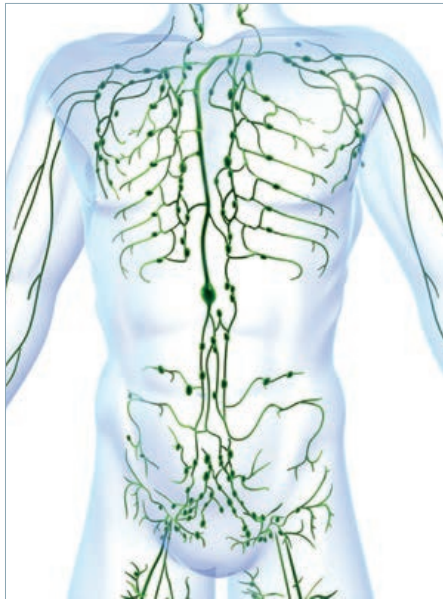


# Surgical treatments for lymphedema

By Anna Towers and David Keast



there is excess subcutaneous fat in the limb. Following this surgery, patients must wear compressive garments continuously for 24 hours per day to maintain the reduction in limb volume that was obtained by removing the excess fat. Compression garments must be worn for life, otherwise, the subcutaneous fat will reoccur. Brorson's technique is now also being performed in a few other countries such as the Netherlands, Sweden, Scotland and the United States.

Another class of technique involves very delicate microsurgical manipulation of lymphatic vessel pathways, usually connecting lymphatic vessels to veins (lymphovenous anastomoses). This technique works best in those with early lymphedema. Pioneered by Dr. Corradino Campisi and his team in Italy, this technique requires

a high degree of microvascular experience and a careful choice of appropriate patients. This technique is controversial as other centres have reported negative results as well as adverse effects. Professor RG Baumeister in Munich performs lymphatic vessel grafting. This involves the transfer of pedicled lymphatics from a normal

limb to an abnormal one, using microlymphatic anastomoses. This technique is meant for those with early lymphedema, before fibrotic changes have set in. Long-term results from multi-institutional trials

are required to determine the effectiveness of this technique.

Microsurgical lymph node transplantation is a more recent technique. Also known as vascularized lymph node transfer, this surgery involves transplanting lymph nodes from the groin with their blood vessels and anastomosing these to blood vessels in the axilla. There is no lymphatic anastomosis performed in this procedure. Professor Corrine Becker from Paris is the pioneer of this technique, which is currently being tested in the USA. In the meantime, at least one study from an independent group has expressed concerns about complications, including developing lymphedema in the donor limb.

## Q What kinds of lymphatic surgery are being tested?

**A** Dr. Hakan Brorson in Sweden has pioneered a particular form of liposuction using smaller cannulas with one portalways used facing downward to preserve the subdermal plexus. This technique is different from the type of liposuction currently available for cosmetic purposes. Brorson's technique is used in patients with either lymphedema of the arm or leg in advanced stage II where all excess lymphedema fluid has been mobilized through standard treatment and

Patients need to be aware that surgery does not eliminate the need to wear compression garments.

## Q Would surgery eliminate the need to wear compression garments?

**A** It is understandable that patients are looking for a "cure" for lymphedema and a means to avoid costly decongestive therapy and cumbersome garments. However, the circumstances when surgery may be appropriate are largely reserved for those who have largely deformed limbs that have not responded to traditional MLD and compression. Patients need to be aware that surgery, at least in



the current stage of development, does not eliminate the need to wear compression garments. For example, according to reports on the liposuction technique, patients actually need to wear Class 2-4 compression for 24 hours a day, not only post-operatively, but also for the rest of their lives.



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**Q What is the status of surgical treatments for lymphedema?**

**A** In recent years, exciting developments in surgical treatments for lymphedema have caught the interest of patients and health professionals alike. In 2012, the International Lymphoedema Framework produced a position paper addressing the complex and often controversial issue of surgery, in an attempt to present a balanced

picture of how surgery fits within the total treatment protocol.<sup>1</sup> These treatments are in the early stage of development and we believe that long-term studies by independent groups are required before their risks and effectiveness can be properly assessed.



**Q Are these surgical treatments available in Canada?**

**A** There are experiments using lymph node transplantation being conducted in Toronto. Surgical procedures for lymphedema are evolving with some North American centres just starting up programs. Eligibility is on a case-by-case basis, with strict criteria for patient selection. Surgeons require specific training and a considerable amount of experience before their outcomes can hope to be positive.



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Patients should be aware that these techniques are in the experimental stage, and that surgical experiments are not subject to the same stringent controls as pharmaceutical trials. Most reports to date have small numbers of patients, use inconsistent measures and lack long-term follow-up. We await further studies and a clearer idea of indications before being able to recommend these treatments. [LP](#)

**Reference**

1. Position Document on Surgical Intervention for Lymphoedema, International Lymphoedema Framework, 2012, [www.lympho.org](http://www.lympho.org) Resources

**HAVE QUESTIONS?**

If you would like to have a question answered by an experienced lymphedema health professional, please contact us via email:

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Be sure to put "Ask The Expert" in your subject line.