PRACTICAL ASPECTS OF TRACKING AND DOCUMENTING LIMB VOLUME CHANGES
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BACKGROUND/RATIONAL

Compression therapy is the recognized treatment of choice for chronic venous insufficiency, venous stasis ulcers, and lymphedema. The effectiveness of compression therapy can best be documented by determining limb volume and it’s changes over time. Water displacement, circumferential measurements, and photoelectric scanners are all used to estimate limb volume; however, circumferential measurement is the most practical method in most clinical settings.

It is a common practice to document changes in circumference at selected sites without calculating limb volume. This practice gives limited and misleading information about limb volume and the effectiveness of treatment. It is necessary to measure the entire limb to determine if the edema is being cleared or merely moved to more proximal or distal locations. In cases of single limb edema, measuring both limbs and comparing volumes can give us important information about the amount of edema present and its change with treatment.

This presentation of a detailed, systematic measuring protocol addresses the initial measurement procedure, as well as the accuracy of repeat measurements. Although it is possible to manually calculate volume using mathematical formulas, computer programs designed to calculate volumes and graph results save time and simplify record keeping.

REFERENCES