

## **Long-term results of compression treatment for lymphedema.**

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### **Source**

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### **Abstract**

Although numerous operations have been devised for lymphedema, most surgeons manage this vexing condition by nonsurgical means. Previous studies by us showed that high-pressure (90 to 100 torr) sequential external pneumatic compression (SEP) reduced both limb girth and volume in a lymphedematous extremity. To assess the long-term effects of a program entailing (1) SEP, (2) elastic compression stockings to maintain the post-SEP girth, and (3) daily skin care, we reviewed the long-term courses of 49 patients managed by one surgeon. Limb girths measured at nine levels on the limb were obtained serially in follow-up (mean 25 months) by an independent observer to provide an objective response to therapy. The relative reduction in lymphedematous tissue was determined by the difference between the pretreatment, postacute treatment, and long-term treatment girths at nine points in the limb. In long-term follow-up, 26 of the patients maintained a full response (reduction at > 3 levels), whereas 10 maintained a partial response (reduction at < or = 3 levels). At late follow-up, calf and ankle girths were reduced by an absolute value of 5.37 +/- 1.01 and 4.63 +/- 0.88 cm in the full-response group and 5.43 +/- 1.58 and 3.98 +/- 1.18 cm in the partial-response group over pretreatment measurements. The degree of subcutaneous fibrosis in relationship to the duration of the edema appeared to influence results greatly. The treatment of lymphedema with SEP and compression stockings is associated with long-term maintenance of reduced limb girth in 90% of patients.