

Micro-needling system

ANTIGE

Antige is promising technique for the treatment of dermis and epidermis area

About Antige...

Antige is a new MFRF-type technology developed to overcome weaknesses of the conventional laser method that leaves damage to the target treatment area with pain. The insulation coated fine needles are directly penetrated into the dermis delivering a sufficient amount of high-frequency energy without damaging the skin forming protein coagulation columns that promote healing and create a sufficient amount of collagen layers; and delivering energy (per second) by RF enabling treatment of abnormalities in tissues by the tissue unit.



Specifications

Radio Frequency Energy

Channels	18 Independent bipolar channels (ANI-36P)
Frequency	1 MHz / 2MHz (Selectable)

Control System

Mode	Auto / Manual mode / Touch mode
Temp	60~80°C
Repetition rate	0.5sec~3.0ms
Treatment duration	1ms~100ms(Single) 2ms~200ms(Double)
Penetration depth	0.5mm~4mm
Operation area	15mmx15mm
Needle thickness	0.25mm
Needle type	6x6, 36 electrode needle 7x7, 49 electrode needle 6x6, 36 touch type needle (Optional)

Others

Display	Color touch screen
Dimension	380(W)x440(D)x1150(H)mm
Wt	30kg
Power	40W

Body, Robotic Handpiece, Disposable Needle Tips



★Cautions before operating patients

- Cleanse always the medical treatment area before the laser operation to remove the foreign substance like cosmetics.
- the patient must wear the protective goggles.
- begin the energy for treatment from low power to prevent any side effect, and lower the patient's treatment expectancy level, and it will be better to perform the operation with frequent treatments.

★Solray procedure goes as follows

①Wear anesthesia cream on the treatment area
(anesthesia is suitable for about 30 minute)



②Perform an operation with the **Antige** refer to basic protocol for the energy setting price)

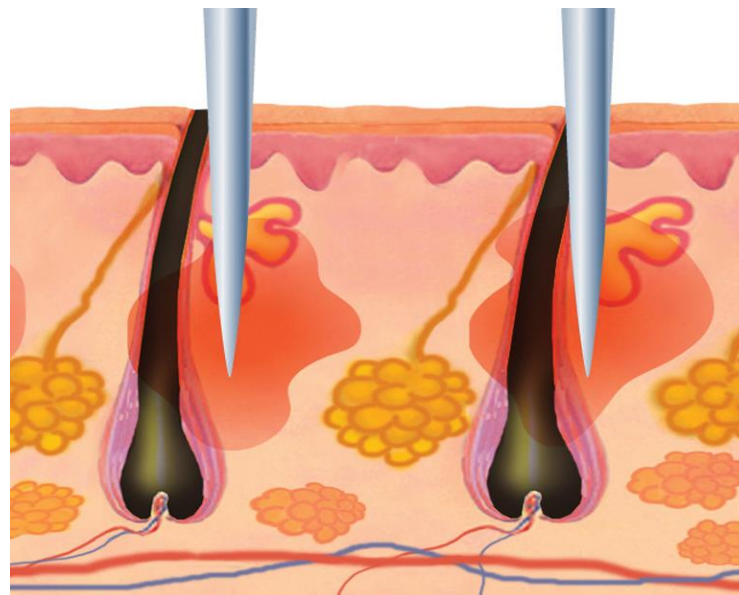
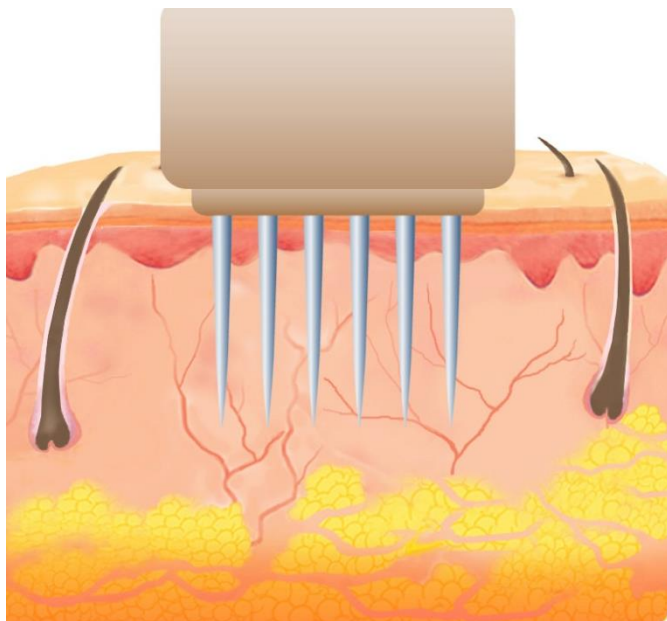


③After operation, strong cooling is essential for about 20minutes. Then perform the cooling and moisturizing care

Notice

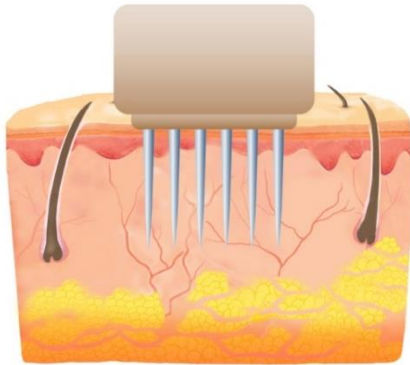
When replacing a needle, be sure to replace it with the power off and operate the equipment.

Treatment principles

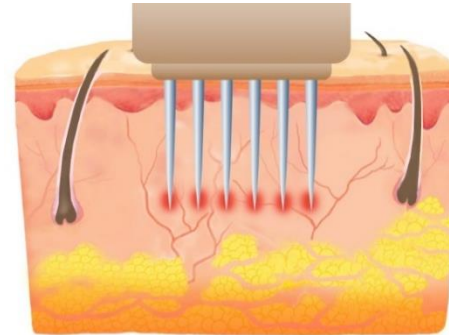


A temporary RF energy is directly applied to dermis, using a micro needle without passing epidermis, to produce an effect of pore contraction by inducing reduced acne and collagen generation. Changes of tissular morphogenesis in sebaceous glands caused by thermal sensation from the RF energy can expect pore contraction or tightening, reduced pimples and preventive effects.

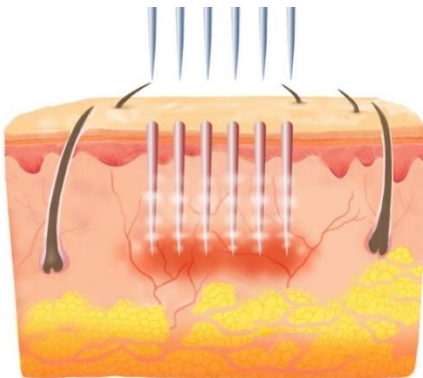
How it work?



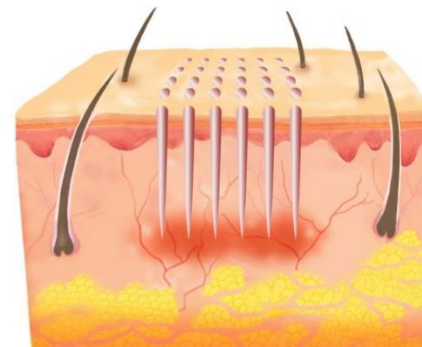
1. Drive a needle into a target area.



2. Apply an RF energy from a lower end of the needle.



3. Remove the needle if application of RF energy is completed.

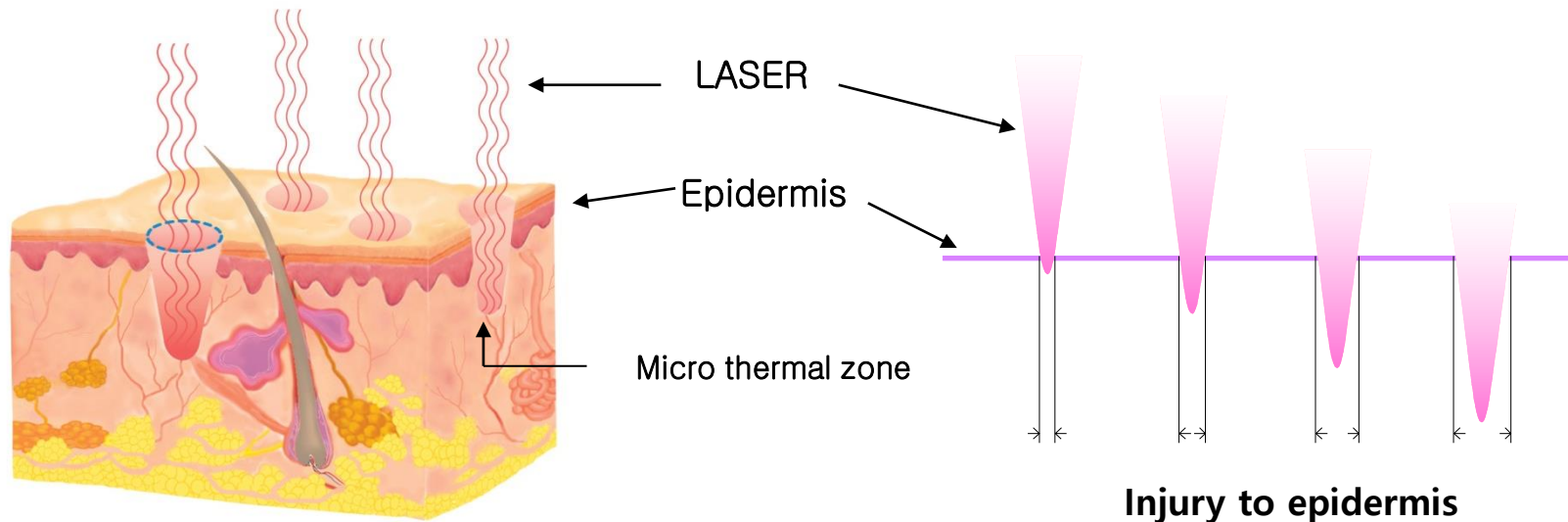


4. Collagen, elastine rejuvenation and healing.

Limitations of CO2 laser!

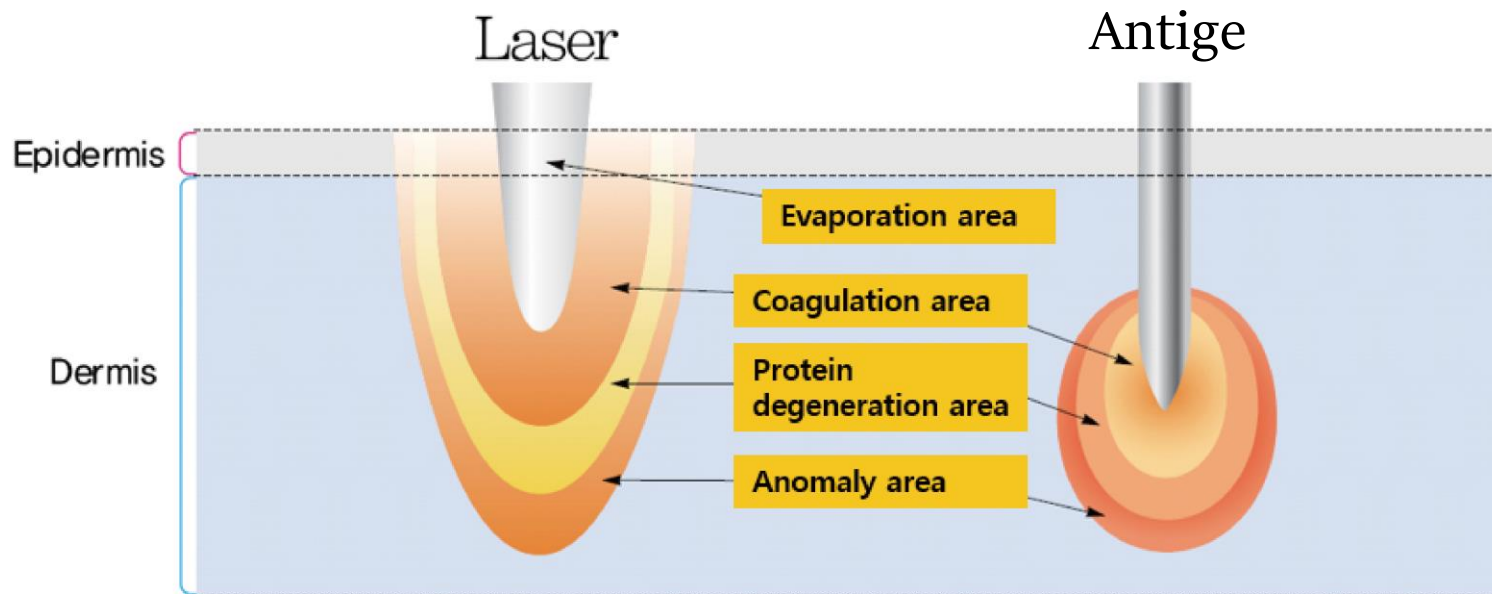
In order for the laser beam to reach a deepest area of dermis.

Irradiation time of laser must be lengthened or a high energy must be irradiated for a short period of time. As the irradiation time is lengthened, epidermis injury worsens to cause pigmentation, and if a high energy is irradiated for a short period of time, the entire epidermis may be inflicted with burn and pain before the laser reaches the target. Generally, laser causes a considerable thermal injury to epidermis in treating the skin at the deepest area.

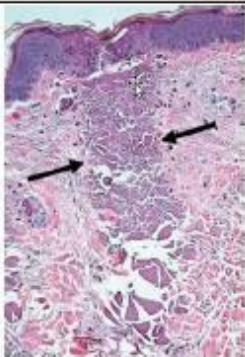
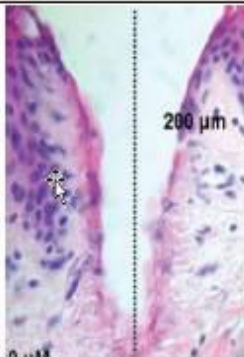
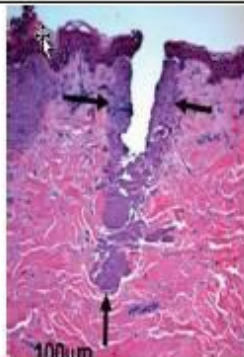
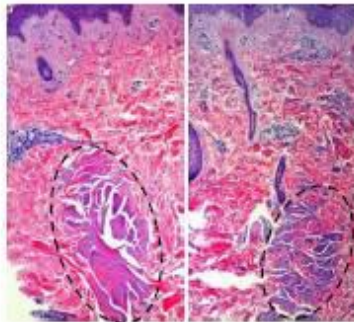


How difference !

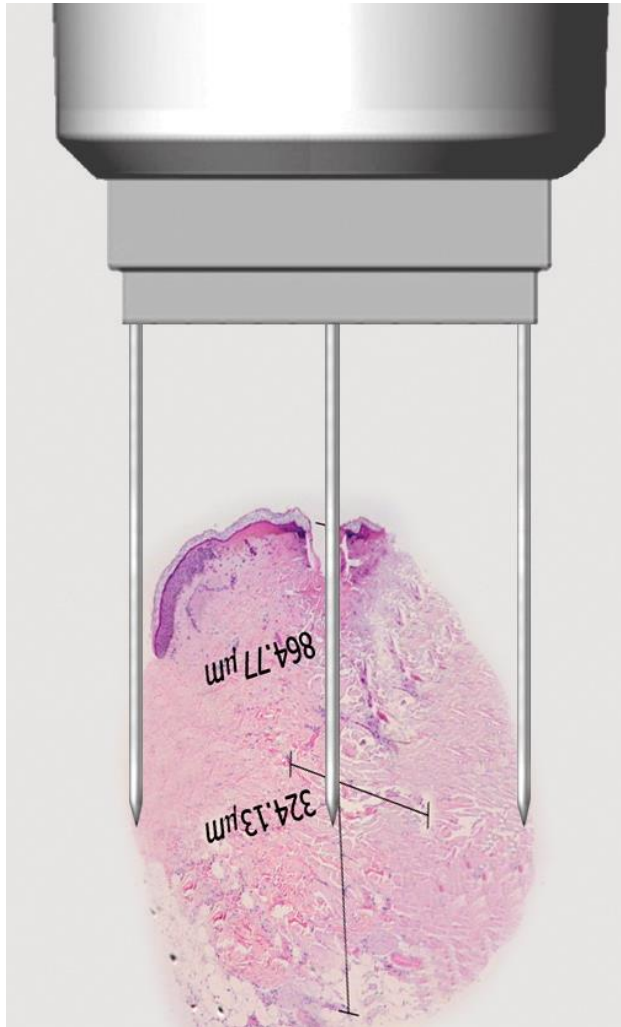
Antige is free from limitation of laser in penetration depth and safe from injury to epidermis because the RF energy is directly transmitted right into the dermis layer without passing the dermis.



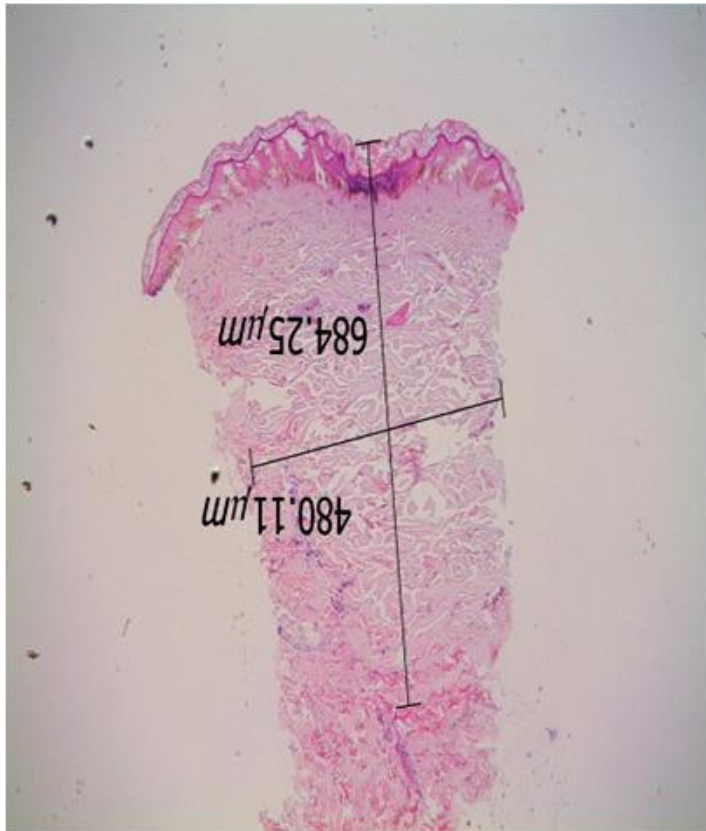
Solray vs Other Methods!

	Er:Glass Fractional	Er:YAG Fractional	Co2 Fractional	Antige
Treatment Method	1550nm/ non-ablative	2940nm/ablative	10600nm/ablative	Microneedle + RF / non-ablative
Tissue Photos				
Down time	3 ~ 6 days	4 ~ 6 days	7 ~ 10 days	1 ~ 2 days
Pains	★★	★★★	★★★	★★
Pigmentation	10~20%	15~25%	25~35%	0~2%
Treatment Times	3 ~ 6 times	5 times or more	3 ~ 6 times or more	1 ~ 3times

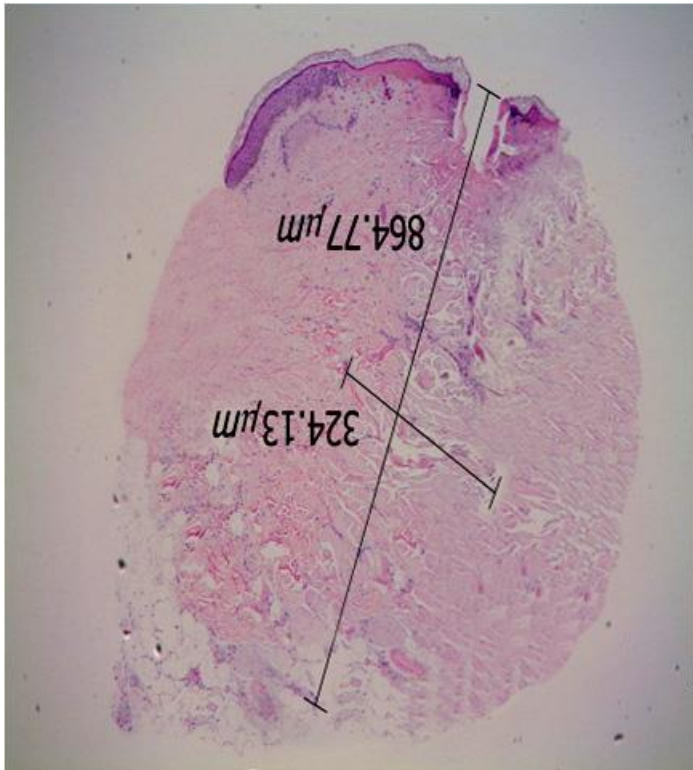
Examples of needle applications



Clinical Tissue Photos



Clinical Tissue Photos

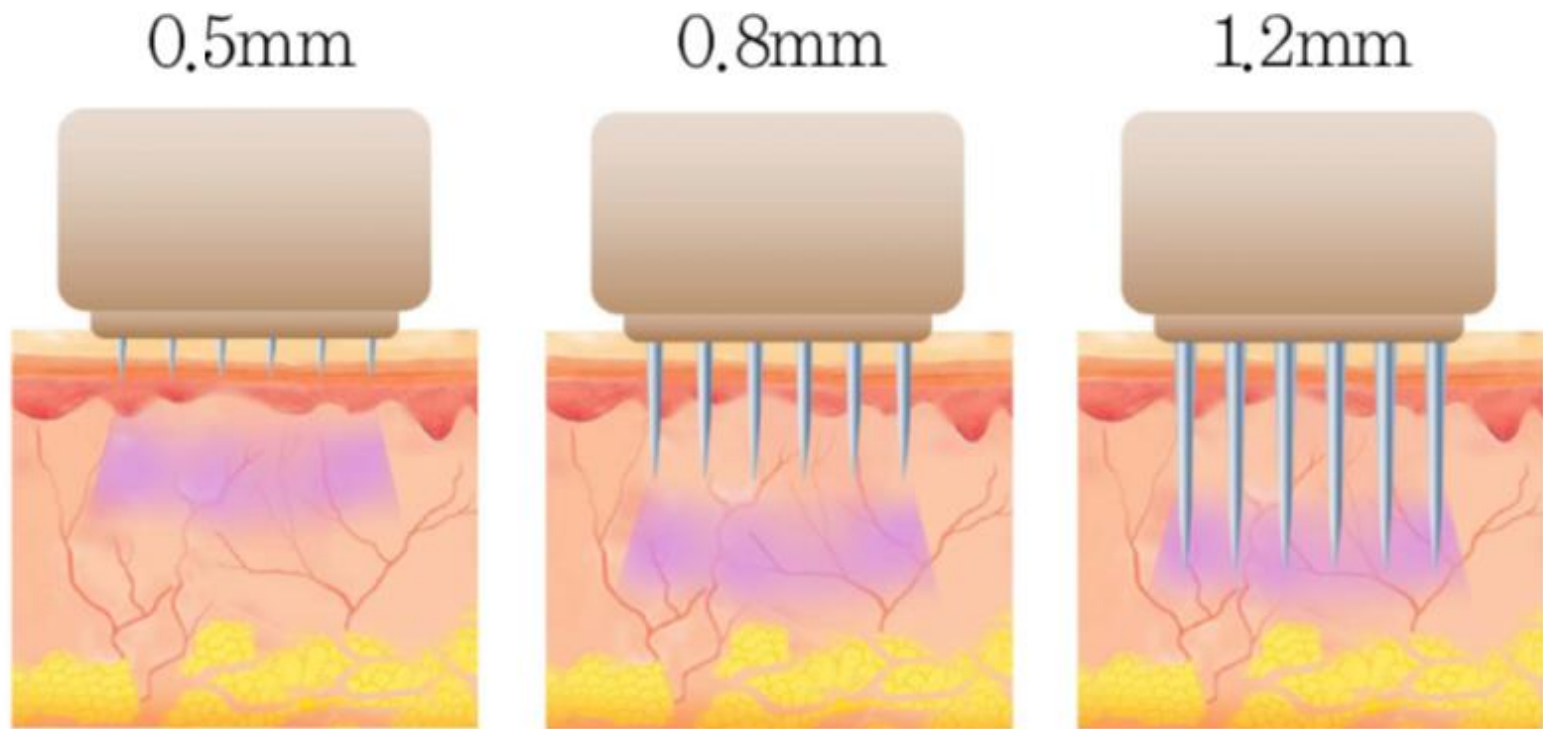


Indication of each needle

Actual Needle Length(Depth)	Actual Needle Length driven into body	Effective RF application range in the body	Applications
0.8mm	0.6mm	0.3mm~0.9mm	Rejuvenation, Tightening, Large pore, Acne
1.2mm	1.0mm	0.5mm~1.2mm	Tightening, Large pore, Acne
1.5mm	1.2mm	0.9mm~1.5mm	Shallow scar
2.0mm	1.8mm	1.3mm~2.1mm	Deep scar, Lifting

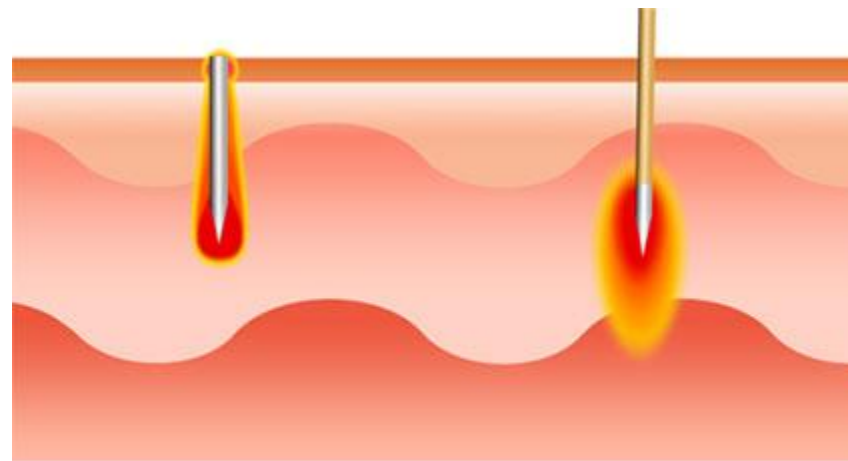
- Needle is driven into body 0.5mm shorter than actual needle length.
- RF energy is applied from 0.5mm of a tip of a driven needle to prevent the epidermis from being injured and concentratively applied to a desired depth about a pin-point.

Understanding of Surgical Operation based on Needle Length



Insulated microneedles have a layer of insulation around them, allowing the heat only to be emitted from the end tip, heating just the lower layers of the skin.

Non-Insulated microneedles emit Radiofrequency energy over their entire surface area allowing both the upper and lower layers of the skin to be heated all at once.



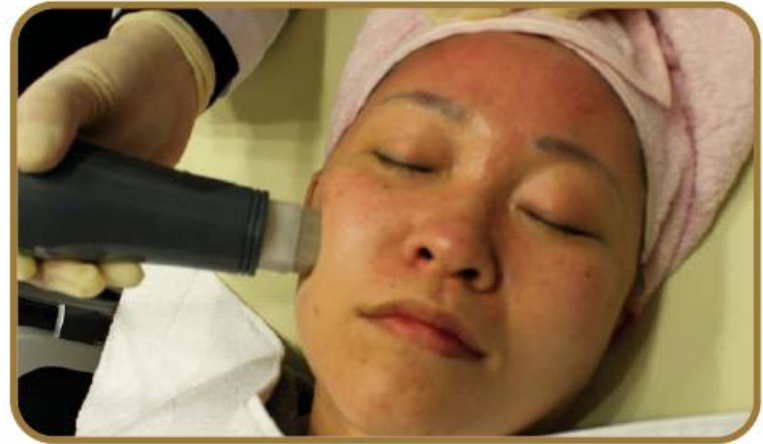
Non-insulated RF

Semi-insulated RF

Advantages of Antige

- Fast recovery free from injury to epidermis causes no inconvenience to everyday life (down time: 1~2 days).
- Direct application of RF energy per second unit to a desired area brings about a sufficient effect.
- Antige is advantageous in that it is safe from side effects such as pigmentation and burn.
- Various surgical operations are enabled thanks to selection of needles per length.
- Minimization of unnecessary injury to epidermis allows a parallel operation with other equipment to expect fast and tremendous effects.

Patient under Operation



Prior to operation



After operation



Prior to operation



After operation



Prior to operation



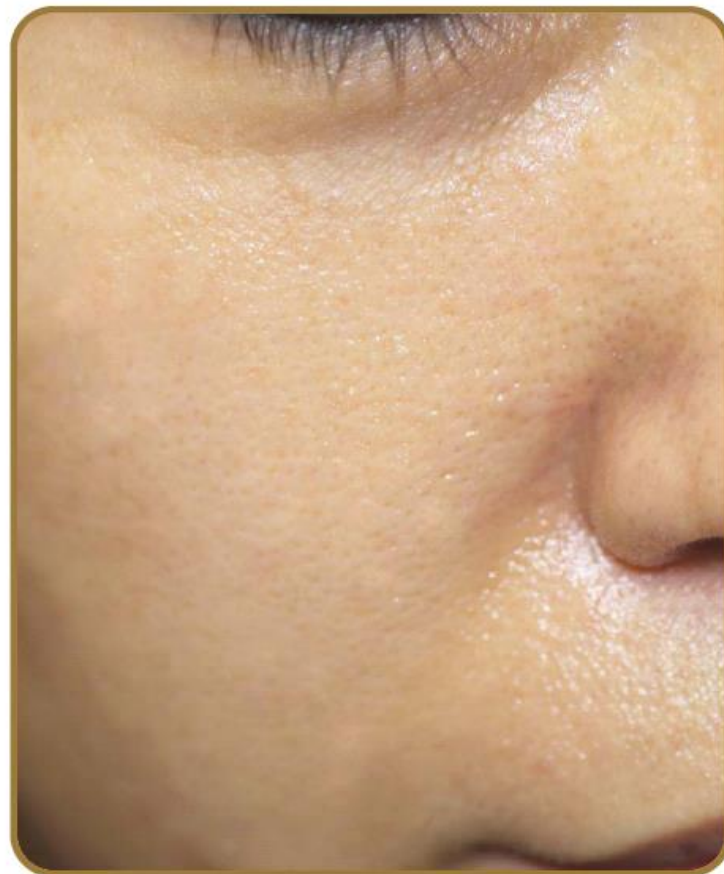
After operation



Prior to operation



After operation



Prior to operation



After operation



GUI



<Smartmode>

Protocol

Basic protocol in the Smart mode

Indication	Level	Needle Tip Guide line (mm)	Pass at each session	1 st pass for needle depth(mm)	2 nd pass for needle depth(mm)	3 rd pass for needle depth(mm)	Repeat time	Total sessions	Interval (week)
Wrinkle	18-30	1.0- 1.5	2- 3	1.5	1.2	1.0	off	3- 4	2-3
Skin tightening (Auto Mode)	24-36	Forehead:0.8- 1.3 Chin:0.8- 1.5 Cheek:1.0- 2.0	2- 3	1.3 1.5 1.8- 2.0	1.0 1.2 1.5	0.8 0.8- 1.0 1.0	off	3- 4	2-3
Stretch marks	36-48	2.5- 3.0	2- 3	3.0	2.8	2.5	off	3- 4	2-3
Acne scar	24-36	1.0- 2.0	2- 3	1.8- 2.0	1.5- 1.6	1.0- 1.3	off	3- 4	2-3
Underarm Odor (Double Shot)	72-96	3.3- 3.7	2- 3	3.7	3.5	3.3	off	3- 4	2-3
Skin tightening (Manual Mode)	24-36	Forehead:0.8- 1.3 Chin:0.8- 1.5 Cheek:1.0- 2.0	2- 3	1.3 1.5 1.8- 2.0	1.0 1.2 1.5	0.8 0.8- 1.0 1.0	off	3- 4	2-3

Protocol

Basic protocol in the Memory mode

Indication	Level	Needle Tip Guide line (mm)	Pass at each session	1 st pass for needle depth(mm)	2 nd pass for needle depth(mm)	3 rd pass for needle depth(mm)	Repeat time	Total sessions	Interval (week)
M1 Large pore	18-24	1.0- 2.0	2- 3	1.8- 2.0	1.5- 1.6	1.0- 1.3	off	3- 4	2- 3
M2 Acne	30-36	1.0- 2.0	2- 3	1.8- 2.0	1.5- 1.6	1.0- 1.3	off	3- 4	2- 3
M3 Skin rejuvenation	18-30	Forehead:0.8- 1.3 Chin:0.8- 1.5 Cheek:1.0- 2.0	2- 3	1.3 1.5 1.8- 2.0	1.0 1.2 1.5- 1.6	0.8 0.8 1.0- 1.3	off	3- 4	2- 3
M4 Body tightening (Abdominal)	36-48	3.0- 3.5	2- 3	3.5	3.3	3.0	off	3- 4	2- 3
M5 Neck line	24-36	1.0- 1.7	2- 3	1.7	1.5	1.0- 1.2	off	3- 4	2- 3

Protocol

Memory mode for Touch needle

Memory Indication	Level	Pass at each session	Repeat time	Total sessions	Interval (week)
M1 1 st Facial Tightening	12	2- 3	off	3- 4	2- 3
M2 2 nd Facial Tightening	18	2- 3	off	3- 4	2- 3
M3 3 rd Facial Tightening	24	2- 3	off	3- 4	2- 3
M4 User Mode	30	2- 3	off	3- 4	2- 3
M5 User Mode	36	2- 3	off	3- 4	2- 3

How to treat after a patient's operation

- Strong cooling after performing an operation is essential, and cooling and moisturizing care are needed to enhance the treatment effect and to prevent any side effect.
- To enhance the cooling effect, after you treated the half of face, please cool down the parts with roller which you already treated while you treat the other half of face
- Also it is very important that all the patients should cooling the face completely after treatment. (We recommend you to use cooling up to 40 to 60 minute continuously by roller or Ice pack... ETC) when you cooling face , put serum(Q10) Cream into face with cold roller and this serum cream (Q10) should use continuously up to 6-7 days. (Every day 4-5 times put serum cream on face) Cooling is very important to prevent any side effect and when patient face still feel hot after cooling, then please cooling their face by using fan or air conditioner blow cooling air to the face.
- After treatment, there appear edema and erythema. Edema goes for 1-2 days and Erythema goes for 2-3 days.
- Right after performing an operation or from the following day, the shot area is formed of small slough, which will fade in about 10-15 days.
- Never remove the slough at your own discretion but leave it until it will be gone naturally.

Notice

When replacing a needle, be sure to replace it with the power off and operate the equipment.

- Have the operated patient frequently wear the usually using moisturizing cream, and use the ultraviolet-protecting product more than SPF50 at intervals of every two(2) hours.
this sun block cream (SPF 50) to be used up to one month for safe.
- Refrain from much sweating strenuous exercises or sauna.
- Also we recommend patients do not go outside up to 7 days after treatment to prevent PIH
- Keep for quite a time from drinking which may drop the laser operation effect or cause an inconvenient daily life owing to flushing period.
- Prohibit to use alcohol-ingredient cosmetics and products for scrubbing or peeling.
- For other details, get treatment according to the prescription of a doctor in charge.

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