

FDA Clearance Unleashes INTRAcel Fractional RF Microneedling



Gregory Chernoff, M.D.
Medical Director
Chernoff Cosmetic Surgery
Indianapolis, IN and Santa Rosa, CA



Michael H. Gold, M.D.
Director
Tennessee Clinical Research Center and
Gold Skin Care Center
Nashville, TN



Jeanine Downie, M.D.
Dermatologist
Medical Director
Image Dermatology
Montclair, NJ

By Kevin A. Wilson, Contributing Editor

Waiting in the wings for its opportunity, the minimally-invasive INTRAcel fractional radiofrequency (RF) microneedle device is ready to take the U.S. aesthetic medical market by storm. Manufactured by Jeisys Medical, Inc. (Seoul, South Korea), this platform is part of an initiative by distributor Perigee Medical (Tracy, Calif.) to bring powerful, yet safe and effective technologies from overseas to a nation hungry for affordable, high-quality aesthetic therapies. Offering a wide assortment of applications, INTRAcel is a game changer.

INTRAcel utilizes an array of 49 insulated microneedles that can deliver a combination therapy on its own at depth in three different modes, and the microwound channels can serve as a vector for facilitating the absorption of topical therapies, taking them to greater heights. "I'm always looking for therapies with a high intersection of safety and efficacy, and INTRAcel is panning out to be just that," said plastic surgeon Gregory Chernoff, M.D., medical director of Chernoff Cosmetic Surgery (Indianapolis, Ind. and Santa Rosa, Calif.). "It delivers multimodality therapy in one device. As we treat more patients the power of RF microneedling with and without topically applied cellular therapies becomes more evident."

According to Michael H. Gold, M.D., director of the Tennessee Clinical Research Center and Gold Skin Care Center (Nashville, Tenn.), depth of energy penetration depends on the chosen needle length and selected energy level. Insulated needles ensure the emission of energy at the tip only. "There are three modes. Invasive monopolar RF stimulates neocollagenesis via deep, but diffuse tissue heating between 3 mm and 5 mm beneath the skin's surface, well within the dermis. More superficially, but still inside the dermis is where invasive bipolar RF is directed, for which energy is passed between electrode pairs to cause coagulative necrosis at a specific depth. The superficial mode (Superficial RF Rejuvenation or SRR) provides a sort of subablative epidermal therapy, which is aggressive, yet still gentle." These modes can be used alone or combined in a variety of ways, he added.

"INTRAcel really shines for acne scarring, but I am excited about treatment of striae," said dermatologist Jeanine Downie, M.D., medical director of Image Dermatology (Montclair, N.J.). "You can also address fine lines, wrinkles and large pores." The bipolar mode uses shorter pulses and makes for a narrower coagulation zone, meaning less pain and downtime, with energy deposition maximized through the feedback controlled impedance matching feature. "What that does is provide real-time feedback on tissue impedance to the device, which in turn changes the RF output based on those values," she continued. "Automatic feedback response is critical to the success of focused RF therapies such as this one. RF energy creates a thermal effect via impedance as the current travels through the tissue, thus tissue impedance changes, so automatic impedance matching accounts for that. Features like this make treatment safer and more effective by customizing energy delivery to the individual patient automatically."

Whenever using the bipolar and monopolar modes together, you get a balance between short- and long-term effects, according to Dr. Downie. "The bipolar RF



Stretch marks before Tx



After two INTRAcel treatments

Photos courtesy of Gregory Chernoff, M.D.

INTRAcel

FRM™ Fractional RF Microneedling

NEW

FRM™
MONOPOLAR MODE

SRR™
SUPERFICIAL MODE

TOPICAL
NON - RF MODE

FRM™
BIPOLAR MODE

WITH AUTOMATED
IMPEDANCE FEEDBACK

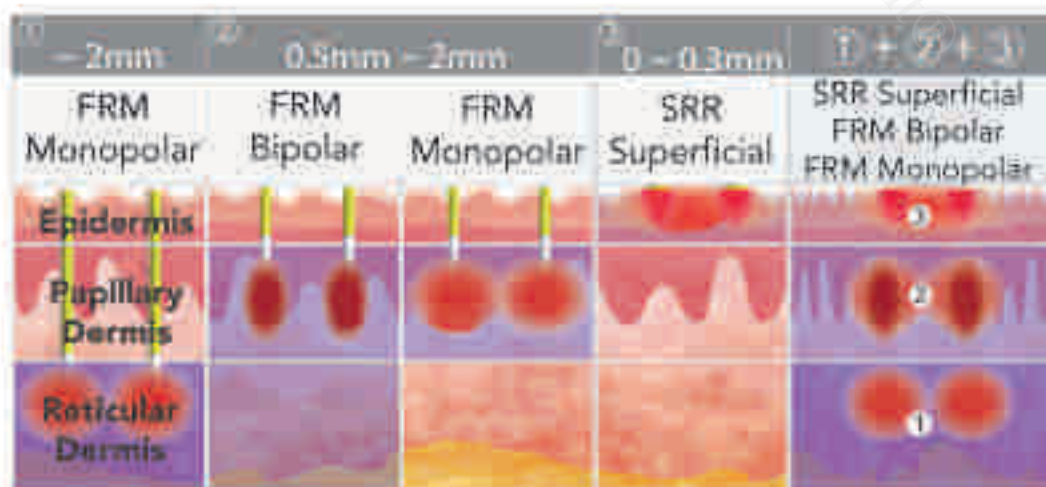


From Jelsys Medical, the inventor of insulated RF-microneedling technology and world leader since 2010.

4 MODALITIES = HAPPIER PATIENTS

INTRAcel **Multi Layer Therapy** allows precise and independent control of RF energy delivery, depths and thermal zone in any layer of the skin.

Physicians can finely tune treatments by selecting and combining the ideal energy needed to achieve the best result.



FRM MONOPOLAR
for the deeper layers

FRM BIPOLAR
for the papillary dermis

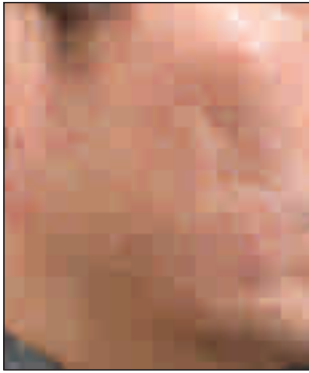
SRR
(Superficial RF Rejuvenation)
for superficial treatments

T-MODE
for conjunction
with topicals

Contact Perigee Medical at
844-737-4433 for details.

perigeemedical.com/Intracel

 Perigee
perigeemedical.com



38 year old male with acne scarring before Tx



After three INTRAcel treatments
Photos courtesy of Jeisys Medical

"This is an exciting emerging device because it is safe, effective, novel and very affordable in comparison to other options, which should translate into treatments that are more accessible to patients, yet still powerful."

treatment will give you more rapid onset, 'immediate' results, enhanced by the addition of the long-term, slower-to-manifest skin remodeling you see with monopolar RF. The SRR mode is a non-invasive superficial modality." Additionally, T-MODE is the use of the microneedles alone for creation of microwound channels for topical therapy.

Due to the nature of this treatment, the RF-based modality is safe for all skin types and has an extremely low associated risk of post-inflammatory hyperpigmentation (PIH). "The need to ensure a low incidence of PIH is especially important in certain patient populations, mostly those with darker skin types or Asians, who are especially prone to PIH," Dr. Gold noted.

In Dr. Gold's experience, the ability to utilize the microwounds as portals through which topical therapies may be enhanced has a lot of potential. "It is a distinct advantage to have that capacity because it raises the ceiling of limitations on topical therapies," he elaborated. "These are the kinds of creative combinations I've seen in Asia, from where this technology originated, and we have some exploring to do in the meantime, but this capability holds a lot of promise."

Dr. Chernoff agreed. "So far the most popular topical from a patient standpoint is autologous platelet-rich plasma (PRP). This is akin to aerating the grass and laying down liquid fertilizer. You can also choose growth factors, antioxidants, alpha hydroxy or glycolic preparations and others, virtually any topical treatment may be improved in this manner."

"Microneedling originated overseas and is growing in popularity because of its efficacy, safety and versatility," explained Dr. Gold. "This modality may be new to the U.S., but it has an established track record in Europe and Asia. Any safe device with standout efficacy that can treat many indications will be an asset to any aesthetic practice, giving patients the kind of results they expect. Of course there are always non-responders, but when you attack different issues from a variety of vectors simultaneously, this is much less likely."

INTRAcel's safety and versatility enable creative experimentation, Dr. Chernoff shared. "As a community we have a lot of work to do in fine tuning the use of three available modes, alone and in combination, with or without various topicals. With active acne, for example, we are seeing great results with microneedling plus PRP resolving breakouts rapidly. But there's been so much study directed at the needle therapy alone; with the advent of regenerative medicine I think you'll see escalating growth in that field over the next five years because of the way absorption channels can affect the penetration of topicals."

"This is an exciting emerging device because it is safe, effective, novel and very affordable in comparison to other options, which should translate into treatments that are more accessible to patients, yet still powerful, rather than a cut-rate version of something better," Dr. Downie stated. "It means value for patients and the results can be outstanding. Consumables are limited to handpiece tips, which is manageable and helps maintain cost-effectiveness."