## FACIAL REJUVENATION WITH THE PROFRACTIONAL™

R. JAMES KOCH, M.D., Boca Raton, Florida MARK S. NESTOR, M.D., PH.D., Aventura, Florida MICHAEL H. GOLD, M.D., Nashville, Tennessee

#### INTRODUCTION/BACKGROUND

Over recent years facial rejuvenation has become an attractive option for patients looking to enhance the tone, texture and overall appearance of their skin. Aesthetic concerns such as fine lines, wrinkles, acne scarring and pigment can be addressed and treated with excellent results using ablative treatment modalities. However, these results usually come with long periods of downtime that today's patients won't often tolerate. The issue of downtime led to the development of nonablative technologies that promise less downtime but not the same dramatic results.

Fractional resurfacing is a popular new choice and has been receiving a lot of attention. The first generation of fractional devices was the Fraxel<sup>TM</sup> system (Reliant Technologies, Palo Alto, CA). Even though a second generation Fraxel system is now available, the procedure itself can be quite painful.

When choosing a system for facial rejuvenation the question is this: Which laser is delivering enough energy to actually make a visible difference without the low tolerability, long downtime and multiple treatment series? The ideal rejuvenation procedure offers the patient a quick and relatively painless yet effective treatment of their photodamaged skin. Patients want the results of ablative technologies with the limited downtime of non-ablative treatments.

Sciton has introduced the ProFractional<sup>™</sup>, which requires topical anesthesia and fewer treatment sessions. The device has no consumable components and offers results comparable to those of more aggressive treatments. Many

patients can return to work the next day. The ProFractional has raised the cosmetic standard for fractional facial rejuvenation and enhances Sciton's repertoire of reliable, durable lasers that provide excellent clinical outcomes andhigh patient satisfaction.

# PROFRACTIONAL VS. TRADITIONAL FRACTIONAL TECHNOLOGY

Like early fractional devices, Sciton's ProFractional works on the principle of fractionated photothermolysis. The difference lies in the delivery of the energy. ProFractional is a 2940-nm Er:YAG laser able to penetrate deeply into the dermis by ablating narrow, clean channels to a selected depth. These channels are surrounded by healthy tissue, speeding healing time and reducing downtime for the patient. And since heating is limited to the narrow channel, there is no collateral tissue heating to cause discomfort. Because these channels are ablated cleanly, almost all heated tissue is removed which speeds healing times.

The depth and density of these spots can be easily and precisely adjusted to customize treatment for each patient. This is a revolutionary advancement in fractional technology. And the system doesn't require the purchase of a new laser. ProFractional is a modular upgrade to any existing Sciton Profile<sup>TM</sup> platform.

#### TREATMENT PROTOCOL

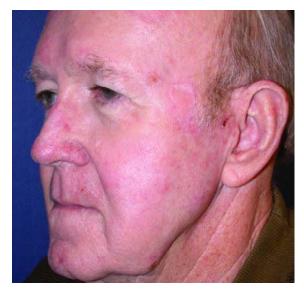
ProFractional can be used for full face rejuvenation or aggressive treatment of cosmetic areas such as the periorbital or perioral regions. New users are investigating novel applications for this exciting cosmetic tool.



Before Treatment

Photos courtesy of R. James Koch, M.D.

Palo Alto, California



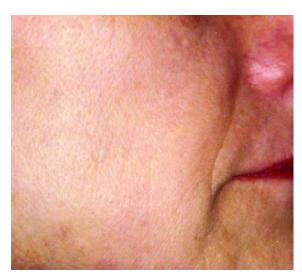
**After Treatment** 



Before Treatment

Photos courtesy of Mark S. Nestor, M.D., Ph.D.

Aventura, Florida



**After Treatment** 

The ProFractional device can penetrate from 25 um to 1.5 mm with a scanned treatment pattern size of 6 x 6 mm or 20 x 20 mm.

Pre-treatment care with ProFractional is minimal. If desired, a topical anesthetic can be applied. For general full face rejuvenation, a depth from 100 to 200 mm and coverage of 2% to 11% is common. A short series of treatments achieves optimal results. There is no set time between treatments, but between 2 weeks and 6 weeks is customary.

Improvement seems to increase with each treatment, but even after just one ProFractional treatment the patient will notice a difference. There is no need for the patient to commit to a large number of treatment sessions, making the procedure very patient-friendly. Collagen remodeling takes time, so the full effect of a single treatment is not immediately apparent.

With the ProFractional, clinicians can comfortably treat Fitzpatrick skin types I through IV. Experience with darker skin types (V and

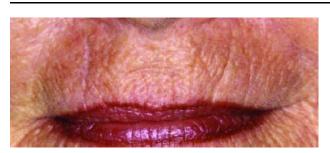
VI) is limited at this time, but the evidence so far suggests that ProFractional can treat darker skin without the pigmentation problems. Deeper penetration and/or coverage's may be required for indications such as acne scars and deep wrinkles, particularly for perioral or periorbital applications.

Sessions are short and multiple passes are not required. Treating the perioral area with ProFractional takes only five minutes. The periorbital area takes just three minutes to treat. Posttreatment care is as simple as a moisturizer. Healing ointments have been used with good results as well. The patient will present with erythema, not unlike a sunburn for a day or two, but can quickly go back to work or normal activity.

#### **RESULTS**

For overall texture and tone, ProFractional results have been excellent. Patient satisfaction is high because of the level of improvement combined with a low risk of side effects. Fewer treatment sessions are required and commitment to a long series is unnecessary, which patients also appreciate. Experience tells us that patients who like the results will return for additional procedures.

Fine lines and wrinkles are traditionally difficult to treat, especially around the eyes and mouth. Improvement in these has been very significant.



**Before Treatment** 



After Treatment

Photos courtesy of Mark S. Nestor, M.D., Ph.D.

Aventura, Florida



**Before Treatment** 



After Treatment

Photos courtesy of R. James Koch, M.D.
Palo Alto, California

### **CONCLUSION/FUTURE**

Combination procedures may be the future of ProFractional, which is already showing excellent results when combined with Sciton's MicroLaserPeel procedure. As a simple addition to the Sciton platform, the ProFractional design also lends itself to use in combination with other laser and light-based therapies. Fillers are an option and are being tested with ProFractional for anything from photoaging to deep acne scars. Logic suggests using intense pulsed light (BBL) in combination with ProFractional because you're also treating the red and brown pigment.