

# Laser therapy for lymphedema

Low-level laser therapy has been cleared for the treatment of lymphedema which causes swelling in the arms or legs

**L**ymphedema, which causes swelling in the arms or legs, can be a frustrating and chronic long-term side effect of cancer treatment. When the impairment becomes so great that the fluid exceeds the transport ability, an abnormal amount of protein-rich fluid collects in the tissues of the affected area. Left untreated, this stagnant, protein-rich fluid reduces oxygen availability to the tissue, interferes with wound healing, and can result in infection. LLLT is another viable treatment option in the management of lymphoedema. It has been shown through extensive case reports and limited research to have positive and potentially long-term effects. Factors that may influence the degree of positive outcome can be BMI, severity of lymphoedema, differing laser parameters and individuals varying absorption coefficients. Further research will need to be produced to define optimal parameters to maximize effect.

## **What is lymphedema and why does it occur?**

In people with cancer lymph node dissection and radiation both result in trauma to the lymphatic system. Lymphedema is an accumulation of fluid in the tissue space that causes swelling, most often in the arm(s) and/

or leg(s), and occasionally in other parts of the body. Lymphedema can develop for a variety of reasons.

## **What are the signs?**

When the impairment becomes so great that the fluid exceeds the transport ability, an abnormal amount of protein-rich fluid collects in the tissues of the affected area. Left untreated, this stagnant, protein-rich fluid reduces oxygen availability to the tissue, interferes with wound healing, and can result in infection.

## **Treatment of lymphedema praecox through low level laser therapy**

Low-level laser therapy has been cleared for the treatment of lymphedema. Laser therapy has not been researched extensively yet, but some small studies have found that it can help reduce the volume of the arm, break down scar tissue, and increase range of motion while reducing tightness for some women. The thinking is that the laser light increases the flow of lymph, reduces the amount of excess protein and tissue in the fluid, and reduces the ability of scar tissue to “stick” to the underlying healthy tissue.

