

INFINI Offers Novel Dual-Mode RF for Skin Rejuvenation

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Skin rejuvenation using fractional radio-frequency (RF) energy is a fast growing technology in aesthetic medicine. INFINI from Lutronic Corporation (Goyang-si, Gyeonggi-do, Korea) is a dual-mode fractional RF system providing excellent clinical outcomes with high power and minimal downtime.

As a dual-mode fractional RF platform, INFINI provides microneedle fractional radiofrequency (MFR) and superficial fractional radiofrequency (SFR) via two separate handpieces. MFR delivers controlled electrothermal energy to the deep dermis with adjustable depth microneedling using an array of 200 μm needles to induce dermal collagenesis and elastinogenesis. SFR treats the epidermis without needling.

This synergistic combination of technology helps to achieve three-dimensional tightening of the skin. Very high energy is delivered in a short amount of time at selected dermal depths resulting in minimum bleeding and maximum dermal coagulation. In addition, the healing process ensures three-dimensional tissue remodeling throughout the treated area, and an overall improvement in the skin.

According to Boncheol Goo, M.D., medical director of Lutronic, the novel dual-mode feature permits treatment of both the deep dermis and epidermis with a single device to produce dramatic skin improvement. "MFR is very effective for skin tightening, as well as treating acne scars and enlarged pores in oily areas. SFR is useful for minimally invasive epidermal rejuvenation."

"Furthermore, it is very easy to change handpieces during treatment," Dr. Goo continued. "INFINI is fitted with a unique flow needling technology that is gentle on the skin and decreases the bounce effect. In addition, the insulated needles protect the epidermis, minimize pain and consequently, reduce downtime.

It is no wonder my patients are very happy with this treatment."

"RF energy has been used for some time for collagen remodeling of the skin. However, an ideal RF system is one that not only produces good outcomes, but can also be customized to suit individual patient needs and is associated with minimal pain and downtime," Dr. Goo noted. "I believe INFINI satisfies these criteria. The device is sophisticated yet user-friendly. Moreover, at the maximum intensity of 50 W, it is very powerful. When combined with the short exposure times, these features improve dermal coagulation, protect vascular structures,



Active acne before Tx



Active acne after three INFINI treatments
Photos courtesy of Boncheol Goo, M.D.

and also decrease the treatment time. I can treat the entire face in just 10 to 12 minutes."

INFINI can be used safely and effectively for patients of all skin types (Fitzpatrick skin type I–VI). Pok Kee Min, M.D., Ph.D., a dermatologist at Allforskin Clinic (Daegu, Korea), explained that "energy delivery should be adjusted according to the patient's skin condition. Oily or over-hydrated skin conducts more energy, so the power should be decreased by nearly two levels when treating such patients."

While INFINI can be used effectively on all areas of the face to treat rhytides of fine to medium depth, Dr. Min advised that the effects are more pronounced in the periorbital and nasal root areas. "Sometimes, patients complain of discomfort when the device is used on the thinner tissue over bony areas such as the forehead and malar regions, so one has to be gentle while treating these areas."

"Although the number of treatments required is determined by the type of skin condition, most patients notice marked improvements after just two to three treatments, in terms of better skin tone, as well as a decrease in new acne lesions, seborrhoea and skin pores. Subjective improvement can be seen in just a few weeks, whereas a longer period is required to recover elasticity in aged skin," noted Dr. Min.

For HangRae Cho, M.D., a dermatologist at Oh & Kim's Aesthetic Clinic (Seoul, Korea), INFINI is very effective for treating a wide-range of skin conditions including acne scars, active acne, fine wrinkles, trauma scars, photo-aged skin, skin laxity, excessive sebum secretion and large pores. "In my experience, this is the only device to demonstrate excellent

results in decreasing large pores on the nose. In addition, there are no general contraindications for INFINI, except possibly patients fitted with pacemakers or similar devices and pregnant women; as such, patients across all age groups can be treated," he stated.

Dr. Cho also pointed out that INFINI can be safely used for patients with thin and dark skin who are prone to post-inflammatory hyperpigmentation (PIH). "Treatment with conventional RF devices and fractional lasers is associated with increased risk of delayed erythema, as well as PIH or hypopigmentation, particularly in Asian skin. However, these risks are very low with INFINI. This may be attributed to the insulated needles of the device which protect the epidermis from thermal injury and consequent inflammation."

In Dr. Cho's opinion, "INFINI has several advantages over other RF devices available on the market. For one, the novel dual-mode function has widened the scope of treatment with a single device. Secondly, the insulated needles protect the epidermis and are inserted with a special flow needling technology which facilitates smooth skin penetration. Thirdly, the shape of the needle allows me a clear view of the area that I am treating. Finally, the adjustable needling depths allow for true three-dimensional tightening of the deeper dermis."

Short downtime is an important and attractive feature of this device. "Patients are generally uncomfortable with post treatment redness as they want to get back to their routine as soon as possible. With INFINI redness lasts for only two to four days after treatment. Moreover, the treatment is not associated with any significant side effects or pain during the procedure," Dr. Cho reported.



Pores before Tx



Pores after one INFINI Tx

Photos courtesy of Boncheol Goo, M.D.

"Patients experience pain if the needles penetrate too deep or the energy level is high, but mostly they find the treatment pain bearable," Dr. Cho continued. "As such, no special care is needed post treatment, but I advise patients to avoid ultraviolet exposure and excessive washing of the face. In addition, to enhance the clinical effects of INFINI, I recommend application of growth factors on the face, as well as light-emitting diode (LED) treatment with HEALITE II™ (Lutronic) after the procedure."

Dr. Cho feels the INFINI's features suit the needs of Asian patients who have a dark skin tone and desire treatments that are fast-acting and effective, without side effects or disruption to their routine. "That is why I highly recommend it for my patients," he said.