

*Pearls from meetings***Liposuction surgery and the use of Endermologie®**

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After initial scepticism among plastic surgeons in the US due to a dearth of clinical data, Endermologie® has come into widespread use since its introduction in 1996. Early clinical investigations targeted non-operative therapy in combination with dieting, nutritional counseling and exercise for reduction of cellulite. Blinded physicians noted improvement in cellulite by subjective evaluation of the amount, distribution and character of the dimpling seen on clinical examination in the hips, thighs, and to a lesser degree, in the abdomen and flanks. Reports of decreased circumference by 1–1.5 cm in the thigh were also accompanied by variable reduction in weight and weight gain in some patients. Patients were not controlled for diet and exercise in the studies, and it was difficult to determine if the effect was solely due to any one of the Endermologie®, dieting or exercise or combinations of all three. Having no commonly agreed standard for the quantification of cellulite makes clinical assessment more difficult in the objective determination of improvement after treatment. However, there is general agreement by physicians on its beneficial effects to increase blood flow, enhance massage and subjectively decrease cellulite, and excellent acceptance by patients for short term therapy of 8–10 weeks.

Our initial emphasis and experience with Endermologie® was as an alternative to liposuction, but approximately 10% of the first 100 patients eventually requested liposuction for improvement of body contours and inability to control weight loss. Conversely, only about 10% of the patients who present for liposuction specifically request Endermologie®. In order of importance there are seven primary parameters that we follow in our preoperative evaluation of body contouring patients: 1) the overall subjective appearance of the shapes and curves seen in a full-length mirror, 2) the amount of skin and subcutaneous fat that is pinched on manual exam, 3) the contours of specific prominences or dimples), 4) subjective appreciation of skin tone and 5) muscle tone, 6) the circumferential measurements of the waist, hips, proximal thighs, distal thighs and the knees, and finally, 7) the body weight. While it has an effect on all of these, body contouring by liposuction is best suited to address the first, second and third. Endermologie® appears to have an impact on many of these, but works best on the first, third and fourth, and to a lesser degree the sixth. In our experience, as a supplement to liposuction, it is ideally suited for reduction of cellulite and improvement of skin tone, numbers three and four. Specifically it is the weakness or inability of liposuction to correct widespread cellulite that makes Endermologie® so valuable.

Based on clinical observation we believe that 75–80% of patients benefit physically and almost 100% experience subjective benefits from postoperative treatment and we offer it to all of our patients in our standard protocol. Benefits include speedy resolution of edema, reducing

variability of the early contours, decreasing stiffness and improving skin tone. Patients undergo a preoperative demonstration of the technique and are counseled about dieting, drinking water and exercise. We treat all patients by tumescent liposuction with standard operative techniques and place them in tight-fitting compression garments supplemented by 5 mm thick foam padding worn 24 hours per day for one week. Patients are examined at 2–3 days for contusion and oedema and at 7 days for suitability to start postoperative therapy. Gentle, postoperative treatments begin twice weekly at 7–10 days for 4–6 weeks and are advanced in intensity as tolerated. To maintain muscle tone, slow walking around the house is started 2–3 days after surgery and gradually increased to 1 km by 7–10 days, when weightlifting with small weights is begun also. Unlimited exercise is resumed in 3–4 weeks. I will present representative cases and discuss our experience with several hundred patients.

Because neither of these procedures addresses all of the seven findings noted above, our approach to the patient is to combine therapy for a maximal result. Clinical treatment models are still in evolution and include the addition concurrently of pulsed electromagnetic field therapy for oedema and external ultrasound for skin tightening.