

# BREAST CANCER AND EXERCISE

## HOW DOES EXERCISE HELP SURVIVORS OF BREAST CANCER?

More than 17,500 Australian men and women are diagnosed with breast cancer each year; 90% will be disease-free five years after their diagnosis (1). Exercise plays an important role in the treatment of, and recovery from, breast cancer, through reducing the number and severity of treatment-related side effects and symptoms (such as pain, fatigue, sleep disturbances, and cognitive impairment), as well as improving or maintaining function during and after treatment. High quality evidence also shows that being physically active (that is, participating in 150+ minutes of moderate-intensity physical activity per week) after a breast cancer diagnosis is associated with reduced risk of recurrence, reduced risk of developing other chronic diseases, and better overall survival (2-5).

- Aerobic- and resistance-based (muscle strengthening) exercise is safe and beneficial. Findings suggest that individuals should be encouraged to participate in their preferred exercise unless clearly contraindicated (e.g. if there is risk of fractures or infection).
- Moderate-intensity exercise (enough to “puff” or the ability to “talk but not sing”) is recommended. Those who are currently sedentary or engage in irregular and/or low levels of weekly physical activity should be encouraged to take up regular exercise by starting with sessions of short duration (that is, less than 20 minutes) at low to moderate intensity, and to progress gradually (increase duration and/or intensity slowly and according to symptom control and fitness and functional adaptations). For those who are already regularly exercising and have good symptom control (or no disease- or treatment-related side effects or symptoms), exercise at high intensity is also likely safe (assuming appropriate progression to this intensity has occurred) and beneficial (can lead to greater fitness and functional gains); importantly, high intensity exercise need not be discouraged.
- Current guidelines recommend maintaining, or building up to, 150 minutes of exercise each week. Exercise can be done in sessions as short as 10 minutes and should include either or both aerobic- and resistance-based exercises. It is best to spread exercise sessions out across the week (e.g. 30 minutes on 5 days of the week). Depending on the intensity of the resistance-based exercise, it may be necessary to avoid doing resistance-based exercises on consecutive days. Additional benefits may be gained by exercising for up to 300 minutes each week, but it is important to progress towards this amount gradually.





- Being diagnosed and treated for breast cancer presents additional barriers to participating in regular exercise. Fear of worsening symptoms (including lymphoedema and fatigue), discomfort from wigs, skin irritation from radiation or compression garments, hot flushes or discouragement from not seeing improvements represent just some of the barriers to participating in regular exercise. However, with discussion and support from health professionals, research has shown that barriers can be overcome through goal setting and problem solving. Further, appropriate exercise prescription leads to a reduction in number and severity of side effects; a sedentary lifestyle increases frequency, duration and severity of side effects.
- The supervision required during exercise depends on exercise history, the timing with respect to diagnosis, and the presence and intensity of treatment-related side effects. Whilst many individuals can safely exercise during or following treatment for breast cancer without supervision, support from a qualified health professional (e.g. Physiotherapist/Accredited Exercise Physiologist) may assist with the successful commencement and maintenance of an exercise program. Behaviour change strategies, advice regarding modifications to account for exercise preferences and barriers, and motivation may be particularly important for breast cancer survivors during active treatment when the frequency and type of side effects are likely to fluctuate. Those who have a preference for a particular type or intensity of exercise outside of the general guidelines are encouraged to discuss the need for any risk management with a health or exercise professional.

The body of evidence in support of exercise post-breast cancer is consistent and overwhelmingly positive. All those diagnosed with breast cancer should be encouraged to integrate exercise as part of their short- and longer-term treatment and given as much support as is needed to enable this to happen (whether that be referral to an exercise specialist, standard questioning as part of follow-up care regarding their weekly physical activity levels, and/or ongoing encouragement and support to become and stay physically active during and beyond their treatment for breast cancer).



## RELATED INFORMATION AND REFERENCES

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Exercise is Medicine Australia [www.exerciseismedicine.org.au](http://www.exerciseismedicine.org.au)  
 Exercise Right [www.exerciseright.com.au](http://www.exerciseright.com.au)  
 Find a Physiotherapist [www.choose.physio](http://www.choose.physio)  
 Find an Accredited Exercise Physiologist [www.essa.org.au](http://www.essa.org.au)

If you have any concerns about the safety of your patient in commencing an exercise program, please consider referral to a Sport and Exercise Physician.

Find a Sport and Exercise Physician [www.acsep.org.au/](http://www.acsep.org.au/)

1. Australian Institute of Health and Welfare (AIHW). (2017). Cancer in Australia 2017. Cancer series no. 101. Cat. no. CAN 100. Canberra: AIHW.
2. Australian Institute of Health and Welfare 2017. Australian Cancer Incidence and Mortality (ACIM) books: Breast cancer. Canberra. AIHW. [Accessed February 2017].
3. Ballard-Barbash, R., et al., Physical activity, biomarkers, and disease outcomes in cancer survivors: a systematic review. J Natl Cancer Inst, 2012. 104(11): p. 815-40.
4. Pennington KP, McTiernan A. The role of physical activity in breast and gynecologic cancer survivorship. Gynecol Oncol. 2018 Jan 27.
5. Schmitz KH. Balancing lymphedema risk: Exercise versus deconditioning for breast cancer survivors. Exerc Sport Sci Rev 2010; 38(1): 17-24.
6. National Breast Cancer Foundation [www.nbcf.org.au](http://www.nbcf.org.au) | Breast Cancer Network Australia [www.bcna.org.au](http://www.bcna.org.au)