

**SKIN BLOOD FLOW OF THE LYMPHEDEMATOUS ARM
BEFORE AND AFTER LIPOSUCTION**

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ABSTRACT

Twelve women with arm lymphedema after breast cancer treatment underwent liposuction followed by external compression with a garment-sleeve. Arm volumes were measured using water displacement technique, and skin blood flow was recorded with laser Doppler imaging (LDI). Data was collected before and after (3 and 12 months) liposuction. Episodes of cellulitis were also recorded.

Whereas previous investigations have indicated increased total blood flow in the lymphedematous arm, we found reduced superficial skin blood flow preoperatively. Liposuction produced a median edema reduction of 87% and 97% after 3 and 12 months respectively. Both in the forearm and in the upper arm, skin blood flow increased significantly after liposuction and values were similar to those of the non-edematous (control) arm. Along with increased skin blood flow, the frequency of cellulitis also decreased.

Liposuction effectively reduces arm lymphedema after breast cancer treatment, and also lowers the incidence of arm cellulitis. Improved local skin blood flow may be an important contributing factor to the reduced episodes of arm infection.