



Bruce M. Freedman, M.D., F.A.C.S.

Dual wavelengths of light and ultrasound are two types of technology incorporated into innovative body shaping devices that augment traditional liposuction results by targeting cellulite. The SmoothShapes System from Elemé Medical, Inc. (Merrimack, N.H.) concurrently delivers 915 nm and 650 nm wavelengths, whereas the Med Contour 1 (MC1) from Sound Surgical Technologies, LLC (Louisville, Co.) employs high-powered ultrasound.

"Traditional liposuction does not address the etiology of cellulite, which involves fatty tissue distorted by collagen bands that tether and deform the soft tissue," explained Bruce M. Freedman, M.D., F.A.C.S., a plastic surgeon from McLean, Va. "With SmoothShapes, cellulite can now be treated and improved. The device helps remodel the collagen and tighten the skin, which traditional liposuction does not do. Furthermore, SmoothShapes liquefies the fat and increases cell membrane permeability so the fat can exit the cells and be readily absorbed by the lymphatic system."

The SmoothShapes' 650 nm wavelength enhances fat cell membrane permeability while the 915 nm wavelength is absorbed by fat within the cells. Immediately after, contoured rollers and a suctioned vacuum "help massage or push the liquefied fat into the lymphatic system," Dr. Freedman continued.

Dr. Freedman noted that one of the biggest concerns that patients have after traditional liposuction is lack of smoothness. "Even though patients are able to fit into clothing better, they would be happier if their skin were smoother," he said. "SmoothShapes enables us to do this."

Two treatment sessions of SmoothShapes are scheduled the week before



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Innovative Body Contouring

Devices Augment Liposuction Results

liposuction. This is followed by a series of eight additional sessions (twice a week), starting two weeks post-operatively. It takes approximately 20 minutes to treat each area (e.g., bilateral outer thighs), and one or two areas can be treated during a single session. "By adding a SmoothShapes regimen to a tumescent liposuction procedure, patients can expect less contour irregularities and a smoother outline," Dr. Freedman noted. "I believe that this combination approach improves soft tissue contour by an additional 20% to 30%. It elevates our results to a smoother plane."

In May 2010, the MC1 high-powered ultrasound device received FDA approval for deep heating of tissue and the temporary improvement of cellulite. The device has two ultrasound heads that converge below the surface of the skin, "so you can heat deep tissues with less heat on the surface of the skin. This is a novel and very exciting concept that I think actually works," said Mark B. Taylor, M.D., F.A.A.D., director of Gateway Aesthetic Institute and Laser Center in Salt Lake City, Utah.

With most competing modalities, "you are somewhat limited as to how much energy you can deliver through the skin, based on the temperature of the skin itself," Dr. Taylor noted. "With the MC1, you theoretically achieve double the energy below the surface vs. what you can achieve on either of the two surface areas where the energy is entering into the skin."

The energy of the MC1 is like a V, with each arm of the V delivering energy, Dr. Taylor explained. "The point of the V is where all of the energy comes together and where you attain maximum heating of the tissue. Energy is also delivered more safely than with some other devices on the market."

According to Dr. Taylor, the MC1 used off label is "an excellent adjunct to liposuction to help even out residual bumps and lumps." Treatments start about one month after surgery, with a total of one to four weekly sessions, each lasting about 20 minutes per zone. "Treatment is actually quite comfortable. It's like a hot rock massage at a spa," Dr. Taylor conveyed. "We try to maintain a temperature of 42° C through several cycles of heating and massage."

