

How Exercise Helps Women with Breast Cancer During Chemotherapy

Women who participated in structured exercise programs experienced significant improvements in quality of life.

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- A new study led by researchers at Sylvester Comprehensive Cancer Center shows that exercise during chemotherapy measurably improves quality of life for women with breast cancer.
- Modern breast cancer treatment has dramatically improved survival rates but imposes a great deal of stress on the body.
- The Sylvester-led team analyzed more than 3,000 women undergoing chemotherapy for breast cancer and found women who participated in structured exercise programs experienced significant improvements in quality of life.

Chemotherapy can feel like life pressed from all sides at once.

For many women with [breast cancer](#), the treatment that saves their lives also brings fatigue that clings like a heavy coat, loss of muscle mass that turns everyday tasks into obstacles and emotional strain that lingers long after each infusion ends. It's a season defined not just by survival, but by how well patients are able to live through it.

A new study led by researchers at [Sylvester Comprehensive Cancer Center](#), part of the University of Miami Miller School of Medicine, shows that exercise during chemotherapy does more than rebuild strength. It measurably improves quality of life while treatment is underway, helping women feel better physically, emotionally and mentally during one of the most demanding chapters of care.

The findings come from a large meta-analysis published in [The Lancet Healthy Longevity](#), which synthesizes results from more than two dozen studies of women receiving chemotherapy for breast cancer.

Quality of Life, Not Just Survival

Modern breast cancer treatment has dramatically improved survival rates. But alongside those gains, clinicians and researchers are increasingly focused on how patients feel during treatment — their energy, mood, mobility and sense of well-being.

“Chemotherapy places stress on every system in the body,” said LaShae Rolle, MPH, CPH, lead author of the study and a predoctoral fellow conducting research at Sylvester. “Quality of life becomes a central outcome during treatment, not something to consider only after it ends.”

[Exercise has long been recommended](#) after cancer treatment, but the evidence for exercising during chemotherapy has been more mixed. That uncertainty often leaves patients unsure whether movement will help or hurt when they are already feeling depleted.

This new analysis helps clarify the picture.

What the Researchers Found

The Sylvester-led team analyzed 21 randomized controlled trials, representing more than 3,000 women undergoing chemotherapy for breast cancer. Rather than focusing on a single type of exercise, they examined a wide range of interventions, including:

Aerobic activity, such as walking or cycling

Strength or resistance training

Combined programs that incorporated both.

Across these studies, women who participated in structured exercise programs experienced significant improvements in quality of life compared with those receiving standard care alone. The benefits were consistent across physical, emotional and mental health domains for quality of life.

“It’s not about pushing through exhaustion,” Rolle said. “It’s about finding movement that supports the body while it’s under strain.”

What Type of Exercise is Best for Breast Cancer Patients During Chemotherapy?

One of the most reassuring findings of the study is that no single type of exercise emerged as the best. Aerobic exercise, strength training and combined programs all led to meaningful improvements in quality of life. There is no one-size-fits-all prescription.

That flexibility is key during chemotherapy, when energy levels can fluctuate day to day.

“Exercise during treatment shouldn’t feel rigid or intimidating,” said [Tracy Crane, PhD, RDN](#), co-author of the study, co-leader of the [Cancer Control Program](#) and director of lifestyle medicine, prevention and digital health at Sylvester and associate professor in the [Division of Medical](#)

[Oncology](#) at the Miller School. “This study reinforces that patients can benefit from many different forms of movement, as long as the approach is safe, personalized and realistic.”

Think of exercise during chemotherapy not as training for performance, but as maintaining motion in a system under stress, keeping joints lubricated, muscles engaged and the mind anchored when everything else feels disrupted.

Why Exercise Helps During Chemotherapy

Chemotherapy is systemic by design. Its effects ripple through muscles, nerves, the cardiovascular system and the brain. Exercise works in the opposite direction, reconnecting those systems through movement.

Research suggests that physical activity during treatment can:

Reduce cancer-related fatigue

Improve physical functioning

Support mental health and emotional well-being

Help patients maintain independence during daily activities.

The meta-analysis confirms that those benefits translate into real improvements in how patients experience treatment.

“Exercise becomes a form of supportive care,” Dr. Crane said. “It’s not about changing the cancer treatment. It’s about improving how patients live through it.”

Notably, the study focused exclusively on women undergoing active chemotherapy, not survivors months or years after treatment. That distinction matters. Exercising during chemotherapy comes with unique challenges, including variability in symptoms, treatment schedules and physical capacity. The findings support existing clinical guidelines that encourage physical activity during treatment, with appropriate supervision and adjustments.

“This evidence gives clinicians greater confidence to recommend exercise during chemotherapy,” Rolle said. “And it reassures patients that movement, at the right level, can be part of their care.”

What This Means for Breast Cancer Patients and Care Teams

Rather than prescribing a rigid routine, the research supports a more patient-centered, flexible approach:

Aerobic, strength or combined exercise can all be beneficial.

Programs should be tailored to symptoms and treatment timing.

Even moderate, consistent movement can make a meaningful difference.

Exercise is not an added burden during chemotherapy. It can be a source of strength.

As cancer care continues to evolve, studies like this help integrate supportive strategies alongside medical treatment as essential components of whole-person care.

“Too often, exercise is treated as an extra during cancer treatment,” said Dr. Crane, “These findings make it clear that moving your body during chemotherapy — whatever that looks like for you — meaningfully improves quality of life for women being treated for breast cancer.”

This [news release](#) was published by the University of Miami Miller School of Medicine on February 25, 2026.