

Non-invasive, needle-free, no-downtime Emface from BTL Aesthetics (Boston, Mass.) may become the next revolution of facial correction. With Emface, high intensity facial electromagnetic stimulation (HIFES-brand) and radiofrequency (RF) energies are delivered simultaneously via the unique, technologically advanced, facial applicator to stimulate specific muscles in the layer of the superficial musculoaponeurotic system (SMAS). This targeted approach encourages facial lifting capabilities while the concurrent RF produces a tightening effect. The result is a completely new paradigm in the quest to restore a more youthful appearance.

This one-of-a-kind, innovative approach to the treatment of facial aging can serve as a complement or alternative to injectables, a non-invasive therapy ideal for older patients not yet ready for a surgical lift, as well as the younger population – virtually anyone may benefit. “Nothing else simultaneously administers RF to improve skin and wrinkles, with HIFES-brand energy to tone facial muscles and ultimately lift the face in a profound, natural, youthful way,” said plastic surgeon Brian Kinney, MD (Beverly Hills, Calif.). “The extraordinary applicator is designed specifically to adapt to and match the contours of the face. With minimal adjustment from the operator, it selectively activates and contracts only the desired facial musculature with HIFES-brand energy, while the constant RF energy is delivered to help tighten. Both are delivered at the same time, and all of this is completely hands-free.”

“Emface is going to do for the face what Emsculpt did for the body,” emphasized facial plastic surgeon Yael Halaas, MD (New York City, N.Y.). “Non-invasive Emsculpt uses high-intensity focused electro-magnetic (HIFEM) energy for targeted and appropriate muscle stimulation – and with Emsculpt NEO, BTL added Synchronized RF – to better affect fat and reshape the body, while also providing a functional benefit that for some outweighs any aesthetic benefit. Emsella does the same for the pelvic floor, and on top of strengthening the core musculature, we have the added benefits of improvements in incontinence, as well as other intimacy issues. This is becoming like science fiction, placing someone on a table and running a device over them to treat them non-invasively, and getting predictable results. It is a new way of looking at aesthetic intervention.”

“Facial aging is a complicated process, and everything is tied together,” explained Sebastian Cotofana, MD, PhD, associate professor of anatomy in the department of clinical anatomy at the Mayo Clinic (Rochester, Minn.). The overall facial appearance is not only influenced by skin quality but also by the facial volume and density of the underlying structures, including the fascial system, facial ligaments and facial muscles. Therefore, the extent of facial laxity is a composite effect of all implicated structures of which the facial muscles and their interconnection with the skin play a fundamental role.”

According to celebrity cosmetic dermatologist Paul Jarrod Frank, MD (New York City, N.Y.),



Brian M. Kinney, MD
Plastic Surgeon
Beverly Hills, CA



Yael Halaas, MD
Facial Plastic Surgeon
New York City, NY



Sebastian Cotofana, MD, PhD
Associate Professor
of Anatomy
Department of Clinical
Anatomy at the Mayo Clinic
Rochester, MN



Paul Jarrod Frank, MD
Cosmetic Dermatologist
New York City, NY



Before and three months after four treatments with Emface
Photos courtesy of Yael Halaas, MD



Before and three months after four treatments with Emsface
 Photos courtesy of Richard Gentile, MD

Emsface is the next step in a groundbreaking path for BTL. “Emsface technology is addressing some of the core causes of facial aging which, are laxity of muscle, fascia, connective tissues as well as skin laxity. But we have also had injectables for 20 years now,” he said. “While injectable neurotoxin and fillers are still a go-to in my facial armamentarium, they are also clearly an overused one-trick pony at times. Also, I think we all see that there are plenty of physicians out there relying too heavily on them, and people who have visibly had too much done. More and more we are realizing that a little bit of a good thing is often best. Emsface will help us inject more appropriately and sparingly in the future; the patients are asking not to over- or under-do them. The timing of this unique technology is perfect – it is a natural progression along the lines of BTL’s recent innovations, builds on their solid regulatory and scientific reputation, and is the result of deliberate directed research and engineering.”

BTL is the world’s largest physiotherapy company and knows muscles better than any of its potential rivals in the space, according to facial plastic surgeon Jennifer Levine, MD (New York City, N.Y.). “Emsface is a natural and very thoughtful evolution,” she began. “With its primary focus in physiotherapy, BTL has gained an impressive body of knowledge and applied it through engineering to both the medical and aesthetic industries. Naturally, this shows in the way their technologies have evolved. They are always looking to develop non-invasive devices with no- or low-consumable costs. With their more recent offerings such as Emsculpt

and Emsculpt NEO, as well as Emsella, we now have a variety of aesthetic, functional and overall wellness benefits gained between these technologies. From older people who can stand and walk better and more safely, to moms after childbirth restoring their pre-pregnancy structure and function, to reshaping the body and face in a natural way, it is all tied together.”

“I have been telling patients Emsface is tightening the musculature that connects the fascial network and ligaments, contracting and strengthening the muscles that support and hold the fascia and lax ligaments together in the face; from a very well-used and lax hammock to a more tightly woven and taut hammock,” explained dermatologist Joel Cohen, MD, director of AboutSkin Dermatology in Denver, Colo.

“Emsface is being embraced not only by younger patients wanting to maintain their youthful look and jumping on the ‘prejuvenation’ concept, but is also helpful for the older patients,” Dr. Cohen indicated. “Including those whose foreheads are no longer candidates for neuromodulators due to dermatochalasis and brow-lid redundancy. This older population of patients depend on the frontalis to keep their brow-lid complex up, and by using Emsface, I am hugely impressed that muscle is actually enhanced; brow positioning moves up and at the same time wrinkles are reduced through the underlying structural changes and support. And similarly, for the lower face, laxity and jowling are also improved through the same type of muscular accentuation, fascial support and the cascade that leads to soft tissue fullness.”



Jennifer Levine, MD
 Facial Plastic Surgeon
 New York City, NY



Joel L. Cohen, MD
 Dermatologist
 Director
 AboutSkin Dermatology
 Denver, CO



Christopher Robb, MD
 Dermatologist
 Director
 Skin & Allergy Center
 Spring Hill, TN



Before and after four treatments with Emface
Photos courtesy of BTL Aesthetics

“With Emface, it is not about which segment of the population will do better, but how Emface will help different segments of the population differently,” Dr. Cohen added.

As with other BTL technologies, treatment is a breeze. No preparation or post-treatment protocol (other than basic skin cleansing) is needed. The applicators are placed on the forehead and cheeks, settings are chosen and treatment begins; if needed, the operator can adjust the applicator position early into the session to ensure appropriate muscle response. A typical treatment regimen consists of four 20-minute sessions at intervals of two to 14 days. There is no associated downtime. The full result is seen about 90 days after the final treatment. “As we age, we can feel our face jowling, and it is not a good feeling,” Dr. Halaas mentioned. “Our patients report feeling the lift and a tightening in their faces, and I noticed this effect after my own Emface treatment as well. With more treatments, you sense a reduction in that sensation and it is surprisingly liberating.”

“Emface has a set of single-use applicators, which you would expect for a facial treatment, but it is reasonably priced and a natural consequence of the engineering rather than an artificial consumable to generate income,” Dr. Kinney explained. “This device, like Emsculpt NEO, is a feat of engineering.”

During a treatment session, HIFES-brand energy generates thousands of pulses per session, thoroughly and completely stimulating delicate muscles – specifically the frontalis, zygomaticus major and minor, and the risorius. The Emface treatment creates a sort of lateral brow lift that reduces wrinkles and provides better facial support overall. Sagging

facial tissue is drawn back up, with more muscle tone and structural support.

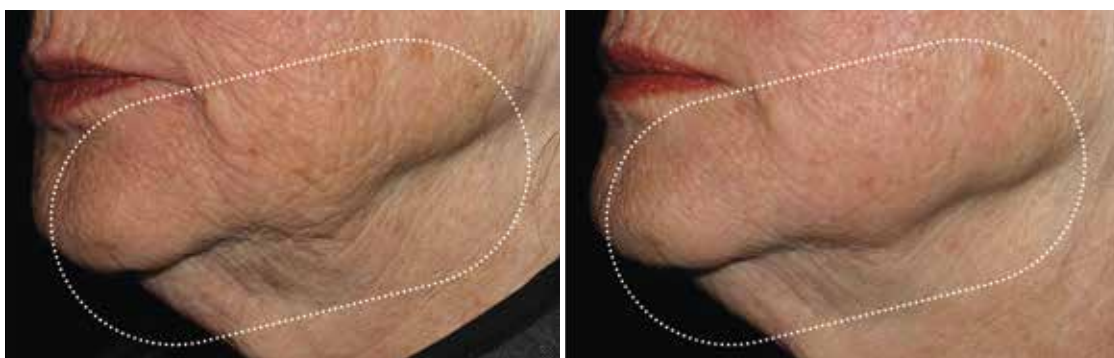
The main difference between HIFEM-brand energy in Emsculpt and HIFES-brand energy in Emface, according to Dr. Kinney, is in the delivery method of the muscle stimulation. It is the difference between therapeutic electromagnetism and electrical stimulation. BTL chooses the right tool for the right job. “We know from Faraday’s Law and Maxwell’s Equations that electricity and magnetism work perpendicular to each other; when magnetism is penetrating deeply into the tissue, electricity is running perpendicular to that more superficially. This is why HIFES-brand energy is ideal for the face. We are not trying to penetrate deep into the mouth, into the brain or anywhere else. We are trying to propagate very superficial muscles. And we know that, under the right settings, repeated electrical stimulation will tone muscle.”

Dr. Kinney, among others, have been investigating the effect of Emface on muscle and skin using animal models. “In our study, at two months we saw 19% improvement in muscle density, and 26% increase in collagen with a doubling of the number of elastin fibers,” he reported.

There is also a distinct difference between HIFES-brand energy in Emface and the microcurrent treatment estheticians might provide at a medspa. “I have been repeatedly asked about that,” Dr. Frank reported, “and the first thing to remember is that the effect, if any, of those medspa treatments are known to be low-grade and temporary. Emface technology is head-and-shoulders above any facial-type exercises or microcurrent suggestions a spa might give you, by far. Nothing else on



Before and after four treatments with Emface
Photos courtesy of Yael Halaas, MD



Before and three months after four treatments with Emface
Photos courtesy of Richard Gentile, MD

the market will give the improvement of combined HIFES-brand energy with the addition of Synchronized RF for skin.”

According to Dr. Frank, the Emface applicator is a gel pad placed over the forehead and cheeks, with specifically designed electrodes that selectively target key regions for proper muscle stimulation while providing full-field emission of Synchronized RF. “Nobody knows RF like BTL. They have a long-standing and well-documented experience applying RF technology in the medical field successfully.”

The degree of control the operator can exhibit over the treatment, through Emface’s unique applicator, is unexpectedly, but necessarily, high, explained Dr. Levine. “We categorize facial musculature as depressors and elevators. Emface does not stimulate all the facial muscles, only specific elevators and not the depressors, which they are careful not to over-treat or pump up too much. We are interested in creating muscle tone and appropriate levels of hypertrophy and hyperplasia,” she explained. “Each person is different; taking myself

for example, I have a small face, so when I experienced treatment for the first time, they had to adjust the applicator a little bit. Also, operators can individually manage the power and intensity of the HIFES-brand and Synchronized RF energies delivered to each region of the face, so as to fine-tune the treatment to the individual and account for, or even address, mild facial asymmetry to some degree. Patients can experience a noticeable effect – for some of my patients even at the moment we remove the applicator.”

Physical aging is a known quantity. It is well understood that muscles atrophy with age; on the body, muscle mass is known to decrease 3% to 8% per decade after age 30, which tends to accelerate as those decades pass. Also, after age 20, the dermis produces about 1% less collagen per year. “The first signs of facial aging manifest as laxity, fine lines and a tired skin appearance,” said dermatologist Christopher Robb, MD, director of the Skin & Allergy Center (Spring Hill, Tenn.). “As we pass through our 40s, we begin to notice textural changes and mild wrinkling, as reduced production of

hyaluronic acid (HA) contributes to the degradation of collagen and elastin. The fat pad also begins to droop, which makes the cheeks look hollow. In our 50s and beyond, we see an increase in wrinkling, volume loss and facial laxity with increasingly limited HA production and more reduction of collagen and elastin. You see more solar elastosis and other photodamage, plus slow bone resorption accentuated by facial muscle atrophy. Of course, there are differences depending on individuals and common manifestations differing with ethnicity, but aging is inevitable.

“The beauty of Emface,” Dr. Robb continued, “is that it works for any age, race or skin color. Whatever aging is attributed to facial musculature and reduced skin quality, Emface is designed to treat it. Being able to independently control the delivery of energy via the applicator at different areas of the face is of particular benefit as it helps us individualize treatment.”

“Bearing in mind one’s individual facial makeup, one might characterize the result as a return to a more V-shaped face – not to reshape a square face, but to restore youthful facial contours, which are more V-shaped versus a sagging or jowly appearance,” Dr. Levine expressed. “Specifically, we see a lifting of the face and more youthful corners of the mouth, fewer wrinkles and smoother skin.”

Although virtually anyone may benefit from Emface, Dr. Levine sees the population between the ages of 40 and 55 as the sweet spot for this unrivaled therapy to have the most effect. “These people see some signs of aging, but they are probably not ready to consider surgery, even if they would be a great

candidate. They are the most likely to see the biggest change in their face. Incidentally, I personally see Emface as a potential adjunct to the facelift because it makes the SMAS more robust and tones the facial muscles while improving the overlying skin. There is research to be done along those lines for sure.”

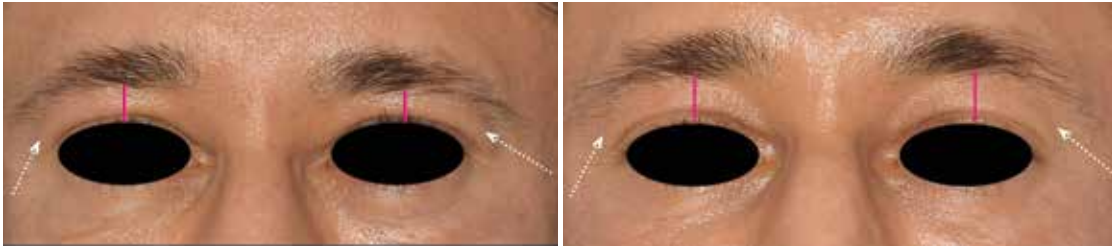
Speaking of research, BTL’s scientific track record speaks for itself. In nine as-yet-unpublished trials¹ at 15 sites worldwide – representing more than 170 patients studied and more than 700 study-related treatments – the numbers reveal the staggering potential of Emface. Patient results averaged a 30% increase in muscle tone, 37% reduction in wrinkles, 23% lifting effect, 26% increase in collagen, twofold increase in elastin and patient satisfaction exceeding 90%.

This commitment to science is a key component to the appeal of Emface as far as Dr. Halaas is concerned. “As we become more sophisticated and information-driven, there is a lot of noise out there, and it is oftentimes hard to find the substance in a sea of hype. BTL’s scientific reputation makes it easier for the savvy patients in their 20s and 30s to learn about and understand this tool, but it is even more important for us physicians who are choosing what treatments to offer and what therapies we can stake our reputation on. BTL always seeks well-rounded analysis and uses the spectrum of tools for visualizing and evaluating outcomes beyond standard photography, such as MRI, CT, 3D analysis and ultrasound as examples.”

Dr. Halaas assisted in clinical trials of the device concerning wrinkle reduction, as well as investigating improvements in muscle tone and quality. “We examined treated muscles with ultrasound



Before and after four treatments with Emface
Photos courtesy of Richard Gentile, MD



Before and three months after four treatments with Emface
Photos courtesy of Richard Gentile, MD

to assess changes, which were pivotal to understanding what is going on, as well as at different points of time as the manifestation of results progresses. The work is ongoing.”

Dr. Robb and Dr. Cohen are part of an overall facial rejuvenation study of Emface. “I was skeptical at first that this new device was going to do what they were saying, but science isn’t about what you think, it is about the rigorous process of examination, and the study design was solid,” Dr. Robb noted. “That is our role, taking a real look at what a device does, what happens and why. We are several months into it, and the results are great. Patients report feeling like they had a relaxing facial massage. Nobody had pain, and everybody loved it; in fact, some patients wanted more treatment just to experience that ‘facial’-type sensation. At around week two, we start seeing forehead wrinkle improvement and cheek lifting. Over time, it gets even better over the whole face.”

According to Dr. Robb, the treatment even appeals to men, a population traditionally shy about aesthetic medicine and injectables in particular. “Men tend to be somewhat averse to needles and cosmetic procedures, but so far, men love Emface. Injectables have a stigma of being more feminine, so they prefer lighter treatments that do not make you look like you have had anything done. They go for less pain and less hassle, non-ablative and less invasive, but they have jowling too, and they don’t like it any more than women do,” he shared. “Emface provides them a non-invasive, easy, hassle- and downtime-free painless treatment that gives a more youthful appearance in a way that looks and feels masculine. They like the sensation, they like the cheek build-up and feeling of restored structural support in the face. It helps a lot that other BTL technologies, such as Emsculpt, have done so much to help break down the barrier. Men understand the

‘sculpting’ of muscle and removal of fat, so it helps them understand what Emface does even though there are important differences. It is safe to say that Emsculpt paved the way for Emface in the male population.”

Training personnel to use Emface is also fairly simple Dr. Robb noted. “I do not mean to suggest that any treatment should be done without care and due diligence, but Emface requires nothing other than clear direction as to how to use it, what to look for so one can adjust the applicators early in treatment, and to make individual adjustments based on the patient’s anatomy and feedback, if needed. The interface is very intuitive. It is amazing to have such a leading-edge technology that in turn is so simple and safe to use.

“To me, the most shocking thing about this technology is that it is a treat for us to treat patients,” Dr. Robb continued. “I was originally skeptical, but patients love it, leave feeling relaxed, happy and lifted, and they cannot wait to see the results.”

“This is an important message for all generations: younger people can maintain structure, function and vitality; older individuals can see it restored to an exciting more youthful degree,” Dr. Halaas stated. “Science has given us unprecedented ability to influence how we age – both functionally and aesthetically – and the prospect of a more wellness-oriented mindset. Some of this is in the way we choose to live, but there is also a hope and a promise in technologies, like those from BTL. We are not just working to live longer, but to live better longer, and Emface is another tool from BTL to help us do that.”

Reference:

1. All data is currently on file with BTL Aesthetics and not yet published at the time of this issue’s publication.

EMFACE®

Full Face •
20
minutes
Needle-Free •

Less
Wrinkles
More
Lift
Needle-Free



Simultaneously

Skin &
Muscle

Hands-Free**

The **FIRST & ONLY** technology that simultaneously uses synchronized radiofrequency and HIFES™ energies to treat skin & muscle.



EMFACE.COM | #EMFACE



EMFACE® should only be used under the continued supervision of a physician or licensed practitioner. Patient should be continuously monitored and therapy discontinued immediately if the patient reports pain or excessive heat. Do not apply therapy over hair or scar tissue, or if patient has electronic or metal implants. Side effects may include temporary damage to natural skin (crust, blister, and burn). The Therapy Discomfort Button should always be accessible to the patient. Patient results and patient experience may vary. EMFACE® is indicated to provide heating for the purpose of elevating tissue temperature for selected medical conditions such as temporary relief of pain, muscle spasms, and increase in local circulation. EMFACE® applies muscle stimulation resulting in induced muscle workout. ©2022 BTL Industries, Inc. and affiliated companies. All rights reserved. BTL®, EM®, and EMFACE® are registered trademarks in the United States of America, the European Union, or other countries. The products, the methods of manufacture, or the use may be subject to one or more U.S. or foreign patents or pending applications, see www.btl.net.com/patents. Trademarks EMBODY, EMFACE, EMFEMME 360, EMSCULPT, EMSCULPT NEO, EMSSELLA, and EMTONE are associated with the EM® family of products and services. a**The procedure runs independently once applicators are affixed. Patients must not be left unattended during an active treatment.

Emface_LF_FAB_B2B_ENUS100_8.375x10.875; 785-79EMFFAB2BENUS100