

Exercise during Chemotherapy

Don McKenzie, MD PhD , School of Human Kinetics & Faculty of Medicine, UBC

Exercise has beneficial effects on a wide variety of outcomes during breast cancer treatments, however, what type of exercise provides the optimal benefits is not known. To help answer this question, a new research study funded by the National Cancer Institute of Canada/Canadian Breast Cancer Research Initiative is taking place in 3 centres in Canada – Ottawa, Edmonton, and Vancouver. It is called START [Supervised Trial of Aerobic versus Resistance Training] and involves supervised exercise throughout chemotherapy for breast cancer.

Previous research has focused exclusively on aerobic exercise, yet many women report problems with upper body strength, weight gain, functional well-being, and quality of life that may not be optimally addressed by aerobic exercise. Therefore, the primary aim of this study is to compare the effects of two different types of exercise, aerobic training and resistance training, in enhancing quality of life during chemotherapy. We are also looking at the effects on physical fitness and the ability to adhere to an exercise program while undergoing treatment.

We are also looking at the effects on physical fitness and the ability to adhere to an exercise program while undergoing treatment.

Participants in the study receive a complete health assessment at the beginning and at the end of their treatment. During treatment, they are randomly assigned to one of three groups:

- 1) control [delayed exercise]
- 2) aerobic exercise
- 3) resistance exercise

These programs are individualized and progressive in nature. Participants train for one hour, 3 times per week and all sessions are supervised. The control group carries on with their normal routine and receive an individualized program and instruction at the end of their treatment. The training takes place in a new, centralized exercise research unit developed specifically for cancer and exercise research in Vancouver. This is an exciting study that will have an impact on the quality of life for women treated for breast cancer.