

# Research

A publication by the Alberta Centre for Active Living

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## Facilitating Physical Activity Among Women with Breast Cancer

### Summary

**Recent evidence suggests that breast cancer survivors who are physically active live longer and have a reduced chance of cancer recurrence.**

This article presents research that explores strategies for facilitating breast cancer patients and survivors to do more physical activity.

### Key Terms

**Breast cancer** is a malignant tumor that starts from cells of the breast. A malignant tumor is a group of cancer cells that may invade several areas of the body. Breast cancer occurs almost entirely in women.

**Chemotherapy** is a method of treating breast cancer by using drugs. Chemotherapy drugs slow or even stop the cancer cells from growing, multiplying, or spreading to other parts of the body.

**Pedometers** are small electronic devices with mechanical sensors that count how many steps a person takes.

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In Alberta, it is expected that 2,000 women will be diagnosed with breast cancer in 2009.

The good news is early diagnosis and improved treatments have led to more women surviving breast cancer. However, women with breast cancer still have side effects, both while on treatments and even after their treatments are finished. Side effects such as fatigue, nausea, and cognitive problems are common. These side effects often lead to a reduced quality of life.



### Physical Activity Has Unique Benefits for Breast Cancer Patients and Survivors

Fortunately, physical activity can reduce these side effects. In fact, recent research has shown that regular physical activity is not only safe for breast cancer patients and survivors but also offers long-term benefits for them related to survival and cancer recurrence. In addition to immediate benefits such as improving fatigue and quality of life, physical activity can:

- reduce their chance of dying from cancer
- reduce their risk of having a cancer recurrence
- increase their lifespan (compared to survivors who are not as active)

One of the first studies that showed these benefits was published in the *Journal of the American Medical Association* by researchers at Harvard University. Their study looked at close to 3,000 women who at one point had breast cancer. Their study found that survivors who walked three to five hours per week at a brisk pace had better survival rates (i.e., lived longer) compared to women who were less active.

More studies have since emerged showing that active survivors have a reduced risk of breast cancer recurrence as well as a reduced risk of dying from breast cancer when compared to those who are inactive.

### The Problem: Women With Breast Cancer Are Not Doing Enough Physical Activity

Despite all the benefits, many breast cancer patients and survivors are still not physically active. We just completed a study that found only 34% of breast cancer survivors in northern Alberta (who were about three years post-diagnosis) were meeting public health guidelines for physical activity. Another study from Australia found that only 13% of women on chemotherapy treatment were physically active.

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## Facilitating Physical Activity Among Women with Breast Cancer (Continued from front)

### The Activity Promotion Trial: Getting Survivors Active

We set out to research tools and resources to help breast cancer survivors become more physically active. Our study randomly chose 377 breast cancer survivors from northern Alberta, and we followed them for 12 weeks. All survivors in this study had already completed their treatments.

We found that physical activity resources such as a printed exercise guide (*Exercise for Health: An Exercise Guide for Breast Cancer Survivors*) and a pedometer helped survivors improve their physical activity levels by almost 90 minutes per week compared to survivors who did not receive these resources. We also found that these simple tools helped survivors maintain their physical activity levels six months after the end of the study. And these higher physical activity levels were linked to improved quality of life and less fatigue.

The demand among breast cancer survivors for these tools was obvious. Our study was designed to accommodate 400 survivors, and we had to turn away another 310 who also wanted to be in the study.

Fortunately, with the support of the Alberta Cancer Board's Division of Medical Affairs and Community Oncology, we were able to send out 3,000 copies of the printed exercise guide to cancer centres across Alberta.

### Future Research: Getting Patients Active


Previous research suggests that the best time to introduce women with breast cancer to physical activity strategies may be right after they are diagnosed and about to start their treatments. The majority of survivors, when asked, would have preferred to receive information about physical activity during this time period.

In early 2009 we received a grant from the Canadian Institutes of Health Research to explore this. The PROMoting ACTIVITY during ChEMotherapy (PROACTIVE) Trial will look at ways to improve physical activity levels in women who have breast cancer and who are receiving chemotherapy.

Eligible patients will be from the Tom Baker, Medicine Hat, and Lethbridge Cancer Centres. Patients from rural areas will also be able to participate, as the physical activity resources for the trial will be mailed to the participants.

### Practical Implications

Research shows that physical activity is safe, feasible, and helpful for most breast cancer patients and survivors. We need to make women aware of the health benefits they will receive from being physically active both during and after their treatments.

The real challenge will be making physical activity programs available to patients and survivors. To do that, we will need a planned effort from clinicians, health practitioners, health program planners, exercise professionals, and those in research. Doing so will help to ensure that all breast cancer patients and survivors, both urban and rural, are offered evidence-based programs that can improve their quality of life and ultimately prolong their lives. 

References for this article are available at: <http://www.centre4activeliving.ca/publications/research.html>

### About the Author and the Organization

Dr. **Jeff Vallance** is an assistant professor in the Centre for Nursing and Health Studies (CNHS) at **Athabasca University**. He is also an Alberta Heritage Foundation for Medical Research population health investigator and a Canadian Institutes of Health Research new investigator.

Jeff's research explores the determinants of physical activity behaviour and the health outcomes associated with physical activity behaviour in cancer survivors. He is also involved in developing and evaluating resources for promoting physical activity in the cancer context.

Jeff is a part of the Health Behaviour Research Group (HBRG) within the CNHS. The HBRG focuses on advancing the scientific understanding of the interrelationships among the behavioural, biological, and psychosocial aspects of physical activity and health behaviour in various populations.

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