

## Cancer research: exercise may improve ability to cope with treatment side effects

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Doctors are starting to prescribe exercise to people with cancer just like they would a drug, amid growing research it improves tolerance of treatments such as chemotherapy, and therefore improves the chance of survival.

While exercise and maintaining a healthy weight are already thought to [prevent certain cancers](#), particularly breast and bowel, there is a growing feeling among doctors that regular vigorous activity also protects people during cancer treatment and might even prevent more cancer for them in future.

For many years, cancer patients have been advised to avoid exercise in favour of rest, particularly during treatments such as chemotherapy, but emerging studies suggest exercise improves people's ability to cope with the side effects of treatments, which in turn boosts their capacity to take a full dose.

An anaesthetist at Peter MacCallum Cancer Centre, Hilmy Ismail, said a study at his hospital showed that a six-week exercise program for people between chemo-radiation therapy and surgery boosted their cardio-respiratory fitness and recovery from surgery.

He said over 18 months, his team performed tests on patient's heart and lung function after chemo-radiation therapy and found that it caused a 10 to 20 per cent deterioration in their fitness.

When these patients were given a six-week exercise program tailored to their abilities, there was an average 18 per cent improvement over that time. This meant they not only recovered fitness lost during their previous cancer treatment, but many went into surgery even fitter than before their treatment began. This reduced their risk of complications from surgery, such as pneumonia, heart attack and deep vein thrombosis.

While some patients do not respond well to fitness training, Dr Ismail said most people were motivated to try it and experienced the benefits of it.

While the exact impacts of exercise on cancer is unknown, mainly because there is no industry that will fund large high quality studies, Dr Ismail said exercise delivered more oxygen to tissues in the body and may improve the function of mitochondria – energy centres in cells that seem to be damaged by cancer treatments.

"I would highly recommend that anyone with a diagnosis of cancer is proactive in seeking advice on exercise," he said.

Professor of Exercise Science at Edith Cowan University Health and Wellness Institute in Perth, Daniel Galvao, said although it might seem difficult to exercise during cancer treatment, [research](#) showed that the more sedentary someone is, the more fatigued they become.

"The general recommendation is 150 minutes of aerobic exercise with resistance training twice a week ... but even very little activity can be extremely beneficial for people and they can build it up," he said at the Royal Australasian College of Surgeons' annual scientific congress this week.

"Ideally people should get an individualised program from an exercise physiologist ... We don't want people to go to the gym down the road and see a guy who has done a week-long fitness course."

Professor Galvao said [several observational studies](#) suggested that women with breast cancer who did three to five hours of moderate intensity exercise per week, such as brisk walking, have a reduced chance of dying from their cancer.

He said exercise could also improve people's ability to manage the side effects of hormone therapies for breast and prostate cancer that can result in an increased risk of cardiovascular disease, obesity, type 2 diabetes and osteoporosis.

"There are also psychological benefits," he said. "People tend to say 'I'm ready for the next bout of chemotherapy', 'I'm changing my body image', 'I'm feeling better'".

"It's extremely powerful."

*Julia Medew travelled to the Royal Australasian College of Surgeons' annual scientific congress courtesy of the college.*

*This story was found at: <http://www.theage.com.au/national/health/cancer-research-exercise-may-improve-ability-to-cope-with-treatment-side-effects-20150508-ggxden.html>*