

The Latest **Non-Surgical Wrinkle Removal** *& Facial Rejuvenation Technique*

By: Todd E. Schlesinger, MD, FAAD

■ The carbon dioxide (CO₂) laser has been considered the “gold standard” for non-surgical removal of facial wrinkles since 1995. With this laser, we were able to achieve significant wrinkle reduction, removal of dark spots, skin tightening and clearance of sun-induced skin damage.

Limiting the usefulness of the CO₂ laser was a prolonged and difficult recovery time, prolonged facial redness lasting three months or more and the risk of permanent lightening of the skin color due to the heat effect of the laser. Patients were also at high risk for infection, which could lead to scarring.

Fractional laser resurfacing is a new technology that has been in increasing use over the past several years. With it comes a much shorter recovery time, reduced complications and very favorable results in the same areas of concern: wrinkles, sun-damaged skin, skin tightening and dark spot removal.

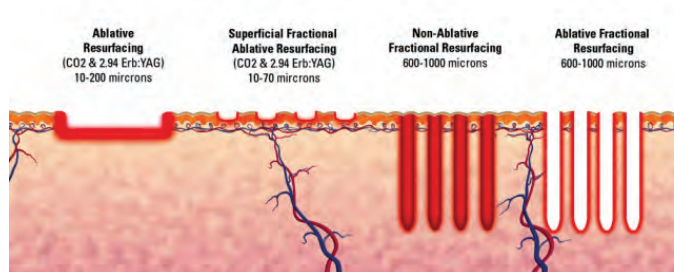




In a nutshell, fractional laser resurfacing works by dividing or fractionating the laser beam into many tiny micro beams that treat the skin while leaving normal or untreated skin between them. This results in a much faster recovery time and fewer complications. The laser beams treat the skin in “micro thermal zones” that cause just enough skin injury to promote the formation of new collagen and therefore a reduction in wrinkles and sun damage.

In prior articles, I have written about “non-ablative” fractional resurfacing in which the laser beams are focused below the skin. These lasers provide for minimal to no downtime and very good results. Three to five treatments are needed and they are good at treating mild-to moderate wrinkles, acne scars, skin discoloration and more. Now, with ablative fractional resurfacing, even better results can be achieved with just one treatment.

“Ablative” fractional resurfacing means that the top layer of skin is removed. The results achieved by ablative fractional laser resurfacing are more significant because the damaged skin is removed and the deeper layers of the skin are heated, promoting new collagen production. This means that skin with more severe wrinkling or sun damage may be treated with a great improvement. Figure 1 shows the difference between the different types of laser resurfacing. On the left is traditional CO2 laser resurfacing that removes the entire skin surface resulting in a prolonged healing period. Next is superficial fractional resurfacing such as the Lumenis ActiveFX or Cutera’s Pearl that do not ablate very deeply and therefore produce a limited result. Third is non-ablative fractional resurfacing such as the Palomar Lux1540 that reach deep into the skin with heat, but do not ablate the skin. Results are good, and there is minimal downtime. Lastly is ablative fractional resurfacing such as with the Lux2940 laser. This laser has been developed to penetrate deeply into the skin with ablation as well as heat damage, and can produce much more effective wrinkle removal with much less recovery time than traditional laser resurfacing.



The 2940 light wavelength is the most efficient at removing damaged skin. Using this new micro-fractionated technology, a significant reduction in wrinkles and sun damage can be achieved with a single treatment. The recovery time is usually 2-5 days, depending on the depth of treatment. Treatments are comfortable and performed using topical numbing cream and a mild sedative.

This is a very exciting new laser. Our patients have been thrilled with the results and minimal downtime. We are finding new uses for it daily and anything from a light laser peel, to a treatment certain areas such as the mouth lines or the “crows’ feet”, to a full face resurfacing can be done in 20-45 minutes. The laser offers a high degree of control and safety in that ablation, thermal heating or a combination of both can be used to treat different types of skin damage. This is a single treatment laser procedure with significant results.

If you have been looking for a way to get your skin looking great and you can afford to stay home for 2-5 days, this laser is likely to do very well for you. Women or men, younger or older, this versatile new laser may be your answer to getting the skin you deserve! ■



Todd E. Schlesinger, MD, FAAD

Dermatology & Laser Center of Charleston
Charleston, South Carolina
(843) 556-8886
www.dermandlaser.com