



Weight lifting emerges as an effective weapon to reduce the risk of lymphedema

Bette Weinstein Kaplan

Many women who survive breast cancer are concerned that they will develop breast cancer-related lymphedema (BCRL). The condition often arises when the normal drainage of lymphatic fluid is impaired, either via surgical removal of lymph vessels or lymph nodes in the axilla or as a result of radiation therapy. Those at risk have always been advised not to use the arm on the side of their surgery to lift anything heavy—whether the heavy object is a child or a hefty grocery bag. In light of those precautions, weight lifting was strongly discouraged. As a result, these women reduce or change their activities, usually limiting the benefits of exercise as well. However, a paper presented at the recent San Antonio Breast Cancer Symposium provided evidence to the contrary: breast cancer survivors can indeed benefit from weight lifting programs.¹

WEIGHT LIFTING WORKS

“Lymphedema is a dreaded, common side effect of breast cancer treatment. Women worry that they will recover from their cancer only to be plagued by this condition that often limits their ability to work, maintain their homes, and care for their children or grandchildren. Our study shows that they now have a weapon to reduce their risk of developing lymphedema, and at the same time, reap the many other

health rewards of weight lifting that they have missed out on due to decades of advice to avoid lifting so much as a grocery bag or their purse,” says lead author Kathryn Schmitz, PhD, MPH, associate professor of Epidemiology and Biostatistics and a member of the University of Pennsylvania Medical School’s Abramson Cancer Center.¹

HEARTENING NEWS ABOUT A PERVERSIVE PROBLEM

Having a weapon against developing lymphedema, which is progressive and incurable, and causes uncomfortable swelling and impaired arm functioning, is heartening news for the many breast cancer survivors who are concerned about the condition.^{2,3} Depending on diagnostic and follow-up criteria, the incidence of lymphedema after breast cancer surgery can be as high as 70%.⁴⁻⁶ Although sentinel lymph node biopsy has a lower risk of lymphedema than axillary dissection, one study found a post sentinel lymph node biopsy incidence of 17%.^{7,8}

In an earlier study, Dr. Schmitz and her colleagues had found that among women who had developed lymphedema, exercising with weights actually prevented worsening of their symptoms.⁹ For the current project, the group recruited 154 breast cancer survivors who had breast cancer within the previous 5 years, had at least two lymph nodes removed, and

had no clinical signs of BCRL when they entered the study.

The study groups The researchers gave each study participant a 1-year membership to a nearby fitness center such as the YMCA. For the initial 13 weeks, they met in small groups twice a week for 90-minute sessions. The classes were taught by certified fitness professionals, and the study participants learned proper techniques for using free weights and machines for upper- and lower-body strengthening. If the patients had no change in their arm symptoms, the trainers slowly increased the weights for each exercise. Study participants worked with the trainer for 13 weeks, then exercised on their own for the rest of the 1-year trial but were monitored monthly for changes in arm circumference. They also reported weekly if there were any symptom changes, such as pain or paresthesias. The women in the control group did not change their normal physical activity level.

One year later, with 134 of the participants having completed the study, the proportion of women who experienced incident BCRL onset was 11% in the weight lifting intervention group and 17% in the control group. Overall, the researchers reported that the slowly progressive weight lifting regimen cut participants’ risk of developing lymphedema by 35%.¹

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Women who underwent lymph node removal benefited the most. The risk of developing lymphedema was cut by 70% among participants who had five or more lymph nodes removed. In that group, 22% of the controls developed lymphedema while only 7% of the treatment group developed the condition.

“INSIST ON PHYSICAL THERAPY!”

With breast cancer survival rates ever increasing as a result of newer diagnostic and treatment modalities, Dr. Schmidt offers advice based on her research:

“Gone are the days when women should accept that it is good enough to merely be alive after breast cancer,” she says. “We live in an era when breast cancer is increasingly recognized at an early stage and treated successfully. The 2.4 million breast cancer survivors in the United States deserve to be referred to physical therapy for evaluation of the myriad of arm and shoulder issues they face, which include lymphedema. The remarkable, well-connected sisterhood of survivors should collectively rise up and insist that breast cancer rehabilitation programming become standard of care at all cancer centers across the United States, as it already is in many parts of Europe.” ■

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