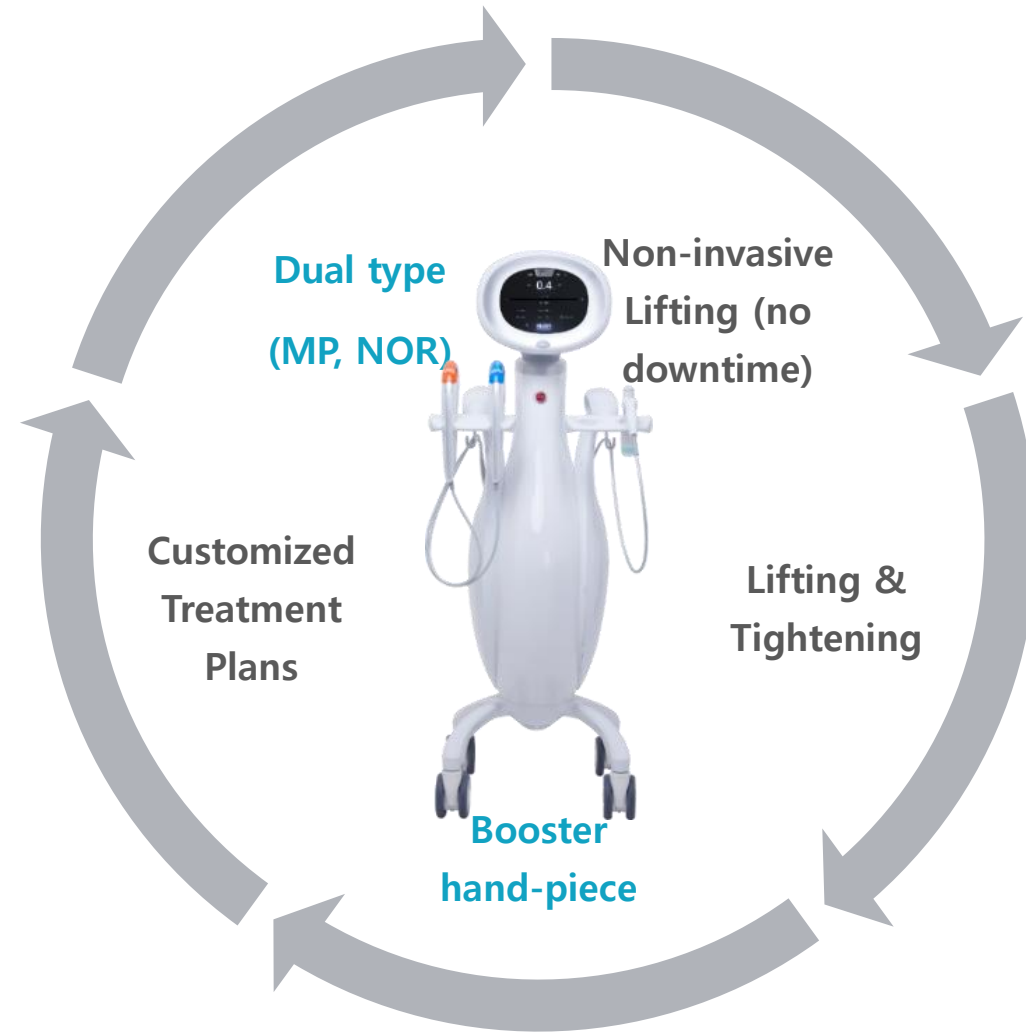




ULTRAFORMERMPT

CLINICAL Training

About ULTRAFORMER MPT



New paradigm of HIFU treatment



CLINICAL MECHANISM & SCIENTIFIC EVIDENCES

Clinical Mechanism & Scientific Evidence: Aging Process



- ① **Skin (Dermis)** thinning, reduced elasticity
- ② **Fascia/retaining ligament/SMAS** weakening
- ③ **Fat pad** reabsorption
- ④ **Muscle** weakening
- ⑤ **Bone** resorption

Functions & Skin Structures

5 Main layers of the skin

Epidermis (0.4 - 1.5mm)

Most outer layer that is a barrier to infections (Keratin, Melanin)

Dermis (0.5 - 3.0mm)

Middle layer that contains nerves, hair roots, sweat and oil glands and blood vessels (Collagen and elastin fiber)

Subcutaneous layer (Hypodermis)

Fat, blood vessels and connective tissue that helps maintain body temperature

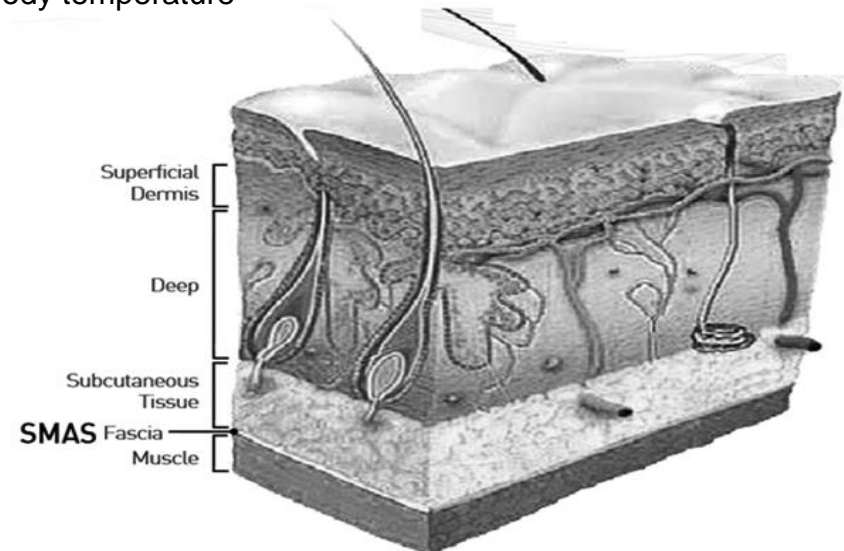
SMAS

Superficial Musculo Aponeurotic System

Tightly attached between the subcutaneous layer and muscle

Muscle

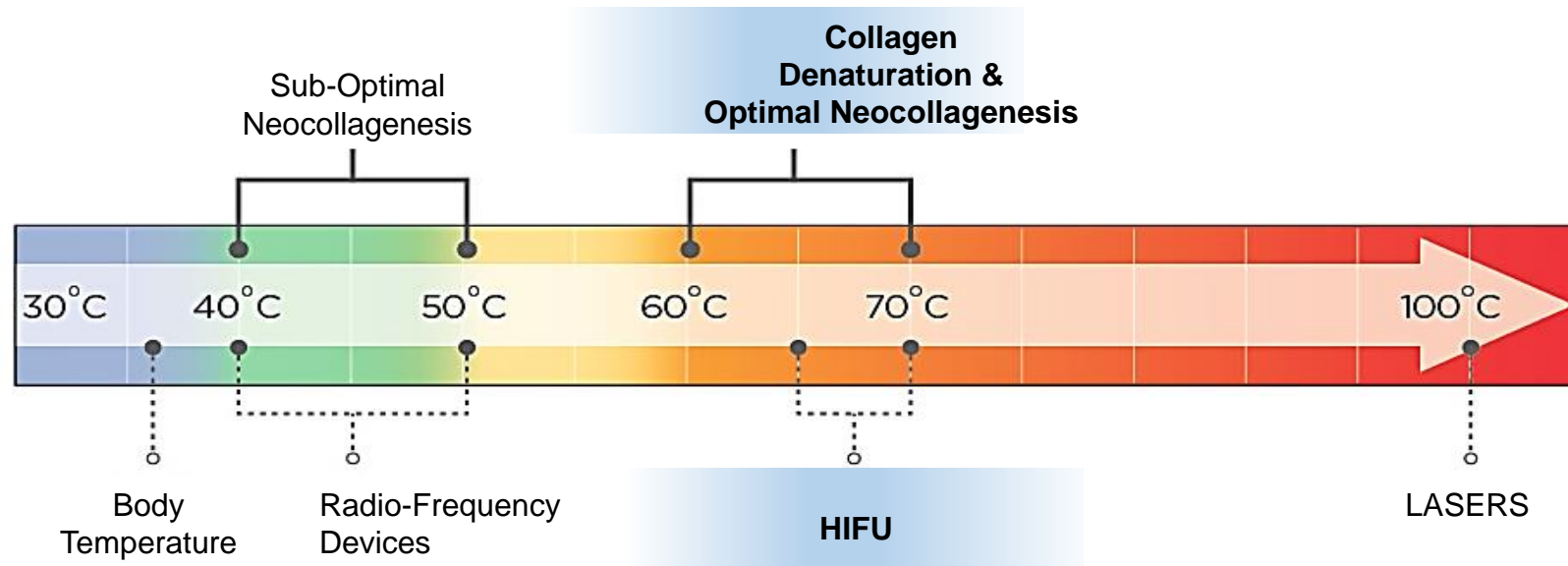
Flexible organ made of fiber that makes body to move



Clinical Mechanism & Scientific Evidence

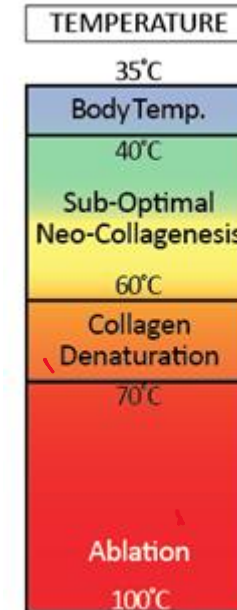
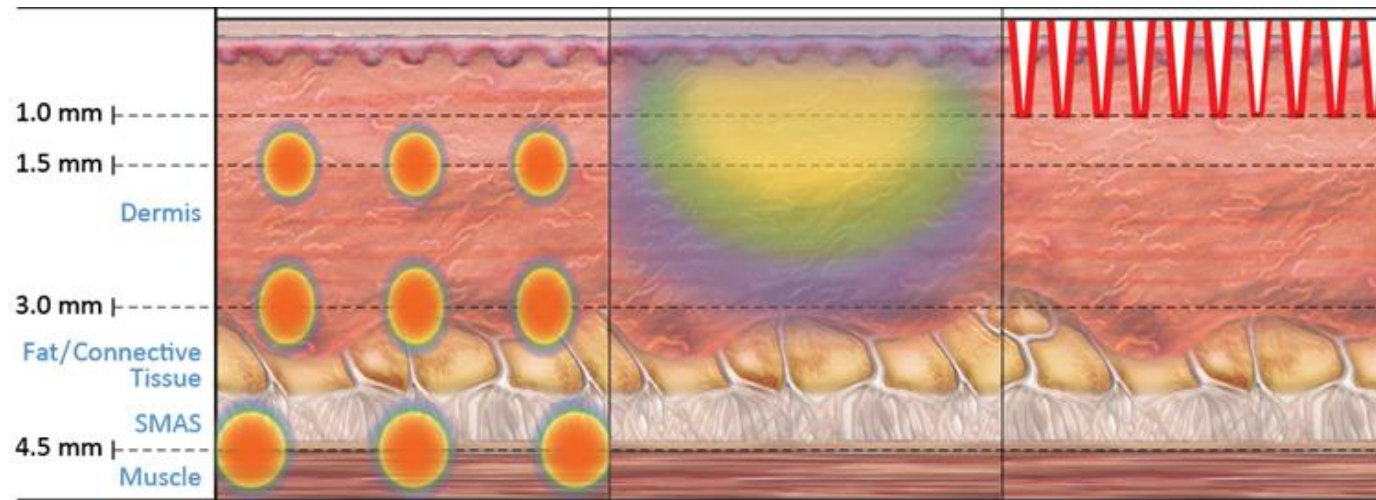
During a treatment, high-intensity ultrasound energy is focused on a specific depth.

The transducer creates $65\sim 75\text{ }^{\circ}\text{C}$ of thermal coagulation point by molecular vibration without any damage on surrounded tissue.



Trend & New Paradigm

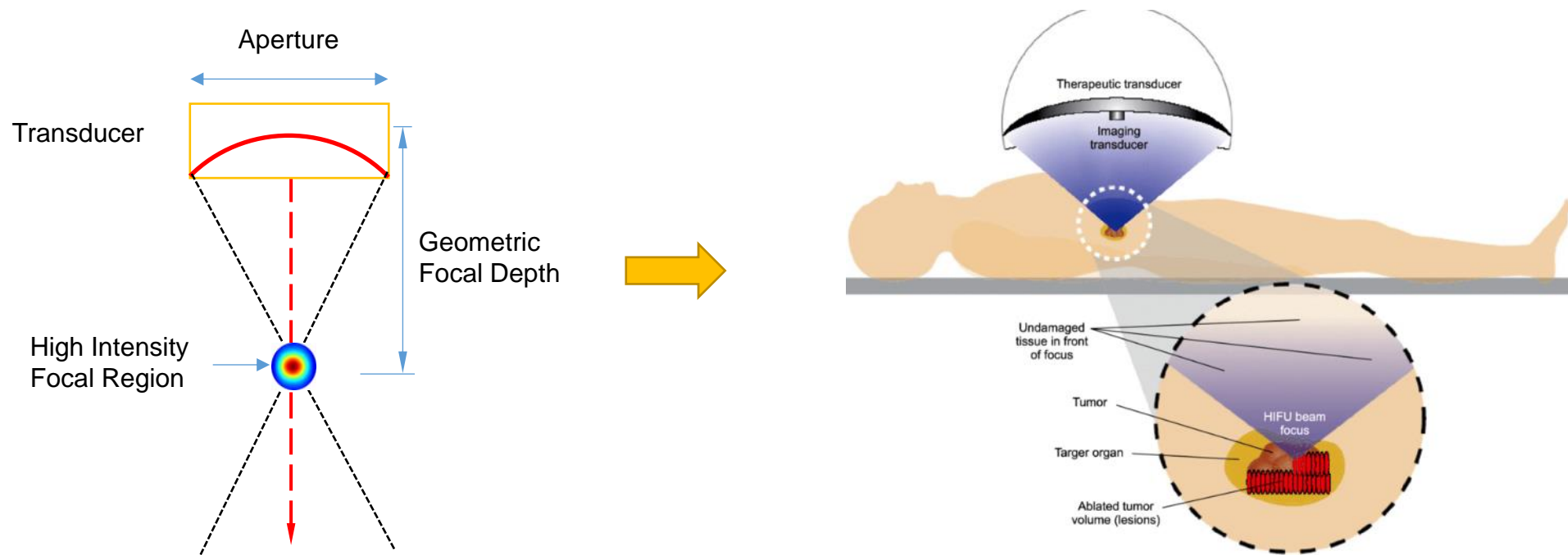
	ULTRAFORMER III	RF	LASERS
Temperature	65-75°C; Denaturation	<55°C; Sub-Optimal	<100°C; Vaporization
Depth	4.5mm, 3.0mm, 2.0mm, 1.5mm	< 3.0mm; Variable	<1.5mm; Superficial
Precision	Precise & Fractional	Bulk heating	Precise & Fractional



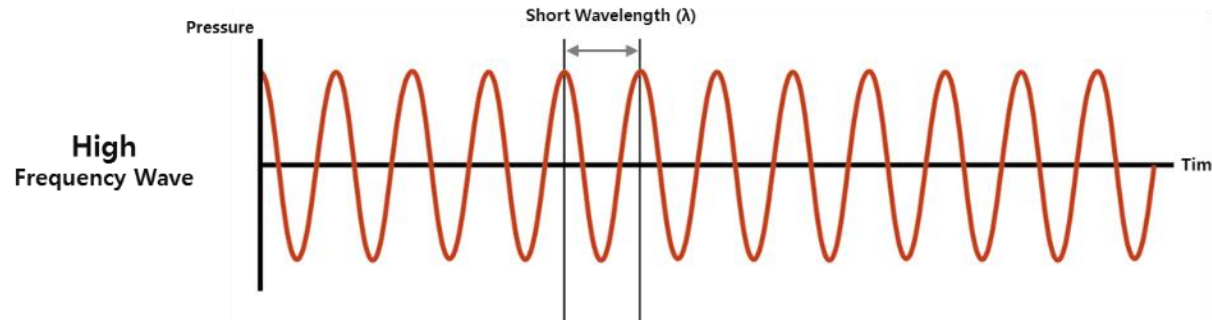
Clinical Mechanism & Scientific Evidence

HIFU is the focused by high intensity sound waves to create heat at a specific point.

HIFU technology has been initially developed for treating various cancer. This technology was comparably currently shifted to aesthetic device purposed to have lifted face.

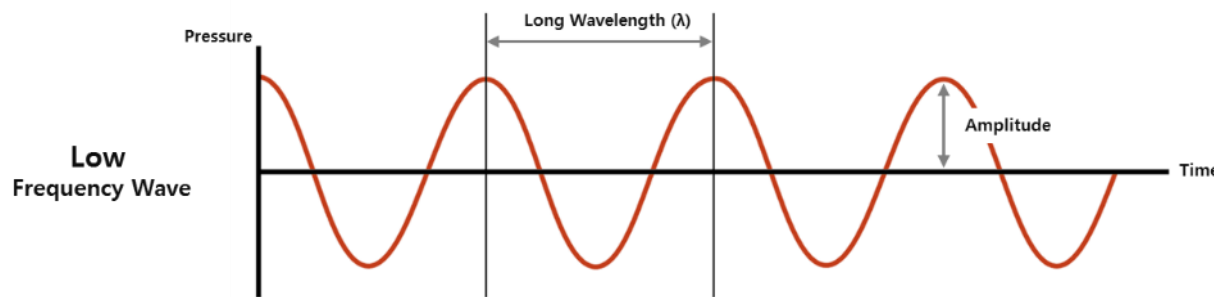


Clinical Mechanism & Scientific Evidence: Frequency and Absorption



Face TX

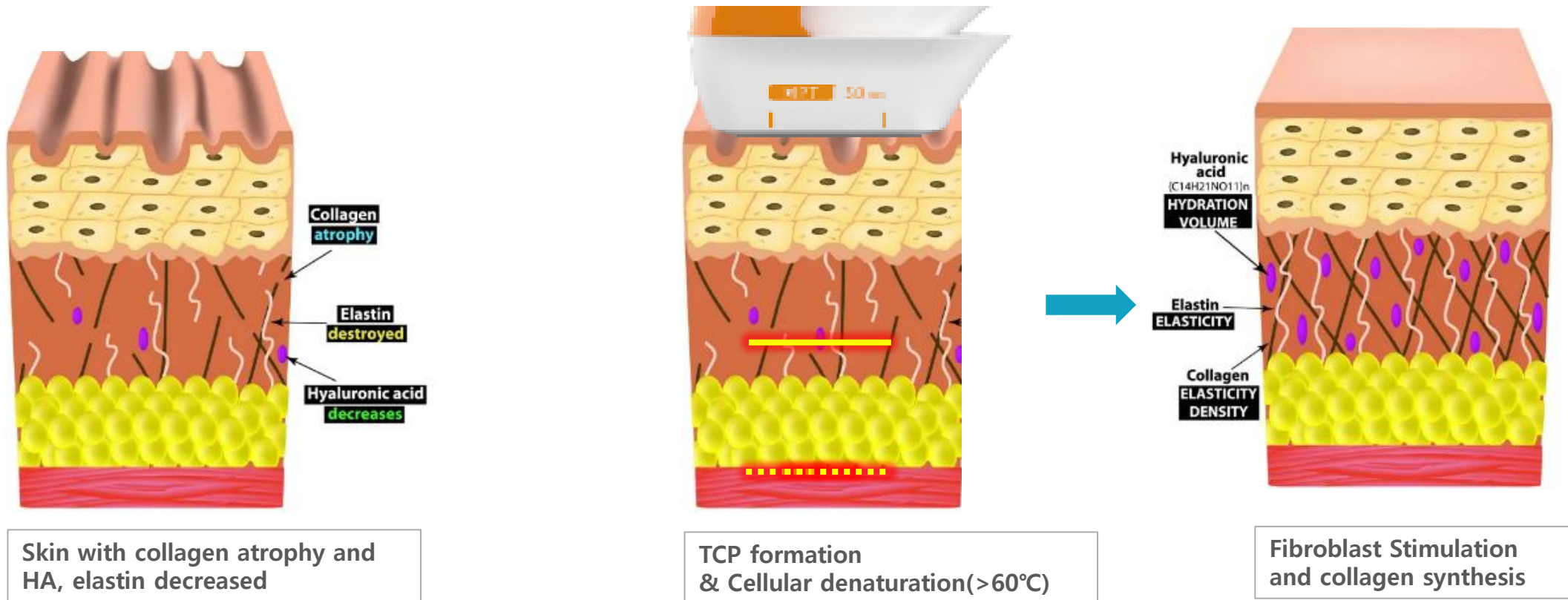
Absorption level : HIGH
Effective on superficial layers of skin











Body TX

Absorption level: LOW
Effective on deeper layers of skin

Clinical effects resulted from TCP formation



About ULTRAFORMER MPT: Dual Mode

UF3	UF MPT		
Macro-Focused 	Macro-Focused 	Macro-Focused MP Mode 	MP Mode 
Micro-Focused 	Micro-Focused 	Macro-Focused Normal Mode 	Normal Mode 

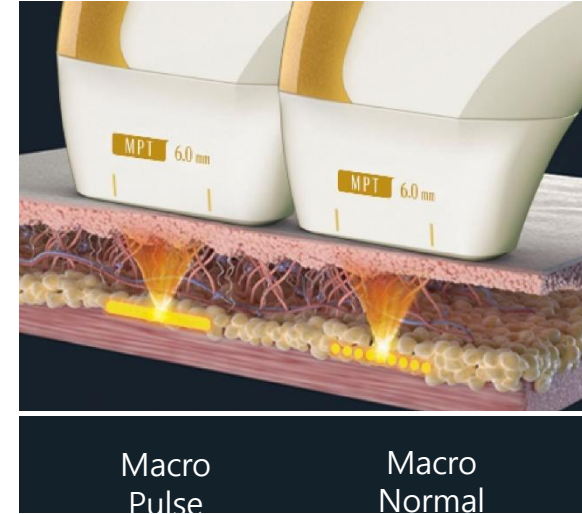
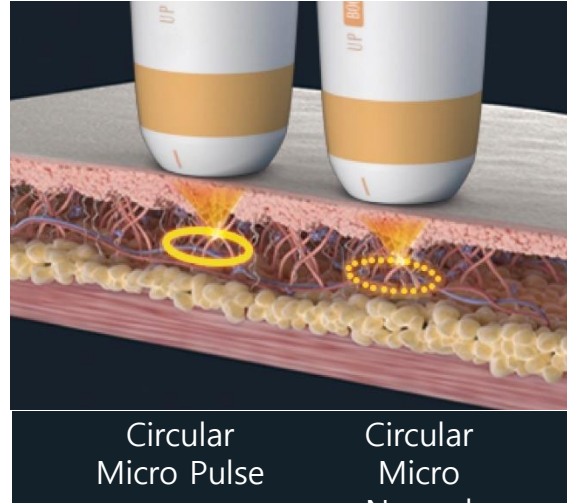
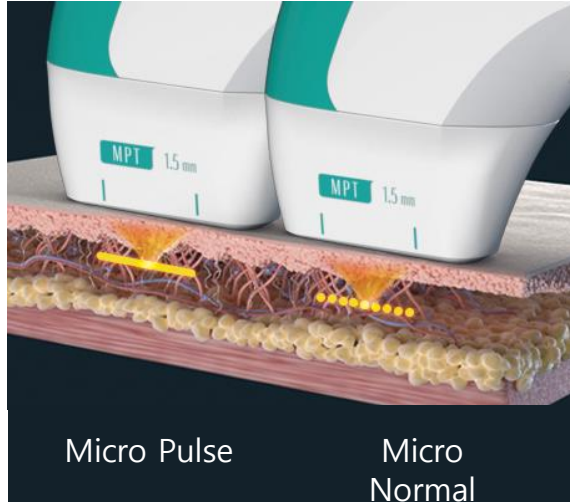
MP (micro-pulsed) mode:

TCP formation: with one shot in the treatment length of 25mm, more than 400 TCP (thermal coagulative points)

Clinical Benefits: such a wider energy emission causes the wider treatment areas → effective fat ablation

Pain Level: MP modes 2.5 times faster than normal mode → less pain with maximizing the effectiveness of the treatment.

About ULTRAFORMER MPT: Dual Mode



Macro-Focused



Micro-Focused



Macro-Focused
MP Mode



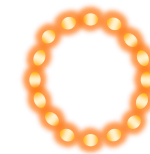
Macro-Focused
Normal Mode



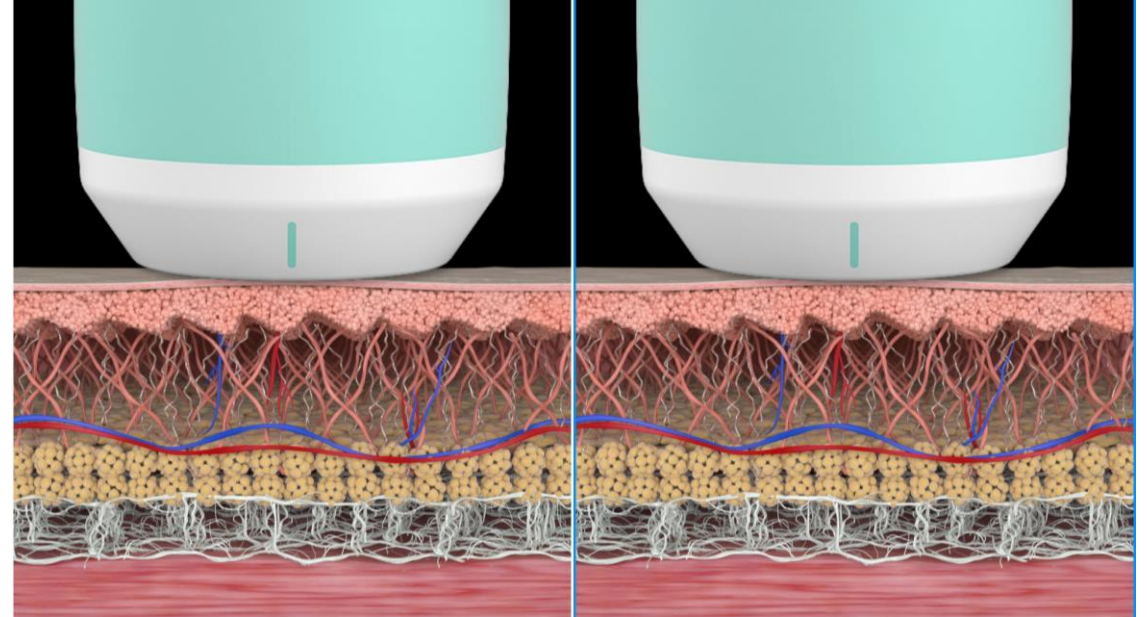
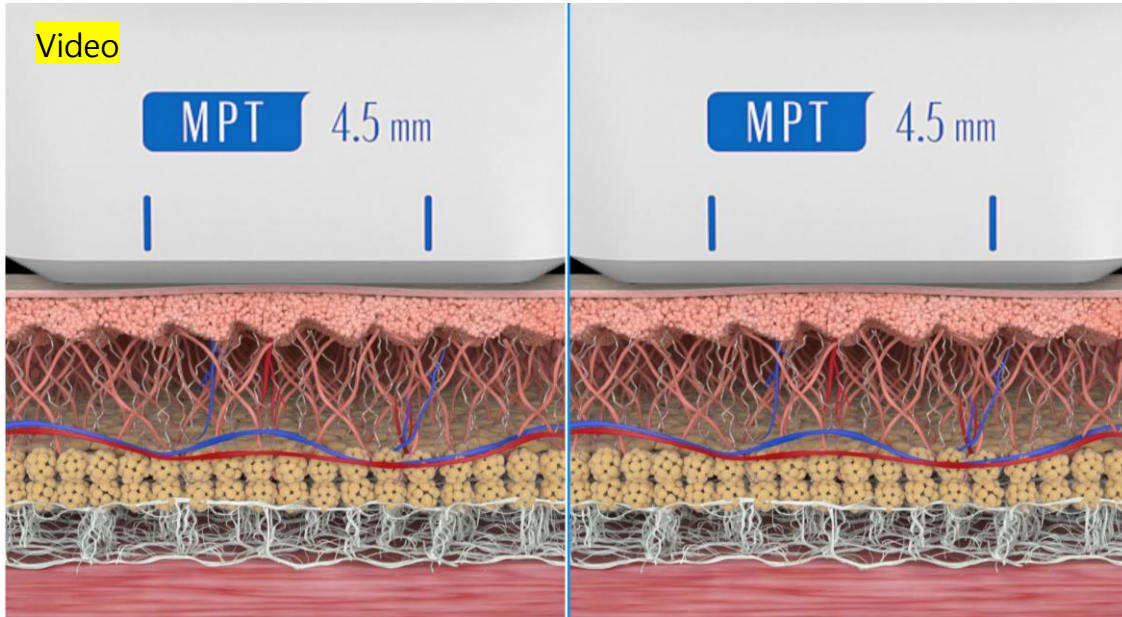
MP Mode





Normal Mode





About ULTRAFORMER MPT



ULTRA F

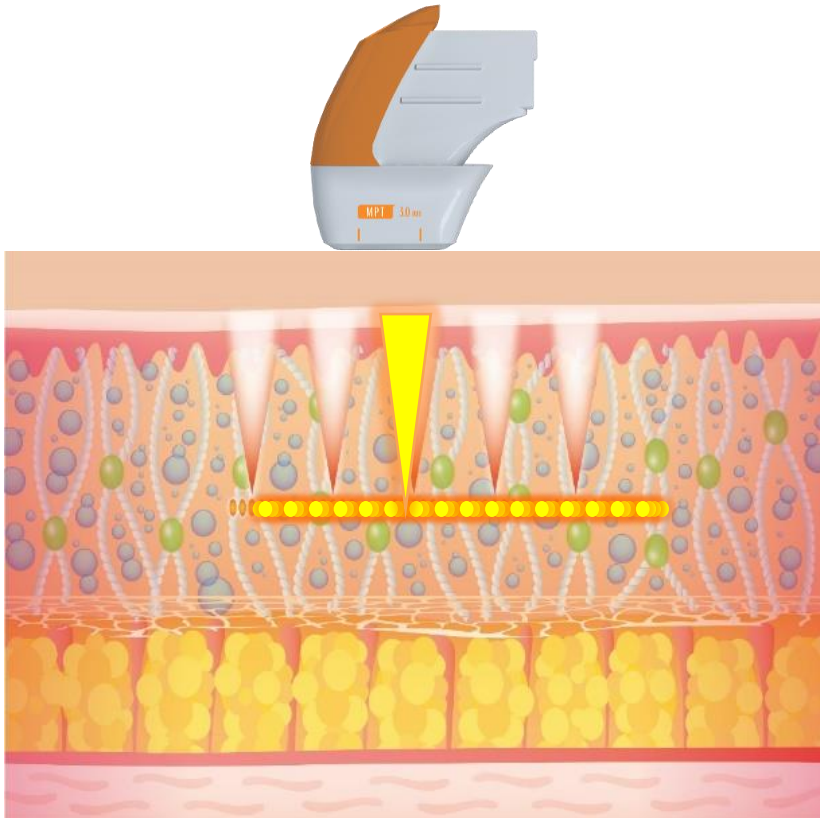
- MP  Wide and bulk thermal effects– **effective for fat ablation**
- NOR  Precise TCP formation- **lifting and tightening**

ULTRA BOOSTER

- MP  Sensitive and delicate skin – **anti-aging and skin brightening effects**
- NOR 

About ULTRAFORMER MPT: MP Mode

I. Dual Mode – MP/Nor(Dot)

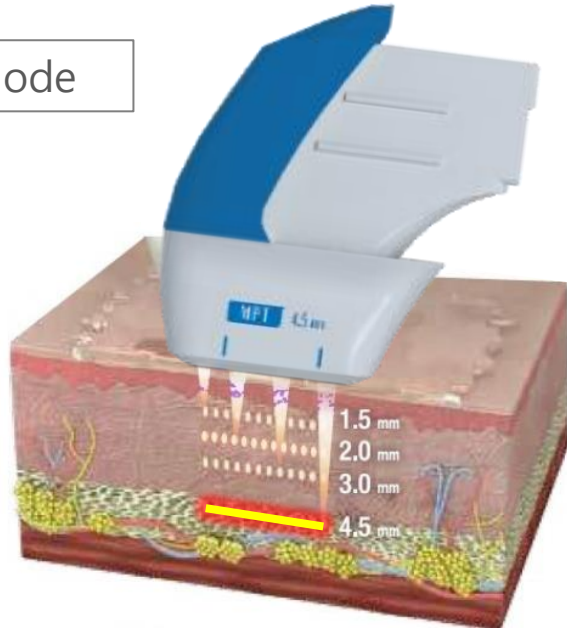


- ✓ MP (Micro-Pulsed Mode) : Fast and dense TCP as liner type
- ✓ Effective for face contouring & fat ablation
- ✓ Successive accumulation of thermal energy relieves the patient's pain with quick treatment time

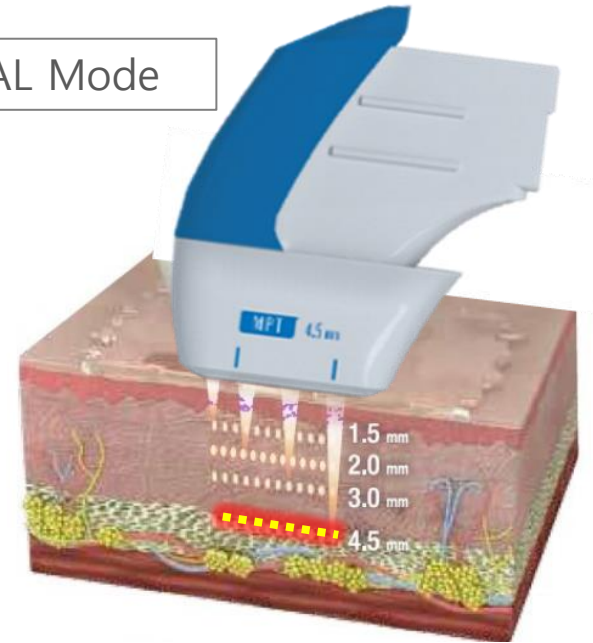
About ULTRAFORMER MPT: MP Mode vs Normal Mode

II. Fast Speed

MP Mode



NORMAL Mode



Wide or bulk Heating: more effective fat melting effects

Precise TCP: more lifting and tightening effect



Acryl test



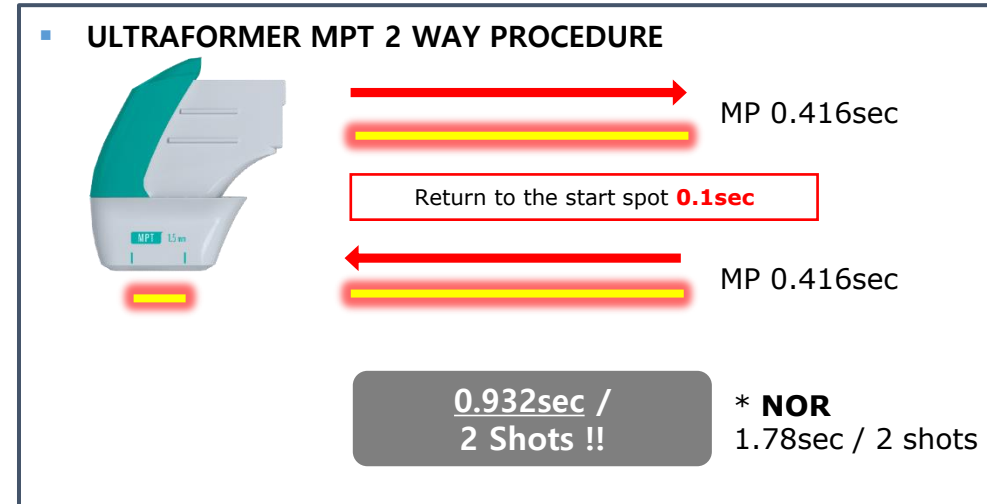
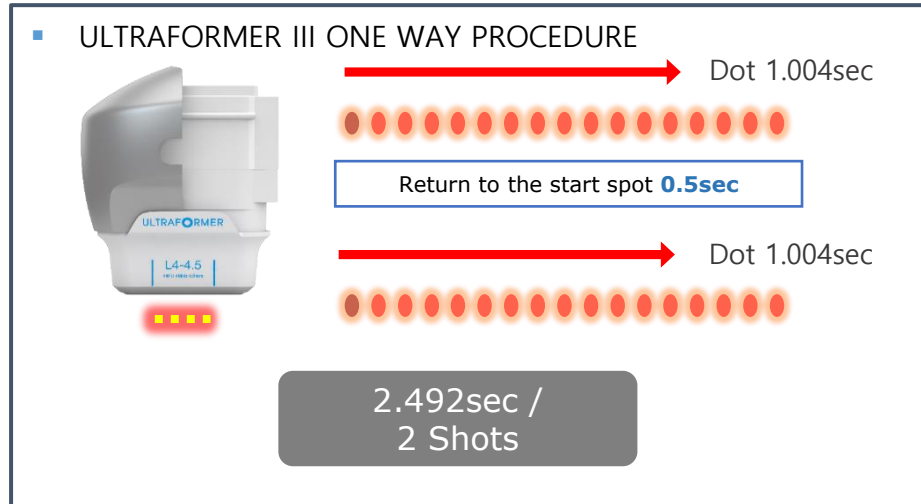
0.416sec

Acryl test



1.004sec

About ULTRAFORMER MPT



TREATMENT SPEED **2.5 TIMES FASTER** (MP MODE ON)

About ULTRAFORMER MPT

10 Cartridges

FACE



**7Mhz 1.5mm
DERMA**



**5.5Mhz 2.0mm
I**



**7Mhz 3.0mm
CELUP**



**4Mhz 4.5mm
LINUP**

BODY



2Mhz 6.0mm



2Mhz 9.0mm



2Mhz 13.0mm

BOOSTER



**7Mhz 1.5 mm
DERMA BOOSTER**



**7Mhz 3.0mm
CELUP BOOSTER**












**4Mhz 4.5 mm
LINUP BOOSTER**



UF MPT TREATMENT

Indications of each cartridge

Cartridge	Ultra Face Cartridge	
	MP Mode 	Normal Mode 
 1.5 mm / 7 MHz	<ul style="list-style-type: none"> • Pore Tightening • Firming Up 	<ul style="list-style-type: none"> • Forehead Wrinkle • Glabella Wrinkle
 2.0 mm / 5.5 MHz	<ul style="list-style-type: none"> • Eye Bags / Bulging Fat 	<ul style="list-style-type: none"> • Fine Wrinkle, Eyebrow Lifting • Crow's Feet, Perioral, Neck
 3.0 mm / 7 MHz	<ul style="list-style-type: none"> • Mid-Face Contouring 	<ul style="list-style-type: none"> • Mid-Face Tightening
 4.5 mm / 4.0 MHz	<ul style="list-style-type: none"> • Jawline Contouring • Lower Face Contouring • Striate Mark 	<ul style="list-style-type: none"> • Lower-Face Tightening
 6.0 mm / 2.0 MHz	<ul style="list-style-type: none"> • Double Chin Contouring • Arm & Bra Fat Reduction 	<ul style="list-style-type: none"> • Arm Tightening
 9.0 mm / 2.0 MHz	<ul style="list-style-type: none"> • Thigh Contouring & Cellulite 	<ul style="list-style-type: none"> • Thigh Tightening
 13.0 mm / 2.0 MHz	<ul style="list-style-type: none"> • Abdomen Contouring 	<ul style="list-style-type: none"> • Abdomen Tightening

Ideal Candidates

Ideal Candidate for
ULTRAFORMER 3



Normal Mode

Ideal Candidate for
ULTRAFORMER MPT



Normal Mode



MP Mode



Ultra Booster Hand-piece with DSB
ampoules

Treatment Effect with DSB

DSB ULTRABOOSTER Treatment

Treatment area from epidermis to SMAS Synergy Effect with an exclusive DSB ampoule

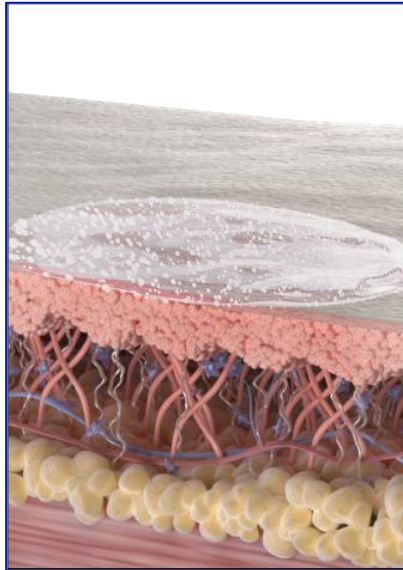


Treatment Techniques



Treatment Effect with DSB: Various Drug Delivery Methods

Ampoule



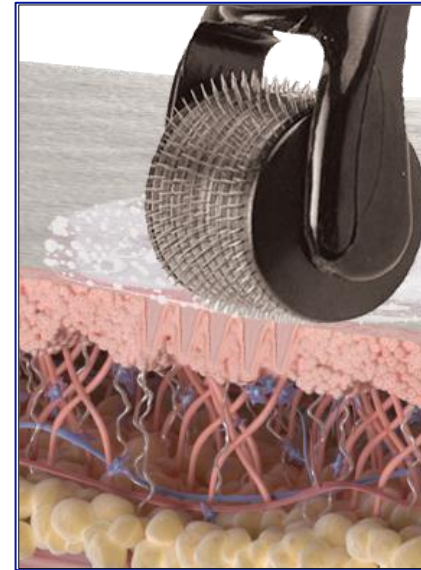
Minimal penetration

DSB ULTRABOOSTER



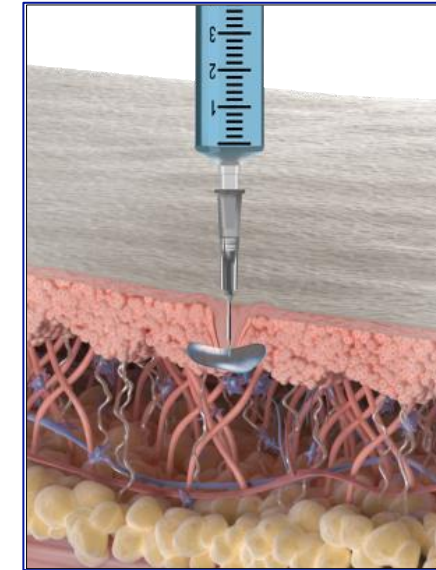
Effective penetration with skin restoration effect

MTS



Effective penetration with bleeding and inflammation risks

Needle



Effective penetration with bleeding and bruising risks

Treatment Effect with DSB

DSB Ampoule Effects with 38 Active Ingredients



Brightening and Tone-Up

- ✓ Glutathione
- ✓ Niacinamide



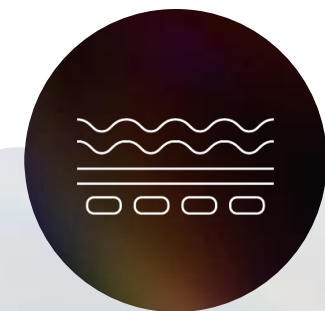
Skin Regeneration

- ✓ Glutathione
- ✓ PDRN (Sodium DNA)
- ✓ Centella Asiatica



Skin Hydration

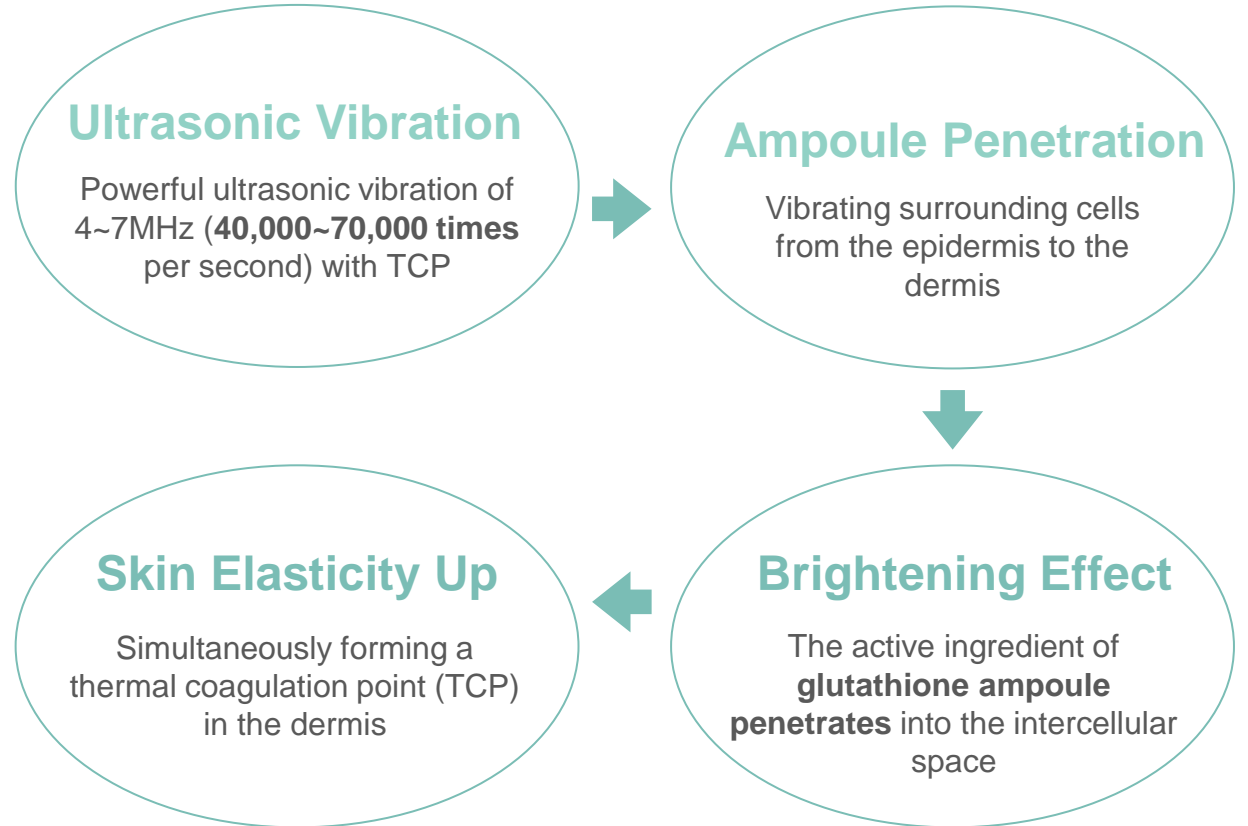
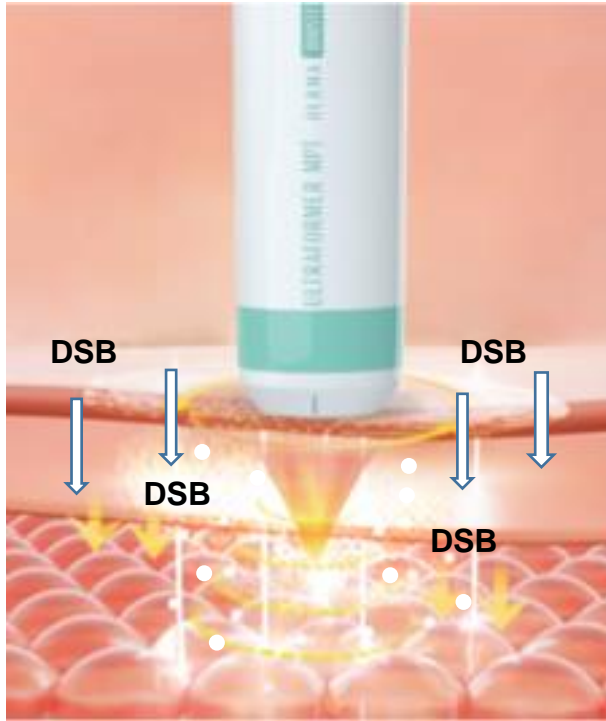
- ✓ 7 Hyaluronic Acids
- ✓ Arginine



Anti-Wrinkle and Skin Elasticity

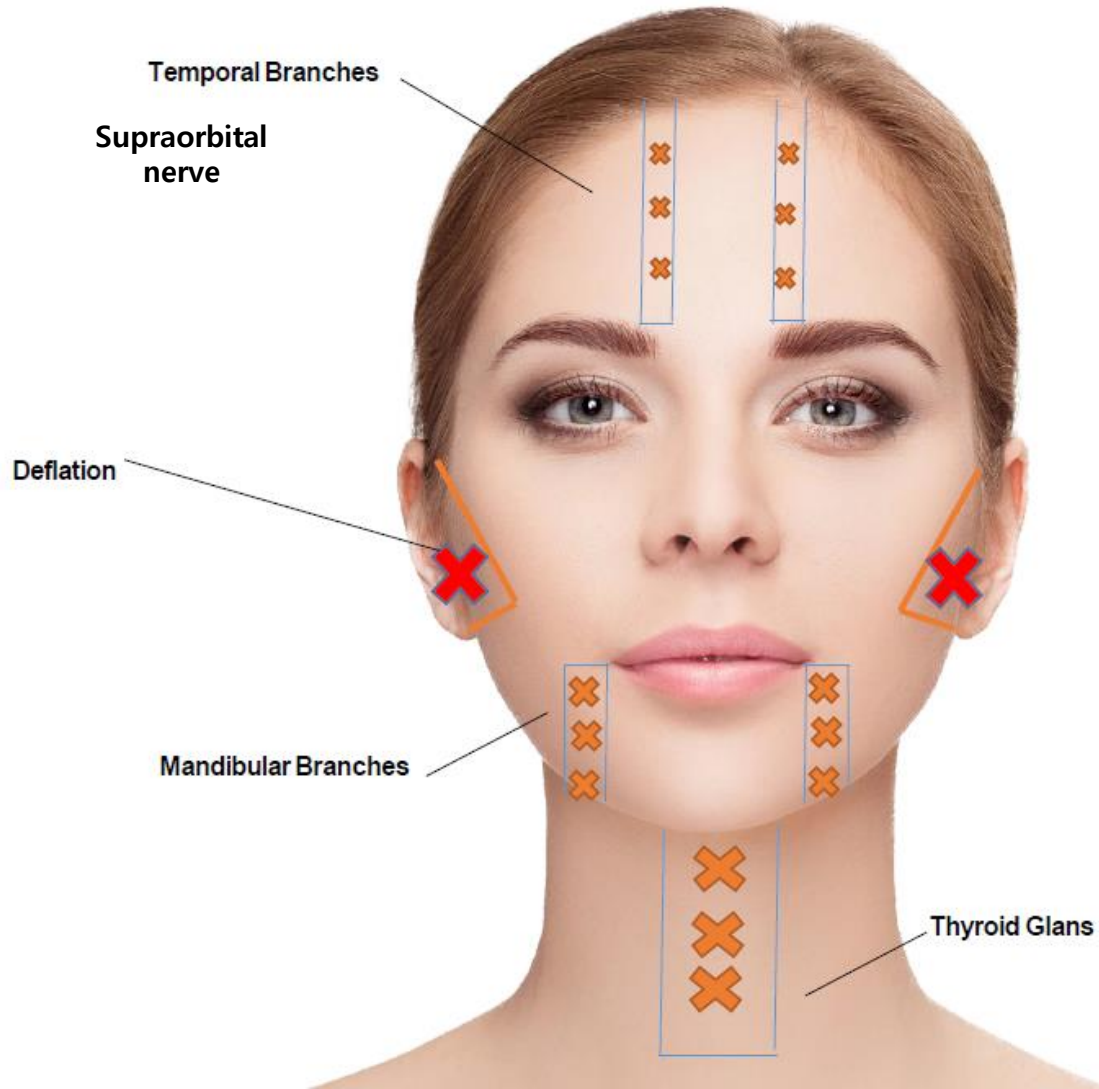
- ✓ Adenosine
- ✓ 10 Multi-peptides
- ✓ 17 Amino Acids

Treatment Effect with DSB



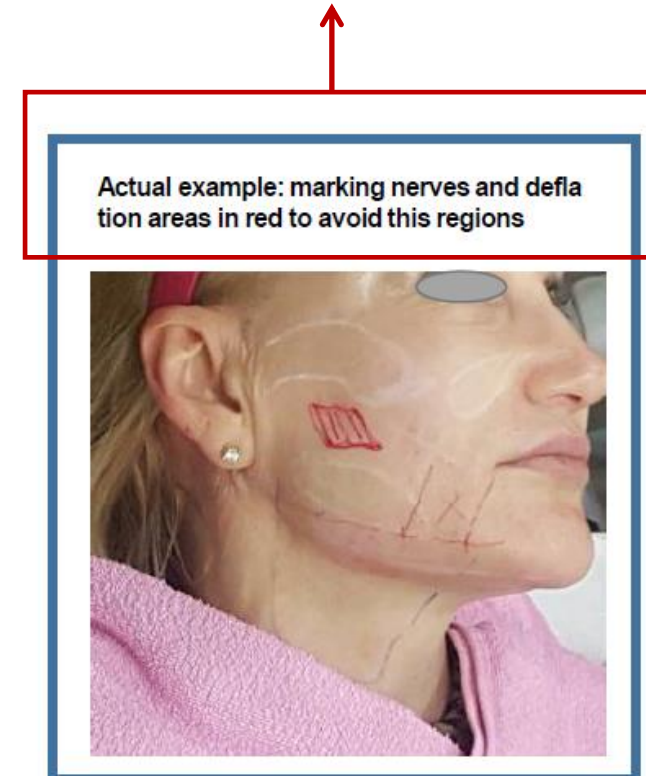
- Booster Handpiece with DSB Ampoule Treatment

Clinical Consideration: Nerve Marking

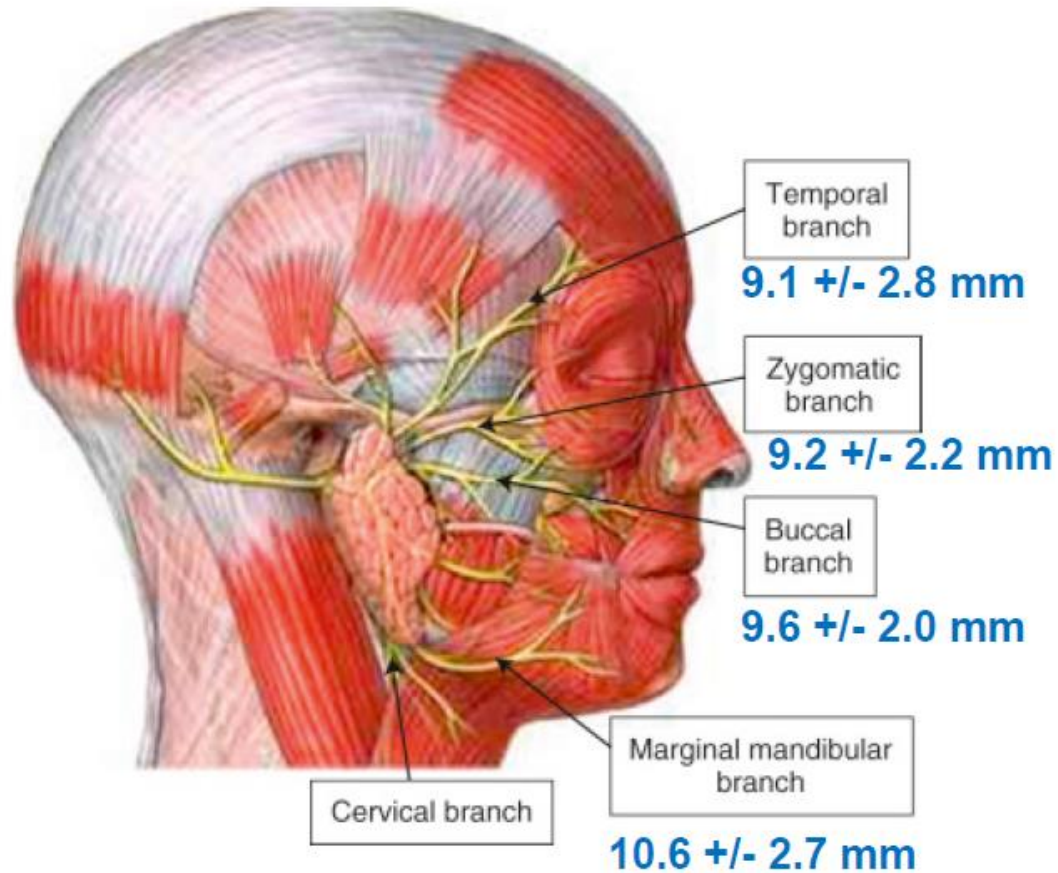


Actual Marking for Face

Actual Example: marking nerves and deflation areas in red to avoid those regions



Clinical Consideration: Nerve Depth



Clinical Study:

Result of **facial nerve depth** on average in 12 cadaver face after face lift dissections

<https://www.sciencedirect.com/topics/neuroscience/posterior-auricular-nerve>

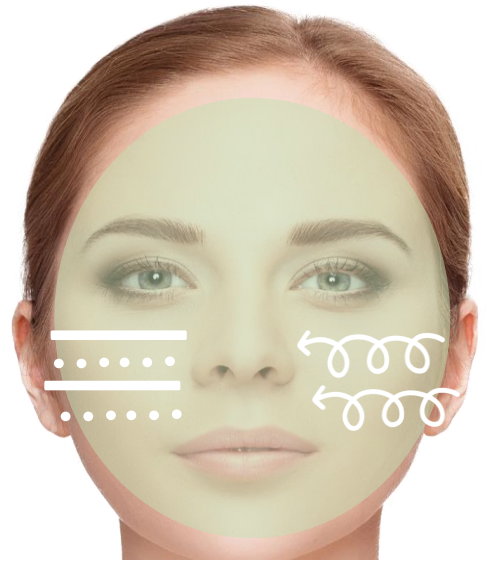
Treatment Programs

Full Face Skin Care

Rejuvenation	
MPT 1.5mm	NORMAL = MP
BOOSER 1.5 mm	NORMAL = MP

Glowing	
BOOSER 1.5 mm	NORMAL < MP

Toning	
BOOSER 1.5 mm	NORMAL < MP



Contraindications and precautions

Contraindication

- Pregnancy or when breastfeeding
- Open wounds or lesions on the treatment area
- Severe or cystic acne on the treatment area
- Metal stents/electrical implants in the treatment area
- Bio-absorbable mechanical implants
- Skin infections of any type
- Hemorrhagic disorders or dysfunctions

Precautions

Determine whether treatment is appropriate for patients with the following conditions:

- Anticoagulant therapy
- Skin conditions caused by autoimmune diseases, skin cancer, and herpes simplex
- Diabetes or epilepsy
- Severe skin diseases
- Decortication or heart disease
- Hypersensitiveness or hypertrophic scars
- Hemostatic dysfunctions

Side Effects and its management

Symptoms	Causes	Post Treatment Care
Erythema (Redness)	<ul style="list-style-type: none"> The treated area may exhibit erythema immediately following treatment 	<ul style="list-style-type: none"> This typically resolves within a few hours of treatment
Edema (Swelling)	<ul style="list-style-type: none"> The treated area may exhibit mild edema following treatment 	<ul style="list-style-type: none"> This typically resolves within 3 to 72 hours of treatment
Bruising	<ul style="list-style-type: none"> When the HIFU energy is delivered to soft tissue blood vessels causing damage Using inappropriate or too strong power (Joule), especially for patients with relatively thin skin Patients on anticoagulant-drug or history of taking anticoagulants 	<ul style="list-style-type: none"> It typically resolves within 2 days to 2 weeks of treatment Check the Patient's medical history prior to the treatment Apply a cold compress for 2~3 days and followed by a hot pack LED light therapy on the bruising area Massage the bruising area by using the 3~10MHz ultrasound device
Burns/Scarring	<ul style="list-style-type: none"> Cartridge and skin surface are not fully contacted especially be mindful when using relatively shallow cartridges (1.5mm& 3mm) Ultrasound gel is not sufficient in the treatment areas Using inappropriate or too strong power (Joule) 	<ul style="list-style-type: none"> Cooling Pack within 48 hours post-procedure Avoid UV light Follow-up for the further assessment
Temporary Nerve Injury	<ul style="list-style-type: none"> 3.0mm or 4.5mm are used on the marginal mandibular nerve causing temporary nerve injury (extremely rare) 	<ul style="list-style-type: none"> It naturally dissipates within 6 months in general. There is no such permanent nerve damage reported so far Mark the facial danger zone especially 2cm~2.5 cm away from the lip to avoid marginal mandibular nerve

After the treatment

- Patients are advised not to exercise, to avoid hot baths, and not to massage the area for 5–7 days post-treatment.
- It is important not to use sunbeds or sunbathe during the healing process (up to 4 weeks).
- Patients should be advised to use moisturizer if the skin gets dry, and to apply SPF 50 daily.
- Patients are also advised to not consume alcohol 24 hours before and after treatment
- Patients are also advised to maintain healthy diet and life style to maximize clinical outcomes