

2021 Int'l Webinar

Various Face Treatment Course by

Hyaluronic Acid Filler + Lidocaine

INOBELLE®

A NATURAL, SAFE AND LONG-LASTING HA FILLER

Dated on Mar. 12, 2021



www.gcsbio.com



Hyaluronic Acid Filler + Lidocaine

INOBELLE[®]

A NATURAL, SAFE AND LONG-LASTING HA FILLER

- GCS produces medical devices using hyaluronic acid derivatives -



Overview




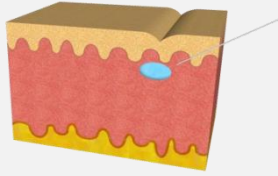
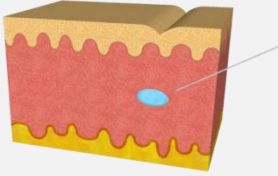
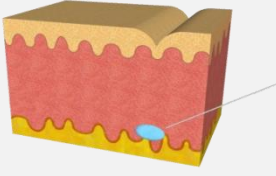
Inobelle+ is a substance that is injected into skin or subcutaneous fat in order to correct wrinkles and scars.

Product Description

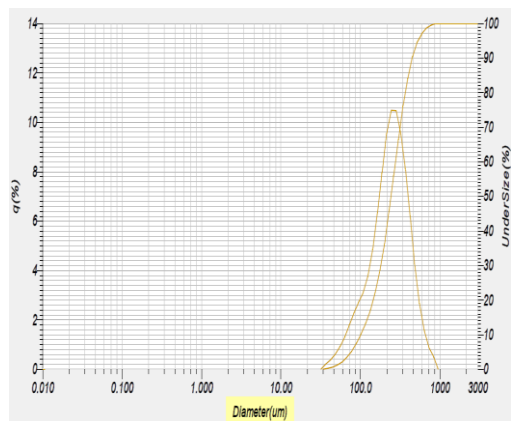
A colorless and transparent gel-type product with viscoelasticity composed of stabilized non-animal Hyaluronic acid.

Status



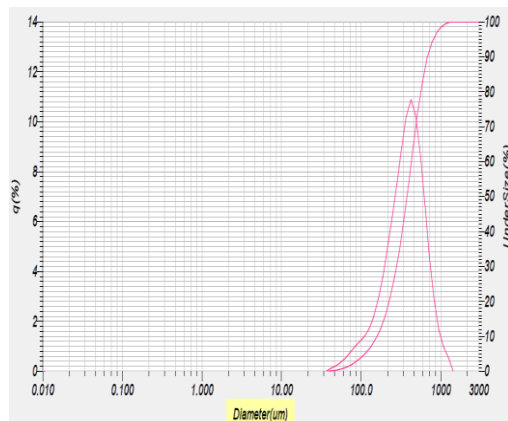
	Inobelle F	Inobelle+ D / N / V	Inobelle S
INOBELLE⁺			
Composition	Cross-linked hyaluronic acid (20 mg/ml)	Cross-linked hyaluronic acid (20 mg/ml)	Cross-linked hyaluronic acid (20 mg/ml)
Average Grain size	200~250 µm	400~500 µm	800~900 µm
Indications	Lip Volume & Correction of superficial wrinkles: fine lines and wrinkles on thin skin	Filling of all moderately pronounced wrinkles on the full face	Filling deep wrinkles and Volume (Cheek, Forehead)
Injection area	 Superficial dermis	 Mid dermis	 Deep dermis or subcutaneous tissue
Storage conditions	To be stored at room temperature (1-30°C) away from direct sunlight.		
Shelf life	36 months (Except of Inobelle+ D CE Version : 24Months)		

Inobelle F



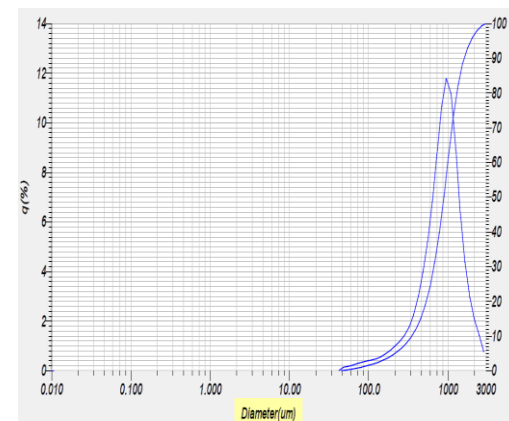
Particle size : 150 ~ 250 μm

Inobelle+ D, N, V



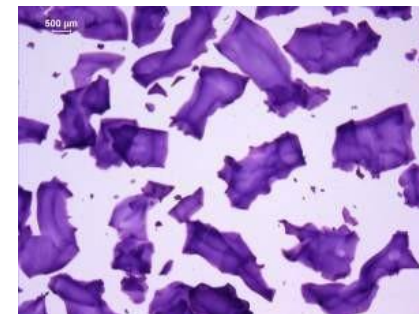
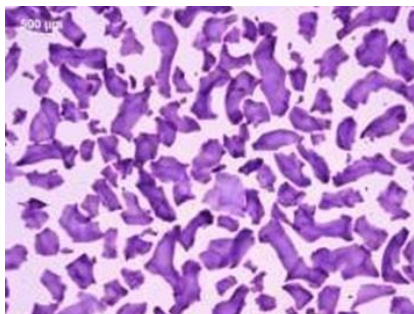
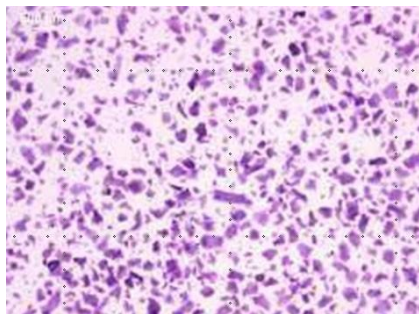
Particle size : 350 ~ 600 μm

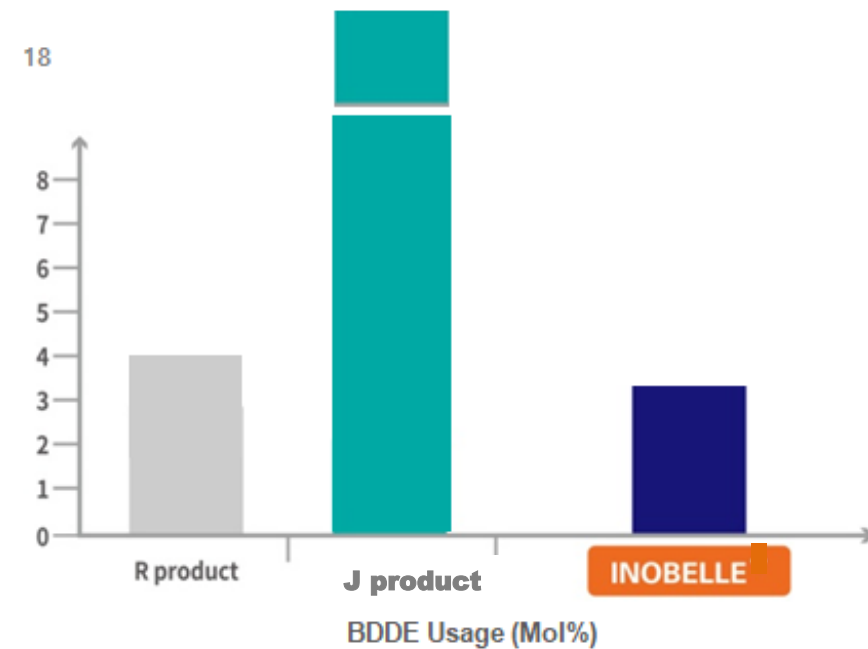
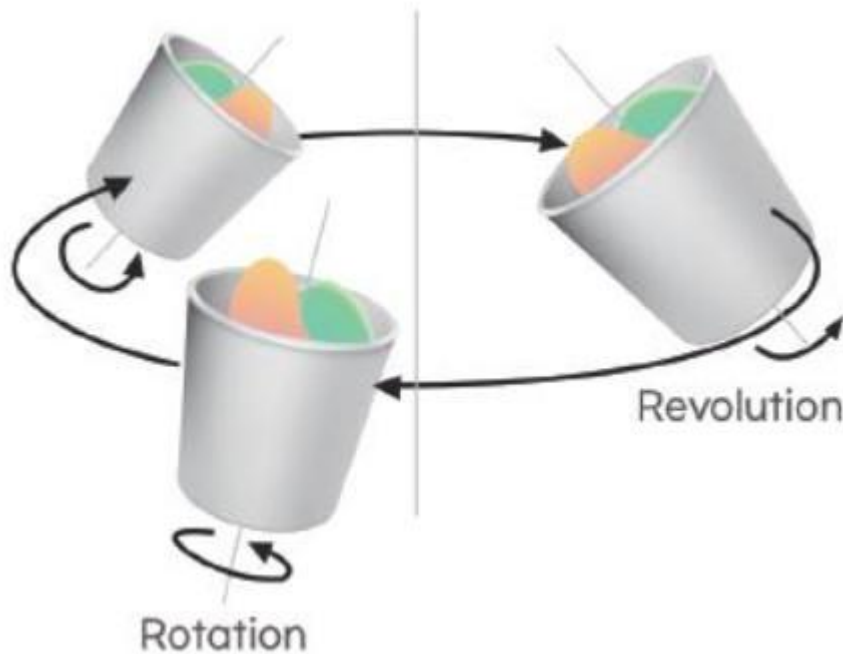
Inobelle S



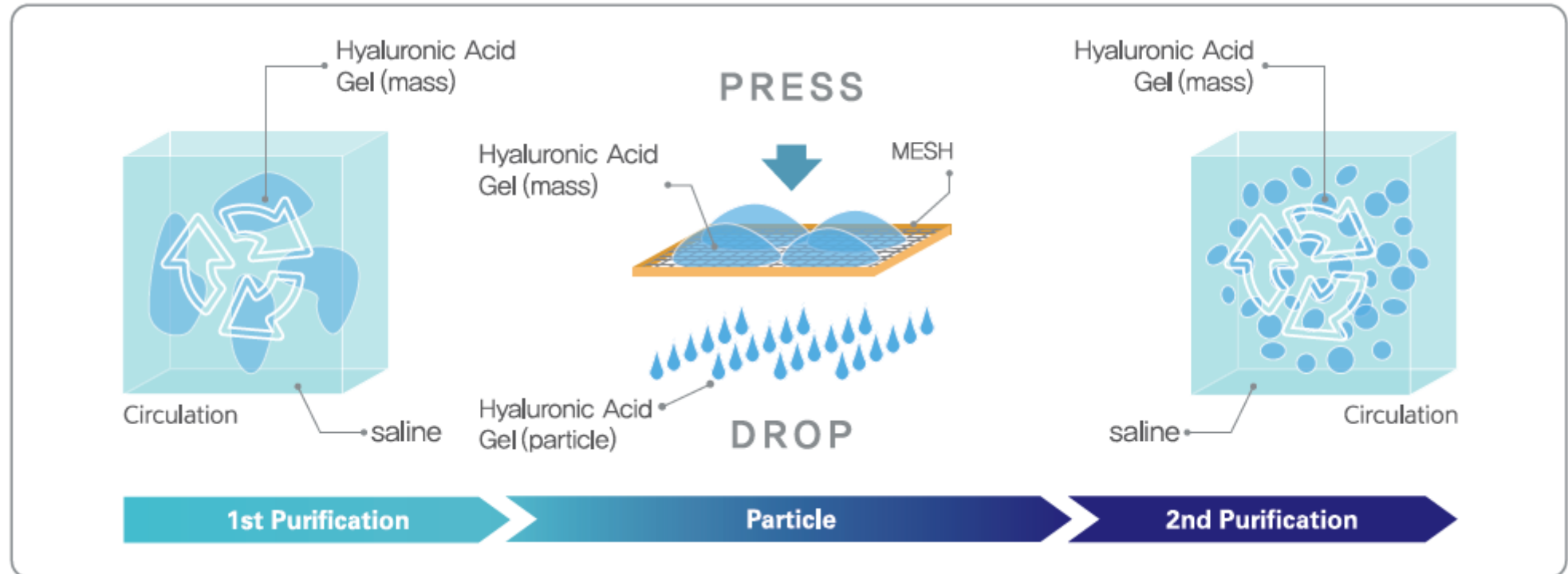
Particle size : 800 ~ 1,000 μm

Homogenized Gel Particle size





Inobelle use BDDE as a minimum. And in order to increase cross linking rate, it is produced by 'Duplicated Cross-Linking', **CHEMICAL** and **PHYSICAL** by Revolution & Rotation.



Inobelle+ is produced without immune reaction by removing residual BDDE by 2 step purification process.

HA filler parameter

Residual BDDE



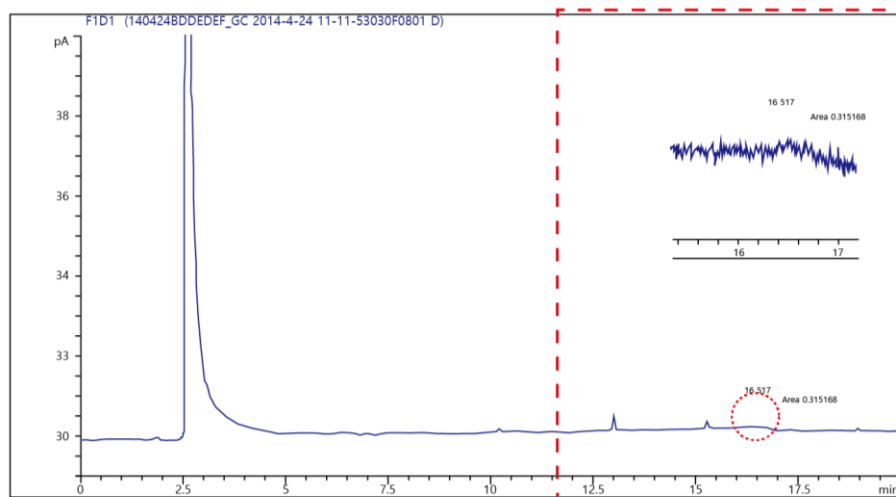
Clinical performance

Safety

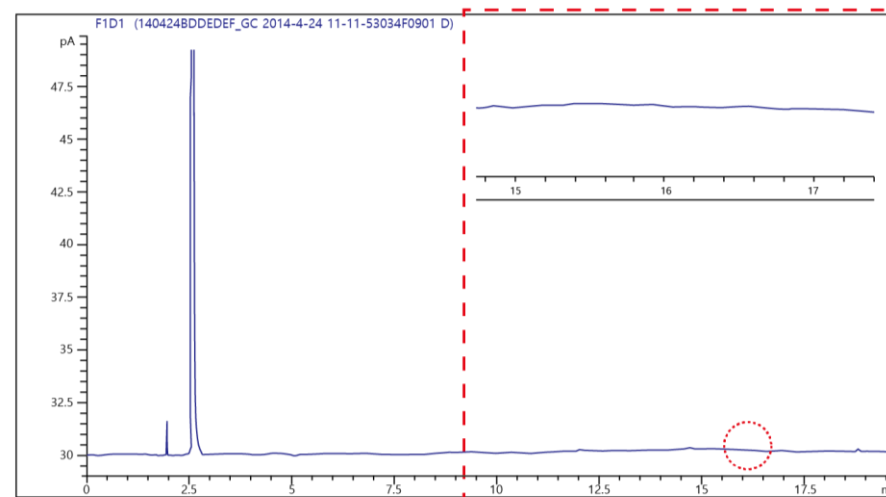


Confirmed the amount of residual BDDE in Innobelle + through GC analysis.
(The detection limit of BDDE: 1 ppm)

Residual BDDE is **not detected** in Inobelle +



GC chromatogram of BDDE
(The detection limit of BDDE: 1 ppm)



GC chromatogram of Inobelle

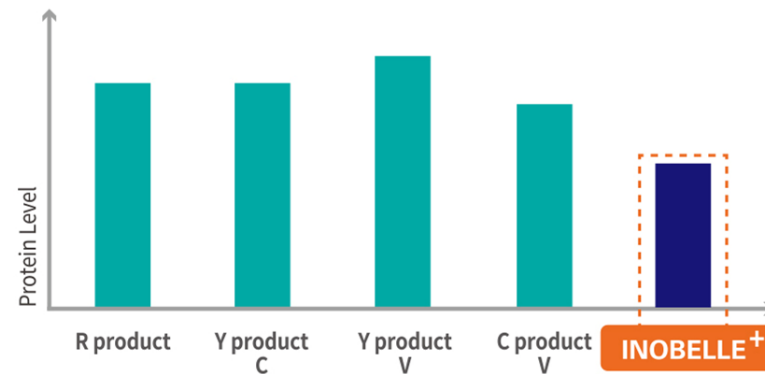
HA filler parameter

Protein Level



Clinical performance

Safety



Protein level : Y product V > R product > Y product C > C product > Inobelle

- By reducing the amount of protein causing hypersensitivity reaction, it minimizes generation of free radical.
- Protein level of Inobelle+ is lower than other commercial products.

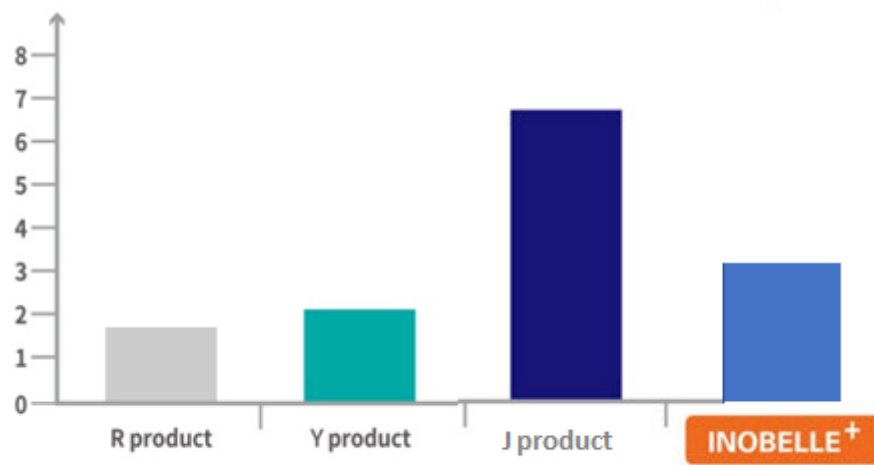
HA filler parameter

cross-linking



Clinical performance

Duration

Determined by ¹H-NMR spectroscopy, Varian 300 MHz

Degree of XL ↑ : J product > Inobelle > R product > Y product

INOBELLE Cross Linking rate is lower than other Monophasic filler but it is higher than other Biphasic filler.

HA gel concentration of INOBELLE is the best from other HA filler.

HA filler parameter

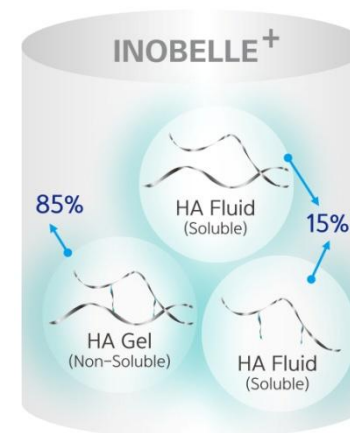
Clinical performance

Gel to fluid ratio, HA gel concentration ↑



Duration ↑

	H-Product	R-Product	J-Product	Inobelle+
Total HA concentration (mg/ml)	5.5	20	24	20
Gel-to-fluid ratio	98:2	72:25	60:40	85:15
HA gel Concentration (mg/ml)	5.4	15.0	14.4	17.0



Gel ratio ↑ : H product (98) > **Inobelle (85)** > R product (75) > J product (60)

HA gel conc. ↑ : **Inobelle (17.0)** > R product (15.0) > J product (14.4) > H product (5.4)

J. Kablik et al., Dermatol Surg 2009; 35:302-312.

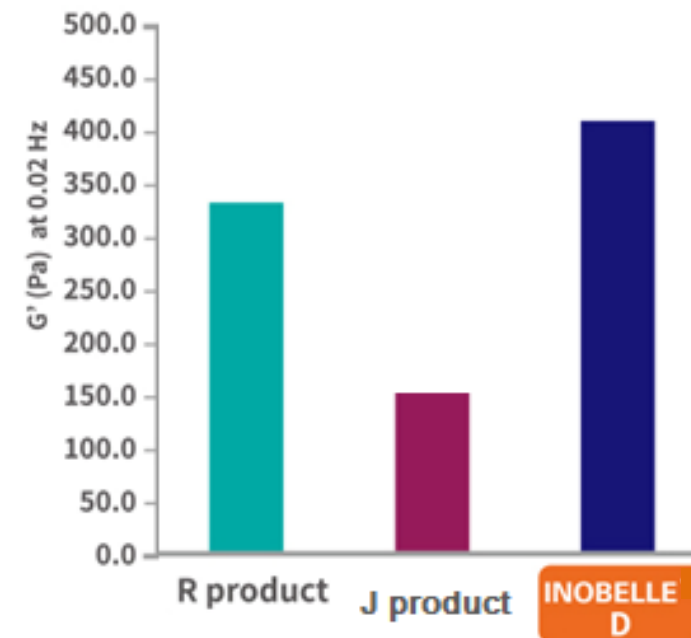
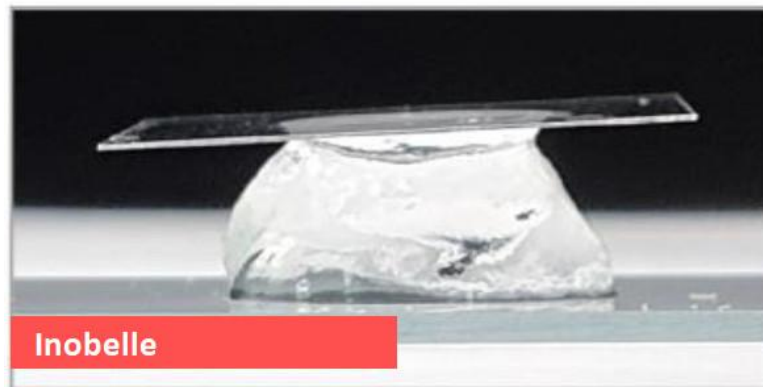
HA filler parameter

Gel hardness, G' ↑
Low G' : Soft | High G' : Firm



Clinical performance

Support / Duration ↑



Rheological characterization

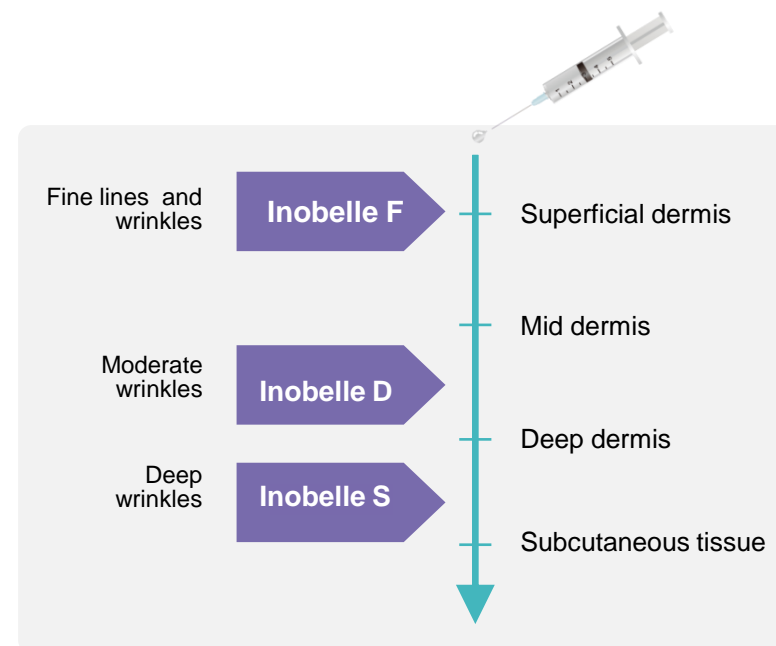
G' (Storage modulus), elastic modulus

- The magnitude of the G' is dependent upon the elastic interaction and the strength of the interaction in the sample.

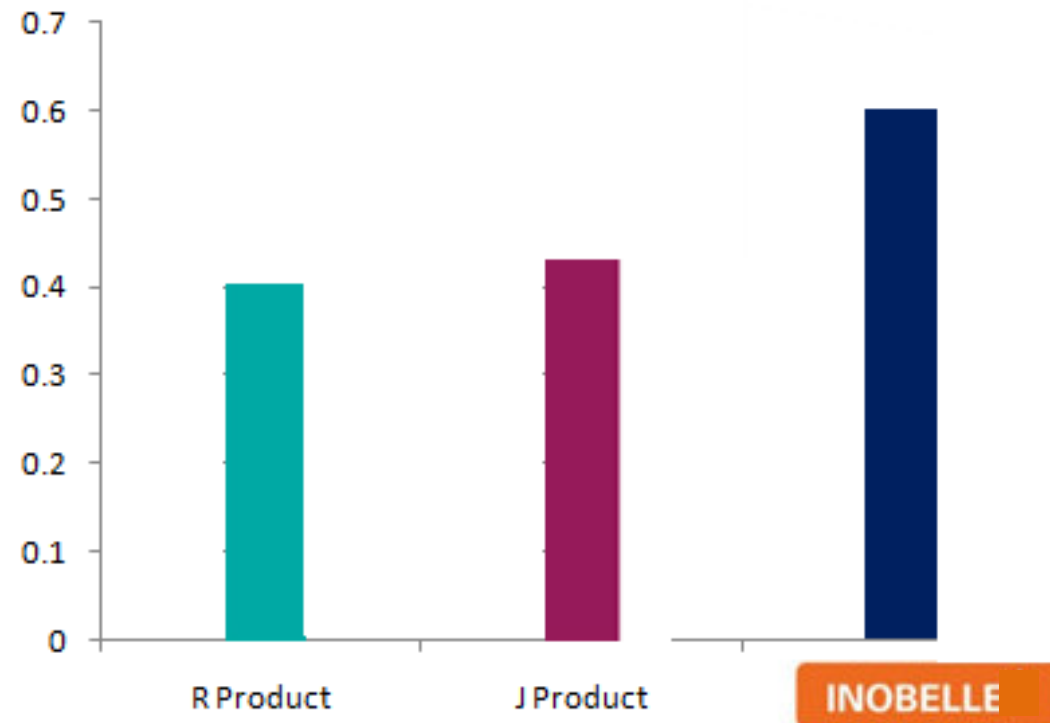
G'' (Loss modulus), viscous modulus

- The value of G'' is a measure of the flow properties for a structured sample.

	G' , Elasticity [Pa] at 0.02 Hz	G'' , Viscosity [Pa] at 0.02 Hz
Inobelle F	295.0	55.5
Inobelle+ D	357.8	71.6
Inobelle S	472.2	164.6



Tack properties of Inobelle



INOBELLE Procedure Manual Content

1. KOL Profile
2. Depth of Filler injection
3. Filler injection method
4. By treatment area
5. Q & A

Hyaluronic Acid Filler + Lidocaine

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Doctor's Profile



Dr. Cho Jin Hwan

Graduated Doctor Degree for Plastic Surgery
from the School of Medicine, Korea University

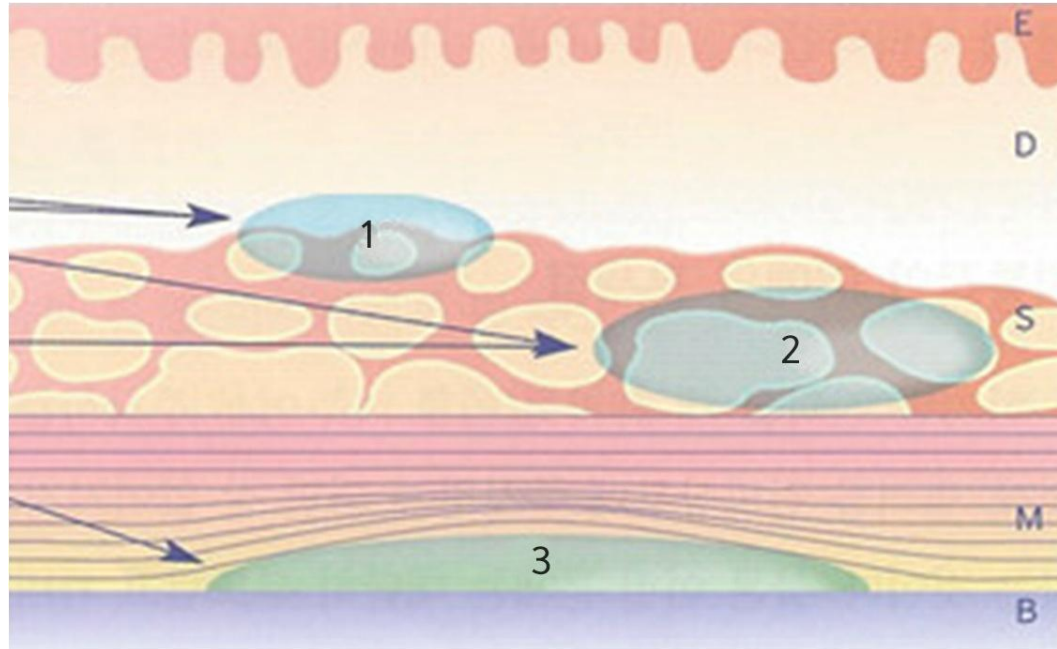
1995-1996 Chief of Plastic Surgery Hospital

1998-2001 Chief & Professor of Plastic Surgery in School of Medicine, Inha
University

2001-2012 Director of Hana Plastic Surgery Hospital

Member of Korea Hand Surgery Society, Korea Plastic Surgery Society,
Korea Beauty Plastic Surgery Society, International Plastic Surgery Society.

2012- Present Owner of "Cho Plastic Surgery Hospital" Korea.



- The boundary between the 1st dermis and the subcutaneous fat layer or the top of the 2nd subcutaneous fat layer is recommended.
- Submuscular '3' or above the periosteum

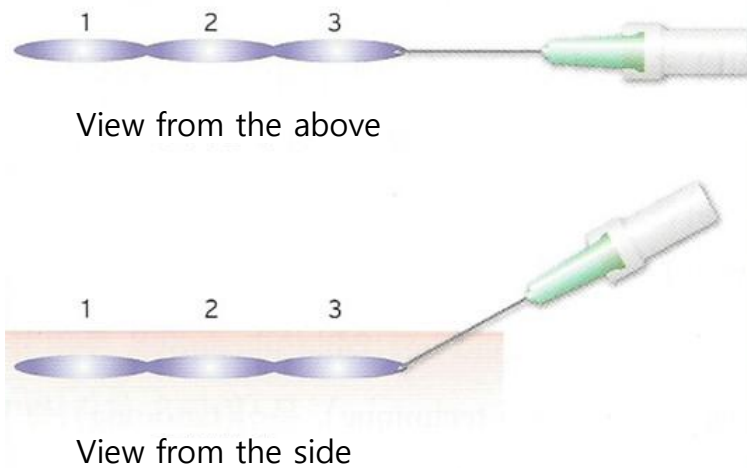
1. Traditional techniques

Linear techniques

Linear threading technique

Cross-hatching technique : Large three-dimensional space, massage treatment after injection.

Linear threading technique



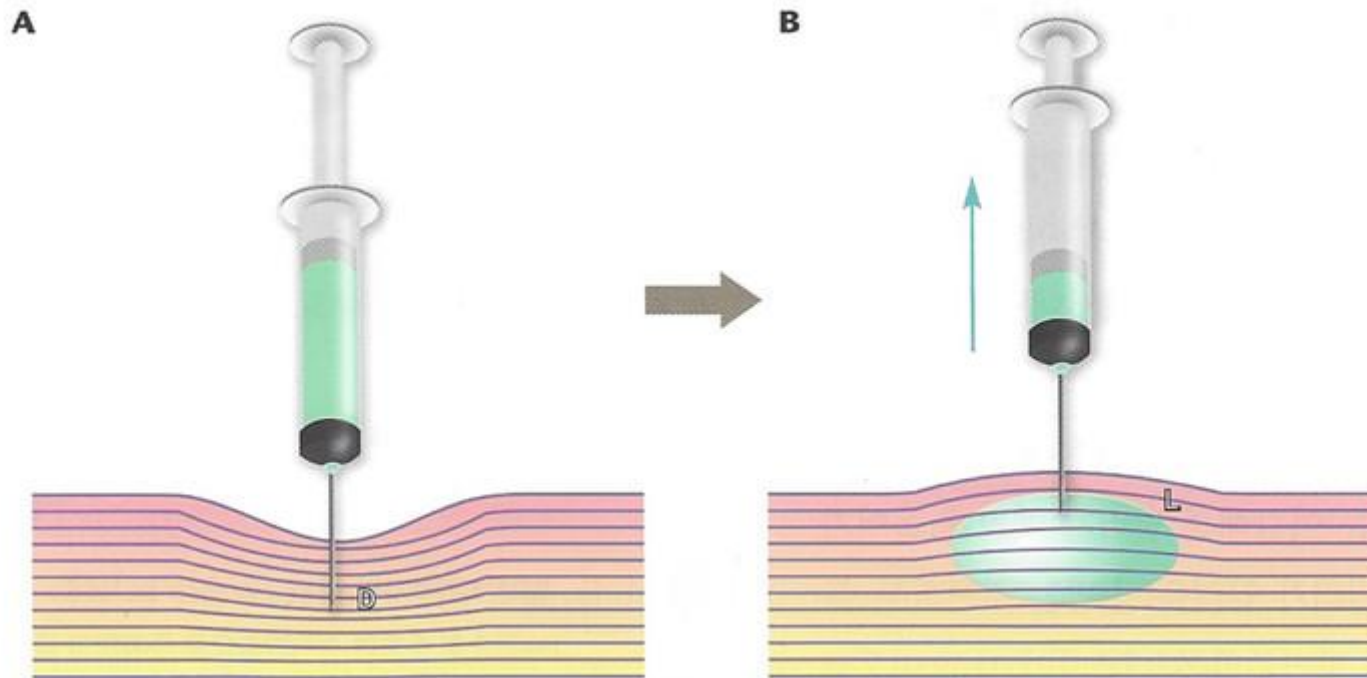
Cross-hatching technique



2. Advanced techniques

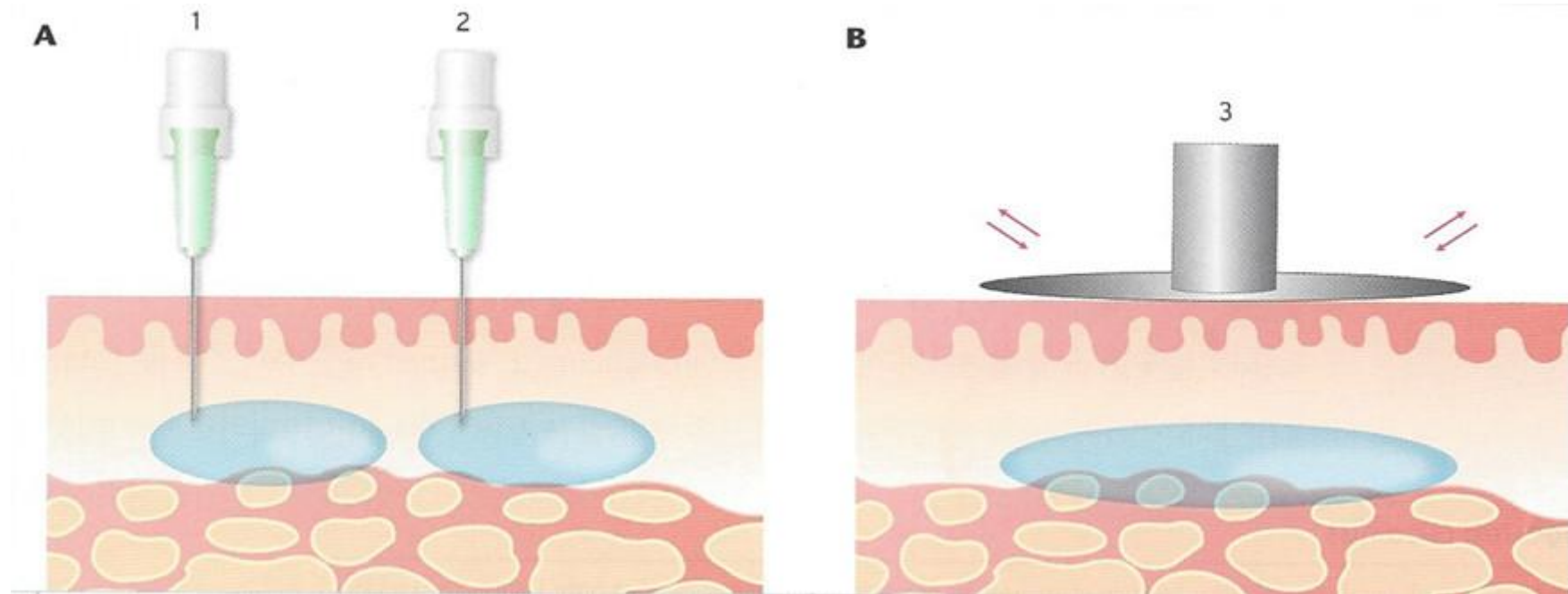
- Layering technique : Simultaneous treatment of deep and shallow wrinkles by injecting multiple layers
ex) Nasolabial fold
- Dermal-cutting technique : A method of injecting a filler in the middle after dermal resection by sticking a filler syringe into the skin and moving it back and forth and sideways several times.
ex) Acne scars, wrinkles in the dermis, stretch marks, skin depression, etc.
- Vertical pulling technique : The filler is well fixed to the injection site and cannot be moved sideways
ex) Dark circles, Crow's feet located outside the pupil center line
- Vertical bolus technique : more than 0.3-0.5cc at a time, Relatively uplift to the wide area for a long time.
ex) Mid-face Lifting, Chin

Vertical pulling technique



When the syringe (A) is inserted vertically and (B) is slowly lifted, the skin is pulled up to some extent by friction with the injection needle, and the place where the tissue was dense (D) becomes loose and (L) a kind of negative pressure is applied. Filler is injected with negative pressure applied

Vertical bolus technique

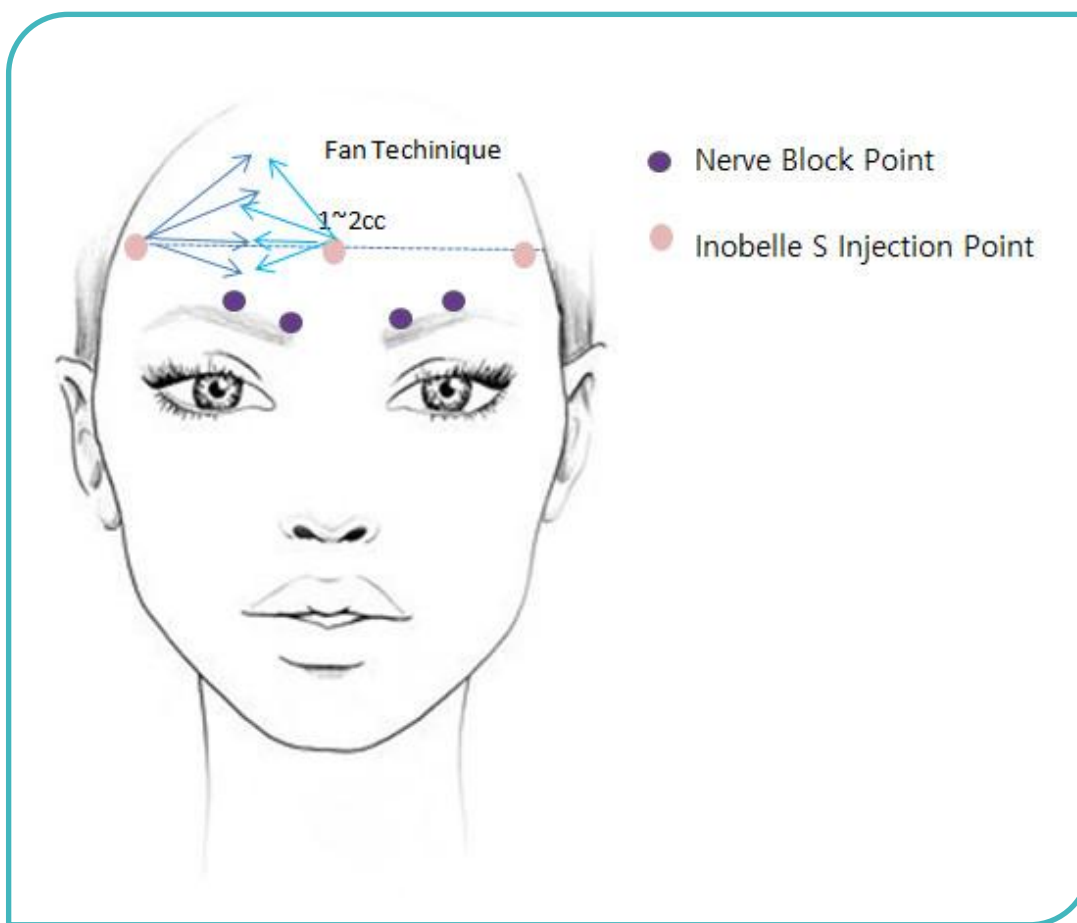


After injecting a large amount by inserting it vertically into the skin several times, spread it out well with a special device (3) or your thumb.

Caution

- Paying attention to the design and massage after the procedure. Otherwise, the forehead area may become uneven or asymmetric after the procedure.
- Prohibit intradermal injection
- In case of bleeding, apply compression and then treatment to the other side
- There is supratrochlear artery inner half of the eyebrow and 2 cm above it, so inject while aspiration otherwise it will be blocked and cause necroses.
- There are lots of muscles in the forehead so we suggest to combine Botox and HA filler together in order to maintain the effects more longer.

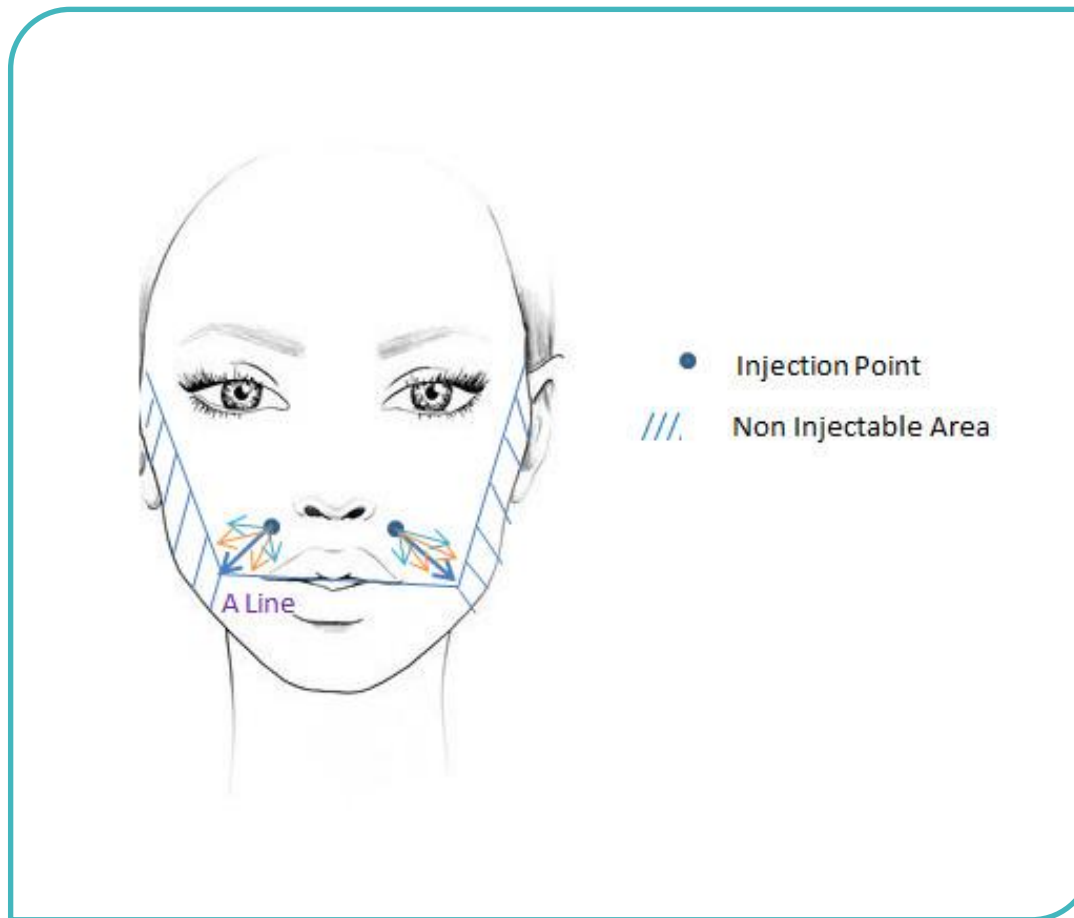
1. Forehead Augmentation by Inobelle S



Treatment

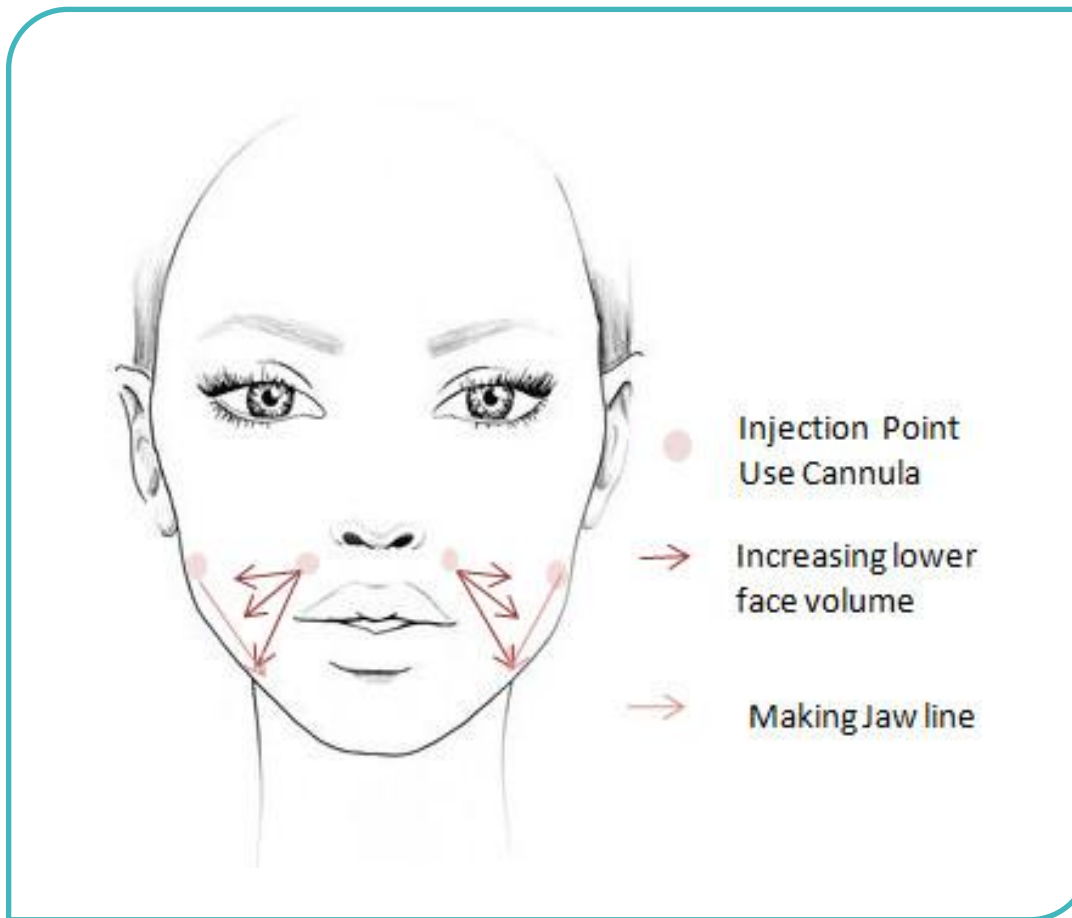
- Anesthesia cream
Nerve block anesthesia (only when doing a volume treatment for full forehead)
- Inject by fan technique using a cannula
- Middle of the forehead : 1-2cc is required
- Volume for full forehead : 10~20cc is required
- Massage or use of a hair band after filler injection for avoiding irregular shape.

2. Volume of Cheek by Inobelle S



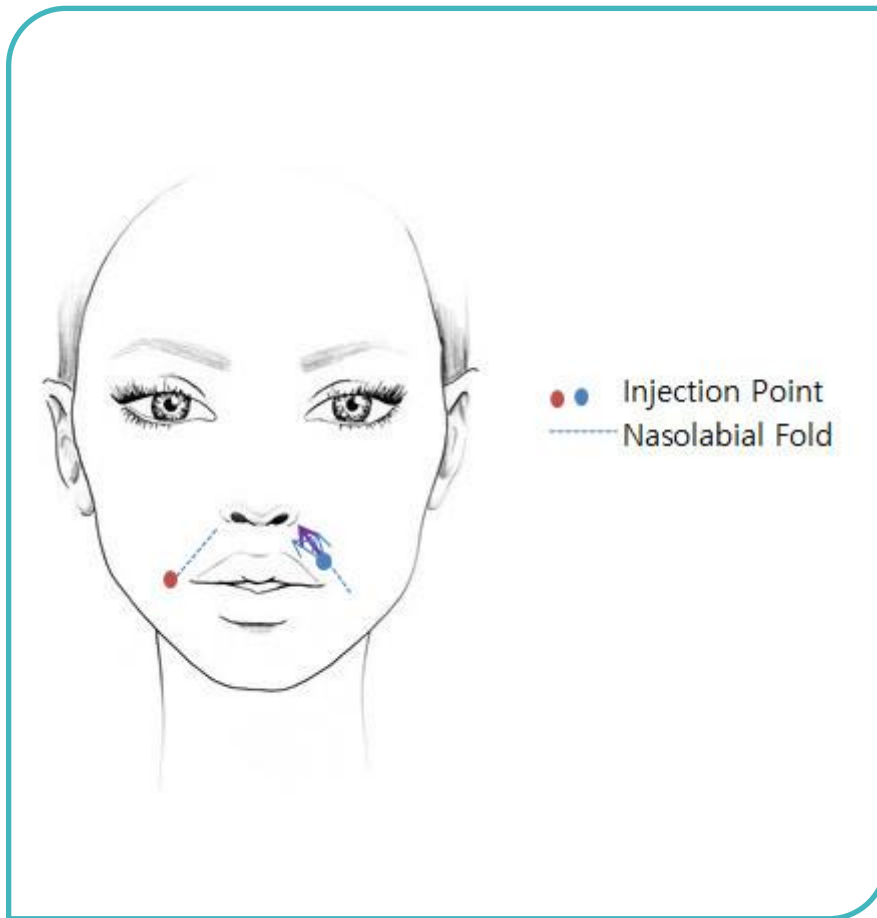
- Anesthesia cream
- Inject to Sub Q each 2~3cc per side
- Layering technique + Linear threading technique
- Suggest to use cannula instead of needle. Because you have to repeat the injection several times.
- Don't inject the filler on or bellow 'A' line. If you inject on the 'A' line or bellow for making more volume, the face looks sloppy.

2. Volume of cheek by **Inobelle S**



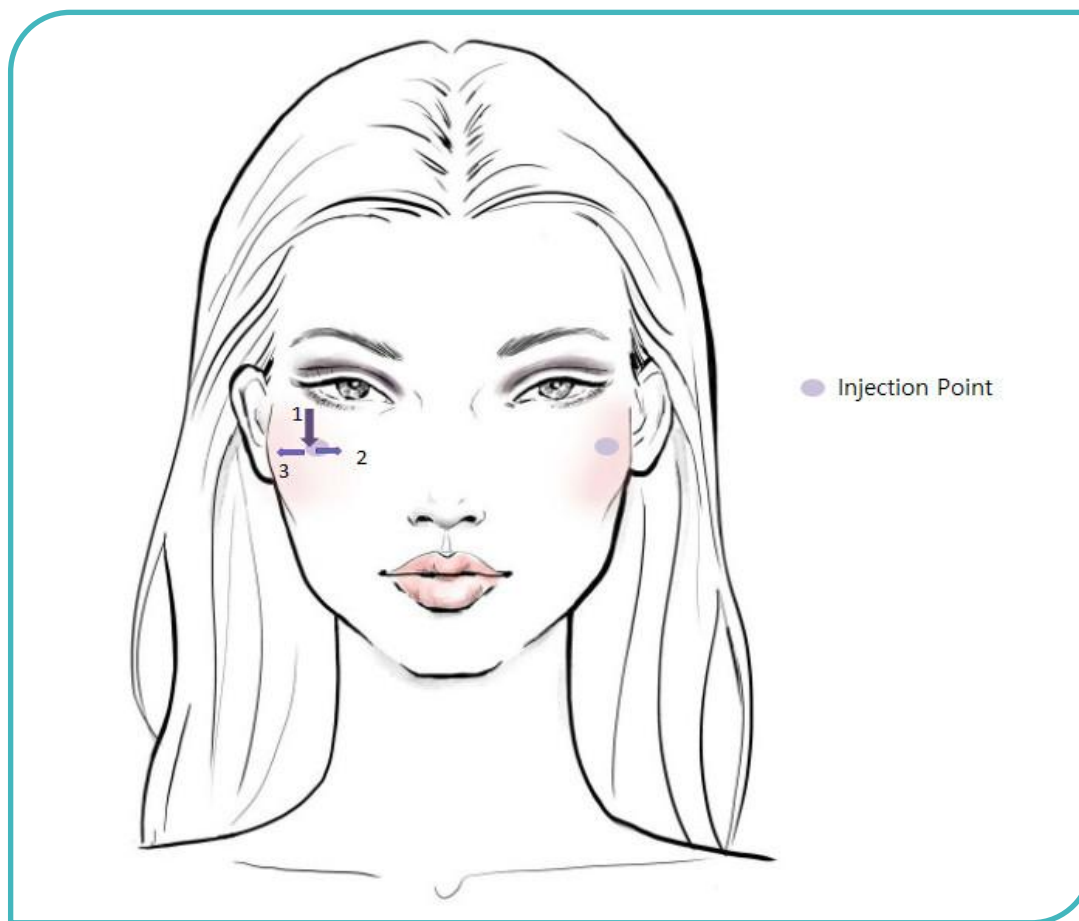
- Fill up the volume where it is hollow first and then make up the irregular area
- When you perform cheek volume & nasolabial fold treatment together, make only 1 injection hole for both treatment.
- Put your hands into patient's mouth and massage the cheek.
 - In the case of injecting a large amount of filler, Like a cheek, it should be loosened with a massage, but it should be released with a massage from the inside of the mouth because the external massage is not sufficient.

3. Nasolabial Fold by Inobelle D



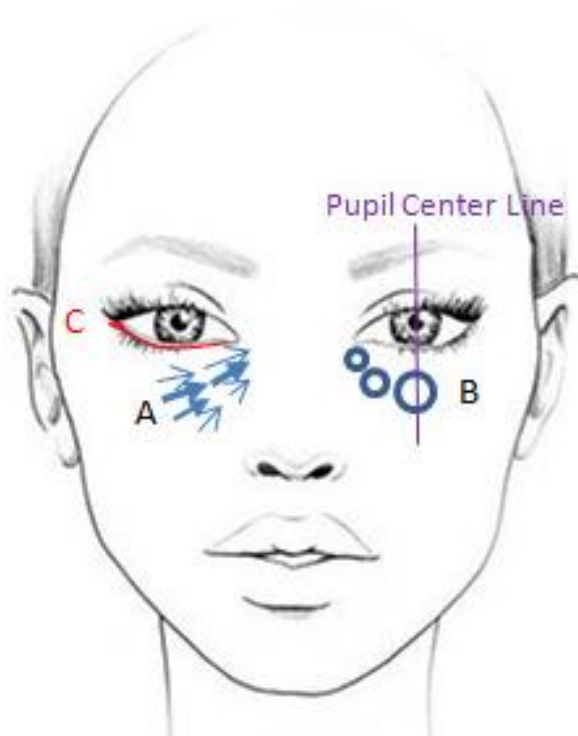
- Anesthesia cream
- 1~2cc per side
- Injection Point
 - For cheek volume and nasolabial fold treatment together
 - For nasolabial fold treatment only
- Inject Liner threading technique
- Inject along wrinkles deeply into Sub Q
- Turn the needle in fan shape at same injection point
- Return back to the middle line but change injection depth more shallow than 1st injection (layering technique)
- Put your hands into patient's mouth and massage the nasolabial folds.
 - In the case of injecting a large amount of filler, Like a cheek, it should be loosened with a massage, but it should be released with a massage from the inside of the mouth because the external massage is not sufficient.

4. Cheekbone Augmentation by Inobelle S



- Anesthesia cream
- 1cc per each side
- Injection point is the slightly protruding place when viewed from a 45°angle
- Injection way
 - Inject 0.5cc in Vertical bolus technique
 - Turn the needle slightly to the nose (Be careful with nerve damage)
 - Turn the syringe back for making of cheekbone

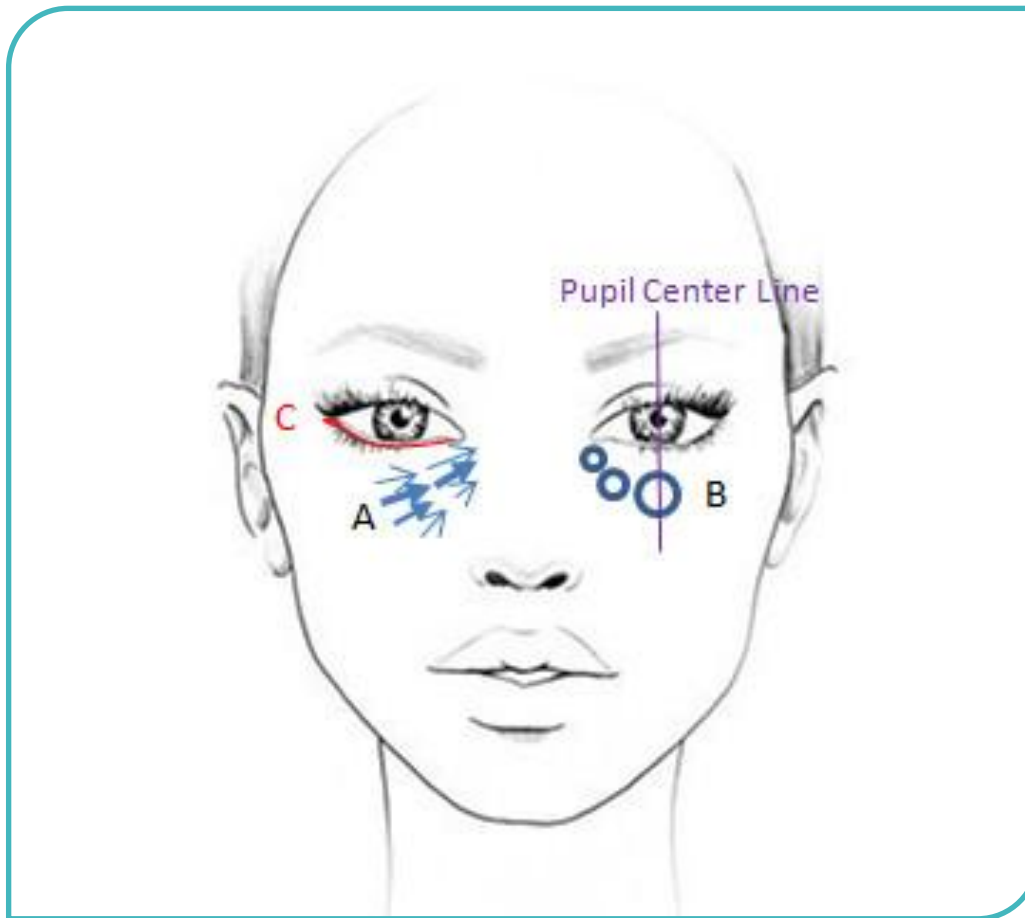
5. Dark circle Improvement by Inobelle F



* The thickness of the arrow or the size of the circle is an indication of the injection volume.

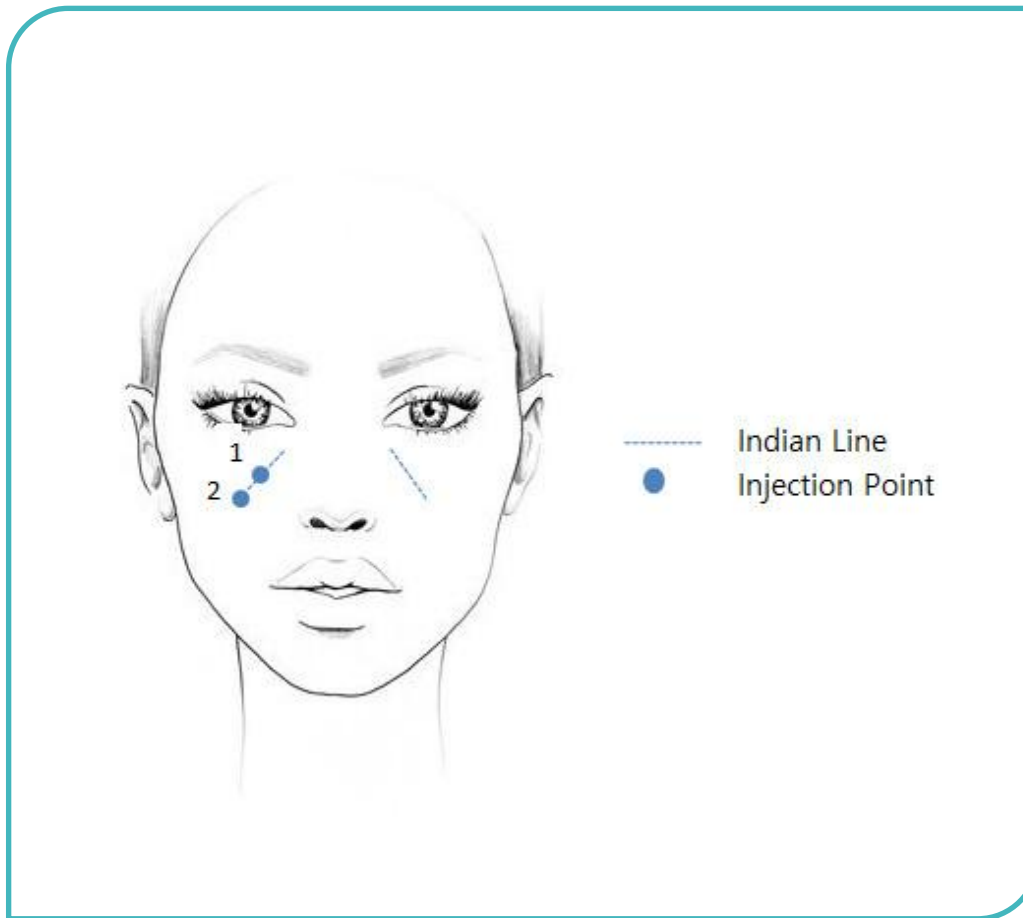
- Anesthesia cream
- 0.2-0.3cc per side
- Inject Technique
 - A. Linear threading technique
 - B. 3 points Vertical Pulling technique
 - Inject to Sub Q or under the muscle
 - 3 points injection with the feeling of touching the bone based on pupil center line
- The filler in the eye area is maintained for longer than other area, so it must be released by massage after injection.
Massage can help tinting problem.

6. Making the Tear trough (Fat under eye) by Inobelle F



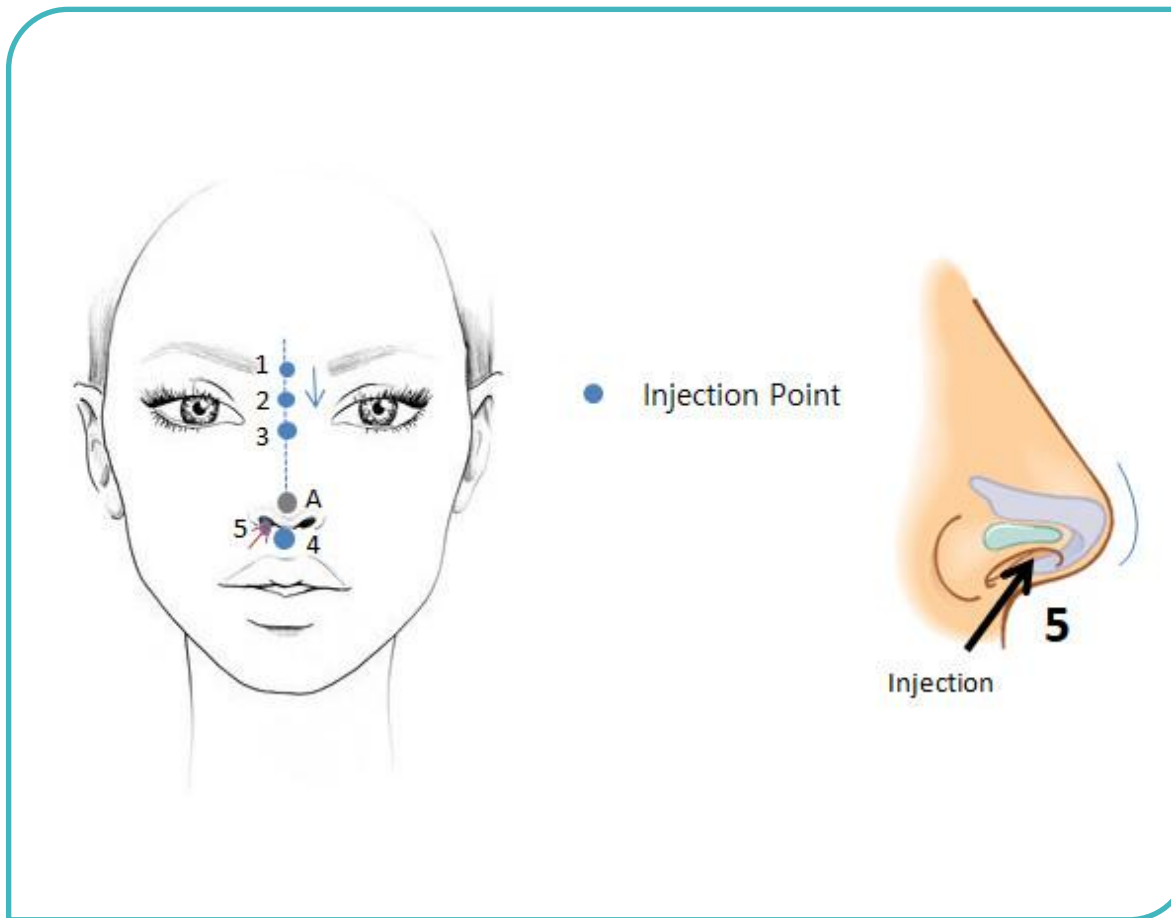
- Anesthesia cream
- 0.2-0.3cc per side
- Inject Technique
 - C - Pulling the top and bottom of the eyelid
 - Inject Inobelle F along lower lash line from inner edge of eye to tail of eye like sprinkling after as far as possible.
- Need to control the injection volume.
If you inject more volume for Tear trough, it will be dropped and it looks like wrinkle.

7. Indian Line Improvement by Inobelle F



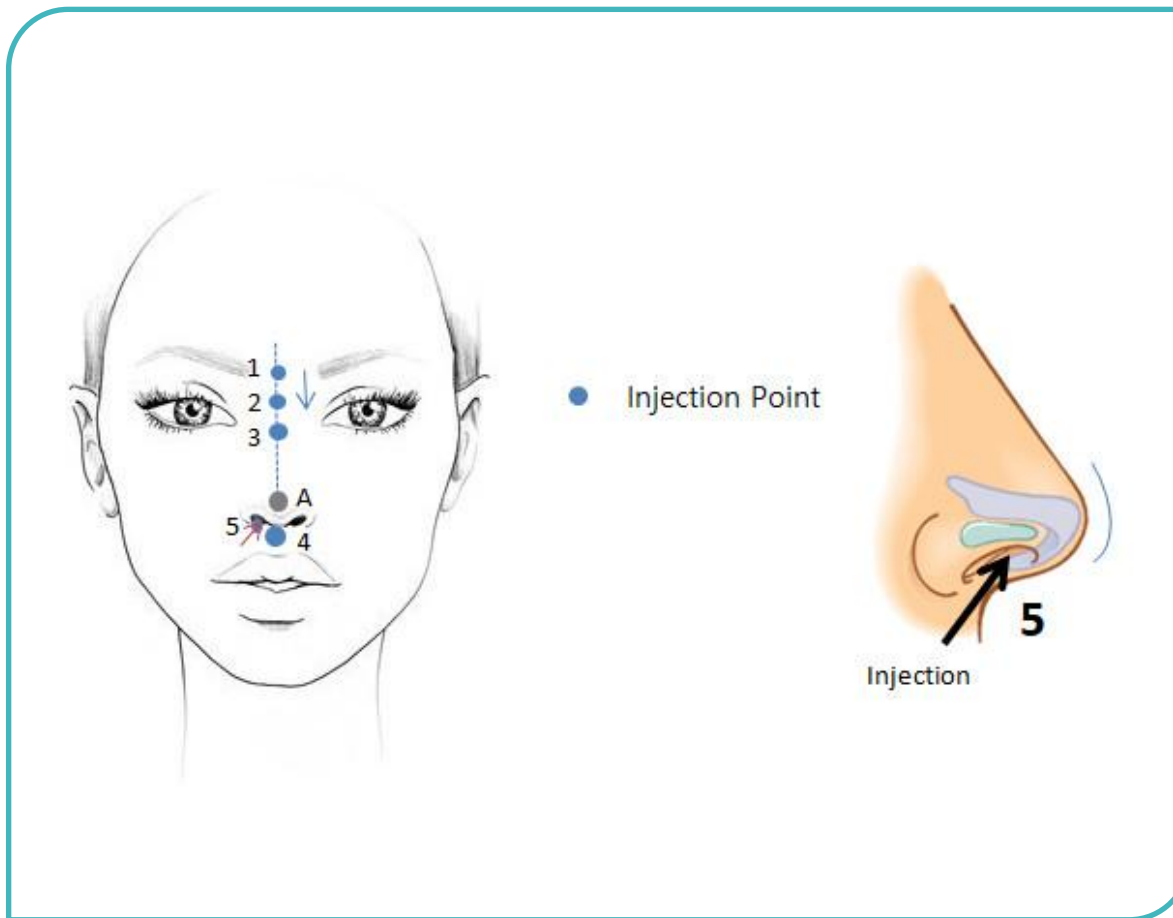
- Anesthesia cream
- 0.3cc per side
- The skin on the Indian line is thin. So Inobelle F is recommended
- Injection depth for Indian line is Sub Q for avoiding Tint problem
- 2 Injection points as drawing
- Inject along with the indian line by Liner threading technique
- For preventing of filler spreading, pinching is recommended

8. Rhinoplasty by Inobelle D



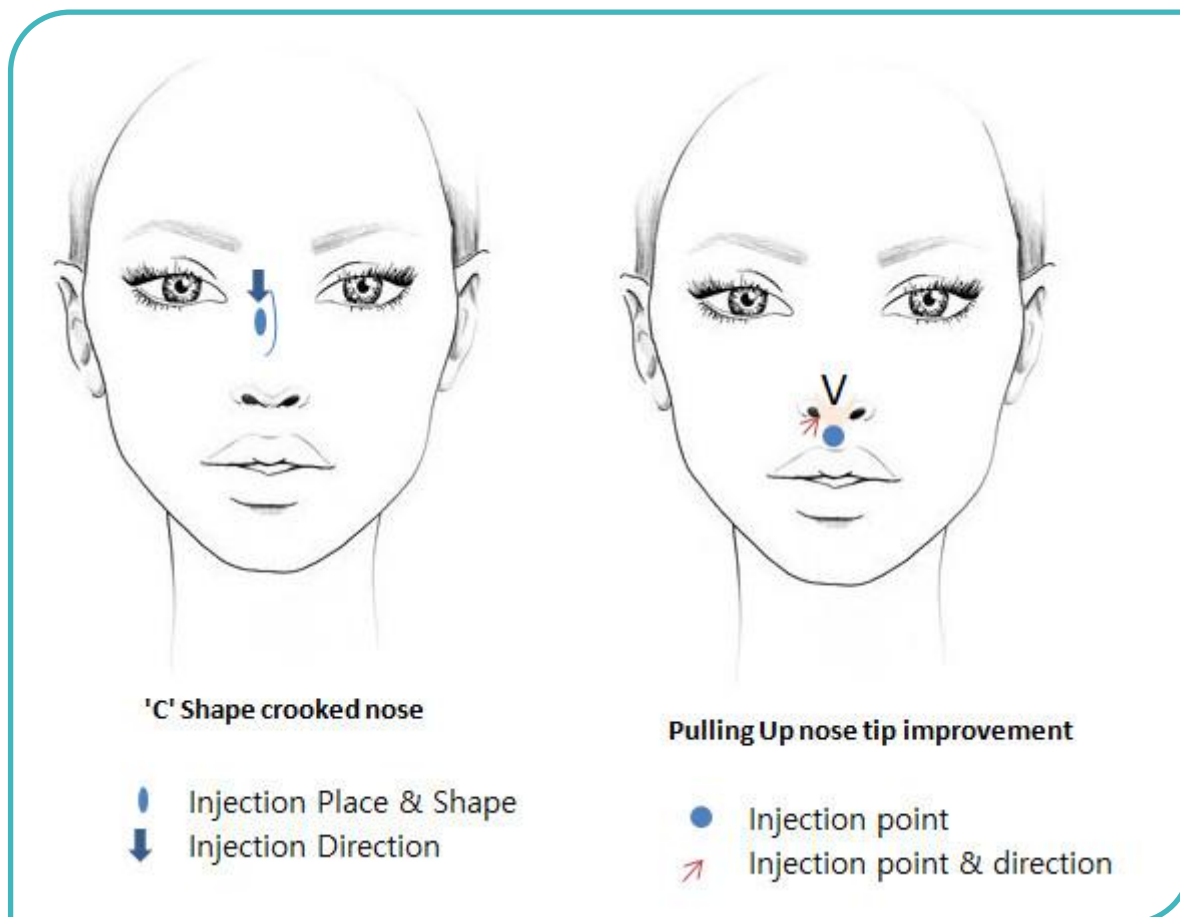
- Anesthesia cream
- Inject 0.4cc for nasal bridge and 0.4cc for nose tip
- Inject by Linear Threading Technique for nose bridge
- Use layering technique together for patients with too low nose bridge or for their 1st session
- Inject deeply to Sub Q or epi-periosteum
- Inject along the middle line to prevent the bridge line's widen.
- Inject 2nd & 3rd shot to the depression in the line of nose bridge

8. Rhinoplasty by Inobelle D



- Don't inject 'A' because blood vessels may be damaged
For uplifting of nose tip, Inject into anterior nasal spine (4) until it touches the bone.
- Then inject from the mucous membrane inside the nostril (5)
- Taping the nose bridge for avoiding irregularity.
- Don't suggest frequent procedure because it can be broad nose bridge line.

8. Rhinoplasty by Inobelle D – Crooked Nose & Pulling up nose tip



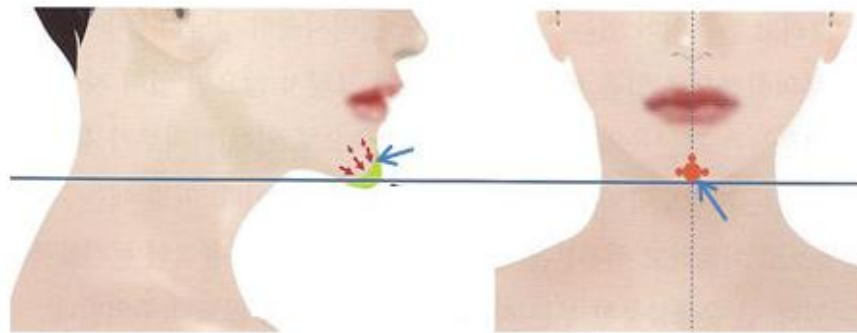
Crooked Nose Augmentation

- Anesthesia cream
- Inject 0.1cc in the depression area

Pulling up nasal tip

- Anesthesia cream
- Injection point of pulling tip
- Inject Inobelle D 0.2cc into anterior nasal spine until it touches the bone
- For pulling tip improvement, inject 0.2cc from the mucous membrane inside the nostril

9. Chin Augmentation by Inobelle S



A

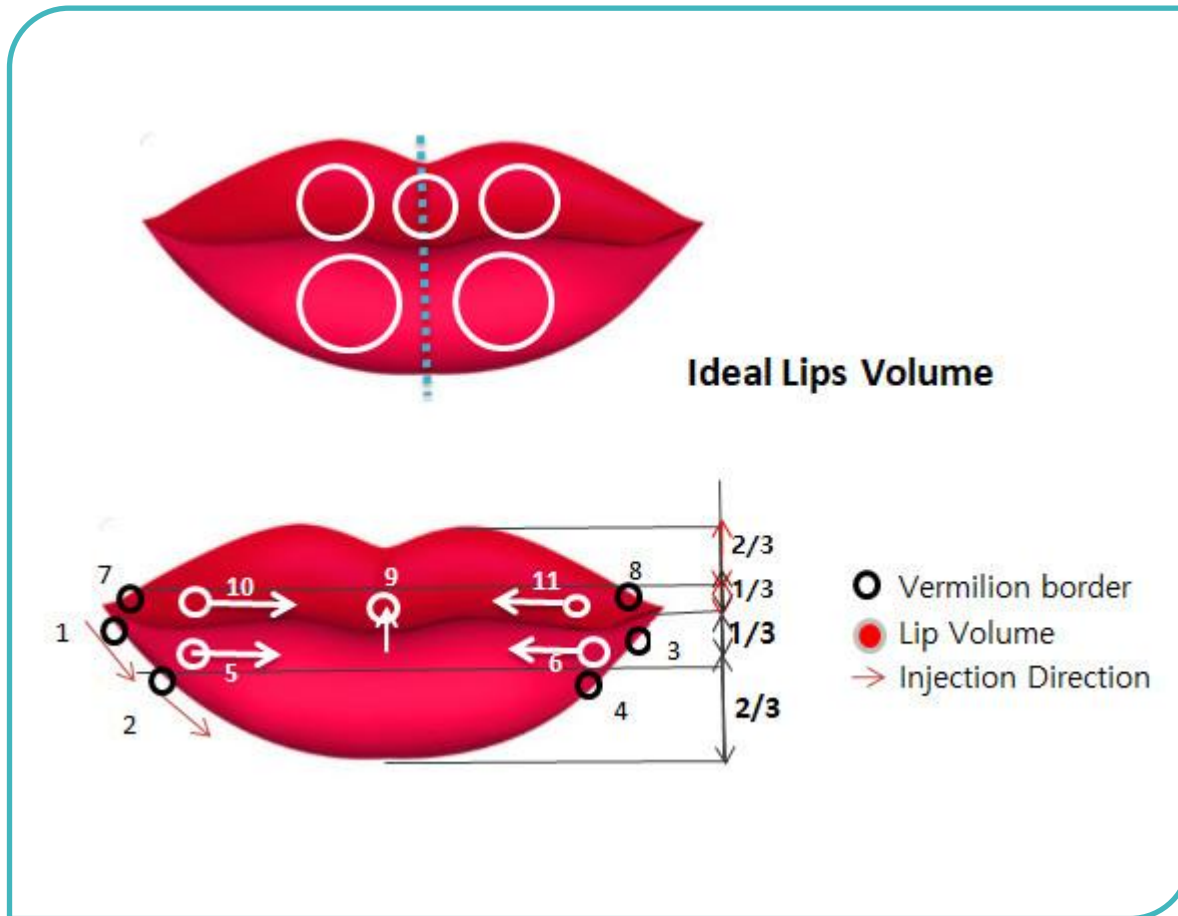
inject Vertical bolus technique
for chin augmentation

B

inject in 45° angle
for short chin

- Anesthesia cream
- Inject 1~2cc at one injection point
- Inject Point
 - A : Inject by vertical bolus technique
 - B : 45°angle from bottom to up
- Inject deeply between periosteum and Muscle, feeling in touching the bone.
- Change the injection direction to correct uneven shape

8. Lips Augmentation by Inobelle F



- Anesthesia cream
- Perform Lip and Vermilion border augmentation together
- Inject 0.3~0.5cc for vermilion border & 0.5~0.7cc for upper and lower lip
- Lower lip

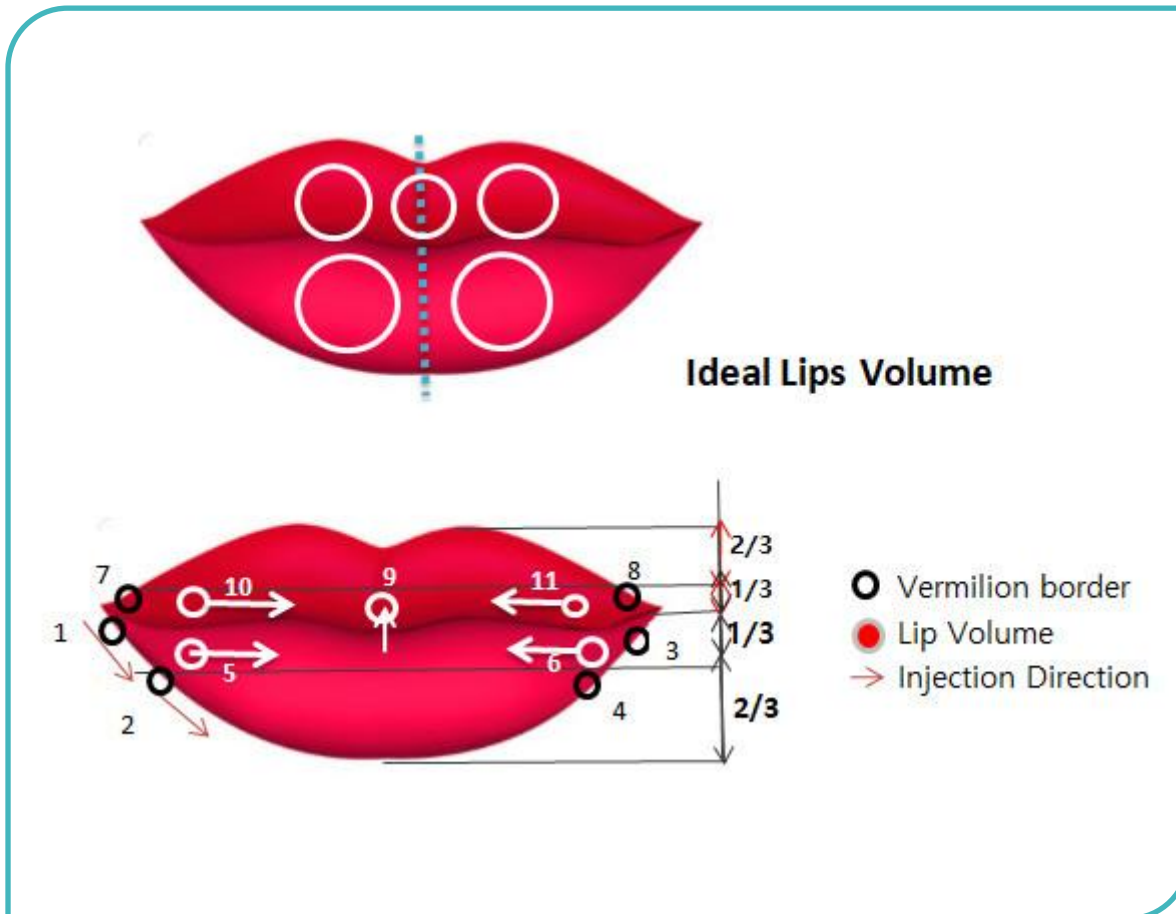
Vermilion border Augmentation

- Linear threading technique
- each 2 injection Points from the tail of lips
- Inject 0.2cc for lower vermilion border augmentation

Lip Augmentation

- Inject inside of 1/3 the height
- each 1 injection point from the tail of lower lip

8. Lips Augmentation by Inobelle F



• Upper Lip

Vermilion border Augmentation

- Linear threading technique
- each 1 injection Points from the tail of lips

Lip Augmentation

- Inject at 1/3 the height of the upper lip center
- Inject at center of upper lips
- Inject upper lips from side to center
- Injection volume must be more than center

- Checking lips shape and inject more for making volume balance

- How long has Inobelle been on Market?
It's been over 3 years.
- Does Inobelle have CE?
Yes, we have CE for non Lidocaine and with Lidocaine.
Non Lidocaine filler, Inobelle F, D, S has CE and in case of lidocaine filler,
only Inobelle + D has CE. We are planning to apply CE for other lidocaine filler within this year.
- The raw materials of HA is important for HA Filler. What kind of raw material does Inobelle have?
Quality of the product varies depending on the raw material of Ha. Some fillers use imported HA raw materials from China to sell low-cost, but Inobelle uses high-quality HA raw materials from Hyundai Bio Lab in Korea.
- How long does Inobelle last after the treatment?
We would like to tell you that the average effect is over 6 ~ 12 months.

- Is Inobelle monophasic or Biphasic?

The HA Cross linking method is Biphasic. But we compensated the defect of Biphasic by extra ordinarily increasing cohesion and elasticity, So, we can say that Inobelle is Hybrid filler.

- What is the HA content of Inobelle?

20% like most biphasic fillers. However, it is not only the HA content that determines the quality of the filler. This is because even if the HA content is high, if the HA Gel Concentration is low, the persistence is low, no matter how high the HA content is. In the case of HA Gel concentration, Juvidum, a typical monophasic filler, is 14.4%, whereas Inobelle is 17%.

- Inobelle's BDDE residue is almost zero. So it could be safe but may we consider it can be weak of cross linking ?

BDDE is used for cross linking. But the cross linking way is not only chemical methods using BDDE. We have special technique to increase cross linking rate by physical methods , too. Cross linking rate of Inobele is about 2 times higher than Restylane.

- Do you have any clinical data for Inobelle ?

Inobelle's clinical trials was performed by Korea University hospital, Cha Hospital and Catholic hospital.

- What is the anesthetic way for Inobelle treatment ?

In case of lidocaine injection, swelling occurs after the procedure, so if you want a natural result after the filler treatment, an anesthetic injection is not recommended.

- What should We do if We have side effects from filler treatment?

Unless the complication is caused by a filler component problem, the symptoms of complications will alleviate over time. For example, if the swelling appears due to a shock to the skin tissue when the filler is injected, it will disappear within a week.

If you want to change the result or swelling caused by procedure, you can melt or remove the filler.

- Are there any way for remove or dissolve injected HA ?
You can use Hyaluronidase.
- How soon does Inobelle dissolve when using Hyaluronidase?
It melts in half a day.



GCS Co.,Ltd.

Sales Office : 2F, 4F, Woowon Bldg., 10, 95Gil, Samsungro, Gangnam Gu, Seoul, Korea

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Tel : 02-555-1536 / Fax : 02-3142-7670 / E-mail : bestgcs@gcsgroup.co.kr



Hyaluronic Acid Filler + Lidocaine

INOBELLE®

A NATURAL, SAFE AND LONG-LASTING HA FILLER

“ Thank You! ”