

## THE INJECTABLE SKIN BOOSTER

A journey through age, genetics and psychology



www.interfaceaesthetics.co.uk

Dr James Olding MBChB BDS BSc (MRCS) Julie Scott RGN NIP

### **ABOUT US**

"AWARD-WINNING PROVIDER KNOWN FOR ITS COMPREHENSIVE, EVIDENCE-BASED APPROACH TO AESTHETIC TRAINING"

- BASED IN LONDON & MANCHESTER
- APPROVED CENTER FOR CLINICAL TRIALS
- JCCP APPROVED
- CPD ACCREDITED COURSES
- EXPERT-LED FACULTY
- HANDS-ON AND EVIDENCE-BASED APPROACH
- WINNER OF "BEST INDEPENDENT TRAINING
   PROVIDER" AT THE AESTHETICS AWARDS 2024

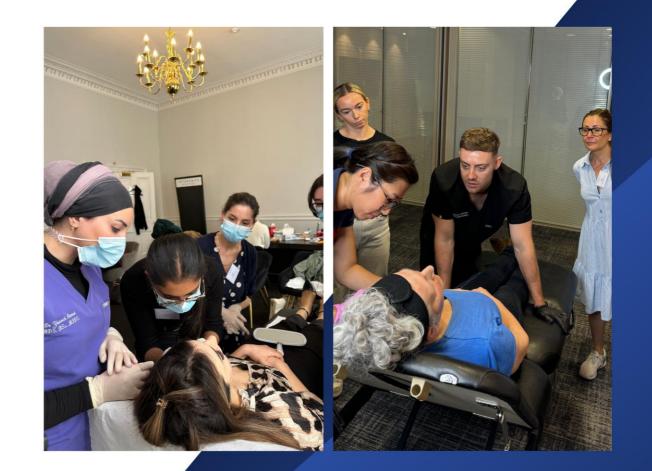


A E S T H E T I C S



## **VENUE FACILITIES**

- RESTROOM LOCATIONS
- FIRE EXIT & SAFETY
- ACCESSIBILITY LIFTS
- WI-FI CONNECTIVITY
- REFRESHMENTS
- LUNCH ARRANGEMENTS





## PLAN OF THE DAY

**10.00** - WELCOME PRESENTATION

11:00 - COFFEE BREAK

**10:30** - PATIENT TREATMENTS

12.00 - LUNCH

**13.00** - PATIENT TREATMENTS

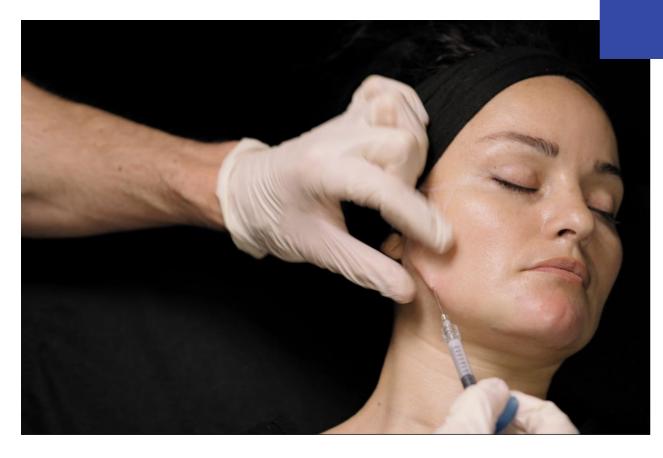
**15.30** - RECAP + Q&A

16.00 - FINISH



## LEARNING OBJECTIVES

## SKIN BOOSTERS

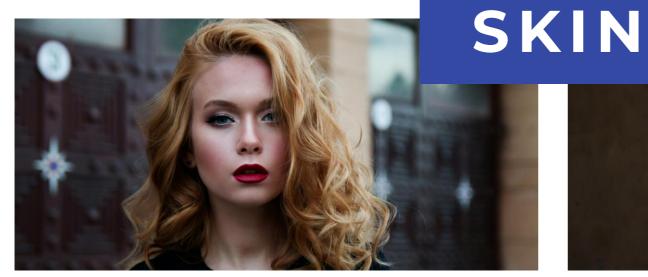


- Skin Assessment
- Modality Selection
- Treatment Options
  - Profhilo
  - Juvederm Volite
  - Redensity 1
  - Polynucleotides



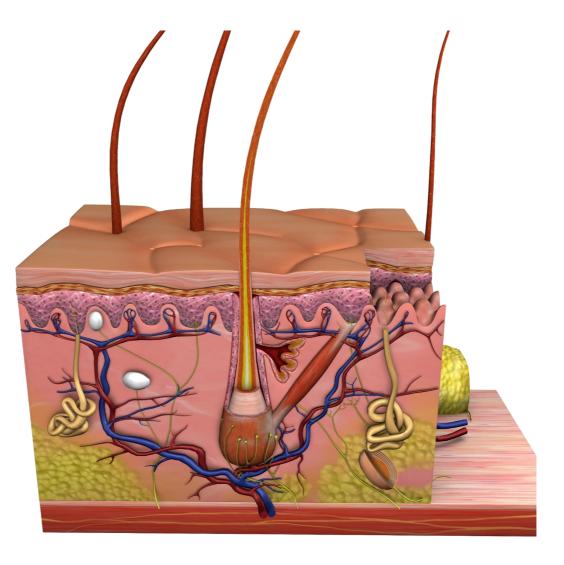








## Anatomy THE SKIN





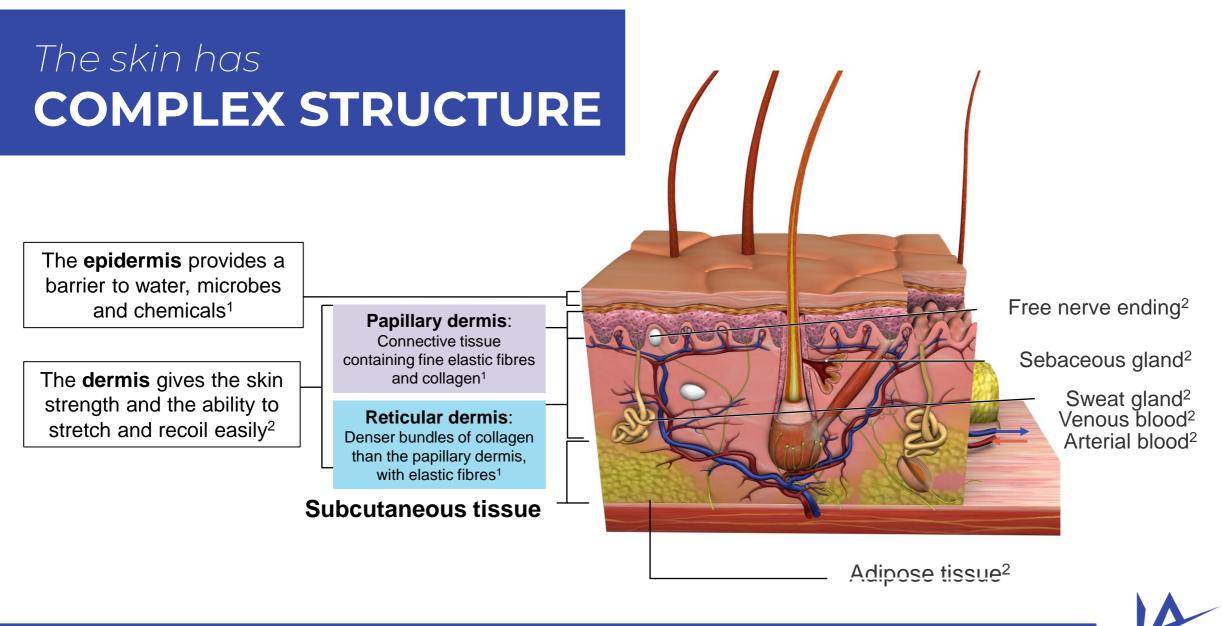
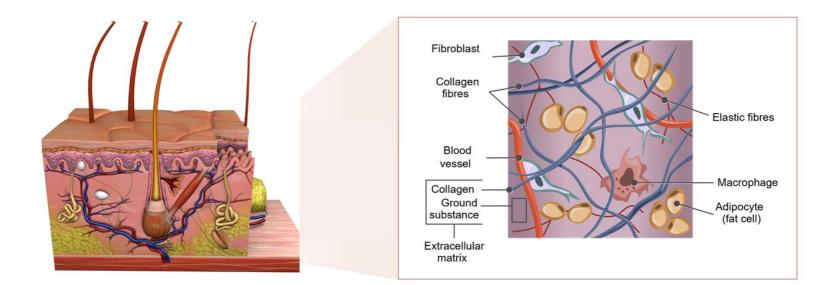


Figure adapted from Weller et al. 2014<sup>1</sup> and Tortora et al. 2017<sup>2</sup> for illustrative purposes only.

1. Weller R *et al.* Chapter 2. The function and structure of the skin. In: *Clinical Dermatology*. 5th ed. Blackwell Science, 2014. p. 7–28. ISBN 0-632-05916-8; 2. Tortora GJ, Derrickson B. Chapter 5. The integumentary system. In: *Principles of Anatomy and Physiology*. 15th ed. John Wiley and Sons Inc, 2017. p. 153–81. ISBN 978-0470-56510-0.

In addition to resident dermal cells, the dermis has two major components with differing compositions and functions<sup>1</sup>



• THE FIBROUS COMPONENT<sup>1</sup>

Collagen and elastic fibres

Skin extensibility and elasticity<sup>2</sup>

#### THE AMORPHOUS GROUND SUBSTANCE<sup>1</sup>

HA and dermatan sulphate

- Binds water, allowing molecules to pass through the dermis<sup>1</sup>
- Lubricates the collagen and elastic fibre networks<sup>1</sup>
- Provides bulk, to act as a shock absorber<sup>1</sup>



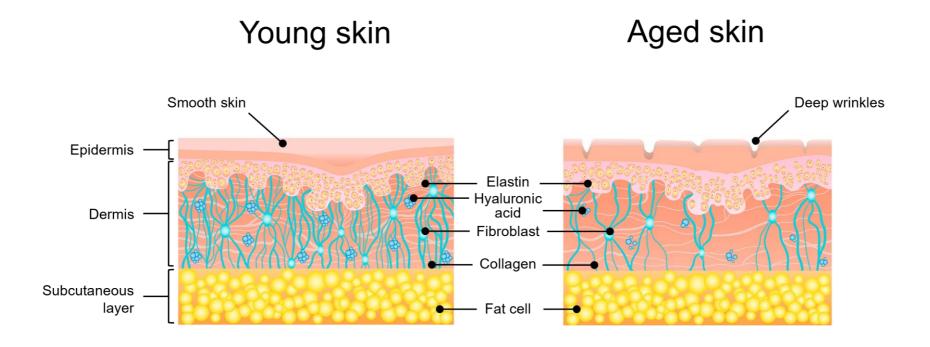
Images provided by Allergan, an AbbVie company for illustrative purposes only. Content supported by Tortora et al. 2017<sup>2,3</sup> and Weller et al. 2014<sup>1</sup> for illustrative purposes only HA, hyaluronic acid.

1. Weller R, et al. Chapter 2. The function and structure of the skin. In: Clinical Dermatology. 5th ed. Blackwell Science, 2014. p. 7-28. ISBN 0-632-05916-81;

2. Tortora GJ, Derrickson B. Chapter 5. The integumentary system. In: Principles of Anatomy and Physiology. 15th ed. John Wiley and Sons Inc, 2017. p. 153-81. ISBN 978-0470-56510-0. 3. Tortora GJ, Derrickson B. Chapter 4: The tissue level of organization. In: Principles of Anatomy and Physiology. 15th ed. John Wiley and Sons Inc, 2017. p. 153-81. ISBN 978-0470-56510-0. 3. Tortora GJ, Derrickson B. Chapter 4: The tissue level of organization. In: Principles of Anatomy and Physiology. 15th ed. John Wiley and Sons Inc, 2017. p. 153-81. ISBN 978-0470-56510-0. 3. Tortora GJ, Derrickson B. Chapter 4: The tissue level of organization. In: Principles of Anatomy and Physiology. 15th ed. John Wiley and Sons Inc, 2017. p. 106-143. ISBN 978-0470-56510-0.

## STRUCTURE AND SYNTHESIS OF COLLAGEN IN SKIN

 Collagen provides the supporting matrix/mattress underpinning healthy skin and is an essential scaffold protein that gives smoothness and elasticity to the skin<sup>1</sup>



## COLLAGEN CLASS

Samad and Sikarwar; IJBCRR, 14(3): 1-8, 2016; Article no.IJBCRR.27271

#### Table 1. Collagen class, types and distribution [4,5,6]

Class	Туре	Distribution		
Fibril-forming	1	Bone, skin, tendon, ligaments, cornea		
(Fibrillar)	П	Cartilage, vitreous humor in the eyes		
	III	Skin, blood vessels		
	V	Bone, dermis, co-distribution with type I		
	XI	Cartilage, inverterbral discs, co-distribution with type II		
	XXIV	Bone, cornea		
	XXVII	Cartilage		
Fibril-associated collagens	VII	Bladder, dermis		
with	IX	Cartilage, cornea		
interrupted triple helices	XII	Tendon, dermis		
(FACIT)	XIV	Bone, dermis, cartilage		
. ,	XVI	Kidney, dermis		
	XIX	Basement membrane		
	XX	Cornea of chick		
	XXI	Kidney, stomach		
	XXII	Tissue junctions		
	XXVI	Ovary, testis		
Network-forming	IV	Basement membrane		
-	VI	Muscle, dermis, cornea, cartilage		
	VIII	Brain, skin, kidney, heart		
	Х	Cartilage		
	XXVIII	Dermis, sciatic nerve		
Membrane-associated	XIII	Dermis, eyes, endothelial cells		
collagens	XVII	Hemi desmosomes in epithelia		
with interrupted triple helices	XXIII	Heart, retina		
(MACIT)	XXV	Heart, testis, brain		
Multiple triple-helix	XV	Capillaries, testis, kidney, heart		
domains and interruptions (MULTIPLEXINs)	XVIII	Liver, basement membrane		

28 Collagen Types90% the body's collagen is Type 1



## The Skin Consultation LISTEN

- What is the right setting?
- Time How long should we offer?
- Patient-led discussion
- Medical/dermatological conditions
- Current skincare routine



## The Skin Consultation LOOK

- Make-up off
- Mirror
- Lighting & photography
- Skin analysis technology
- <u>Sensitive, objective</u> communication of findings



# The Skin Consultation COMMON SKIN FINDINGS

- Tone (melanocyte-driven, vascular)
  - Hyperpigmentation hormonal/genetic/skin type/UV/age
  - Redness
- Fine Lines
- Texture (HA, collagen & elastin)
  - Thickness
  - Pores
  - Hydration
  - Laxity



# The Skin Consultation **SKIN DISEASE**

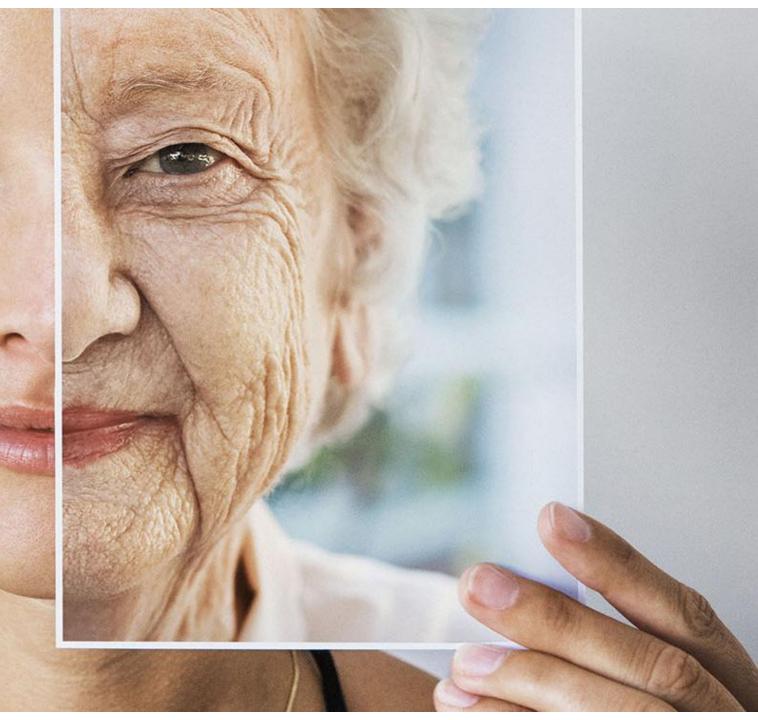
- Importance of considering referral to appropriate

### specialists

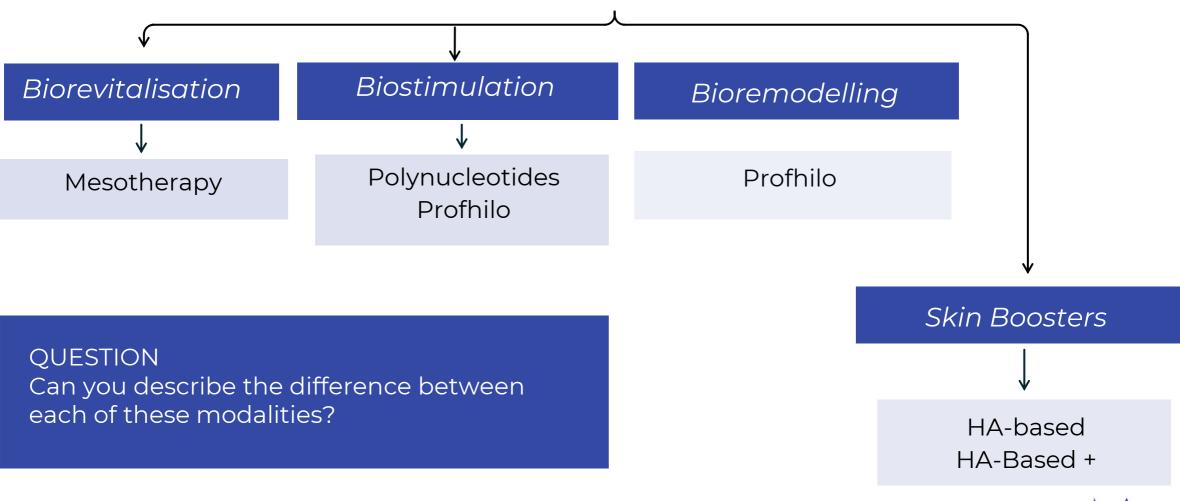
- Rosacea
- Acne
- Rheumatological/autoimmune with skin manifestations
- Post trauma/burns
- Psoriasis
- Eczema







## TREATMENT MODALITIES

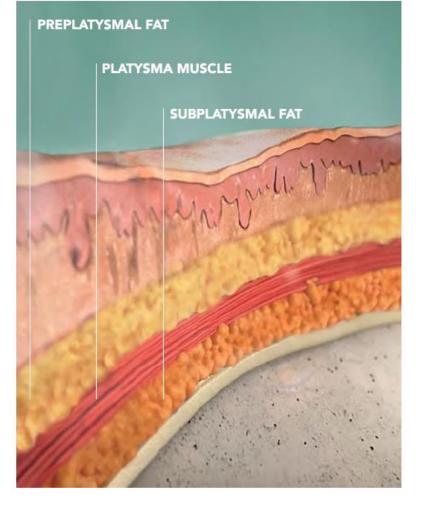




## TREATMENT OPTIONS

PRODUCT	MAIN COMPONENT	ADDITIONAL COMPONENTS	DEPTH OF PLACEMENT	TECHNIQUE
Profhilo (IBSA)	HA – linear, non- crosslinked, High and Low MW chains		Deep Dermal	Needle, 5 points each side of face with a volume of 0.2ml/point
Juvederm Volite (VYC-12) (Allergan Aesthetics)	Crosslinked HA at 12mg/ml	Lidocaine 0.3%	Deep Dermal	Needle, microdroplets over malar region with a volume of 0.05/point
Redensity 1 (Teoxane)	Non-crosslinked HA, 15mg/ml	Lidocaine 0.3% 8 amino acids 3 antioxidants 2 minerals 1 vitamin	Intradermal	Needle. Microdroplets over face, neck, periorbital, volume of 0.05 – 0.1ml/point
Polynucleotides (HPT)	HPT polynucleotide ranging from 7.5 – 20mg/ml		Superficial dermis dermal-epidermal junction	Microdroplets in chosen area





## Neck Anatomy must be considered with respect to the layers and the target

#### LAYERS TO BE CONSIDERED

- Skin
- Preplatysmal fat (subcutaneous tissue)
- Platysma
- Subplatysmal fat

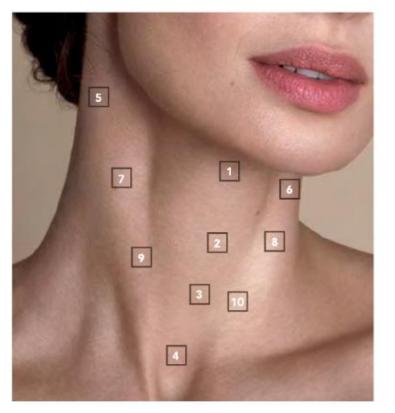
The thickness of the skin and preplatysmal fat varies between individuals and also changes with aging. The principle point of delivery of **PROFHILO®** is subdermal /subcutaneously and avoiding injection deep to the platysma. In a patient with a thin neck it is easy to inject subplatysmal – this would result in loss of activity due to incorrect placement of the product and importantly is of possible danger to the jugular veins and inadvertent intravenous embolization of **PROFHILO®**. Other subplatysmal structures (listed above) may also be damaged.

#### STRUCTURES TO BE CONSIDERED:

- Jugular veins anterior/external (and to a lesser extent internal)
- Submandibular gland and thyroid
- Carotid artery
- Trachea and larynx



#### Identifying the 10 bap injection sites



This image is for illustrative purposes only and is intended to convey the concept and vision of the Profhilo® BAP Neck Technique. Do not use this image as a sole reference to perform the treatment.

#### **STEP 1:** Marking the neck

**Midline Indications:** Draw a line from the chin to the sternal notch.

#### Lateral Indications:

Draw a line from the medial border of sternocleidomastoid muscle (SCM) to the sternal notch on both sides of the neck.

#### **STEP 2:** Marking the points

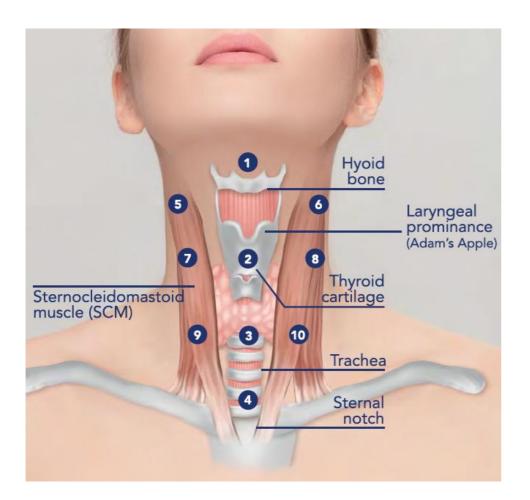
- 1 Midline between the submental border and hyoid bone
- 2 Midline between the apex of Adam's Apple and bottom of thyroid cartilage
- 3 Midline between the base of thyroid cartilage and sternal notch
- 4 Midline at the apex of sternal notch

Horizontal line with mandibular angle & 0.5 cm lateral to medial border of the SCM

Horizontal line between apex of Adams Apple and bottom of thyroid cartilage

Horizontal line between the base of thyroid cartilage and sternal notch





**STEP 3:** Inject 0.2 ml per bolus at the superficial subcutaneous layer

#### **INJECTION TECHNIQUE:**

Pinch skin at injection point and inject transversely across the skin. Avoid approaching skin at 90 degrees and inadvertently injecting deep to platysma. Before injecting move needle to ensure point is subdermal / intradermal.

#### **PROTOCOL:**

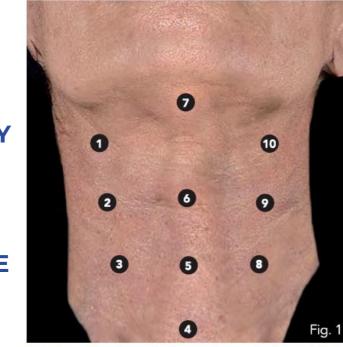
2 treatments with a 1 month interval,

twice per year.\*

\*Number of treatments and product quantity depends on the degree of aging.



3D photos taken 15 minutes after the 10-point PROFHILO® BAP Neck Treatment using the 3D LIFEVIZ® Mini camera from Quantificare.





- Fig. 1 Numbers indicate the order in which the injections were made.
- Fig. 2 Visualization of volume changes using a color code in the QuantifiCare software suite.
  - Yellow indicates a positive change in volume from the 3D photo taken before treatment, confirming the spreadability of PROFHILO<sup>®</sup>.
  - Red indicates greater volume change in the points injected towards the end of the treatment.

Treatment performed by Dr. Antonello Tateo (Italy).



PROFHILO FLOWABILITY EVIDENCE BASED PERSPECTIVE



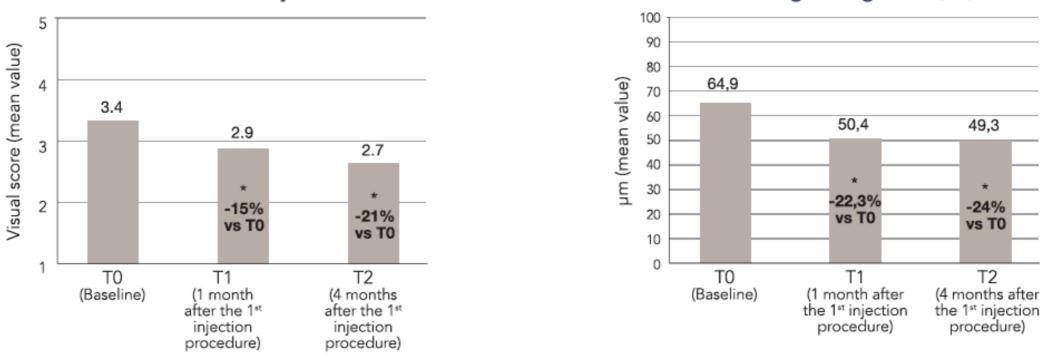
BASELINE

1 MONTH AFTER 2<sup>ND</sup> TREATMENT

Courtesy of Dr. Hema Sundaram (USA) and Dr. Antonello Tateo (Italy)



#### Neck study results – 65% improvement of at least 1 grade of IBSA Neck Laxity Scale



#### **IBSA Neck Laxity Scale**

#### Average Roughness (Ra)

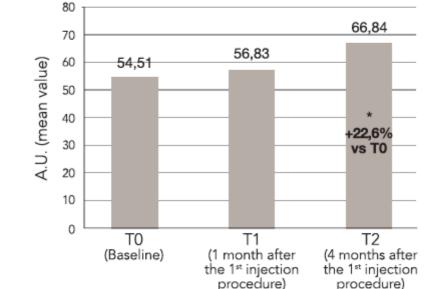
\* p<0,05 vs T0

<sup>1</sup> A. Sparavigna et Al. : Efficacy and Tolerability of Hybrid Complexes of High and Low Molecular Weight Hyaluronans Intradermal Injections for the Treatment of Skin Roughness and Laxity of the Neck. 2020 Submitted.

#### Patients evaluation – Table 1

#### Self-evaluation of the efficacy of the treatment





#### Superficial Skin Hydration

\* p<0,05 vs T0



### **IBSA NECK LAXITY SCALE**



Grade 1



Grade 2



#### INTRINSIC FACTORS

The skin undergoes natural physiological challenges overtime: slow and irreversible alteration of the tissues due to intrinsic factors:

- Oxidative stress
- Cellular senescence
- Ethnicity and anatomic variations
- Hormonal changes

#### EXTRINSIC FACTORS

Over time, skin will face a combination of external factors known as the exposome:

- Sun exposure
- Air pollution
- Stress
- Lifestyle choices (diet, smoking...)

## SKIN AGEING

#### The exposome damage combined with the intrinsic factors can lead to premature skin ageing: wrinkles, dryness and laxity

#### Healthy skin



#### Dry, brittle and wrinkled skin



- Thinner and more fragile dermis
- Flattening of the dermo-epidermal junction
- Decreased cells activity (fibroblasts)
- Loss of ECM\* structure : collagen, elastin and hyaluronic acid

The Teoxane approach is based on 3 important pillars which are key to achieving bespoke & natural-looking results: the right products in the right places with the right techniques.





#### For skin redensification and prevention of skin ageing<sup>5</sup>

#### HA Concentration:15 mg/mL

Supplemented phosphate buffetL-arginine, L-isoleucine, L-leucine, L-lysine monohydrate, glycine, L-valine, L-threonine, L-proline, pyridoxine hydrochloride, zinc acetate dihydrate, copper sulfate pentahydrate, lutathione, N-acetyl-L-cysteine andα-lipoic acid

Composition:Crosslinked Hyaluronic Acid

Degree of modification:0%

Lidocaine: 0.3%

Focus indications:Face, neck & décolleté

Injection depth technique recommended by the experts: Superficial to mid-dermis

Needle Provided: 30 G x 1/2"

Box: 1 x 3mL or 2 x 1mL

Duration:Up to 9months

Mimics the skin's natural hyaluronic acid

- 100% Free long HA chains
- Only labile & mobile bonds
- Light consistency and high spreadability
- Lidocaine to improve comfort





Redensity 1 - Day 9

Control - Day 9

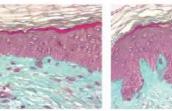
RESTRUCTURATION

+98% Collagen IV

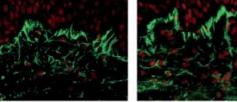
Redensity 1 - Day 9



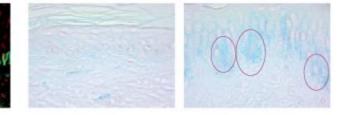
Control - Day 9



DENSIFICATION Strengthening of the dermo epidermal junction Papillary dermis restructuration



TENSOR EFFECT +26% of fibrillin-lin the dermis



HYDRATION

+1400% of Gycosaminoglycans (GAGs) in the epidermis including hyaluronic acid

#### Proven efficacy demonstrated in randomized, double-blinded trial versus placebo

First interventional, monocenter, comparative study on 25 patients with 3 injections at 3-week intervals on half-face

#### ♂ CLINICAL EFFICACY

- Superior improvement of hydration
- Reduction of skin roughness

#### 

- Improvement of radiance & skin quality
- Skin comfort & lifting effect •

\*Self evaluation 2 weeks after the end of treatment



Regions: face, neck & décolleté

Injection depth: superficial to mid-dermis injection

#### **Injection techniques**

Multibolus

Puncture injections (point by point), of a small amount of product (no more than 0.05ml) in the superficial to mid-dermis injection every centimeter

#### **Retrograde threading**

Injection into the mid-dermis using a linear technique. Insert the needle at an angle of 45°, along the cutaneous depression, then deposit the product in the upper dermis while removing the needle gently.

#### **BEAUTY BOOSTER**

- Improvement of hydration, radiance and firmness
- Correction of skin roughness
- Prevention of wrinkles

#### **REDENSIFICATION ACTION**

- Tissue restructuring
- Protection from oxidative stress





### JUVEDERM VOLITE

## Juvederm Volite is an advanced injectable skin booster designed to enhance skin hydration, elasticity, and smoothness.

#### Unlike traditional dermal fillers, it does not volumize but improves overall skin quality.



Manufactured by Allergan Aesthetics as part of the Juvederm range.
Uses VYCROSS® technology, ensuring a long-lasting, smooth gel.
Effects last up to 6-9 months after a single session.
Ideal for:
Patients seeking improved skin glow, hydration, and texture.
Individuals with fine lines, dryness, and dull skin.
Main Component: Hyaluronic Acid (HA) (13 mg/ml) for hydration and collagen stimulation.
Additional Ingredient: Lidocaine 0.3% for improved patient comfort.
Technology: VYCROSS®: Combination of low and high molecular weight HA for better integration and durability.
Benefits:
Hydration: Attracts and retains moisture.
Skin Elasticity: Enhances skin suppleness and glow.
Minimal Downtime: Ouick recovery with immediate return to daily activities.



### JUVEDERM VOLITE

#### **AREAS TO TREAT**

- **Face**: Hydrates skin, smooths fine lines, and improves radiance.
- Neck: Addresses crepey skin and enhances firmness.
- **Décolletage**: Reduces wrinkles and sun damage.
- **Hands**: Improves skin quality and hydration.





### JUVEDERM VOLITE

**Recommended Techniques:** 

**Needle Technique**: Multiple **microdroplet injections** intradermally. **Cannula Technique**: **Linear threading** in targeted areas.

Depth:

Injected into the superficial to mid-dermis.

**Dosage:** Typically **2-3 ml per session**, depending on the treatment area.

Treatment Schedule: A single session, with top-ups recommended every 6-9 months.

**Ideal Candidates:** Dry or dehydrated skin. Fine lines and skin laxity. Early signs of aging or sun damage.

Aftercare Tips: Avoid alcohol, extreme temperatures, and exercise for 24 hours. Use SPF 50 sunscreen to protect the treated areas.





## COMPARISON TABLE: JUVEDERM VOLITE VS. OTHER

FEATURE	JUVEDERM VOLITE	PROFHILO	REDENSITY 1	FEATURE
HA Concentration	13 mg/ml	32 mg/ml	15 mg/ml	HA Concentration
Cross-Linking	VYCROSS	NA	NA	Cross-Linking
Longevity	6-9 months	4-6 months	3-6 months	Longevity
Lidocaine	Yes	No	No	Lidocaine
Injection Technique	Needle / Cannula	Bolus / BAP	Superficial	Injection Technique



## ASSESSMENT & TREATMENT PLANNING



## ASSESSMENT & TREATMENT PLANNING



# Skin Boosters SUMMARY

- Skin anatomy, consultation and assessment
- Modalities in skin treatments
- When to refer
- Integrating skin into treatment plans
- NEXT: PATIENT DEMONSTRATIONS & PRACTICE

