

Technological Advancements Transform Non-Invasive Body Contouring Market



Back before Tx



Back after Reaction Tx

Photos courtesy of Nicole Hayre, M.D.



Before Tx



After Apollo Tx

Photos courtesy of Lumen Medical

According to Steven D. Shapiro, M.D., co-director of Gardens Dermatology in Palm Beach Gardens, Florida, U.S., this new generation of products actually work. "In terms of anti-aging treatments, skin tightening is at the top of the list, with cellulite reduction not far behind. New uses of RF and other energies like ultrasound, as well as low level laser devices, are proving their worth."



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Nicole Hayre, M.D., a dermatologist in private practice in McLean, Virginia, U.S., agreed. "Women definitely seek out non-invasive options," she said. "Some people come in to my office with a great deal of skin laxity, and I tell them the only way to achieve that younger look is with surgery. However, a great majority of patients that I see are averse to surgery. By offering different therapies or devices, and other options, I can help them achieve that younger look non-surgically."

Physicians have seen several recent energy-based systems that combine monopolar and bi-polar RF in a single device. The monopolar RF heat goes deep in the tissue, which affects the skin and subcutaneous fat, whereas bi-polar RF does not heat as deeply and works on the skin's surface.

A fairly new entry in this area, truSculpt, from Cutera, Inc. (Brisbane, California, U.S.), illustrates how RF energy works in non-invasive body smoothing and fat reduction. The system's proprietary monopolar RF energy provides uniform heating 7 to 8 mm below the skin's surface. In the tissue, the Perilipin membrane collapses, shrinking the size of fat cells. This is followed by increased macrophage activity due to cellular breakdown. Basal metabolic activity in adipose tissue leads to healing and, assuming the practitioner's artistry, a natural, smooth appearance of the skin.

Most RF-based systems are variations of this theme. Thermage CPT, from Solta Medical, Inc. (Hayward, California, U.S.), features several innovations. The system's vibrating handpiece interweaves pulsed RF delivery with cooling cryogen bursts.

Miles A. Graivier, M.D., F.A.C.S., a plastic surgeon in Atlanta, Georgia, U.S., uses it mostly for skin laxity and fullness of the lower face, as well as the abdomen for tissue tightening and some circumferential reduction. "When Solta came out with the CPT platform, not only did the predictability of results improve but the patient experience was better," he reported. "It's



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not just because of the technology improvements; it is also in part because we are picking better patients and identifying those patients that are not good candidates for treatment – and not choosing them."

VelaShape II™, Syneron's (Yokneam, Israel) latest edition of its Vela line of devices, combines newer treatment modalities such as bi-polar RF and infrared light, which cause fat to "burn off" and cells to shrink, with roller massage and suctioning to treat cellulite and achieve circumferential reduction.