

Keep on exercising, researchers advise older breast cancer survivors

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To build and maintain muscle strength, it is best for older breast cancer survivors to follow an ongoing exercise program of resistance and impact training. This advice comes from Jessica Dobek of the Oregon Health and Science University, lead author of a study published in Springer's *Journal of Cancer Survivorship*. Dobek is part of a research team, headed by Dr. Kerri Winters-Stone, that found that the bone benefit from one year of such training could be maintained, even with less exercise, up to a year later, which could help prevent bone fractures in the long run.

Older women form the largest group of breast cancer survivors. They face many challenges in maintaining a healthy body composition and optimal physical functioning due to the combined effects of [cancer treatment](#), aging and reduced physical activity. Cancer treatment is associated with loss of bone density, loss of lean body mass and increases in body fat. The associated changes in body composition place older breast cancer survivors at higher risk of obesity-related disease, [breast cancer recurrence](#), frailty and fractures.

Exercise is one way in which to combat the side effects and long-term effects of cancer treatment. In previous research, Dobek and Winters-Stone found that a one-year-long exercise regimen of resistance and impact training helped build muscle strength and stopped bone loss among a group of breast cancer survivors. As they wanted to determine if these benefits continued or were reversed after completing the intervention, follow-up assessments were done one year later on 44

women who were part of the original study. Their bone mineral density of the hip and spine, muscle mass, fat mass and maximal upper and lower body strength were measured.

Their follow-up study is the first to report on long-term changes in [body composition](#) and muscle strength in older breast cancer survivors who had previously participated in a supervised resistance and impact training intervention trial.

They found that spine [bone mineral density](#) can be preserved in older breast cancer survivors even after formal exercise training stops. Some women continued to engage in exercise, albeit at a lower level, in the year after formal training stopped while others stopped exercising altogether. The sustained prevention of bone loss through moderate levels of exercise might translate to fewer fractures in later life. On the other hand, the findings also show that [muscle strength](#) declined more quickly than [bone density](#) and may require continued participation in a supervised exercise program where the degree of effort can be sustained at a higher level.

"Exercise programs aimed at improving musculoskeletal health should be considered in the long-term care plan for [breast cancer survivors](#)," advises Dobek. "Though further work is needed, our results may provide a beginning knowledge about the type, volume and length of exercise training needed to preserve bone health among long-term cancer survivors at risk of fracture."

More information: Dobek, J., Winters-Stone, K.M. et al (2013). Musculoskeletal changes after 1 year of exercise in older breast cancer survivors, Journal of Cancer Survivorship. [DOI: 10.1007/s11764-013-0313-7](#)

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