



SONOCARE Introduction

SonoCare effect on skin

Application

Protocol

Before & After

Q&A



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Before & After

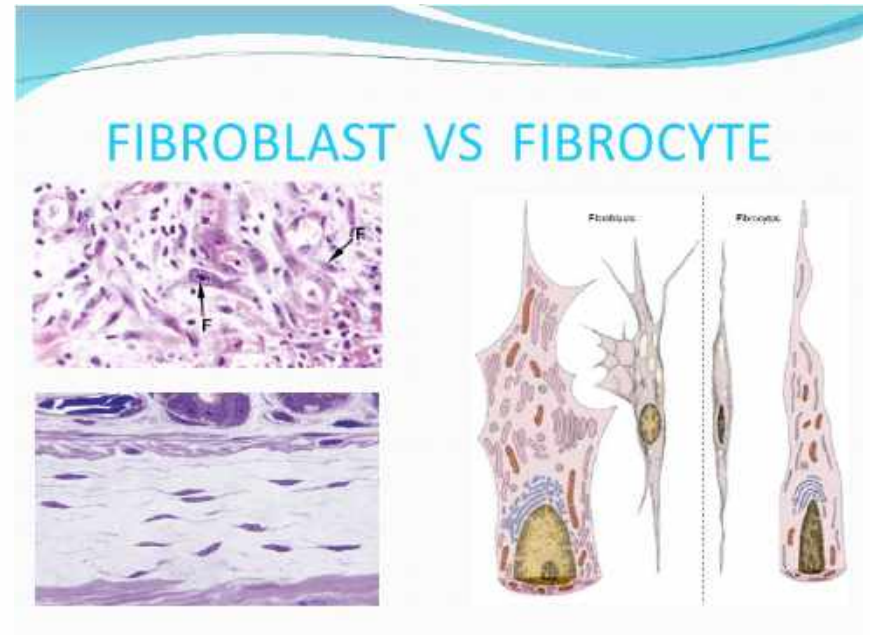
Q&A



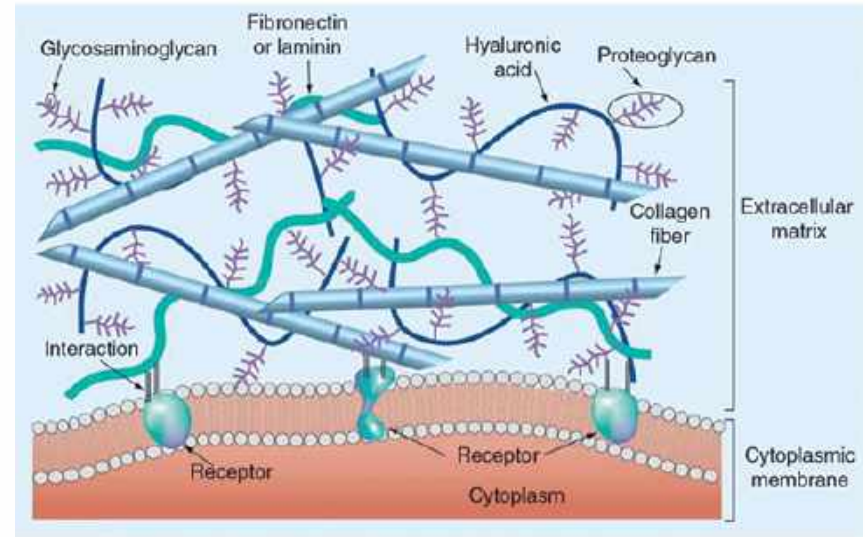
Biological Effect of Ultrasound

- Stimulation of cell proliferation
 - In case of muscle damage, ultrasound helps muscle fiber regeneration.
- Stimulation of collagen synthesis
 - Ultrasound stimulates fibroblast activation.
- Modulation of cell membrane structure
 - Ultrasound affects on cell membrane.

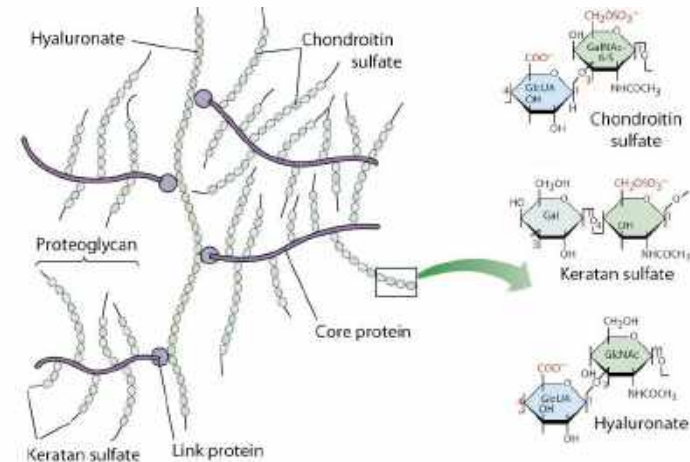
- Fibrocyte changed to active fibroblast when they exposed to ultrasound over some times.
- Fibroblast is important for skin damage treatment and skin regeneration.
- This is mechanical process regardless of heat.



- ECM(Extracellular Matrix)
 - Critical components for structure
 - **Glycosaminoglycan (GAG)** is important to keep moisture in dermis
 - Structural change is caused by skin aging
 - => GAG clustered together and became structurally unbalanced.



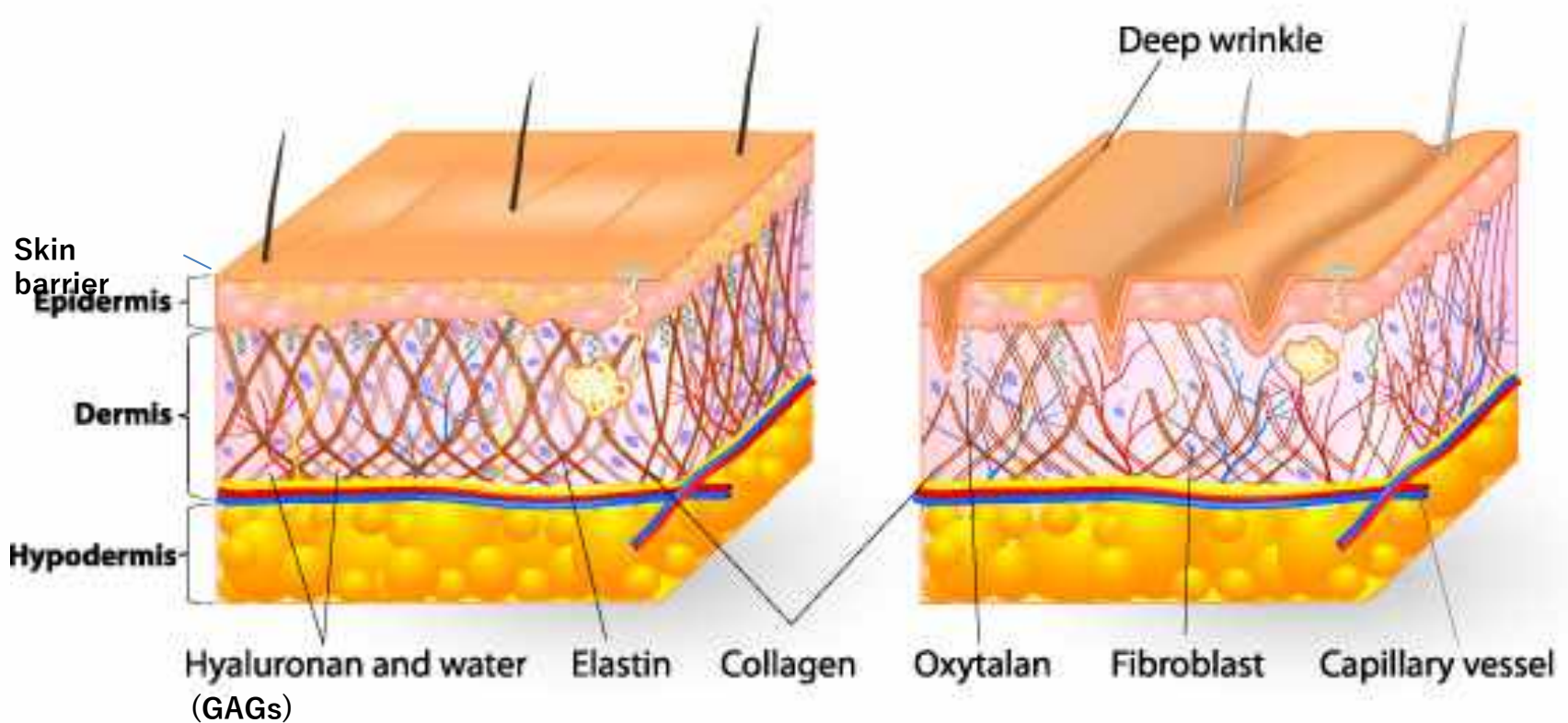
- Ultrasound causes thixotropy(Gel-sol transformation), and helps redistribution of ECM components.
- Redistribution is induced by proper viscosity control.



Skin Anatomy

YOUNGER SKIN

OLDER SKIN



Our clinical rationale

— Non—thermal(physical) effect ; Mainly

- GAG (Hyaluronic Acid, Heparin, Dermatan) redistribution
 - **skin Hydration**, Anticoagulation, wound healing
- Cytokine expression(IL-1 α and TNF α) by Ionic concentration control at dermal layer without damage
 - **Immune system & inflammatory process(Acne/scar)**, cell growth and recovery
- Rhythmical Cell Massage(RCM) Effect
 - wrinkles

— Thermal effect

- Collagen cross link remodeling
 - lifting / tightening

— Biological effect

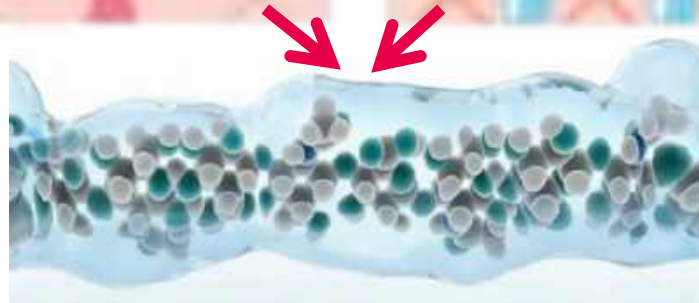
- Increasing of blood by extension of blood vessel
- Oxygen supply increased

GAG Redistribution

Dry skin



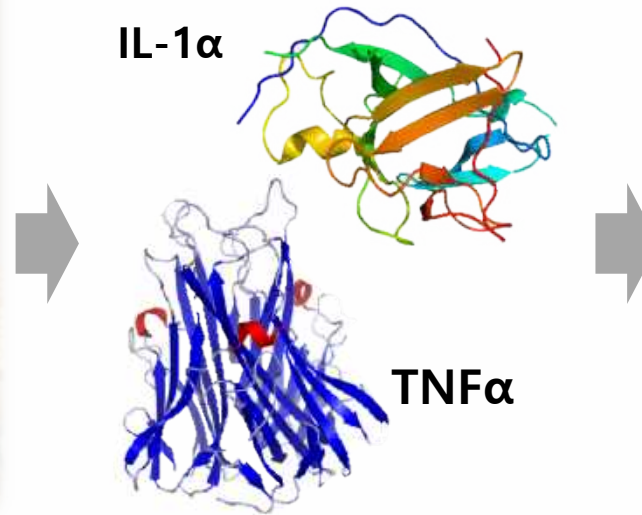
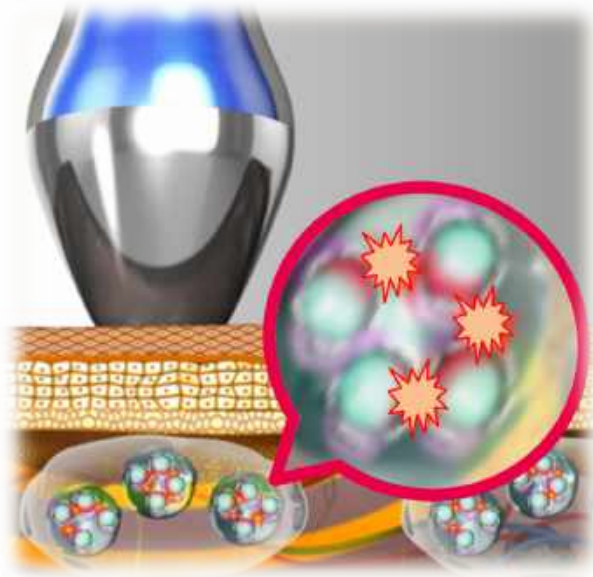
After Sonocare



Glycosaminoglycans (GAGs)

Skin Hydration

Cytokine expression



Immune system
Improvement

Skin barrier
restoration

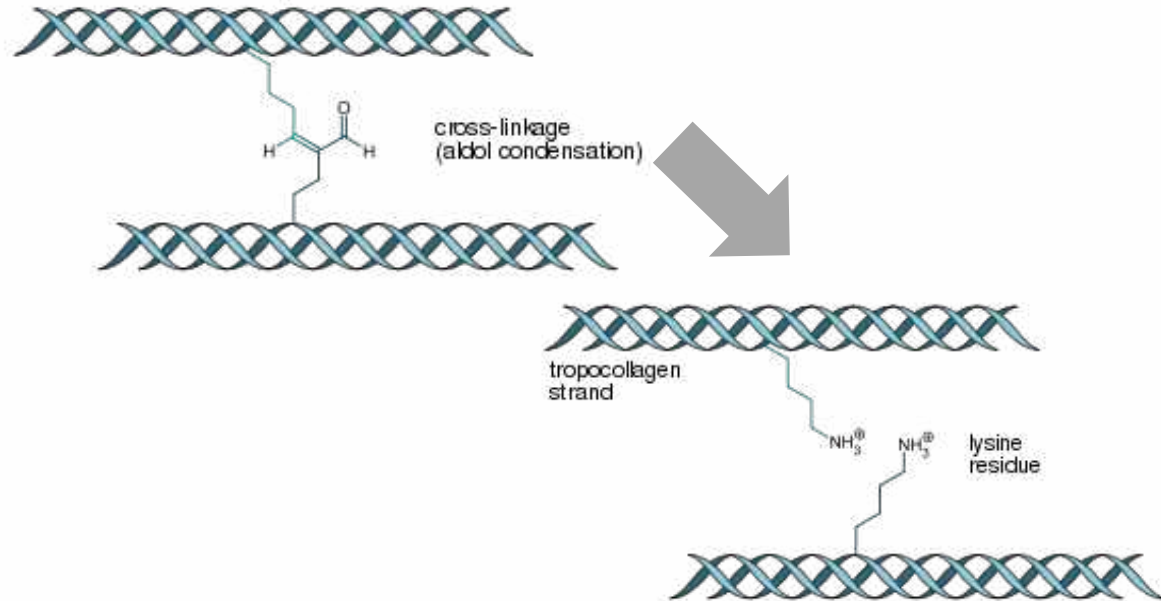
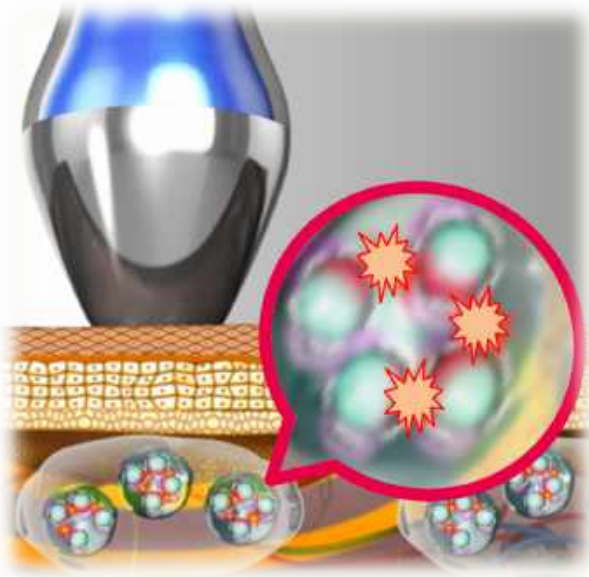
Collagen remodeling
and synthesis.

- **Ultrasound 10Mhz (Nano Cell Massage)**
- Ion gradient changed without skin barrier damage.

- **Cytokine** expression related to immune process, inflammatory process, and cell growth is increased.

- Effective for
Acne
Acne scar

Collagen cross-linking remodeling



- Ultrasound 10Mhz (Nano Cell Massage)



Destruct excessive cross-linking and promote collagen synthesis

Improve Elasticity → Tightening and Wrinkle treatment

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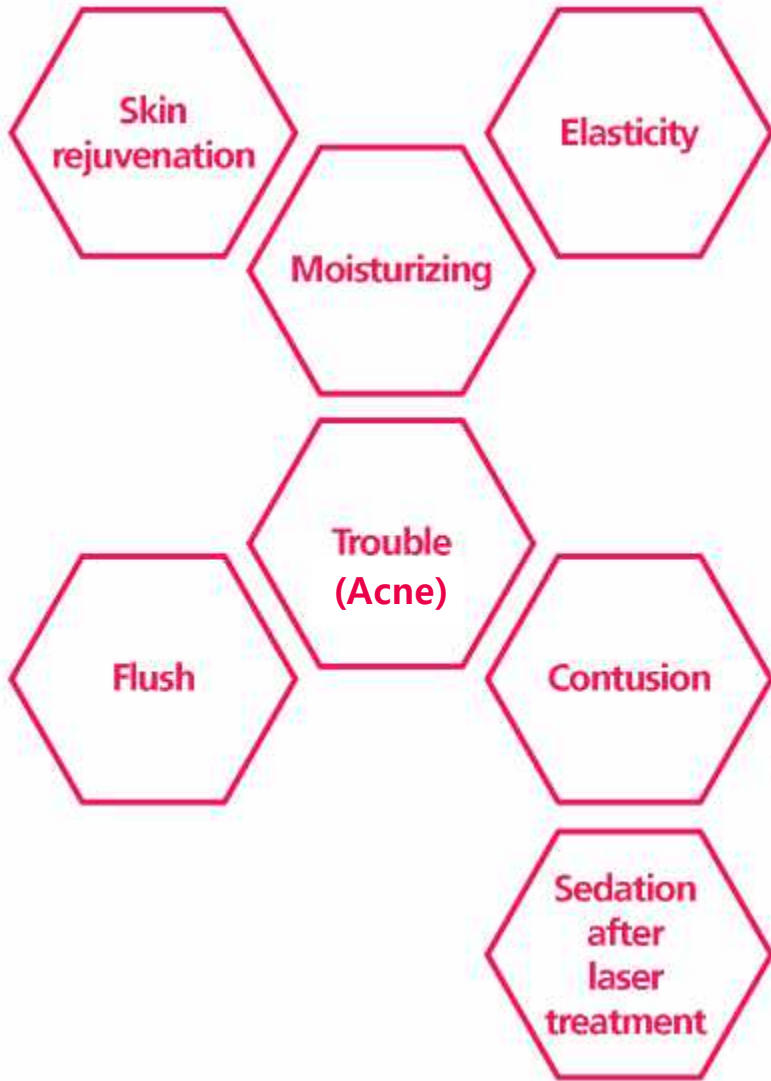
Application

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Before & After

Q&A





FACE

- Tightening
- Wrinkle
- Hydration
- Sonophoresis
- Acne
- Acne scar
- Sedation/flushing
- Contusion/swelling

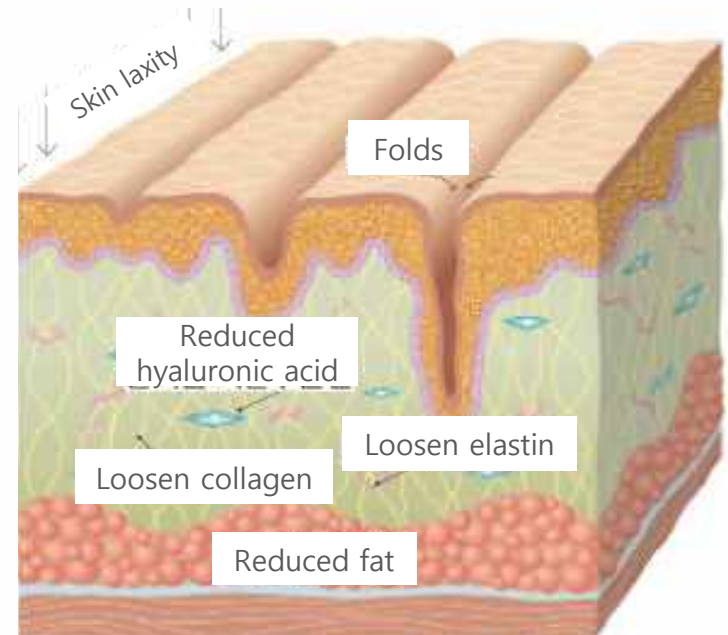
Body

- Tightening
- Hydration
- sonophoresis

Tightening/Wrinkle

➤ Cause of skin aging

Wrinkle and sagging typically appear as a result of aging process such as glycation, sleeping positions, loss of body mass. Due to various causes, collagen fibers and elastin fibers in dermis are denatured, moistures and elasticity of skin are reduced. In results, skin fold and wrinkles are formed. Also reduced fat deteriorates wrinkles.



Wrinkles/Folds

— Treatment program

Application	Program	Frequency	Intensity	Treatment time	Tx interval	Session
Tightening	SC01	10(Cont), 3/10Mhz	Level 6	18 mins	1~2 times per week	8~10
Wrinkle	SC02	10(Cont), 3/10Mhz	Level 6	12 mins	1~2 times per week	8~10

— Objectives

- Sagging, double chin, lack of skin elasticity
- For natural contouring of face
- Fine wrinkles on periorbital area, perioral area, forehead, earflap area

— Treatment principles

- Collagen remodeling(destructing Collagen cross-linking) improves skin elasticity.
- Cytokine expression promotes collagen synthesis

Hydration

—..... What makes skin to be dry and rough?

- High-temperature and dry indoor environment may cause dry skin and contact of the wind make the temperature of skin to decrease and evaporate the moisture from stratum corneum.
- Procedure by laser or RF on the skin will evaporate the moisture from epidermis.
- Outer layer of the skin does not have any blood vessel therefore it need to be absorb nutrition from dermis layer. It means that for moisturized skin the dermis layer should be moist.
- Dermis layer is combined with collagen and elastin. Between this fibers there is GAG. GAG provide moisture through out the skin therefore reducing of GAG may cause the skin to get dry and rough.

Hydration

— Treatment program

Indication	Program	Frequency	Max Intensity	Treatment time	Tx interval	Session
Hydration	SC03	10MHz 3/10MHz	Level 4	12 mins	1~2 times per week	8~10

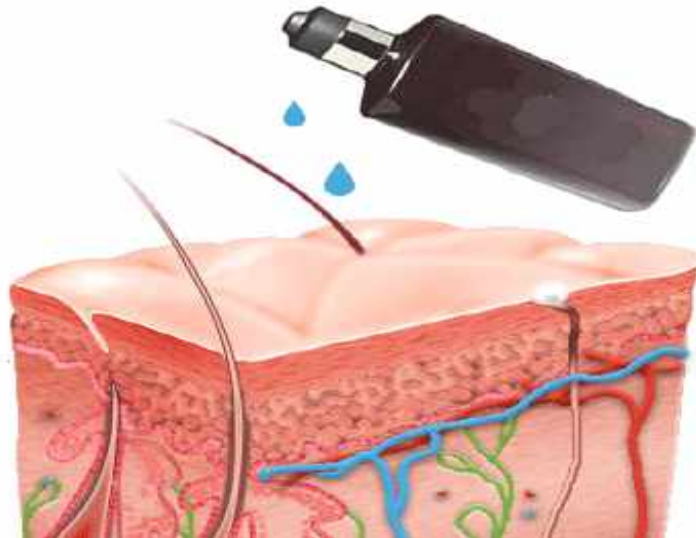
— Objectives

- Dry and rough skin
- Skin rejuvenation and Hydration

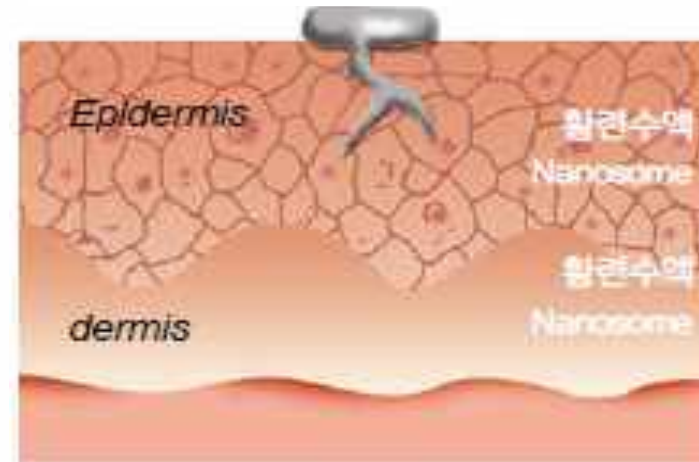
— Treatment principles

- Stimulating GAGs in skin layer with 3MHz and 10MHz frequency ultrasound increases GAGs contents and makes equal distribution of GAGs in dermis layer. Also it can help water circulation raising moistures to dermis from deep skin layer.

 **sonophoresis**



Permeability ratio: 0.3%



- When you apply cosmetics or solution to the skin, only 0.3% of the materials are absorbed because of the high density of the skin cells.

Sonophoresis

Treatment program

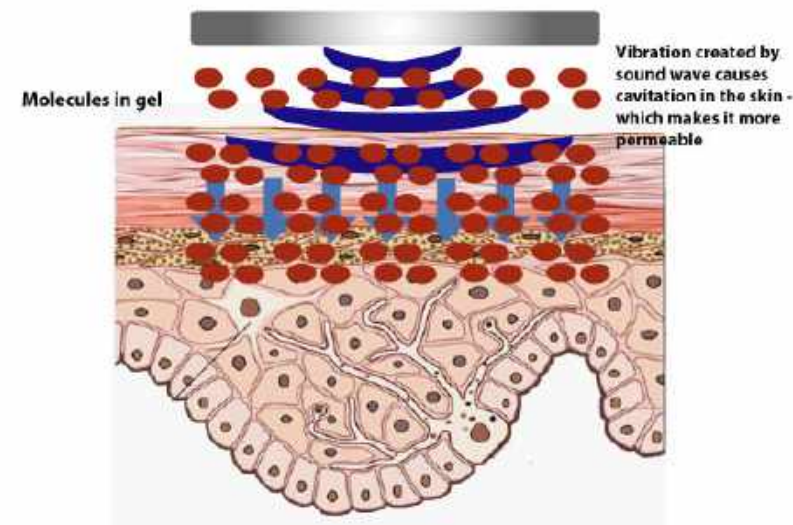
Application	Program	Frequency	Intensity	Treatment time	Tx interval	Session
sonophoresis	SC04	10Mhz	Level 3	6 mins	-	1

Objectives

- Patients who will get Thread lifting, Fraxel, Niddle RF, Injection procedure, liposuction or plastic surgery after applying anesthesia cream.
- Who wants effective penetration of solutions.

Principle

With ultrasonic waves, it will widen the mechanical space between the cells and it amplify the penetration of cell membrane by pressure of Ultrasound.

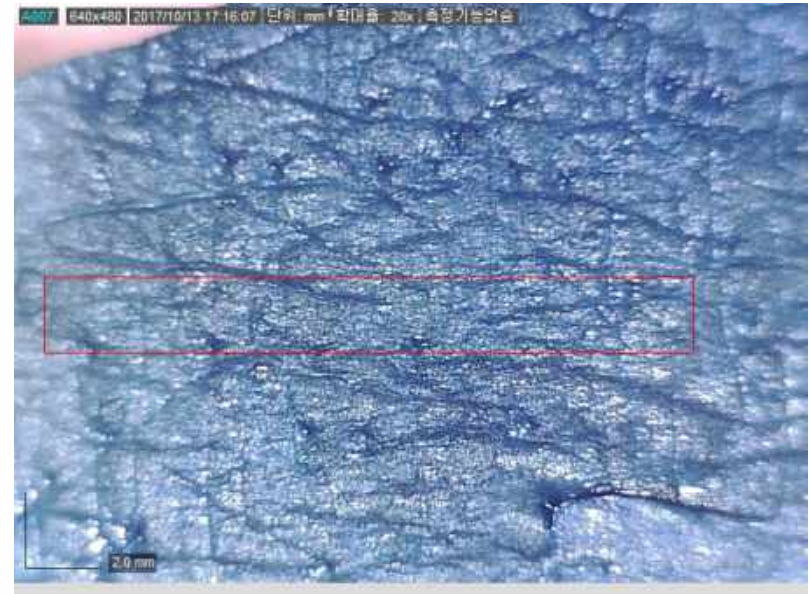


Sonophoresis

— Pig skin test
Hyaluronic acid + Ink



<Hand>



<Sonocare>

— What is acne?

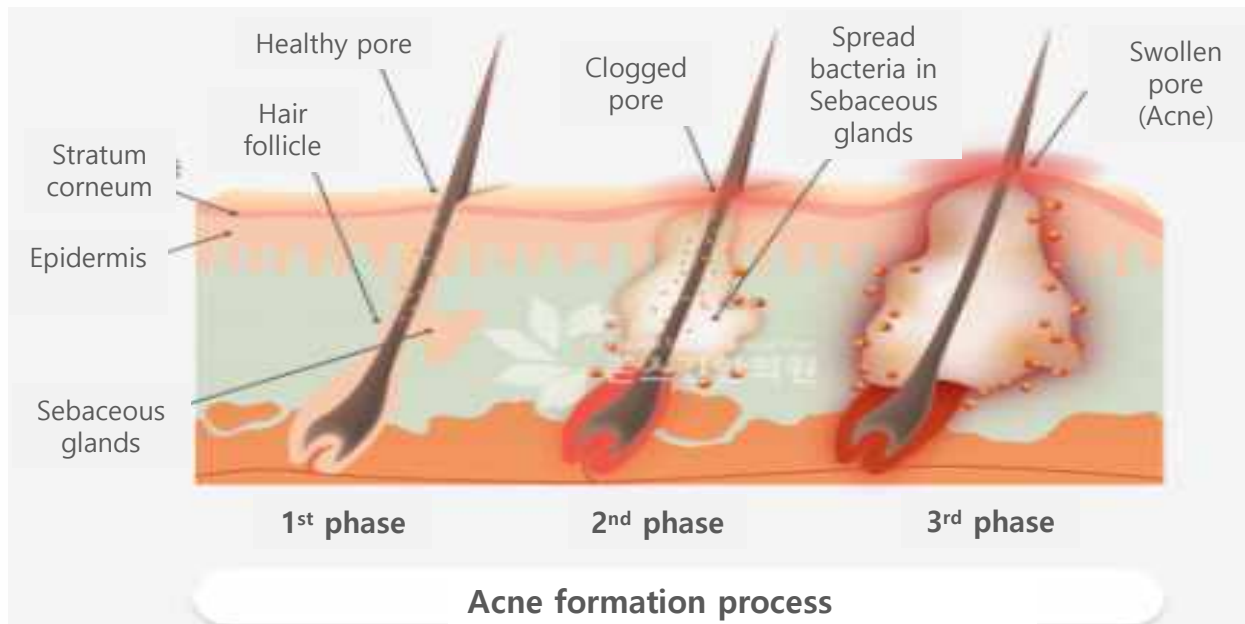
Acne is a long-term skin disease that occurs when hair follicles are clogged with dead skin cells and oil from the skin.



Acne

— Cause of Acne

Hair follicle is clogged when the production of sebum is promoted and the epithelium of hair follicle shows abnormal keratinization. If hair follicle is clogged, sebum is accumulated and comedone is formed which is cause of acne.



— Treatment program

Application	Program	Frequency	Intensity	Treatment time	Tx interval	Session
Acne	SC5	10MHz, 3/10Mhz	Level 3	12 mins	1~2 times per week	8~10

* Please treat after pressing out acnes.

— Objectives

- Infection, inflammation with blush face
- Normal acne skin improvement
- Trouble with acne skin with seborrheic infection or blush face

— Principle

- Improved immune system by cytokine expression help recovery of acne inflammation.

Flush

 Flush



- Flush shows redness commonly on face, sometimes on neck or chest area.
- It happens when the blood vessels in skins expanded abnormally and irreversibly.

Flush

— Treatment mode

Application	Program	Frequency	Intensity	Treatment time	Tx interval	Session
Flush	SC06	10MHz 3/10MHz	Level 2	12 mins	1~2 times per week	8~10

— Objectives

- Congenital flush, redness
- Partially bounded flush (Example: round shape of flush on cheek)

— Principle

- Heparin which is a type of GAGs prevents blood coagulation, and Nono cell massage effect by 10MHz ultrasound help blood circulation.
- GAGs helps to put water out from expended blood vessel and shrink the blood vessels. With narrower blood vessels, reduction of redness is expected.

Acne scars

Acnes scars

- The red spot of acne are made by expanded blood vessel or newly formed blood vessel in the recovery process.
- After inflammatory response of acne, brown spot which is different with skin color, can be made.
- When inflammation is deteriorated or when sebum burst inside skin by improper treatment, scars which are raised or depressed can be made.

Acne scars

— Treatment program

Application	Program	Frequency	Intensity	Treatment time	Tx interval	Session
Acne scars	SC07	10MHz 3/10Mhz	Level 4	18 mins	1~2 times per week	8~10

*Treat after finishing acne inflammation treatment.

— Objectives

- Expanded narrow pore formed by acne inflammation.
- Pigmentation formed by acne.

— Principle

- Inflammation response promoted by cytokine expression helps to recover acne scars.

Contusion

—..... What is contusion?

- A contusion, commonly known as a bruise, is a type of hematoma of tissue in which capillaries and sometimes venules are damaged by trauma, allowing blood to seep, or extravasate into the surrounding interstitial tissues.
- Bruises, which do not blanch under pressure, can involve capillaries at the level of skin, subcutaneous tissue, muscle or bone.



Contusion

— Treatment mode

Application	Program	Frequency	Intensity	Treatment time	Tx interval	Session
Contusion	SC08	10MHz 3/10MHz	Level 2	6 mins	-	1~several times

— Objectives

- Contusion or pain after plastic surgery
(*Do not treat contusion after filler procedure.)
- Bruise and edema by external shock

— Principle

- Nano cell massage helps blood circulation of hematoma lesions.

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Full Face Technique



- This procedure is designed considering lymphatic massage effect.
- Rub face with probe following the order in picture.
- Slightly press probe during rubbing except periorbital area.
- Stop 2 seconds on marked spot.

Line and Spot Technique

< Line >



< Spot >



Deliver enough heat moving slowly.

Treatment Combination

- Face tightening
Full face treatment + Line treatment
(SC01: Tightening program)+(Individual Mode : 10MHz 0.5W 2min per 5cm)
- Acne and Acne scar
Full face treatment + Spot treatment
(SC05 : Acne program) + (Individual Mode : 10MHz, 0.2W, 1min per one spot)
(SC07 : Acne scar program) + (Individual Mode : 10MHz, 0.3W, 1min per one spot)
- Body care
(SC09 : Body tightening) + (Individual Mode : 1MHz, 5W)

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ACNE



Courtesy of Davinci Body Concept (New Jersey, USA)

Program: Acne Scar

Session: 6 sessions

Treatment interval: Twice a week

ACNE



Courtesy of Davinci Body Concept (New Jersey, USA)

Program: Acne

Session: 8 sessions

Treatment interval: Twice a week

— Post-inflammatory hyperpigmentation(PIH)



Courtesy of Davinci Body Concept (New Jersey, USA)

Program: Acne Scar

Session: 4 sessions

Treatment interval: Twice a week

— Sedation after laser treatment



Courtesy of NEWPONG(KR)

Program: Sedation

Session: 1 session

— Face lifting & Whitening



Courtesy of Davinci Body Concept (New Jersey, USA)

HIFU(1 session) + SonoCare(4 session)
Program: sonophoresis (with Vit C serum)
Treatment interval: Twice a week

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— Treatment time and interval of sonocare?

A : It depends on application but it takes 6 to 18 minutes for single session.
And the treatment can be repeated by 1-2 times per week.

— Any downtime?

A : Sonocare is the most safe system for facial skin care. You are able to get back to normal life right after the treatment

— When can I see the results?

A : You can see the results immediately, but for some applications, it may need more sessions.

— Is there any special pre or post care?

A : Sonocare gives no pain and bleeding. So it does not need any topical anesthesia procedure. And you can have normal daily life right away the treatment.

Warnings

- Patients who treated with hyaluronic acid fillers must avoid sonoCare treatment at least for 2 weeks.
- Patients who have skin disease may experience itchiness, redness and flaky skin. However it comes from recovery process and it is not a side effect.
- If you use high power for sensitive skin, skin trouble can be caused. We recommend the default power value, and you can use higher power for healthy skin without trouble.
- In case of acne patients, acne may temporarily break out more for first three session. Doctor should explain it to patients in advance.

ENJOY *your* BEAUTIFUL Life