

New Studies Show How Post-Treatment Lifestyle Choices Shape Long-Term Outcomes After Breast Cancer Diagnosis

Young patients can safely breastfeed without increasing the risk of cancer recurrence or new cancer in the opposite breast.

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Three studies led by Dana-Farber Cancer Institute researchers have encouraging implications for patients with breast cancer.

Two studies focus on breastfeeding after breast cancer diagnosis and treatment. The studies found it was safe and feasible for young patients carrying specific genetic variations to breastfeed without raising their risk of a cancer recurrence or a cancer in the other breast, and that it was safe and feasible to breastfeed for patients with hormone receptor-positive (HR+) breast cancer who conceived after a temporary interruption of endocrine therapy. The third study shows that a telephone-based coaching program can significantly increase physical activity in overweight patients, potentially improving their outcomes. The studies were presented at the [European Society of Medical Oncology \(ESMO\) Congress 2024](#) in Barcelona, Spain.

Breastfeeding after breast cancer safe and feasible in survivors of breast cancer

The first study was a collaboration among investigators at 78 hospitals and cancer treatment centers worldwide. It involved 474 patients with inherited mutations in the cancer-susceptibility genes BRCA1 or BRCA2 who became pregnant after being diagnosed with Stage I-III invasive breast cancer at age 40 or younger.

Researchers divided the patients into two groups – those who breastfed after delivering a child and those who did not – and tracked their health over time. At a median of seven years after delivery, there was no difference between the two groups in the incidence of cancer in the region of the original tumor or in the opposite breast. Disease-free survival – how long patients live free of cancer – and overall survival were also the same for the two groups.

The second study provides breastfeeding outcomes from the [POSITIVE trial](#) which demonstrated

early safety of the temporary interruption of endocrine therapy to attempt pregnancy. A key secondary endpoint was breastfeeding outcomes. The study involved 518 patients at age 42 or younger with HR+, Stage I-III breast cancer. Of these patients, 317 went on to have a live birth and 196 chose to breastfeed. Breast conserving surgery was a key factor favoring breastfeeding.

[Prior research](#) led by Dana-Farber has demonstrated that young breast cancer survivors who have breast conserving therapy and then go on to breastfeed can have challenges nursing from the treated breast and need to rely on the opposite unaffected breast to feed the baby.

"These studies provide the first evidence on the safety of breastfeeding after breast cancer in both young patients carrying BRCA variations that predispose to breast cancer, as well as patients who conceived after pausing endocrine therapy," says [Ann Partridge, MD, MPH](#), the founder and director of the Program for Young Adults with Breast Cancer at Dana-Farber, and a senior investigator on the study. "Our findings emphasize the possibility of supporting maternal and infant needs without compromising maternal safety."

Proffered paper session: Supportive and palliative care

- Breastfeeding in women with hormone receptor-positive breast cancer who conceived after temporary interruption of endocrine therapy: Results from the POSITIVE trial ([18140](#))
- Ann Partridge, MD, MPH, Dana-Farber, co-senior investigator

Proffered paper session: Supportive and palliative care

- Breastfeeding after breast cancer in young BRCA carriers: results from an international cohort study ([18150](#))
- Ann Partridge, MD, MPH, Dana-Farber, co-senior investigator

A coaching program for increased exercise

The third study draws on data from the Breast Cancer Weight Loss (BWEL) trial, which is exploring whether participating in a weight loss program after a breast cancer diagnosis can reduce the risk of cancer recurrence in women with a body mass index (BMI) in the overweight or obese range. The BWEL trial randomized 3,180 women with breast cancer to a group that received a telephone-based coaching program focused on reducing calories and increasing exercise combined with health education materials versus health education materials alone.

The study's primary goal is to determine whether the weight loss program reduces the risk of cancer recurrence and secondary aims focus on evaluating whether the weight loss program helps breast cancer survivors to exercise more and eat a healthier diet.

The study, presented at ESMO, looks at changes in exercise in 541 BWEL study participants who took part in a substudy that evaluated their exercise patterns over time. Half of the patients took

part in the weight loss program and the education program, and the other half received educational materials only.

At the time of enrolling in the trial, patients in both groups did very little exercise—a median of zero minutes per week in the health education group and 10 minutes per week in the weight loss group. By six months after enrollment, women receiving the weight loss program increased their weekly exercise by a median 40 minutes and the women in the education group did not increase their exercise at all. Additionally, women taking part in the weight loss program were more likely to exercise at least 150 minutes per week—a level of exercise linked to many health benefits--and less likely to report no exercise at all, as compared to women in the education alone group.

Across all the patients in the study, those who engaged in at least 150 minutes of moderate or vigorous physical activity per week had greater weight loss than those who did not.

“Our results show that a telephone-based weight-loss intervention can motivate this group of patients to be more physically active,” says the study’s first author, [Jennifer Ligibel, MD](#), the Director of the Leonard P. Zakim Center for Integrative Therapies and Healthy Living at Dana-Farber. “We’ll continue to follow these patients to determine whether changes in exercise influence cancer outcomes.”

Mini oral session: Supportive and palliative care

- Effect of a weight loss intervention (WLI) on exercise behaviors in women with breast cancer: Results from the Breast Cancer Weight Loss (BWEL) Trial ([1817MO](#))
- Jennifer Ligibel, MD, Dana-Farber, presenting author

This [news release](#) was published by Dana-Farber Cancer Institute on September 15, 2024.

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