

**A RANDOMIZED STUDY COMPARING MANUAL  
LYMPH DRAINAGE WITH SEQUENTIAL PNEUMATIC COMPRESSION  
FOR TREATMENT OF POSTOPERATIVE ARM LYMPHEDEMA**

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*ABSTRACT*

*We compared manual lymph drainage (MLD) with sequential pneumatic compression (SPC) for treatment of unilateral arm lymphedema in 28 women previously treated for breast cancer. After 2 weeks of therapy with a standard compression sleeve (Part I) with maintenance of a steady arm volume, each patient was randomly assigned to either one of two treatment regimens (Part II). MLD was performed according to the Vodder technique for 45 min/day and SPC was performed with a pressure of 40-60 mmHg for 2 hours/day. Both treatments were carried out for 2 weeks. Arm volume was measured by water displacement. Arm mobility, strength, and subjective assessments were also determined.*

*Lymphedema was reduced by 49 ml (7% reduction) ( $p=0.01$ ) in the total group during Part I. During Part II, the MLD group decreased by 75 ml (15% reduction) ( $p<0.001$ ) and the SPC group by 28 ml (7% reduction) ( $p=0.03$ ). The total group reported a decrease of tension ( $p=0.004$ ) and heaviness ( $p=0.01$ ) during Part I. During Part II, only the MLD group reported a further decrease of tension ( $p=0.01$ ) and heaviness ( $p=0.008$ ).*

*MLD and SPC each significantly decreased arm volume but no significant difference was detected between the two treatment methods.*