabolic diseases.

Breast Cancer Survivorship and Lifestyle Medicine

When integrated into breast cancer survivorship care, Lifestyle Medicine improves long-term health outcomes for survivors. Lifestyle Medicine is an evidence-based approach that emphasizes healthy behaviors—such as diet, physical activity, stress management, and more—to prevent, treat, and potentially reverse chronic conditions. While there is nothing that can guarantee someone won't get breast cancer, have a recurrence, or experience another chronic disease, there are steps that can be taken to make it less likely.

The six pillars of Lifestyle Medicine are:

1. **Physical Activity:** Regular exercise decreases the risk of diseases, including breast cancer, and promotes mental health, stronger bones, and improved mobility. It is recommended that adults participate in 150 minutes of moderate-intensity physical activity each week. Despite its importance, fewer than half of adults meet the recommended levels of physical activity.
2. **Healthful Eating:** A fiber-rich, nutrient-dense diet based on whole, minimally processed plant foods reduces chronic disease risk and improves energy, immune function, and cancer prevention, including reduced recurrence of breast cancer.
3. **Avoidance of Risky Substances:** Reducing or eliminating harmful substances such as tobacco and alcohol significantly decreases risks of cancer, heart disease, and other health conditions. Quitting smoking improves lung and heart function, while reducing alcohol intake minimizes risks of liver damage, brain disorders, and injury.
4. **Stress Management:** Incorporating stress-reduction techniques is vital for holistic health, as chronic stress contributes to mental and physical health



issues. Practices like mindfulness and meditation enhance resilience and mental well-being.

5. **Positive Relationships:** Strong social connections lower the risk of premature death by 50% and reduce depression and anxiety. Supportive relationships help manage chronic conditions, including high blood pressure.



6. **Sleep:** Achieving 7–9 hours of quality sleep nightly supports better energy, focus, mood, metabolism, and weight management. Insufficient sleep correlates with higher risks of chronic conditions and unhealthy behaviors.

A Lifestyle Medicine approach demonstrates how proactive lifestyle changes can mitigate the long-term health risks faced by breast cancer survivors while promoting preventive care for chronic diseases. Adopting Lifestyle Medicine principles in daily life and survivorship care has the potential to enhance overall health, longevity, and quality of life. ☒

Review the **KP Lifestyle Medicine website:**

kpdoc.org/lifestylemedicine

Ready for Personalized Support?

Any time after active treatment has ended, breast cancer survivors who live in Northern California are invited to apply for Zero Breast Cancer at CHE's Resilient Me Health & Wellness Coaching program. Participants receive 12 weeks of free 1:1 sessions with a certified health coach to work on developing habits in one or more of the following areas: physical activity, diet, stress management, sleep, and/or limiting exposure to toxic chemicals. Learn more and apply at <https://zerobreastcancer.org/resilientme>.



The **KP Breast Cancer Survivorship Class** is a one-time class offered online every month that discusses the following issues:

- Fear of recurrence and strategies to cope
- Lifestyle choices that may reduce risk of recurrence
- Possible late and long-term side effects of cancer treatment
- Sexual and health & intimacy in the cancer survivor
- Moving forward toward a “new normal”

<https://forms.office.com/r/sAQSuYvKr>

Classes meet via Zoom the 3rd Tuesday of every month from 4:15 to 5:30 p.m. PT.

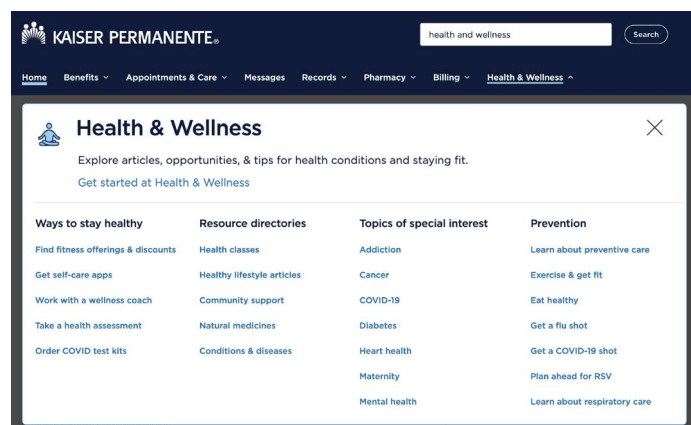
Thrive Beyond Cancer: Nutrition Class (KP)

This online class is designed for those who have completed active treatment. We discuss AICR 10 recommendations, sugar, soy, and dairy antioxidants, phytochemicals, and the benefits of a plant-based diet.

Classes meet online the 1st Tuesdays of every month from 4 to 5 p.m. PT. To register call the SF Nutrition Clinic at (415) 833-6352.



KP Digital Tools and Offerings!
Log in to your kp.org account
to see what else is available to you:



Save the Date!

Upcoming Pathways Forum on Bone Health
March 6, 2025, 12:00 p.m.-1:00 p.m. PT

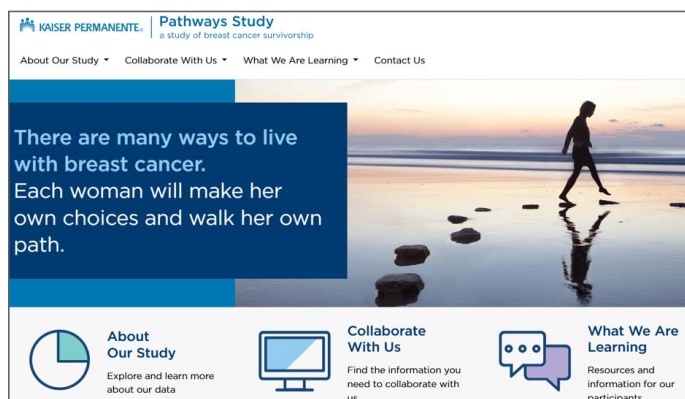
Pathways Update – Who Is Participating?

Baseline Interview
4,504 completed

FU9 Follow-Up
1,509 completed

We are grateful for your role in Pathways. All of you add meaning and diversity to our team and contribute your unique perspective to the information we are gathering. Thank you for continuing to participate! ✨

For the most up to date information on the Pathways study, please visit our new and improved website. With input from our Pathways Community Advisory Board, our existing URL (pathways.kaiser.org) now redirects to the updated Pathways website, which is here: <https://thepathwaysstudy.org>



The Pathways Study website is designed to serve as a comprehensive resource for researchers, clinicians, and the public. The site features detailed descriptions of the study and its staff, data visualizations, access to the data center, and updates on news, newsletters, publications, and webinars. This platform seeks to enhance engagement with the study and support broader dissemination of study findings to inform breast cancer survivorship care. There is also a new section in development that will allow future collaborators to seamlessly explore, request, and analyze deidentified study data. ✨

New Contact Information?

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 or email us at dor-pathways@kp.org. ✨





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