



FINAL CUT: BTL'S EMSCULPT FINALLY TARGETS LONG-ELUSIVE MUSCLES

It's been years since the first devices reached the market to target fat (roughly 20-30 percent of human body weight), and devices to tighten the skin are well accepted and widely adopted. But no devices have been able to touch muscles (approximately 30 to 40 percent of human body weight), key determinants of the shape of the body—until now.

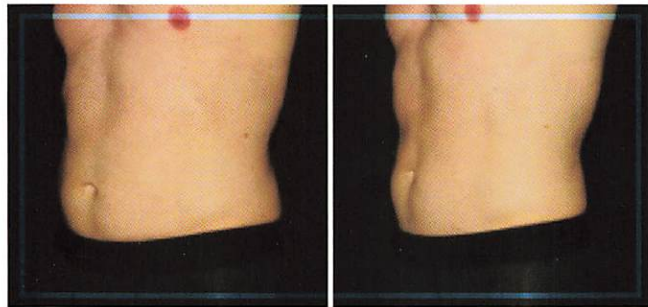
"We have been ignoring all the muscle all this time because we did not have the technology sufficient to be able to change the shape or re-contour muscles," says Miami based dermatologist Mariano Busso, MD. Now, Emsculpt from BTL has innovated the body contouring market. It is the first device to target both muscle and fat. "Definitely, this is a completely new addition into our practice; it opens the practice into a whole different new field," Dr. Busso says.

A NEW MECHANISM...BACKED BY SCIENCE

The mechanism of action for Emsculpt is new. "It's an electromagnetic field called a high-intensity focused electromagnetic (HIFEM) device," Dr. Busso explains. "It creates a field transmitted into the body. That electromagnetic field translates into a current, and that current is what stimulates every muscle fiber as well as every nerve, and that's why you can get such a strong response. If you tried to obtain the same results through an electrical current, most likely you would burn the patient because it would not be able to operate such a current. That's what makes this technology unique."

"This is really a very innovative and new approach," says Bruce Katz, MD, founder and director of Juva Skin and Laser Center in New York City. "We've done ultrasound studies as part of the trials that we are doing with the device to show that there is improvement in the fat thickness, there's reduction in the thickness of the fat and thickening of the muscles. There is documented toning and tightening of the muscles, too."

Brian Kinney, MD admits he was a bit suspicious—"one of those pinch me it may be too good to be true things"—when he first heard about the technology. "But I was pleased, or privileged to be the study group leader for this distinguished group

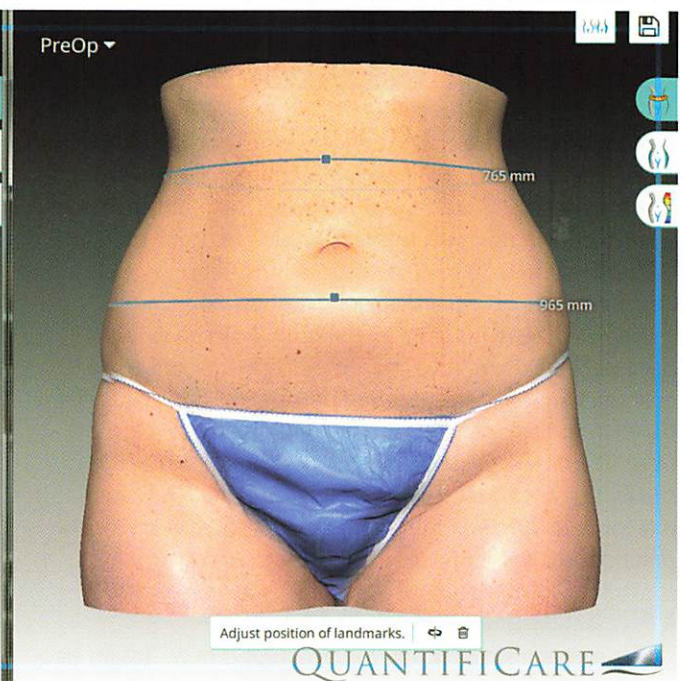
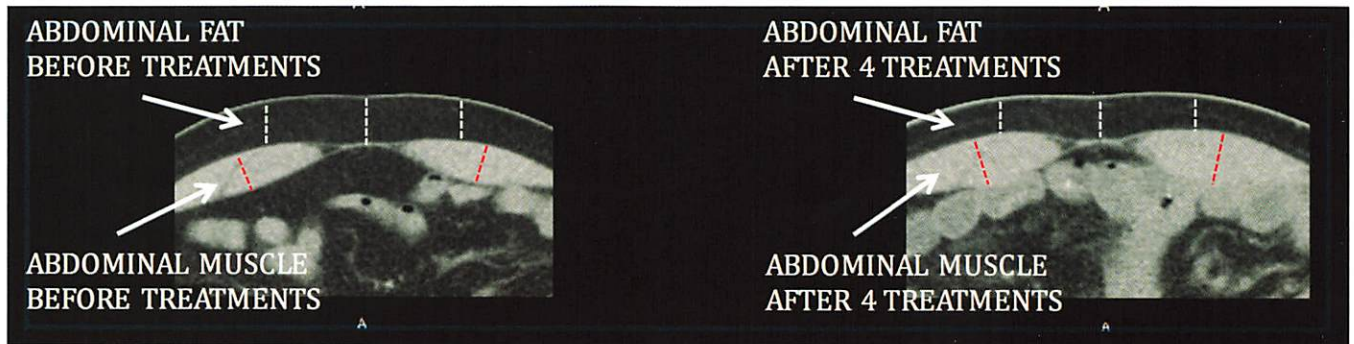


of well-known doctors... To my knowledge this was the first device that has been used clinically that gives you this combination of decreasing fat and increasing muscle in one treatment."

Results of the study speak for themselves. "We saw slightly less than 20 percent decrease in abdominal wall fat thickness. And then we saw hypertrophy of the muscles in the mid-teens percentage, as well as tightening and narrowing of the diastasis recti," Dr. Kinney reports. "Three very positive things for patient treatment, in something that's painless."

Dr. Kinney says he is unaware of a similarly rigorous study for any other body contouring technology. "We looked at this pulsed magnetic device and we had one study that did traditional pictures and tape measure. We had one study that did ultrasound measurements. We had one study that did CT measurements. We had one animal study. And we had one MRI study," he explains. "To look at five different centers with five different distinguished doctors, and to find that we had fat resorption and decrease in measured circumference of the abdomen, in combination with hypertrophy to the muscle was really—I wouldn't say startling—but very satisfying. Very gratifying."

And the mechanism of action likely involves electroporation—destabilizing of the fat cell membranes and causing low molecular weight fats to be absorbed or to leak out and then be absorbed in the bloodstream and metabolized," Dr. Kinney says. The second component is the powerful electromagnetic contractions induced in the muscle, causing hypertrophy of the muscle.



A ROLE IN PRACTICE

Emsculpt is “noninvasive, delegate-able, painless, easy to use, and pleasing to the patients who feel like something happened to them right away,” Dr. Kinney says.

“Thirty minutes of this machine equals 20,000 super-maximum contractions of those muscles,” Dr. Busso says. “That’s basically impossible to achieve with training.”

Treatment is quick and convenient for patients and operators. “The standard is four treatments, two or three days apart, 30 minutes each, and all the results that we have are based on that protocol,” Dr. Busso notes. Results continue to develop over time. “What we have seen is that the satisfaction rate of patients increases over time, so if about 50 percent of patients are happy at end of the four treatments, the satisfaction rate goes up to 80 percent after one month, and 90 percent at three months.” The increased rate of satisfaction likely results from the combination of fat cell apoptosis, as well as muscle growth, he suggests.

Patients experience no discomfort during treatment, but they do sense the treatment is “doing something.” Reiterating that

the muscle contractions are powerful, Dr. Busso says, “Usually you’ll feel a little sore, sort of like you had a hard workout. But it’s kind of a good kind of sore. The muscles feel tight.”

Currently, Emsculpt is emerging as an optimal treatment for the abdomen and buttocks. For abdominal treatment, “the ideal patient would be somebody who’s got a mommy tummy, who’s done her part. She’s had a few kids. She’s got few extra pounds. She wants to firm up those tissues a bit. Her muscles are a little stretched and perhaps she’s 10 or 15 pounds overweight. Maybe 20. Maybe 25,” Dr. Kinney suggests. The treatment isn’t ideally suited to those 40 pounds overweight or more. “Another one would be the guy who’s got that little bit of that belly, little bit of love handles maybe. And he’s done his part to try to reduce or correct that.”

“This has become the standard in our practice for fat reduction. Also, we can treat people with lower body mass indexes, the lower BMI patients who did not have enough fat that would justify using any of the other body procedures,” Dr. Busso acknowledges. “Now we can address those

patients who need help with more muscle definition. It also has expanded our practice...Not only can we reduce fat, but now we can reduce recti muscle diastasis, so we now have something that we can use to reduce the recti muscles by nearly 11 percent, and that's solely after four treatments."

For the buttocks, Emsculpt stands out for its ability to create a toned, lifted appearance. "We are tightening, firming and toning the gluteus muscles and we think we're lifting them as well," Dr. Kinney says. Noting that the "ideal buttock is not a big and fatty buttock, but the ideal is a curved and toned and high buttock."

Dr. Busso stresses that Emsculpt may be especially useful for the buttocks because, "They've been able to show you can separate the effects of fat loss and muscle gain, and have more of one versus more of the other." In other words, treatment may allow some fat to remain, in order to help maintain some of the rounded volume of the buttocks, while tightening and firming the muscles for a lifted look.

GAME CHANGER

Dr. Kinney can tick off many reasons why Emsculpt is unique and a true innovation in the aesthetic space. "One is it's completely noninvasive. Two is it's painless, does not require local anesthetic, general anesthetic, sedation, or anything else. Three is the treatment cycle is two weeks, not two or four months," he says.

"It does not require puncturing of the skin. And it's the only device on the market that will cause decrease in abdominal fat and hypertrophy of abdominal muscles, rectus abdominal muscles, in the same treatment," Dr. Kinney continues.

"On top of all of that, we have added a new area that before we did not touch in the minimally invasive procedure, which is buttock enhancement," Dr. Busso adds. "Definitely, we have expanded all the indications that our practice offers. Emsculpt really has been a very useful addition."

Believe the science, Dr. Busso urges. "This is a new technology, so the company has been extremely thorough in

making sure they have all the scientific evidence, the science, the studies, to back up their claims," he insists.

"This is a new paradigm," Dr. Kinney asserts. "And it's the only device that I know of that's been validated five different ways in parallel studies from five different centers ongoing at the same time."

"I think we're just beginning to look at a lot of potential applications of this new energy source," Dr. Katz predicts. "I think there is huge potential." ■

BODY BY BTL PROVIDER INSIGHTS



"I see this as bringing in more Millennials, bringing in more younger people, who are more concerned about their bodies, and body shape, and that, I would assume that patients will bring other patients because of the high level of satisfaction that this procedure has."

—Mariano Busso, MD btl.aesthetics.com