

# CLINICAL roundtable

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## Contour I with Focused Ultrasound Excels in Reducing Localized Fat

BY KEVIN A. WILSON, CONTRIBUTING EDITOR

The *Contour I* (UltraShape Ltd., Tel Aviv, Israel), using focused ultrasound technology, is one of the first medical devices in the world designed for non-invasive body contouring. This painless procedure offers "walk-in, walk-out" treatment providing results that persist without maintenance.

According to Ami Glicksman, M.D., plastic surgeon and co-founder of UltraShape, the ultrasonic energy delivered by *Contour I* causes tissue to vibrate, and aims to disrupt cell membranes of adipocytes. Because these cell membranes do not have the structural capacity to withstand the vibration, they break, emptying their contents to be cleaned up by natural body processes. "Part of the technology involves using parameters that can affect fat cells while sparing skin as well as the vascular, nervous and muscular tissue. Lack of hematomas or sensory change has been demonstrated in clinical trials and thousands of commercial treatments," Dr. Glicksman explained.

Dr. Glicksman reported that the average reduction in clinical trials was 2 cm after a single treatment. "The persistence of results with *Contour I* have been documented in two studies, a multi-center trial with 165 patients and a smaller South Korean study of 61 patients." Follow-up evaluation showed persistence at three and five months, respectively.

"The full face of the transducer (the ultrasound generator) must be in contact with the body during treatment with *Contour I*, so depending on the patient's physique, treatment is limited to relatively large surface areas such as the abdomen, flanks and thighs," Dr. Glicksman said. "We've

seen equal efficacy in both genders, and the focal volume of the transducer requires at least 15 mm of subcutaneous fat for the patient to be eligible for treatment. The upper arms, neck and face are not recommended for treatment."

To give the body time to absorb residual triglycerides from the treatment areas through the lymphatic and circulatory systems, treatments are given in intervals of three to four weeks, or even a little longer. "This reduces volume, after which the skin shrinks to fit the underlying tissue as when a person loses weight," Dr. Glicksman explained. "Triglycerides are transferred to the liver and utilized like any other fat. The body uses the fat according to its metabolic state, so this fat may be redeposited elsewhere or used for energy."

This is why, according to Dr. Glicksman, it is essential for the patient to eat right and exercise. "The patient must be in a negative metabolic state to use the fat properly, so at the very least a negative calorie intake is recommended," he said. "Studies have shown no adverse effects from this and it is supported by hematological, biochemical and coagulation tests as well as triglyceride and cholesterol levels. No weight loss was observed in clinical trials but reduction in circumference was achieved throughout follow-up in all cases."

**Editor's Note: In the following discussion, five dermatologists and plastic surgeons from around the world share their knowledge and experience using the *Contour I* for body contouring.**



### Which areas of the body have you treated with Contour I, and what are the characteristics of the ideal patient?

**Christopher Inglefield, B.Sc., F.R.C.S.** — We've treated the abdomen, flanks, outer and inner thighs, back rolls, knees and male chest with the Contour I. I recommend three treatments spaced three to four weeks apart. Patients need to be motivated, have a body mass index less than 27, and sustain a good diet and exercise program. We have completed over 460 patient treatments to date.



**Christopher Inglefield,  
B.Sc., F.R.C.S.**  
Plastic Surgeon  
London, UK

**Shirlei Borelli, M.D.** — We've treated about 300 patients, and I would say a good candidate is someone who is thin yet has mild-to-moderate fat deposits in localized areas such as the abdomen, flanks and thighs.

**Michael Schefflan, M.D.** — We've treated about 150 patients, mostly on the abdomen, thighs and flanks. We give between two and four treatments spaced a month apart. Results start appearing after three to four weeks. Adapting patient expectation, as to what the technology can do, is key to patient selection and satisfaction.

**Benjamin Ascher, M.D.** — The abdomen, hips and thighs do well. The ideal patient needs to have realistic expectations, good nutrition and exercise habits. We give three treatments at three week intervals. Clinically, candidates should be 25 to 55 years old with good skin tone and fat thickness no less than 2 to 5 cm.

**Luigi Polla, M.D.** — We've treated more than 50 patients so far. We've treated the thighs and hips but the best reductions were observed on the abdomen, with 2 to 6 cm reductions around the waist. We recommend three treatments approximately four weeks apart. The best results come with patients between 20 and 45 years old who are highly motivated and have already tried to improve their condition with diet and exercise.

**Javier Moreno-Moraga, M.D.** — The ideal patient would be one who is able to maintain a healthy lifestyle. We usually recommend three treatments, but we can do as many as necessary. We do not see the Contour I device as a treatment of obesity.

### How has Contour I helped your practice grow?

**Dr. Borelli** — This procedure is routine in our clinic and we haven't had problems. It also attracts patients to other techniques we offer. We've observed approximately 15% growth in our practice since we started offering Contour I treatments.



**Shirlei Borelli, M.D.**  
Dermatologist  
Sao Paulo, Brazil

**Dr. Schefflan** — We offer the procedure to patients looking for non-invasive body contouring. It's been too short of a period to say it is a tremendous money making opportunity, but it has certainly added to the range of services we can give our patients in my busy practice.

**Dr. Inglefield** — We have incorporated the Contour I into our existing body contouring treatments as a non-surgical option for patients. It brings in patients who would not consider a surgical solution for localized fat.

**Dr. Polla** — Contour I fits perfectly into our practice, and it's helped us grow our reputation from just lasers to a broader practice that gives good results with minimal downtime. Our dermatology practice has expanded with regard to treating cellulite and body contouring with nurses, aestheticians and six doctors in collaboration.



**Luigi Polla, M.D.**  
Dermatologist  
Geneva, Switzerland

**Dr. Ascher** — We offer Contour I to patients who aren't eligible for liposuction or don't want it. This device has promoted about 20% of its patients to ask more about silhouette (body shaping) surgery.

## What results have you seen, and how long can patients expect reduction in fat thickness to persist?

**Dr. Moreno-Moraga** — In general, we see high patient satisfaction. This system disrupts fat cells, so results last. All patients showed significant reduction in subcutaneous fat, with a mean fat thickness reduction of  $2.28 \pm 0.80$  cm. Our mean circumference reduction was  $3.95 \pm 1.99$  cm. We suggest using cushioned blocks to raise fat areas and reduce tension. Tension and underlying bone reduce fat thickness, which can negatively affect treatment.

"Patients who take care of themselves and have good results may see persistence up to one year. Keep in mind that patients are strictly selected."

**Dr. Scheffan** — We have an average of 2.5 to 3.5 cm circumference reduction per treatment. The response rate to this technology is about 95%. *Contour I* destroys the excess fat cells and they do not regrow. We ask patients to maintain a low carbohydrate diet during treatment so the body can use the emulsified fat instead of ingested carbohydrates. The secret to effective treatment is patient positioning. Tape the treatment area so that the fat is bulging out. Aesthetic patients are demanding and expect outstanding results. Patient satisfaction is surprisingly high.

**Dr. Inglefield** — We see an average circumference loss of just over 6.0 cm with 96% of patients very satisfied with the results. The results seem long term, and our experience shows that the fat reduction is permanent. As with any body contouring

Photos courtesy of Christopher Inglefield, B.Sc., F.R.C.S.



Before Tx

After two *Contour I* treatments

Photos courtesy of Javier Moreno-Moraga, M.D.



Before Tx

After *Contour I* Tx

treatment carried out as part of a good diet and exercise program, results are maintained. Careful patient selection is the most important factor, and careful positioning and strapping of the treatment is also necessary.

**Dr. Ascher** — Out of 130 patients, 64% showed a 2 to 4 cm circumferential reduction. About 30% of patients who have gotten a 2 to 7 cm reduction have maintained long-term results. We find that three treatments at three week intervals, with an additional treatment two months later, produces optimal results. Among patients in our preliminary clinical study, 50% were very to quite satisfied, 38% were little satisfied and 12% were not satisfied.



**Benjamin Ascher, M.D.**  
Plastic Surgeon  
Paris, France

**Dr. Borelli** — About 60% of my patients see significant improvement. It's still too early to say how long that improvement will last, but the results have persisted so far and we are happy with that. Most patients, about 70%, are satisfied with the results.

**Dr. Polla** — Approximately 80% of patients obtain favorable results, with the remaining 20% seeing less diminution in the deep, spotty fat depositions than estimated during the initial consultation. Patients who take care of themselves and have good results may see persistence up to one year. Keep in mind that patients are strictly selected.

## What adverse events are associated with Contour I treatment, how long do they last, and how are they treated?

**Dr. Inglefield** — If anything, there can be mild discomfort during treatment and mild erythema afterwards. Erythema subsides within about one hour without special treatment. We have not seen severe adverse events.

**Dr. Polla** — We have not yet observed any side effects.

**Dr. Ascher** — Side effects, including mild redness, occurred in about 1% of our patients. Pain during treatment was mild, increasing over bonier areas. Redness can last 1 to 24 hours. No treatment is necessary.

**Dr. Scheflan** — We've seen none so far.

**Dr. Borelli** — A few patients felt pain during the procedure, but the pain didn't persist beyond the treatment session.

### Do you use Contour I in combination with other modalities?

**Dr. Scheflan** — I combine Contour I with the LPG (LPG Systems, S.A., France), a localized lymphatic drainage massage that helps to mobilize the fat from the area treated with the Contour I.

**Dr. Ascher** — We combine the Contour I with the VelaSmooth (Syneron, Yokneam, Israel) system immediately before and after Contour I treatment.

**Dr. Inglefield** — We have found Endermologie useful because it improves fat clearance and skin circulation. Radiofrequency treatment can improve skin tone and thus affect overall improvement.

**Dr. Polla** — We combine it with Endermologie, Power Plate, manual muscle massage and electrostimulation.

**Dr. Borelli** — In my clinic we combine Contour I with lymphatic massage.

**Dr. Moreno-Moraga** — We combine Contour I with radiofrequency in flaccid areas and Endermologie before and after each treatment to induce temporary vasodilatation and increase blood and lymphatic flow and improve skin tone.



Javier Moreno-Moraga,  
M.D.  
General Surgeon  
Madrid, Spain

### Can an aesthetician or nurse operate Contour I?

**Dr. Inglefield** — The initial consultation and assessment is carried out by a plastic surgeon. Treatments can easily be performed by properly trained medical aestheticians or nurses.

**Dr. Scheflan** — I see every patient, mark them, measure them and take photographs and then my nurse does the treatment.

**Dr. Borelli** — As long as they are trained, nurses or aestheticians should have no problem.

Photos courtesy of Javier Moreno-Moraga, M.D.



Outer thighs before Tx



Outer thighs after Contour I Tx

Photos courtesy of Luigi Polla, M.D.



Before Tx



After three Contour I treatments

**Dr. Polla** — In our office the doctor selects patients and treatment areas, but treatments are performed by aestheticians under supervision.

**Dr. Ascher** — After 15 days of training, nurses can use Contour I in my practice.

### What is the future of Contour I?

**Dr. Inglefield** — The indications for Contour I are very good. New technologies will come onto the market but Contour I has set the standard.

**Dr. Polla** — This reminds me of working with prototype pulsed dye lasers 20 years ago, because now they are the standard for vascular lesions. In the future, Contour I will be the standard for spotty fat depositions.

**Dr. Ascher** — I'd like to see more diverse head sizes to treat different areas, and also a quicker treatment time.

**Dr. Scheflan** — This device is promising. I would like to see the handpiece evolve to reach smaller areas too.

**Dr. Borelli** — I see us treating larger areas and spending less time on the treatment itself.