

Cancer and exercise

What is cancer?

The term cancer describes a disease in which abnormal cells multiply without control. Prostate cancer, bowel cancer (colon and rectal cancers), breast cancer, melanoma of the skin, and lung cancer account for more than half (60%) of all cancers diagnosed in Australia. Survival after cancer varies and is influenced by the type of cancer and the stage of the cancer at diagnosis. For many cancers, current survival rates exceed 90% or are progressively improving.

Exercise and cancer prevention: Research has shown strong evidence that physical activity (PA) plays an important role in the prevention of cancer in particular colorectal, breast and endometrial cancer, as well as emerging evidence associated with reduced risk of other cancers such as prostate, lung and ovarian cancer (2, 3).

Why is exercise important for cancer survivors?

The benefits of exercise *during* and *after* treatment are outlined in the table below(4). There is also a growing body of evidence that indicates exercise after diagnosis may improve long-term survival rates, at least in breast and colon cancer (5, 6).

Preservations or improvements	Reductions
Muscle strength, mass and power	Duration of hospitalisation
Physical functioning	Psychological and emotional stress
Range of motion	Depression and anxiety
Immune function	Number and severity of symptoms and side effects reported (e.g. pain, fatigue, nausea)
Chemotherapy completion rates	
Body image, mood and self esteem	

What type of exercise is best for cancer survivors?

An exercise program needs to be individualised according to past and current fitness level; previous and planned cancer treatment; disease and treatment-related risk factors; the presence and severity of symptoms, as well as interests and desires of each person. **The overall aim is to meet the physical activity guidelines recommended for the general population (7).** For some people, particularly immediately after surgery or during other associated treatment, these guidelines may be unrealistic. In these cases, people should be encouraged to maintain or gradually return to 'typical' activities of daily living and limit sedentary behaviours, such as sitting or laying down. Importantly, some exercise is better than no exercise, and more is generally better than less.

- Gradually introduce aerobic exercise such as walking, cycling or swimming. Aim to build up to at least 150 minutes of moderate-intensity (puffing) exercise, or 75 minutes of high-intensity (puffing heavily) exercise weekly;
- Include two sessions a week of resistance-based exercise (e.g. weights, body weight or theraband exercises) for the major muscle groups. Allow at least 48 hours between sessions.

For information on exercise safety, barriers, and contraindications, please refer to the full version of this factsheet on the Exercise is Medicine Australia website.

How can cancer survivors become and remain active?

- Avoid inactivity and progress exercise gradually.
- Understand why being active during and following cancer treatment is important
 - Recognise barriers to exercise and explore ways to overcome these.
- Goal-setting is important - short-term and long-term goals that are specific, measurable, achievable, realistic and timely, need to be defined.

References and further information

Exercise is Medicine Australia www.exerciseismedicine.org.au Find an Accredited Exercise Physiologist www.essa.org.au Exercise Right www.exerciseright.com.au

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7. American College of Sports Medicine. (2010). ACSM's guidelines for exercise testing and prescription. 8th ed. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.
8. Schmitz KH, Courneya KS, Matthews C, et al. American College of Sports Medicine roundtable on exercise guidelines for cancer survivors. Med Sci Sports Exer 2010;42(7):1409-26.

For more detailed information, please read the full version of this factsheet at www.exerciseismedicine.org.au

