

Heart Health & Breast Cancer

Facts for people who have had breast cancer and those who care for them



Did my breast cancer treatments weaken my heart or make me prone to heart issues?



People who have had breast cancer are living longer than ever before. By eight years after a breast cancer diagnosis, people without metastatic disease are more likely to die from heart disease than breast cancer. Breast cancer treatment can increase the risk of some diseases of the heart or blood vessels, known as cardiovascular diseases or CVD.

Who is at risk?

CVD and breast cancer share many risk factors. A family history, our genes, and getting older increase the risk of both. Ester had a mild heart problem and a family history of high blood pressure before she was diagnosed with breast cancer. Then, two years after finishing cancer treatment, she suddenly started getting tired and out of breath. Read on for Ester's story.

People who have been diagnosed with breast cancer are more likely to develop high blood pressure and diabetes. Those who have high blood pressure or diabetes before breast cancer have twice the risk of heart problems after breast cancer. Some risk factors for both CVD and breast cancer that we have some control over include not getting enough physical activity, eating lots of red meat, drinking too much alcohol, and smoking or vaping tobacco.

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breast cancer



Breast Cancer Treatment and CVD

Breast cancer treatments, such as chemotherapy, radiation, and medicines, can also impact heart health, even years later. Another survivor, Paula, wondered “Did my breast cancer treatments weaken my heart or make me prone to heart issues?”

Zero Breast Cancer research partners, Dr. Heather Greenlee of the Fred Hutchinson Cancer Research Center and Dr. Marilyn Kwan at Kaiser Permanente Northern California’s Division of Research, have been

leading a study of CVD in women who have had breast cancer compared to those who have not. They found that:

- **If you had chemo**, you are more likely to develop a problem where the heart doesn’t pump blood as well as it should (congestive heart failure), diseases of the heart muscle (cardiomyopathy), or a blood clot that starts in a vein (venous thromboembolism).
- **If you had radiation on your left side**, you are more likely to develop problems with the heart’s pumping (congestive heart failure) or a blood clot that starts in a vein (venous thromboembolism).
- **If you had hormonal therapy (like tamoxifen or Arimidex®)**, you are more likely to have your heart stop pumping (cardiac arrest or a heart attack) or develop a blood clot that starts in a vein (venous thromboembolism).

After surgery, Ester had chemotherapy, then radiation. Her doctors warned her about possible side effects, including harm to the heart, but she didn’t have more tests since they’d been done in the last few years. It is common to do heart tests (like an EKG/ECG or an echocardiogram) before cancer treatment to determine which drugs are most appropriate, and during and/or after treatment to look for any damage.

Radiation can harden or stiffen the heart tissue and chemotherapy drugs can damage the heart. A common chemotherapy drug, doxorubicin (Adriamycin®), is known to increase the likelihood of heart problems. It can cause changes in heart rhythm (arrhythmias) or reduce the pumping action (heart failure). Trastuzumab (Herceptin®), used to treat HER2-positive breast cancers (about 1 in every 4 breast cancers), can cause heart muscle damage and heart failure. These problems usually go away when a person stops taking it.

The risk of heart problems and of breast cancer can be affected by other things, like air pollution from traffic and smoke where we live, work and play — our social and built environment. Drs. Salma Shariff-Marco and Scarlett Lin Gomez, our partners at the University of California–San Francisco, are exploring how our social and built environments impact CVD risk after breast cancer. These scientists are working to predict who is likely to have heart problems from their breast cancer treatment. This will help improve prevention and treatment of both.

What are CVD Symptoms and Signs?

Common warning signs of heart problems are:

- Shortness of breath (with activity or lying down)
- Swelling of feet and lower legs (edema)
- Feeling weak or dizzy
- Fatigue
- Chest pain

Women are also likely to feel that their heart is beating irregularly, very fast, or forcefully in their chest, nausea/vomiting, and/or back or jaw pain. You can learn about common heart conditions from the American Heart Association (heart.org).

If you have concerns about your heart health, talk to your doctor or nurse. Ester’s advice is “Learn as much as you can about your condition; do not be afraid to ask questions.” For help talking to a doctor and asking questions, go to zbclink.org/talk2doc.

Reducing Heart Disease Risk and Healing

Healthy habits can keep your heart strong, reduce your risk of a breast cancer recurrence, and help your heart heal if you have a heart condition:

- **Be active and move often**
- **Eat healthy foods**
- **Don’t smoke or vape tobacco (smokefree.gov)**
- **Limit alcohol**
- **Manage stress**

Some hospitals and health systems have support groups, classes, or programs like cardiac rehabilitation to help us make healthy changes. Sometimes during breast cancer treatment or with other health problems, we may not be able to exercise. On days that we





have some energy, even small amounts of physical activity can help. For those of us who have not been active recently, cancer exercise experts say we should “start low and build slowly;” begin with shorter amounts of easier movement, like walking and light weights. Breast cancer survivors who got 150 minutes of moderate-intensity activity per week (about 20 minutes a day) had far fewer CVD events than those who were not active. Two-minute bursts of vigorous exercise three times a day seem to greatly reduce cancer and CVD deaths.

Eating healthy is also important. Avoiding red meat and eating a low-fat and low-sugar diet of whole grains, vegetables, and fruits can lower the risk of CVD and breast cancer recurrence. Maintaining a healthy weight is good, however, losing too much weight or too quickly can be a sign of a problem. Check out our blog for advice on eating well and being active at zbclink.org/selfcare1.

Ester had some stress from work, but she was fortunate to live in a safe area and have the time to go for walks. After her breast cancer diagnosis, and again after a heart failure diagnosis and receiving a pacemaker, Ester worked to be healthy for herself and for her family. “I exercise more. My dog is getting more walks — 3 to 6 miles a day!”

Moving more and more often helps to manage stress. So does getting enough sleep (if you need help, check out our sleep blog at zbclink.org/sleep-blog). Other things we can do include deep breathing, meditation or prayer, and having strong relationships. For Ester, a support group was the most helpful when it was scary, after both breast cancer and health failure diagnoses. Find more ways to manage stress in our blog at zbclink.org/selfcare2.

Zero Breast Cancer is a 501(c)3 non-profit organization based in San Rafael, CA.

We envision a world with zero breast cancer.

Learn more at zbclink.org/Factsheets
or contact us at info@zerobreastcancer.org

This factsheet was developed in collaboration with breast cancer survivors and Kaiser Permanente and UCSF scientists.



If you would like to support our work, including developing additional resources for breast cancer survivors, please consider donating at zerobreastcancer.org/donate.