

"The best candidates have loose skin that you can pick up with your fingertips. Wound healing more readily tightens loose skin."

DR. RICHARD FITZPATRICK

Device makes treatments quick, effective

By Caroline Helwick
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San Diego — A new device that uses radiofrequency energy technology can tighten tissue significantly after only one to four treatments with no postoperative downtime, said Richard Fitzpatrick, MD, at the annual meeting of the American Society for Aesthetic Plastic Surgery.



Dr. Fitzpatrick

Patients can resume normal activities at once because the device bypasses the epidermis as it targets the deep dermal and subcutaneous tissues. There, thermal damage seems to induce microscopic

wounds that cause immediate collagen contraction, visible after a few days. The maximum effects—surface tightening of the cheeks, jowls, and neck as a result of new collagen production and tissue contraction—may not appear for four or five months. These approach the effects of surgical rhytidectomy without its risks.

Lasting Effects

"The collagen tightening from wound healing stays until gravity causes it to loosen. At five years, you'll have generally the same improvement you see at six months. The results are very similar results to those of a face lift," said Dr. Fitzpatrick, associate clinical professor, Division of Dermatology, University of California, San Diego.

Nonablative lasers offer improvement in texture but not in tightening of skin, while radiofrequency tightens but does not change skin texture. Dr. Fitzpatrick said nonablative lasers work more superficially, right beneath the epidermis, while radiofrequency starts immediately beneath the epidermis and goes all the way down to fatty layers.

Other alternatives

Ablative resurfacing effectively removes rhytides and actinic damage, but requires scrupulous, lengthy postoperative care. Patients are also at risk for dyschromia, infection, and scarring. Nonablative lasers such as the N1320-Nd:Yag have effectively reversed photodamage and softened rhytides, but require numerous treatments over several months. Also, their results do not equal those of ablative lasers.

"The [system] seems to tighten tissue significantly after only a few treatment sessions," said Dr. Fitzpatrick. "Patients have been very pleased with the results — softer nasolabial folds, less visible jowls, sharper and tighter jawline and submental tissue, and less loose tissue and deep lines on the anterior neck. The device works well with acne scarring as well. It also decreases the amount of active acne by causing a necrotic reaction in the oil glands that makes them shrink. The only adverse advent we've seen is an occasional blister along the jawline and

neck. These heal without event. You cut back energy in those areas to avoid the risk."

The patient's experience

A cryogen spray within the contact cooling device lowers the surface temperature to protect the cutaneous surface. All that contacts the skin is a cold glass tip. The size and geometry of the handpiece determine the depth of thermal injury, which can be modified by altering the tip. The conductivity of a particular tissue type determines the degree of injury. For example, subcutaneous fat has a relatively higher impedance and generates more heat, providing a partial explanation for deep thermal effects.

Treatment results

Dr. Fitzpatrick has treated approximately 250 patients using the RF device over two years. He recently reported the results on 40 patients.

One to four treatments were given at six- to eight-week intervals. The lower two-thirds of the face and cheeks (26), the full face (seven), the jowls (six), and the anterior neck (two) were treated at settings on the device ranging from 12 to 16, which correspond to target energies of approximately 80 J to 140 J. A single pass of confluent impacts was directed over the treatment area. Typically, treatment of the cheek areas starts at the nasolabial fold, proceeds across the malar area to the preauricular region, and then moves down to the jawline. Impacts were also delivered to the submandibular ridge from mid-chin to mastoid process. The procedure takes about 30 minutes. At one, two, and three months after the first treatment, approximately 30 percent, 50 percent, and 70 percent of patients observed significantly improved skin laxity and texture.

"The best candidates have loose skin that you can pick up with your fingertips. Wound healing more readily tightens loose skin," Dr. Fitzpatrick said, adding that patients with early changes seem to respond better, but it's too early for generalization.

Dr. Fitzpatrick serves on the advisory board of Thermage and has no financial investment in the company. CST



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