

PROFRACTIONAL WITH MICROLASERPEEL : THE COMPLETE FRACTIONAL SOLUTION

JASON N. POZNER, M.D., Boca Raton, Florida

B. KENT REMINGTON, M.D., Calgary, Canada

R. JAMES KOCH, M.D., Palo Alto, California

INTRODUCTION

The demand for effective correction of fine lines, wrinkles, pigment, and scars is steadily rising as new devices promise better results, less pain, and less downtime than previous modalities. Combining treatments has proven effective for a variety of skin conditions from photoaging to acne scarring, usually with greater efficacy than a single procedure. Intense pulsed light (IPL) with fractional photothermolysis, for example, can attack conditions from multiple treatment angles whereas a single device might be limited.

Sciton's Contour™ dual-mode 2940 Er:YAG is used frequently to perform the Micro-LaserPeel® (MLP) procedure for light skin resurfacing. MLP uses less than 50 µm of ablation to treat fine lines and sun damage and includes a computerized scanner to give a uniform result. The success of this treatment and Sciton's excellent track record continue to impress medical professionals and as such, Sciton's new fractionated device, ProFractional™, is generating comparable and significant interest.

ProFractional is a 2940-nm dual-mode Er:YAG laser for treating the different characteristics of photoaging. It requires little or no anesthesia, has no consumable components, promotes collagen remodeling, offers dramatic improvement similar to deep ablative resurfacing, and promises shorter recovery time than traditional fractional resurfacing methods. Treatment is quick and only a few sessions are necessary to achieve optimal results.

Combining ProFractional with MLP is a logical evolution. It's also a convenient one. ProFractional can be easily integrated into an existing Sciton Profile™ platform. The system

is designed to provide optimal clinical results in a convenient, cost-effective, time-saving way.

PROFRACTIONAL VS. TRADITIONAL FRACTIONAL TECHNOLOGY

ProFractional is similar to the most commonly referred-to fractional device, Fraxel™ (Reliant Technologies, Palo Alto, CA). It works on the principle of fractionated photothermolysis. Fraxel is nonablative, so downtime is limited, but the energy distribution creates areas of thermal necrosis intended to stimulate the body's natural wound healing response. The downside is that the greatly heated tissue remains in the wound creating a highly uncomfortable procedure for patients. Also, a fractional treatment alone requires multiple treatments before a significant portion of the skin is treated. For example, at 20% coverage it requires up to 7 treatments to involve 79% of the epidermal layer. And since pigmentation problems often reside in the epidermis, patients may not see a noticeable difference until after several treatments.

The Sciton ProFractional can ablate narrow, precise channels deep into the dermis. These small wounds are surrounded by healthy tissue, so there is less thermal necrosis and therefore faster healing time. By comparison, CO₂-based fractional devices and mid-infrared devices create more thermal damage and cause more downtime and patient discomfort. Finally, ProFractional removes treated tissue cleanly, leading to a virtually painless procedure for the patient.

With ProFractional, the depth and coverage density of spots can be precisely adjusted from light resurfacing to deep post-acne scars, which is a revolutionary advancement in fractionated

Fractional Treatments Are Recursive

each treatment includes previously treated skin

Tx's	Treatment Density					
	10%	20%	30%	40%	50%	60%
1	10%	20%	30%	40%	50%	60%
2	19%	36%	51%	64%	75%	84%
3	27%	49%	66%	78%	88%	94%
4	34%	59%	76%	87%	94%	97%
5	41%	67%	83%	92%	97%	99%
6	47%	74%	88%	95%	98%	100%
7	52%	79%	92%	97%	99%	100%
8	57%	83%	94%	98%	100%	100%
9	61%	87%	96%	99%	100%	100%
10	65%	89%	97%	99%	100%	100%

To completely treat visible signs of sun damage using Fractional alone requires either high densities or multiple treatments

technology. ProFractional can be added to an existing Sciton Profile platform, which is convenient and cost-effective, especially when combining ProFractional with MLP.

PROFRACTIONAL PLUS MICROLASERPEEL

Treating with ProFractional alone can help stimulate collagen, but for the desired overall effect, several treatments may be required over a period of time. Treating with MLP alone may be too shallow a procedure for some indications because it doesn't reach the mid-dermis. By combining ProFractional with MLP, you can treat deeply into the dermis for tone and texture improvements, and apply a superficial resurfacing to remove the visible signs of sun damage. Combining the

ProFractional treatment with an MLP adds a youthful radiance to the skin, resulting in a much happier patient.

The ProFractional creates narrow channels of ablation that stimulate collagen remodeling, giving some of the benefits of deep resurfacing without creating excess necrotic debris that hinders wound healing. The precise adjustability of ProFractional is useful for treating different areas of the face. The user can selectively choose the treatment depth and density of spots to provide uniform color, texture and tone to the face—and can do so without the scabs, crusting, and the associated long downtime of heavy ablation. The MLP treats 100% of the surface of the skin to put on a finishing touch, especially around sensitive areas such as the eyelid, adding a more uniform look and a

ProFractional & Resurfacing Series 1

Photos courtesy of Jason N. Pozner, M.D., Boca Raton, Florida



Before

After resurfacing

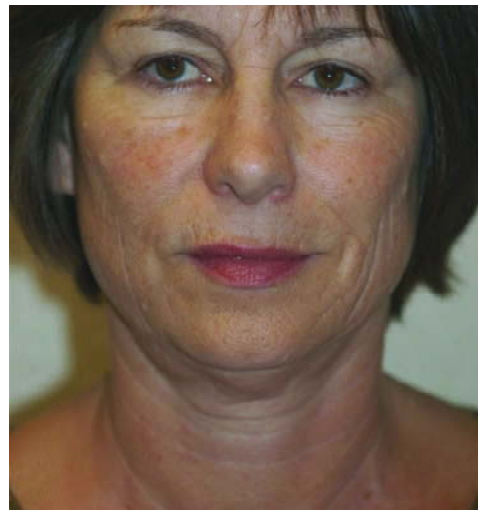
After ProFractional

MicroLaserPeel & ProFractional

Before treatment (left photographs) and five weeks after 1 treatment (right photographs).

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

Palo Alto, California



youthful radiance to the skin. The overall effect is more dramatic than either treatment alone.

The treatment of scarring is a popular indication for ProFractional alone as well as in combination with MLP. Acne and trauma-induced scarring creates uneven texture and often uneven color and tone in the skin as well. The one-two punch of superficial resurfacing and deep-penetration collagen remodeling helps blend these textures.

TREATMENT PROTOCOL

Specific protocols and treatment settings are being established and will vary according to each patient's treatment. The goal is to achieve the visible results of deep resurfacing without the downtime. ProFractional is effective for resurfacing as a solo procedure, but the success of MLP led to experimentation of a combination treatment. Both devices are in the same platform. Each can be used in the same treatment session and the extra treatment adds 15 minutes in most cases. Treatment parameters can be altered on the basis of patient need and tolerability for downtime. The ProFractional device can treat the forehead at 100 μm and then lightly resurface the eyelids, for example, providing versatility and the ability to treat several different conditions at once.

The most effective sequence for combination ProFractional/MLP therapy is also being investigated. Doing MLP first might improve the efficacy of the ProFractional treatment. By taking off the outer layer with a level 1 or 2 single-pass MLP, then using ProFractional at depths of 100 – 200 μm , a noticeable improvement in tone, texture and wrinkles can be achieved. Treating with MLP at 25 μm of ablation using one pass, and then adding 300 – 400 μm of ProFractional to treat depressed scars works nicely as well.

MLP can be effective to feather out the effects of the ProFractional as users work toward creating a uniform result. Settings vary with the type and severity of the indication (s).

Pre- and post-treatment care is somewhat standardized. For the combination, a topical numbing cream makes the patient more

comfortable. Practitioners could use a topical numbing cream, do the MLP, and then immediately treat with the ProFractional. Alternating between topicals and treatment is also effective. Moisturizer, a cooling mist spray, or both after treatment is being used by many.

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.

RESULTS

Results are excellent. Our patients are very happy with the reduced downtime and fewer treatment sessions compared to previous modalities. For patients with photodamage where IPL wasn't effective, ProFractional plus MLP provides satisfying results. Patients can look like they've had a sunburn that will last a few days, but the end result is helpful, not harmful.

Adding ProFractional to an MLP does not add any additional downtime for the patient. Patients who've experienced treatment penetration down to 750 μm reported more discomfort, but liked the results better.

CONCLUSION/FUTURE

Treating texture problems and scarring with ProFractional plus MLP is safe and effective for most skin types. There is still much to learn. Investigations for everything from scarring to photorejuvenation are underway, and these results and improvements will be reported in due time.

Other combinations, such as ProFractional with the Sciton SkinTyte™, might achieve results not realized even with deep resurfacing. The SkinTyte might cause deeper collagen remodeling and thus a multidimensional change in skin quality. Using ProFractional with fillers is also becoming common practice, especially for the deeper acne scars.

The future of ProFractional may include combinations with other laser and light-based therapies. As more physicians gain experience with the device, more patients will benefit from the various clinical indications that ProFractional can potentially treat.