Physiotherapy is effective at preventing and managing lymphedema, a complex long-term condition associated with physical and psychosocial problems.

What is lymphedema?
Lymphedema is a chronic condition of localized fluid retention and tissue swelling caused by a compromised lymphatic system. It can be primary (congenital) or secondary to (acquired from), for example, cancer, cancer treatments, non-cancer surgeries, infections, or vascular or inflammatory diseases. Disabled individuals in wheelchairs may also develop this chronic condition, and obesity is now considered a significant risk for lymphedema. The condition is progressive and if untreated, permanent tissue changes can occur.

Though frequently occurring in the arms and legs, it can also develop in the body, groin, and head and neck regions. It may cause discomfort, reduced function, impaired mobility and recurrent infections.

Lymphedema can significantly affect the patient’s quality of life. The long-term effects of lymphedema are more effectively managed if the condition is diagnosed and managed before chronic changes can occur.

Cost effectiveness of physiotherapy-led surveillance and treatment
- An American cost comparison study looked at two models of breast cancer-related lymphedema (BCRL) management. It showed the cost to manage early stage BCRL was 80% less per patient when using a prospective physiotherapy surveillance model compared with reacting to symptomatic presentation.
- Case study evidence from an award-winning physiotherapy-led lymphedema service in the UK estimated that for every £1 spent on lymphedema services, £100 was saved by their National Health Service in reduced hospital admissions.
- This includes the potential to reduce the £87 million cost of inpatient admissions for cellulitis, which can be a significant secondary complication of poorly managed lymphedema.

Epidemiology
It is estimated that over 300,000 Canadians suffer with lymphedema. Approximately 15.5% of people diagnosed with cancer develop secondary lymphedema. Individuals who have had non-cancer surgeries, disabled individuals in wheelchairs, and those with leg ulcers due to venous disease may also develop the condition. In addition, lymphedema is now recognized as a major challenge in the management of obesity. It is estimated that 80% of all morbidly obese individuals have an element of lymphedema.
CASE STUDY

A team of researchers and clinicians from the University of Alberta, University of British Columbia, the Cross Cancer Institute (Edmonton), and Tom Baker Cancer Centre (Holy Cross Hospital, Calgary) recently carried out a multi-centre trial that studied the use of night-time compression as a self-management strategy for women with BCRL.

As Margaret McNeely, PT, PhD, (study lead), explains, “Lymphedema is a chronic condition, and tends to have times when the swelling flares. At these times, the woman with breast cancer related lymphedema needs more intensive physiotherapy to reduce the swelling and to control symptoms.”

The research team wanted to see if the addition of night-time compression through either self-administered bandaging or use of a night compression garment helped women to control their lymphedema better than day-time compression alone.

One hundred and twenty women from across the three cities took part in the study. The study was funded by the Canadian Institutes of Health Research and Alberta Cancer Foundation.

“We found that night-time compression, either through self-administered bandaging or use of a night garment, resulted in significantly better control of the lymphedema than day-time compression alone.” (Dr. Margaret McNeely, PT, PhD). This finding is helping to guide physiotherapy practice and treatment recommendations given to women with breast cancer related lymphedema, leading to improved patient outcomes and management of the condition, and decreased long-term costs of care.

Physiotherapy Works

Lymphedema

is an evidence-based briefing from Physiotherapy Alberta – College + Association

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