

Innovative medical solutions

#### Sterile Meso-cocktails

For several indications with exclusive and pharmaceutical grade formulas



#### Needles (MD)

Flexible cannula needles, blunt tip and side hole. Hypodermic Needles for mesotherapy

#### "Easy" Range (MD)

Lifting effect and collagen proliferarion (EasyThread) Growth Factors and Cell Regeneration (EasyPRP)



#### Chelaskin (Patented)

Ointment to stop the flush post-treatment



#### Dermal filler (MD)

Medical Sodium Hyaluronate Gel



#### Leadergun (MD)

Fully automatic mesogun with several doses with different treatments



#### Motion Roller

Last generation skin roller [Patented]



#### Needle Roll Handle

Handle for skin needling, with swivel head and ergonomic



#### Roller Heads

Single use dermaroller cartridges



#### Supplements

to prevent hair loss (HS tablets) to enhance a strong action on weight loss (Celludren and Idealweight)



Each mesococktail always contains:

Impact ingredient – to obtain immediate result (and so satisfy patient's expectation)

Anti-oxydant ingredient – to balance free radicals' level (FRs increase after every dermathologic treatment).

Synergy – real and focused to prevent and cure the beauty flaw.

Mesotech only manufactures sterile mesococktails, we don't believe in the single ingredient.

#### Limits:

Once you open it the first time, the product is exposed to external agents, it means that we have No more sterile product.

Since it'exposed to light and heat, there's a HIGH risk to oxydate.

It has to be combined to other ingredients in exact percentages, so HUGE waste of time. It has to be bought in big quantities, so GREAT waste of money.

#### Lack of synergy

A lot of Lab studies are made on ECCIPIENTS, infact, they contribute to the CHEMICAL BALANCE and CHEMICAL LINK of the INGREDIENTS. Without Eccipients or with an inadequate use of them, it will never be possible any synergy, and this

low effectiveness of the treatment.

No waste of product – the product is in single use vials or ampoules.

Sterility Guaranteed

No time waste – the product is ready to use! No Risk of Oxydize

High Concentration – to avoid body habit

#### ISO9001

means:

is basic quality assurance system in Mesotech srl.

This system covers all production steps including design and service process, also can provide good controlled productions for customers and patients We develop our Range in a continuous dialogue with our customers.

#### ISO13485

quality standard is including ISO9001, traceability, cleanroom, facilities and sterilization for medical device. This standard has been adopted for the production line in Mesotech srl.

#### 93/42/EEC(MDD)

Medical devices directive is special guideline for each medical device to assure safety and comfort to the patients. This directive is adopted in Mesotech srl.

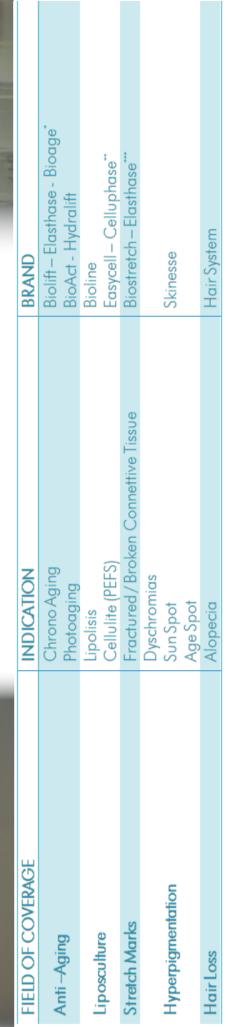
#### PROCEDURE FOR PRODUCTION

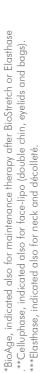
All raw materials are selected by us to meet the characters of medical devices. The production process is controlled according to ISO9001, ISO13485 quality systems. After production, all products are tested and inspected including packaging, sterilization etc.





EL ASTHASE







Active	Indications	Brand	Frequency
HA (Hyaluronic Acid)	Anti-aging	Bioact* (Photoaging), Hydraliff* (Photoaging)	Once every 7-10days
Elastin	Anti-aging	Elasthase* (Neck and decollete and s-marks Once every 7-10days	Once every 7-10days
Collagen	Stretch-marks	BioStretch*	Once every 7-10days
DNA	Anti-aging	Bioage (Chronoaging)	Once every 17-10days
DMAE	Anti-aging	Bioliff** (Chronoaging), Hydraliff* (Photoaging), Elasthase*	Once every 7-10days
PPC+L-Camiline	Lipolisis	Bioline*	Once every 15days
Caffein, L-Camitine, Coumarin, Rutin, Hamamelis	Cellulite	Easyce//*** (Body-lipo), Ce/luphase**** (Face-lipo)	Once every 7-10days
Saw Palmetto, Biotin, Phantenol, Keratin, Vit.B	Hairloss	Hair System*	Once every 7-10days
Kudzu, Albatin, Glutatione, Pueraria	Iperpigmentations	Skinesse	Once every 7-10days

\*mix in 1:1 proportion with sterile water solution , \*\*mix 1ml of Activator with 2ml Base Solution, \*\*\*mix in 1:3 proportion with a sterile water solution, \*\*\*\*mix 1ml of Activator with 4ml of Base Solution





Actives Elastin, DMAE, Organic Silicon
Dose 2-3.0 mL
Dilution Proportion 1:1
Treated areas Neck and Décolleté
Frequency once each 7-10 days
Sessions 8
Results increase skin elasticity and lifting

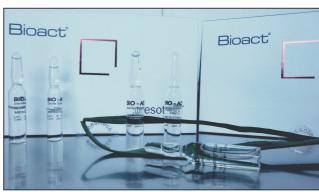


Actives DMAE, Amino, Organic Silicon Dose 3mL Dilution 2mL B-Solution+1mL Activator Treated areas Malar Zone Frequency once each 7 days Sessions 8 Results increase skin tone and lifting



Actives DNA, Vit. E
Dose 4mL
Dilution Proportion 1:1
Treated areas Cheek
Frequency once each 7 days
Sessions 8
Results restructure skin texture





Actives HA, Retinol, Complex B
Dose 4mL
Dilution Proportion 1:1
Treated areas Cheek, Lip zone
Frequency once each 10 days
Sessions 6
Results moisturing effect and tone



Actives HA, DMAE
Dose 4mL
Dilution Proportion 1:1
Treated areas Malar area, Front
Frequency once each 15 days
Sessions 5
Results hydration and lifting effect



Actives Hamamelis, Coumarin, Rutin, Caffeine, Carnitine, Taurine, Cynara, Resveratrol, Organic Silicon

Dose 10mL

Dilution Proportion 1:4

Treated areas abdomen, hips

Frequency once each 7 days

Sessions 7 - 10

Results reduction of cellulite (PEFS)

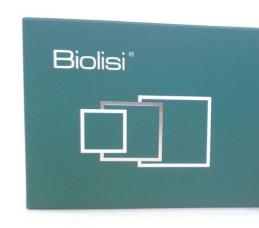


Actives PPC, Sodium DX, L-Carnitine
Dose 10mL
Dilution Proportion 1:1
Treated areas abdomen, hips

Frequency once each 15 days

Sessions 4 - 6

Results fat reduction through lipolisis





#### Actives

Base Solution - Hippocastanum, Fumaria, Nicotin Activator - Hamamelis, caffein, I-carnitin,

Dose 2.5 - 5.0mL

Dilution 1m Activator : 4mL Base Solution Treated areas double chin, eyelids, bags, cheek

Frequency once each 10 days

Sessions 6 - 8

Results deflating action and fat reduction







#### Reconstruction of cutaneous architecture

BioStretch contains several active ingredients clinically proven to help prevent and repair stretch marks increasing collagen and elastin formation, firming the collagen matrix and rehydrating targeted areas with undetectable molecular hydrating fill.

Collagen is a protein present in our body in more than 25% concentration.

Collagenase activity on denatured collagen

Peptide activity on increase of biosynthesis of collagen and elastin

Provides a structural support network of fibronectin

Hydrolyzed collagen, HCP, is collagen that has been enzymatically or chemically processed to make it more easily absorbed by the body.

Hydrolyzed collagen consists of water-soluble peptides which are rich sources of the amino acids glycine, L-proline and L-hydroxyproline.

Results:stimulates wound healing and tissue restauration by collagen matrix regeneration.

It leads to more regular tissue renewal, normal appearance of scars, to full restauration of elasticity.



Actives Collagen, Marin Plasma, Silicium

Dose 0.3 - 0.5mL for each stretch mark

Dilution Proportion 1:1

Treated areas Stretch mark

Frequency once each 10 days

Sessions 10

Results reduction of dyschromy and width of the stretch mark



## Redensifies



## actions

Restore the microcirculation
Act in alfa5 reductase process
Adjust sebum production
Provide the essential nourishment to the hair bulb
Thicken hair cortex
Restructure the hair cuticle
Redensify the medulla
Restore radiance of the foliage

Actives Saw Palmetto, Centella, Biotin, Panthenol, Cystein, Taurin

Dose 5mL

Dilution Proportion 1:1

Treated areas Scalp

Frequency once each 7-10 days

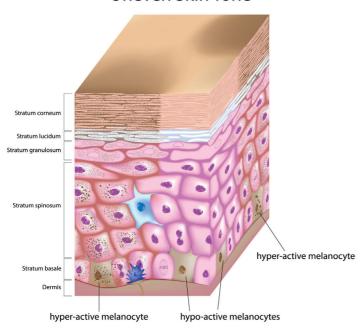
Sessions 10

Results Stimulates hair growth, protects hair structure & integrity.



## SKINESSE THE FIRST MESO-WHITENING EFFECT

#### **Uneven Skin Tone**





Actives Kudzu, Pueraria, Albatin, Glutathione

Dose 0.3 - 0.5 mL

Dilution Proportion 1:1

Treated areas for each spot - Ø 1cm

Frequency once each 7 days

Sessions 4 - 6

Results reduction and/or fading of spots

Skinesse is the most effective and innovative sterile meso-cocktails for hyperpigmentations, melasma, sun damage, age spots, dyschromias, acne scars. Skinesse contains a complete formula thanks to its active ingredients that work in synergy. Skinesse's action is fast and visible from the first session.

SKINESSE contains natural ingredients, based on Kudzu root nodules (symbiozomes).
Similar structure to Hemoglobin in humans: acts as detoxyfier of free radicals skin lightener active.
Adjusts the activity of tyrosinase.
and helps to control melanogenesis through scavenging of nitrogen oxide (NO) radicals.

#### Additional activities:

It also improves skin elasticity, stimulates production of collagen Curative action in Hyperpigmentation and tanned skins

It also contains Isoflavones Pueraria, antioxidant properties. It is not cytotoxic and is very stable in water solutions

How it works?

Step 1: Reduces NO• (melanogenic mediator) production

Step 2: Inhibits Tyrosinase and other enzymes as TRP-1

Step 3: Controls Melanosome transfer Additional activities:

Antioxidant, protection against UVA/ UVB, inflammation inhibitor, improves cell metabolism, protection of dermal matrix fibres.

Reduces the melanin quantity and also inhibits melanocytes dendricity, making difficult the melanosome trasfer to keratinocytes, in just 10 days.

#### Albatin

It is a Phosphinic analogue of Alanine (Ala-P)
It is not cytotoxic and very stable in water solutions
How it works?

Albatin stabilizes DOPAchrome and inhibits the enzymatic activity of the

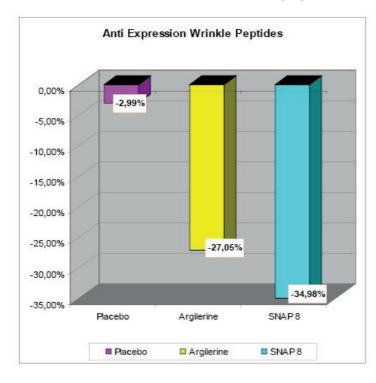
DOPAchrome tautomerase (TRP-2).

#### Glutathione

Mechanism of action: it reduces the intermediates of the melanin. Glutation has a reducing group (SH) which can form a complex with copper and also reduces dopaquinone to DOPA.

## **BOTOPHASE**

**BOTOX-LIKE EFFECT** 



Botophase is a restructuring and firming facial treatment designed to act from the deep skin stratums in order to recover the good appearance of the skin. The unique combination of mimetic peptides such as: Argireline, SNAP-8 and Leuphasyl and other ingredients like Hyaluronic Acid and Retinol, has a specific effect smoothening the fine lines, as well as, it helps the skin to have a smoother, better, and more elastic skin look.

The formula includes active ingredients of tested efficacy, all of them act together over the main causes of the first signs of aging.

Botophase has a similar effect to botulinum (without any side effects), which is the relax of facial muscles and fibroblasts alongside the filling, anti- oxidating and nourishing effects he other ingredients provided.

Regulating the muscular tone, inhibiting the neuron acting over the nerve is a key factor to achieve the smoothening effect of the skin: The muscles contracts once received a neurotransmitter transported inside a vesicle. The protein complex SNARE (SNAP Receptor) is essential for the neurotransmitter's release during the synapse.

This complex is composed by 3 structures: VAMP, Syntaxin & SNAP 25. The union of the vesicle and the complex is needed to merge it with the neuron membrane and then releases the neurotransmitter acetylcholine.

The inhibition of the SNARE complex causes the muscular relax, but this time the mimetic peptides just lightly destabilizes the complex acting over the SNAP 25 protein, instead the irreversible way botulinum works destroying it. This way the synaptic vesicles can not anchor and release acetylcholine in an efficient way, which allows a certain neurotransmission while a muscular relax.

As a result, the muscular contraction is smoothened preventing the appearance of wrinkles.



Actives Argireline, Avena Sativa, HA, Retinol

Dose 2 - 4 mL

Dilution Proportion 1:1

Treated areas periocular and malar areas; smoker lines

Frequency once each 7 days

Sessions 4 - 6

Results 63% less wrinkle depth, visible improvement of the skin



Sife	Size of particle	Volume	Layers	Method	Position for client
Shallow wrinkles on face	٧	0.05mL/cm	Middle of dermis	Line	Lie supine
Deep wrinkles on face	B A	0.1mL/cm	Deep of dermis	Line	Lie supine
Nasolabial fold	В	0.5-1 mLl/side	Deep of dermis	Fan shaped	Lie supine
Forehead wrinkle	B A	0.1mL/cm	Subcutaneous layer Deep of dermis	Line	Lie supine
Frown lines	B A	0.1mL/cm	Deep of dermis	Line	Lie supine
Lip augmentation	8	0.5mL/side	Mucosa between	Punctiform	Sit
			muscle		
Orbital eyelid groove	В	0.1-0.3mLl/side	Subcutaneous layer	Punctiform	Sit
			Periosteal surface		
Invagination of upperlid	8	0.1-0.3mL/side	Orbital septum	Punctiform	Sit
			Periosteal surface		
Orbital zygomatic	В	0.5-1 mL/side	Subcutaneous layer	Punctiform	Sit
			Periosteal sur		
Augmentation rhinoplasty	В	0.5-1mL	Subcutaneous layer	Line	Sit
			Periosteal sur		
Earlobe	BA	0.25-0.5mL/side	Subcutaneous layer	Punctiform	Lie supine

A: Overage Dema - size of particles: 0.1-0.15mm, or 0.15-0.28mm; B: Overage Deep - size of particles: 0.28-0.5mm,or 0.5-1.25mm C: Overage Deeper - size of particles: 1.25-2.0mm

#### Hyaluronate acid physicochemical property:

When the concentration of Hyaluronate acid is above 0.5%, it has high viscoelasticity. It has a nature for moisturize, it can be water sucking 1000 times weight than its own, and there is difference with other polysaccharides:

- 1. No sulfate radical
- 2. No unite with protein
- 3. With negative charge

#### Hyaluronate acid biological characteristics

There is no difference with molecular structure among the living beings. Hyaluronate acid does exist in human tissue, including skin and connective tissue, with functions, like providing volume and keeping tissue steady and elasticity. A person with 70kilos has 15 grams pure hyaluronate acid, one thirds of them process metabolism every day. Exogenous hyaluronate acid is unable to stay long in human body, it can be transferred to liver via lymphoid tissue, degradation to water and carbon dioxide. In order to reduce the speed of degradation, in injection cosmetic field, we need to make those particles be cross-linked, making small molecules being a group of bigger size.

#### Hyaluronate acid medical field

Non-cross linked, is used as ophthalmic and Orthopedic.

Cross-linked ,keeps the same physicochemical properties and its compatibility with tissue ,though with more particles diameter 125-1000 micron, after injecting to tissue,it can last more than 6 months .

As derma filler ,it has some unique properties

1.isovolemic degradation;

After degradation of some molecules from its cross-linked particles group, the left molecule can absorb more water ,which keeps the total volume no change. So the injection area can not be smaller and smaller thanks to these properties. That is why clinical tests always show having good effect, having to keep 95% volume all the time, until completely absorbed.

#### 2. dynamic viscosity;

Viscosity reduces due to its increasing pressure and high temperature, so when having injection, increasing pressure makes the gel pass through the fine needle easily. When gel arrives to the wanted site viscosity returns as gel group again .

#### Injection Techniques

Each technique has advantages for certain situations, and the ultimate determining factor is often surgeon preference. The angle of injection is determined by the depth of the defect. In general, more obtuse angles of insertion are used for deeper defects.

Fine to moderate rhytides and other superficial defects require injection into the mid dermis with an angle of approach of 30-45 degrees. Deeper rhytides may require an entry angle of greater than 45 degrees.

Fillers can be injected by one of the following 5 techniques: serial puncture, threading, fanning, and crosshatching.

- 1. Serial puncture to avoir irregularity involves injecting a series of small boluses of the filler along the length of the defect.
- 2. Threading for fine or superficial wrinkles involves tunneling the needle beneath the defect at the appropriate depth and injecting the product as the needle is withdrawn (linear threading).
- 3. Serial Threading for lip and nasolabial fold augmentation when combined with serial puncture, the technique is called serial threading.
- 4. Fanning to enhance tissue volume in areas such as the naso-labial triangle is similar to threading, but multiple threads are injected radially by changing direction without withdrawing the needle.
- 5. Crosshatching for facial contours and enhancing tissue volume involves injection of a series of threads perpendicular to one another in a grid. Both fanning and crosshatching techniques are used to fill larger defects and for facial shaping.

The choice of needle is determined by the viscosity of the filler.

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- Krauss M, Klein AW: Soft tissue augmentation. In: Kaminer MS, Dover JS, Arndt KA, eds. Atlas of Cosmetic Surgery. Philadelphia: WB Saunders; 2002:264-290
- Millikan LE: The evolution of dermal implants. Cosmetic Dermatology 2001 Dec; 14(12): 27-30.
- Narins RS: Cosmetic Surgery. New York: Marcel Dekker; 193-331.

# OVERAGE



Concentration: Volume capability:

Needle:

Packaging: Indications:

Estimated duration:

Injection area:



Concentration:
Volume capability:

Needle:

Packaging:

Indications:

Estimated duration:

Injection area:



Concentration:

Volume capability:

Needle:

Packaging:

Indications:

Estimated duration:

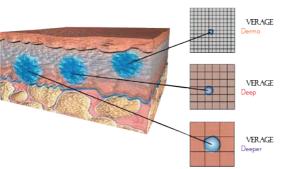
Injection area:













#### Leadergun

fully automatic meso-gun.

The only one with anti-leakage system and several doses for each different treatment [CE0476]

It was designed to overpass the limits of all other mesoguns:

Injection

a single injection (spot)

burst injection (very fast, 3 injections per second)

continuous injection (no stop)

Dosage

pico dose (0.007 -> 0.05) micro doses (0.013 -> 0.10) macro doses (0.025 -> 0.15)

Penetration / depth: from 1mm to 13mm

Syringe seat - (mL): 1; 2.5; 5; 10 Needles: 4mm; 6mm; 13mm.



Extreme precision during the injection and the output of the product and during the extraction of the needle from the skin.

Thanks to these features SMT is also used on medical devices in Oncology and Intensive Therapy.



Automatic turn off of device after few minutes without manual use.

Automatic adjustment of penetration depth.

Automatic detection of the empty syringe and recalling.

Programming

Syringe size

Needle size

Penetration depth

Injected dose (Pico, Micro, Macro)

Injection mode

Injection frequency

Permanence of the needle into the skin

Leadergun has logical memory! The integrated software is designed to avoid any risk of error by the operator.

LCD Colour Screen 1,5"

Brightness and Contrast's Adjustment

#### Syringe Cover

To avoid eventual touch of the syringe during the treatment.

The cover and the backside of Leadergun have a magnet on its top, which allow the cover's blockage if it's turned upside down during treatment.

(According to MD Certificates' Safety Regulations.)

FEATURES	ADVANTAGES
Anti-leakage System	No risk to waste product due to the inertia
Step Motor Technology	Ensures accurate and precise injections
On-board Software	Automatic depth adjustment and end-stroke detection
Injection Mode	3 different injections' procedures: on continuous, burst or spot.
Data storage system	3 pre-set treatment programs and 9 to setup and save
Back Colour Panel 1.5"	User-Friendly, to configure parameters easily according to operator's needs
Lock Adapter	Seat for male and female Luer Lock
Protective Cover	To avoid any accidental risk of touching the syringe during the treatment
Ergonomic	Evenly balanced and handle grip in order to minimize the operator's effort
Lithium-lon Battery	Long lasting time, it can be charged by direct connection from the gun to the power cord

#### Handle Design

Leadergun's handle has been designed to fit all ergonomics standars.

DDD LEADERGUN

Available in black or white version

The special TPE material which wraps the handle, allows a perfect grip and a better handling during the treatment.

#### Ergonomics

All the components in Leadergun are equally balanced and respond to Ergonomics MSI Requirements

Battery

Lithium Ion 2200 mAh 7,4 V

Autonomy : 36 hours Charge time : 2 hours Max

Battery level of charge on LCD Screen

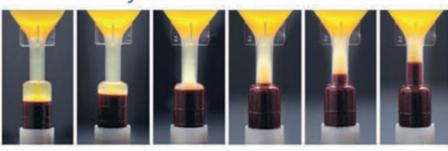
Power supply

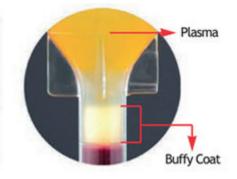
Universal AC input/ Full range, INPUT: 100 – 240 VAC - 50/60 Mz - 0,8 A



Faster and more simple than other Kit for separation and concentration of blood and Buffy Coat and Plasma Short downtime, strong efficacy and longlasting effect...PROVEN RESULTS!

### Clear Buffy Coat





You can check clear buffy coat in the slim neck after centrifugation.

#### **GF**

TGF-β (Transforming growth factor beta)

#### **Function**

Stimulation Blast mesenchymal Cell to be differentiated Cell division Control of microvascular endothelial cells, fibroblast, osteoblast.

Quick and simple procedure in just 3 minutes! Chemical Additives FREE Buffy Coat concentration 2,000.000 in 1ml. 'hourglass' shape to fit all types of centrifuge. Closed circuit, no external contamination.

Each kit of EasyPRP contains:

1 PRP device

1 butterfly needle (size 21G),

2 sharp needles (size 18G)

1 ampoule of anticoagulant (2mL) sodium citrate 3.8%



Indicated for: Orthopedy Plastic Surgery

Aesthetic Medicine (Anti-Ageing, Stretch Marks, Hair Loss).

# **ASYTHREAD**



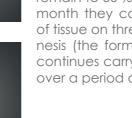


Easy Thread is a premium lifting thread made in PDO (Polydioxanone) which is absorbed after



contouring and skin elasiticity. It brings Natural and remarkable effect to face and body after simple and safe treatment. The superior quality of the Ultra Thin Wall needle

allows the treatment to be easy and painless.



Threads in tissues decompose by hydrolysis to water and carbon dioxide and after 2-3 month remain to 50 % of strength properties. After 6-8 month they completely resolve. The reaction of tissue on threads consists in soft neocollagenesis (the forming of young collagen), which continues carry out "frameworkwork" function over a period of 18-24 months.

Synthetic polyester fiber Polydioxanone Monofilament absorbable by hydrolysis Excellent biological tolerability

Widespread use in the general and specialized surgery Start time of resorption after 10-15days Complete resorption after 90-180 days

#### **Indications**

- Contouring Full Face, Breast, Hip, Upper Arm
- Wrinkle Face, Neck, Hand, Indian Groove, Marionnett folds, Nasolobia fold, Crows feet, Glabella Fold
- Volume reduction Double chin, Zygoma, Arm, Abdomenautoimmune diseases

#### Skin Rejuvenation Effects

- Stimulation of Collagen Production
- Promotion of Local blood Microcirculation
- Activation of Reparative Processes

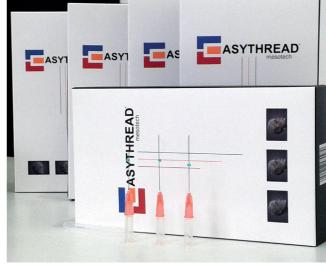
Needle Width	Needle Length	Thread Lenght

30G	30mm	35mm
29G	40mm	50mm
29G	50mm	70mm
27G	60mm	90mm
25G	90mm	150mm













BioCleanser is a concentrate of 5 vegetal extracts: bilberry, sugar cane, sugar maple, orange and lemon.

Biocleanser is an excellent product for a natural and effective exfoliation. Perfect for a deep corneolysis action before any treatment.

BIO

Natural source of HA from vegetal extracts  $pH \sim 4.0$ Promotes cells' renewal Maximum efficiency wit minimum irritation Promotes skin radiance

The extracts are mixed in the following percentages: Lactic Acid 28-32% - High Moisturizing Glycolic Acid 12-17% - Efficient Keratolytic Effect Citric Acid 2-6% - Stimulates Collagen Synthesis Malic Acid 1% max. - Increases Skin Elasticity Tartaric Acid 1% max. – Enhances Skin Firmness



#### Indications

Cleansing at high corneolysis action.

To be applied before any dermatological treatment:phototherapy, laser, needling, RF, any other cosmetic method

#### How to use

Rub evenly in circular motions, over the area to be treated, until the drying of the towel.

Do not rinse for the 8-12 h.





## Stop the Flush

Immediate removal of bruises post-filler, post-mesotherapy, post-sclerotherapy, post-laser, post skin-roller, post-dermoabrasion, post-rhinoplasty, and so on...

It allows to extend filler's half-life, thanks to the anti-metal protease chelating action and dyschromias caused by echymotic pigmentations.

#### **INDICATIONS**

Aesthetic Medicine: bruises after filler, mesotherapy, needling, laser, RF, discoloration of sclerosing. Aesthetic surgery: rhinoplasty, liposuction, blepharoplasty, lifting.

Home indications: dark circle, vascular sign (couperose, teleangectasie, rosacea), dark spot.

#### HOW TO USE

To apply on the skin and massage gently.

#### DOSE

Each dose is of 0,15mL. The quantity to use it depends by the dimension of the area to treat. Apply Chelaskin trough a gentle massage.

#### **FREQUENCY**

For aesthetic medicine indications one application is enough immediately after the session.

For aesthetic surgery, it needs the applications at home by the patient.

For homecare indications: apply twice (morning and evening) on the area for 2/3 days.

It is suggetsed to wait for the total absorption before makeup or bandages to use.







#### Overage Meso

offers an effective way to fight against the effects of reduced levels of hyaluronic acid, one of the key components of the dermis. It promotes intercellular exchange and greater skin elasticity, while firming the dermis. It makes possible to meet patients' expectations in terms of hydration and rejuvenation of both facial and body dermis.

Main benefits of Overage Meso:

- Made with a naturally occurring substance, perfectly biocompatible and totally biodegradable
- Long lasting hydroreserve properties
- A non cross linked hyaluronic acid, with a high viscoelatic power nad slightly volumizing
- A specifically high molecular weight to make it more similar to endogenous hyaluronic acid
- Highly purified hyaluronic acid of pharmaceutical grade, low endotoxins level
- Totally painless thanks to its stabilized formulation at pH 7.0~7.4

#### Presentation:

1 ml pre-filled and sterile glass syringe Each syringe is provided with 2x30G½ needles Box with 1 syringe



Indications: periocular wrinkles; wrinkles of the forehead, wrinkles of the neck, cleavage

#### Overage Ophtamology

is a sterile, nonpyrogenic, non-inflammatory, transparent viscoelastic solution of highly purified sodium hyaluronate dissolved in buffered saline.

Overage is a high molecular weight (about 1,100,000 Daltons) fraction of sodium hyaluronate (2.3% total weight) dissolved in a sodium phosphate buffer (pH=7.0-7.4 at  $25^{\circ}$ C).

The osmolality of Overage is nominally 270mOsm/L-350mOsm/L.

#### Presentation:

- 1mL pre-filled and sterile glass syringe
- Each syringe is provided with 1 needle 27gauge blunt tip
- Box with 1 syringe

Overage is sterilized using aseptic processing techniques. The filled syringes are sealed aseptically. The single use needle is sterilized by EO.

Overage is indicated for use as a surgical aid in ophthalmic anterior and posterior segment surgery, including:

Cataract extraction with of without implantation of an intraocular lens

Corneal transplant surgery

Glaucoma filtering surgery

Secondary lens implantation



#### with tank and monouse needling recharges.

The Motion Roller has been designed and manufactured to perform the skin needling of last generation. It is the ultimate and first skin needling device to dispose of a built-in seat for nebulizer and pneumatic atomizer integrated. High penetration efficiency of the active ingredients thanks to the atomization of the lotion in very small particles.

The stratum corneum skin forms a barrier to the penetration in depth in the dermis of the creams applied to the skin; only small amounts of product are able to pass under it and the stratum corneum dry constitutes an additional obstacle to the dermal penetration.

Generally the cosmetic needling is useful exactly to improve the penetration of the cutaneous barrier.

The use of microneedles, passed through the epidermis, in fact creates micro-channels in the stratum corneum, whereby the penetration of large molecules can be improved by at least 10,000 times. Now, the passage of microneedles on and into the skin induces collagen production, but also must be considered a side effect: INCREASING of FREE RADICALS. This is why the needling technique is accompanied by a specific medical protocol of anti-oxydant treatment after treatment that must be carefully observed.

In this regard is important to talk about Prothrombin, also known as coagulation factor II. Injury to a blood vessel determines the rapid conversion of prothrombin (factor II) into thrombin (factor IIa), which in turn converts fibrinogen into fibrin; is thus produced fiber armor which participates in the formation the clot. Under normal conditions, the prothrombin time varies roughly from 11 to 13 seconds, this means that after treatment of needling, if we will apply a product (as required by cosmetics needling protocols) we will have no results because "the input channel", which was opened by the passage of microneedles, will be already close.

FEATURES	ADVANTAGES
Device in Plastic - BAYBLEND®	Allows ergonomic handling during the treatment.
Sterile and monouse Head Needling recharge (Needle Roll)	200 or 540 micro-needles in titanium, (0.2, 0.5, 1, 1.5, 2mm) to obtain always assured and efficient results. The needle have the same incidence angle of hypodermic needles.
Head Needling Protective Cover	No risk to get pricked accidentally.
Pneumatic Atomizer	2 actions in 1, means time savings. The product can be applied while performing the treatment.
Factual Efficiency of the Active Ingredient	The product is in sterile and matt nebulizers and no risk to oxidize because of external agents' exposure.
Global Patent	No way that surrogate products get available on the market, you can offer a professional session.







Available in black or white version

Suitable for face and body treatment. Snip adapter for 3mL or 6mL nebulizers.

The main feature which diversificates the Motion Roller from all the others tools for needling is that Motion makes needling effective within PROTHOMBINE TIME, performing 2 actions in 1:

Motion Roller is the unique device for needling that can spray product (mesorecharge: professional mesococktails in sterile nebulizers) while performing the needling. It can be quickly perform two actions at the same time being certain of applying a sterile product and unoxidized.

Moreover, once opened the pores of the skin, after the passage of the needles, it will be easier for them to absorb the product spayed, because it will be atomized in small particles, in order to obrain a high transfer efficiency.







The Skin Needling is a technique of Regenerative Dermatology. It can be safely performed on all skin colours and types. There is no risk of postinflammatory hyperpigmentation. This is the distinguishing safety feature between Skin Needling and other invasive procedures that are used to treat deep lines and depressed scars.

The principle on which it is based is very simple: the normal healing response begins the moment of tissue injury. Blood components spill into the injury site, causing platelets to come into contact with extracellular matrix.

This contact triggers platelets to release clotting factors, essential growth factors and cytokines, once the injury site is cleaned, fibroblast migrate into the injury site and start to produce and deposit new ECM The new collagen matrix then becomes crosslinked and organised during the final remodelling phase, which can continue for up to 12 months after the injury occurs.

Skin Needling with a skin roller produces hundreds of tiny dermal injuries. Each dermal injury triggers the normal healing response within the skin and successive treatments build new collagen progressively



Length of the pins and practical application

With pins of 0.5 mm

Generic regenerative facial stimulus •

Reduce the signs of photoaging •

Reduction of facial lines (soft wrinkles) •

With pins from 1 mm

Generic regenerative facial stimulus •

Reduction of wrinkles •

Reduction of stretch marks •

Reduction of abnormal pigmentation •

Reduction of scars •

Reduction of porosity



## Needling Recharge heads



Size: 0.2mm, 0.5mm, 1mm, 1.5mm, 2mm.

Sterile and monouse, Needling Recharge, is composed by 200 micro-needles in titanium.

The heads Needling Recharge, thanks to the new shape of the 200 microneedles in titanium, allows to reduce pain and discomfort of the procedure, compared to the standard dermaroller having round shape needles.

Titanium needles are 50% stronger and more durable than standard needles and make the treatment less painful with faster healing time.

## Needleroll540 heads



Size: 0.3mm, 0.5mm, 1mm, 1.5mm, 2mm.

Sterile and single use heads, composed by 540 micro-needles in stainless steel.

The Needleroll540 head, with its 540 microneedles, allows to cover a greater area of penetration in less time and ability to generate 1.000 micro-channels per square cm in 10 minutes, substantially increasing the effectiveness of the procedure.

Stainless steel has been scientifically proven to be the gold standard for tools used for skin penetration.

Comparing	Needle roll	Head Needling
Transversal roller		
Transversal Tip		+

Both Needling Recharges and Needleroll540 heads can be used with **Motion** device or with the apposite Needle Roll handle. Needling Recharges have the same angle of incidence of hypodermic needles, while Needleroll540 have a diamond shape.

Protective cover gives you a 100% safety against probable contagions.

Mesotech has realized this single use range in order to reduce risks of infections due to the re-use of a same needling roller. All for the respect of a correct professional ethic.





## The Green Coffee is characterized by a high content of chlorogenic acid, a powerful antioxidant that can reduce the absorption of sugars from the intestine and at the same time to speed up the metabolism by accelerating the process by which our body burns stored fat.

Green Tea improves metabolism, reduce blood fat and cholesterol, reduce bloatedness, detox the body and suppress your appetite.

It has long been known synergy between caffeine and epigallocatechin of Green Tea, their joint activity promotes and implements lipolysis and thermogenesis, favoring the loss of fat in excess.

Hieracium Pilosella is effective in water retention due to its diuretic effect which translates into a direct stimulation of the kidneys to remove waste products of metabolism (sodium, chlorine, uric acid and nitrogenous waste). Thanks to this action, draining the pilosella is useful in the treatment of unsightly fat deposits and liquid and promotes the elimination of toxins, aids kidney function, the mobilization of excess fluids and elimination of salts trapped in the tissues. The diuretic activity of the extract of pilosella has been tested in preclinical studies, which demonstrated its effectiveness through an increase in both the quantity of urine is the amount of sodium they contain. At pilosella also recognized the ability to promote the excretion of bile and runoff (has choleretic and cholagogue action), which helps detoxify the liver and helps to purify the blood by the excesses of a diet rich in fats animals.

Forskolin is an extract of the 'Ayurve-dic herb Coleus forskohlii. It re-sensitizes the cell receptors by activating the enzyme adenylate cyclase and increasing the amount of AMP (adenosine monophosphate) cyclic in cells. Forskolin is a vasodilator, as the blood flows to adipose tissues, particularly areas of stubborn fat, it is vital for the transport of fatty acids in the areas where they can be burned. POLYPHENOLS, SINEPHRINE AND CAFFEINE TO PROMOTE AND THERMOGENE-SIS, LIPOLYSIS

Forskolin stimulates digestive enzymes and improves the absorption of nutrients in the gut frail. It lowers the intraocular blood pressure: studies have shown its efficacy in the treatment of glaucoma. Beneficial effects have also been underlined in the treatment of hypertension, asthma, eczema, psoriasis and angina pectoris.

## **CELLUDREN**

#### Weight Loss Drink

#### actions

Thermogenesis

Lipolysis

Diuresis

Reduced absorption of sugars
Reactivating metabolism

#### Actives:

Sinephrine, Green Coffe, Green Tea, Pilosella.

Synephrine is a plant extract present in the fruits of Citrus Aurantium, a substance similar to ephedrine. It performs an action on the body fats by activating lipolysis (the breakdown and consumption of fats) and promoting thermogenesis (an increase of calories burned by the body). This mixture has great anorectic properties, and it can reduce appetite.





Box of: 60 tablets of 1.2g - Total Net Weight 72g

A nutritional supplement containing extracts of Serenoa, Nettle, American Ginseng, Ginkgo, Taurine, B vitamins and minerals.

Ingredients: Microcrystalline cellulose, gelatin, calcium phosphate bi-base, Pine (Pinus sylvestris L.) bark dry extract titrated at 95% in protoantocianidine, Astaxanthin derived from alga Haematococcus pluvialis; Antiplatelet agents: vegetable magnesium stearate, colloidal silica.

Indications: HS is a supplement that can contribute to the maintenance of physiological structure of hair (biotin) and their pigmentation (copper). The extract of Ginkgo plays an antioxidant action whereas vitamin B9 and iodine contribute to the physiologic energy metabolism.

Information: the use of vitamin B complex has long been known for facilitating the different metabolic activities. In particular in the HS supplement, the use of Biotin contributes to the maintenance of physiological structure of hair while vitamin B9 intervenes in the process of cell division. In combination with these, vitamins B1 and B5 contribute to the physiologic energy metabolism.

Among the minerals used by the integrator HS there is the Copper which contributes to the pigmentation of the hair and the lodine which is involved in energy metabolism.

The associations of plant extracts developed and used in the HS Supplement play an effective antioxidant action conferred by titrated extracts of Ginkgo and Tonic, American Ginseng Extract, useful in case of stress. How to use (recommended): 2 tablets daily, preferably during or after meals.

Warning: Do not exceed the recommended daily dose.

The supplements are not intended as a substitute for a varied diet and a healthy lifestyle. Keep out of the reach of children under 3 years of age.

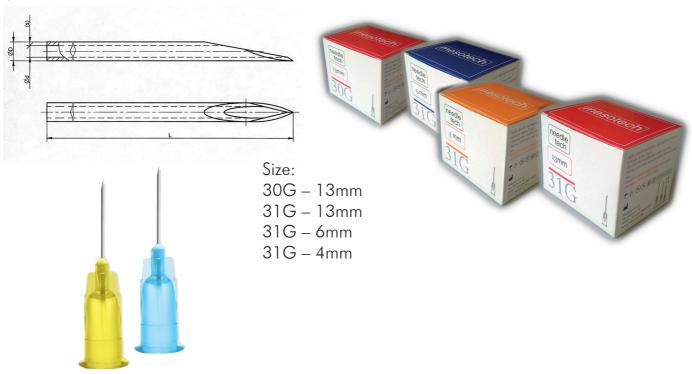
Use is not recommended in women of childbearing age and subjects of both sexes in pre-pubertal age.

Store in a cool, dry place. The expiry date refers to the product properly stored in unopened containers.

## Needletech

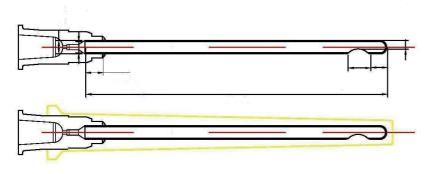
Hypodermic needles, Medical Device CE0476

Needletech needles are realized under an accurate selection of the raw materials, keeping a particular attention during the packaging phase, in order to avoid eventual blunts of the needles. An exclusive process of lubrification of the cannula of the needle allows a fluid and painless penetration into the skin.





Flexible cannula blunt tip and side hole. [CE MDD 0476]



Size

30G - 25mm (+ 26Gintroducer needles)

27G - 38mm (+ 23G introducer needles)

27G - 50mm (+ 23G introducer needles)

25G - 38mm (+ 23G introducer needles)

25G - 50mm (+ 23G introducer needles)

22G - 50mm (+ 18G introducer needles)

18G - 50mm (+ 16G introducer needles)



# needle flex



Inflammation, Local Anaesthesia Pain, Bleeding, Bruising, Edema

# innovative way to perform facial fillers injections

**needle** flex main characteristic is its suppleness. Its rounded tips allow obtaining a resistance to the penetration in the dep tissue layers. This one, together with the originality of the injection's hole, allows us to use the needle to inject a large number of diferent products, regardles for the degre of viscosity 36



Mesotech is an innovative company, specialized in providing skin care and beauty solutions from the conception to the manufacturing of products and devices for the aesthetic medical field.

Customer satisfaction and quality are the main priorities for our staff.

We develop our range relying on an ongoing dialogue with our customers.

### Our Mission

Development of new products from original ideas to a deep research.

Original formulations where unique ingredients are selected to restore and correct blemishes and cutaneous imperfections.



Headquarter and showroom Mesotech Srl Via Mazzini, 52 80022-Italy www.mesotech.de

UNI ENI ISO 9001:2008 UNI ENI ISO 13485:2012



Innovative medical solutions

### Sterile Meso-cocktails

For several indications with exclusive and pharmaceutical grade formulas



### Needles (MD)

Flexible cannula needles, blunt tip and side hole. Hypodermic Needles for mesotherapy

### "Easy" Range (MD)

Lifting effect and collagen proliferarion (EasyThread)
Growth Factors and Cell Regeneration (EasyPRP)



### Chelaskin (Patented)

Ointment to stop the flush post-treatment

### Dermal filler (MD)

Medical Sodium Hyaluronate Gel



### Leadergun (MD)

Fully automatic mesogun with several doses with different treatments

### Motion Roller

Last generation skin roller [Patented]



### Needle Roll Handle

Handle for skin needling, with swivel head and ergonomic



### Roller Heads

Single use dermaroller cartridges

### Supplements

to prevent hair loss (HS tablets) to enhance a strong action on weight loss (Celludren and Idealweight)



Each mesococktail always contains:

Impact ingredient – to obtain immediate result (and so satisfy patient's expectation)

Anti-oxydant ingredient – to balance free radicals' level (FRs increase after every dermathologic treatment).

Synergy – real and focused to prevent and cure the beauty flaw.

Mesotech only manufactures sterile mesococktails, we don't believe in the single ingredient.

### Limits:

Once you open it the first time, the product is exposed to external agents, it means that we have No more sterile product.

Since it'exposed to light and heat, there's a HIGH risk to oxydate.

It has to be combined to other ingredients in exact percentages, so HUGE waste of time. It has to be bought in big quantities, so GREAT waste of money.

### Lack of synergy

A lot of Lab studies are made on ECCIPIENTS, infact, they contribute to the CHEMICAL BALANCE and CHEMICAL LINK of the INGREDIENTS. Without Eccipients or with an inadequate use of them, it will never be possible any synergy, and this

low effectiveness of the treatment.

No waste of product – the product is in single use vials or ampoules.

Sterility Guaranteed

No time waste – the product is ready to use! No Risk of Oxydize

High Concentration – to avoid body habit

### ISO9001

means:

is basic quality assurance system in Mesotech srl.

This system covers all production steps including design and service process, also can provide good controlled productions for customers and patients We develop our Range in a continuous dialogue with our customers.

### ISO13485

quality standard is including ISO9001, traceability, cleanroom, facilities and sterilization for medical device. This standard has been adopted for the production line in Mesotech srl.

### 93/42/EEC(MDD)

Medical devices directive is special guideline for each medical device to assure safety and comfort to the patients. This directive is adopted in Mesotech srl.

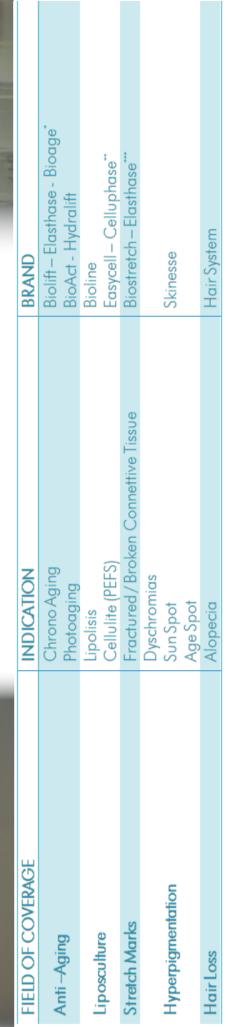
### PROCEDURE FOR PRODUCTION

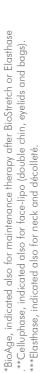
All raw materials are selected by us to meet the characters of medical devices. The production process is controlled according to ISO9001, ISO13485 quality systems. After production, all products are tested and inspected including packaging, sterilization etc.





EL ASTHASE







Active	Indications	Brand	Frequency
HA (Hyaluronic Acid)	Anti-aging	Bioact* (Photoaging), Hydraliff* (Photoaging)	Once every 7-10days
Elastin	Anti-aging	Elasthase* (Neck and decollete and s-marks Once every 7-10days	Once every 7-10days
Collagen	Stretch-marks	BioStretch*	Once every 7-10days
DNA	Anti-aging	Bioage (Chronoaging)	Once every 17-10days
DMAE	Anti-aging	Bioliff** (Chronoaging), Hydraliff* (Photoaging), Elasthase*	Once every 7-10days
PPC+L-Camiline	Lipolisis	Bioline*	Once every 15days
Caffein, L-Camitine, Coumarin, Rutin, Hamamelis	Cellulite	Easyce//*** (Body-lipo), Ce/luphase**** (Face-lipo)	Once every 7-10days
Saw Palmetto, Biotin, Phantenol, Keratin, Vit.B	Hairloss	Hair System*	Once every 7-10days
Kudzu, Albatin, Glutatione, Pueraria	Iperpigmentations	Skinesse	Once every 7-10days

\*mix in 1:1 proportion with sterile water solution , \*\*mix 1ml of Activator with 2ml Base Solution, \*\*\*mix in 1:3 proportion with a sterile water solution, \*\*\*\*mix 1ml of Activator with 4ml of Base Solution





Actives Elastin, DMAE, Organic Silicon
Dose 2-3.0 mL
Dilution Proportion 1:1
Treated areas Neck and Décolleté
Frequency once each 7-10 days
Sessions 8
Results increase skin elasticity and lifting

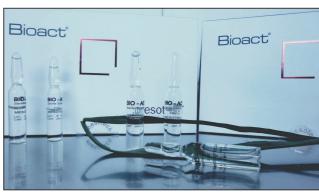


Actives DMAE, Amino, Organic Silicon Dose 3mL Dilution 2mL B-Solution+1mL Activator Treated areas Malar Zone Frequency once each 7 days Sessions 8 Results increase skin tone and lifting



Actives DNA, Vit. E
Dose 4mL
Dilution Proportion 1:1
Treated areas Cheek
Frequency once each 7 days
Sessions 8
Results restructure skin texture





Actives HA, Retinol, Complex B
Dose 4mL
Dilution Proportion 1:1
Treated areas Cheek, Lip zone
Frequency once each 10 days
Sessions 6
Results moisturing effect and tone



Actives HA, DMAE
Dose 4mL
Dilution Proportion 1:1
Treated areas Malar area, Front
Frequency once each 15 days
Sessions 5
Results hydration and lifting effect



Actives Hamamelis, Coumarin, Rutin, Caffeine, Carnitine, Taurine, Cynara, Resveratrol, Organic Silicon

Dose 10mL

Dilution Proportion 1:4

Treated areas abdomen, hips

Frequency once each 7 days

Sessions 7 - 10

Results reduction of cellulite (PEFS)

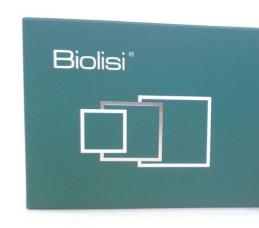


Actives PPC, Sodium DX, L-Carnitine
Dose 10mL
Dilution Proportion 1:1
Treated areas abdomen, hips

Frequency once each 15 days

Sessions 4 - 6

Results fat reduction through lipolisis





### Actives

Base Solution - Hippocastanum, Fumaria, Nicotin Activator - Hamamelis, caffein, I-carnitin,

Dose 2.5 - 5.0mL

Dilution 1m Activator : 4mL Base Solution Treated areas double chin, eyelids, bags, cheek

Frequency once each 10 days

Sessions 6 - 8

Results deflating action and fat reduction







### Reconstruction of cutaneous architecture

BioStretch contains several active ingredients clinically proven to help prevent and repair stretch marks increasing collagen and elastin formation, firming the collagen matrix and rehydrating targeted areas with undetectable molecular hydrating fill.

Collagen is a protein present in our body in more than 25% concentration.

Collagenase activity on denatured collagen

Peptide activity on increase of biosynthesis of collagen and elastin

Provides a structural support network of fibronectin

Hydrolyzed collagen, HCP, is collagen that has been enzymatically or chemically processed to make it more easily absorbed by the body.

Hydrolyzed collagen consists of water-soluble peptides which are rich sources of the amino acids glycine, L-proline and L-hydroxyproline.

Results:stimulates wound healing and tissue restauration by collagen matrix regeneration.

It leads to more regular tissue renewal, normal appearance of scars, to full restauration of elasticity.



Actives Collagen, Marin Plasma, Silicium

Dose 0.3 - 0.5mL for each stretch mark

Dilution Proportion 1:1

Treated areas Stretch mark

Frequency once each 10 days

Sessions 10

Results reduction of dyschromy and width of the stretch mark



### Redensifies



### actions

Restore the microcirculation
Act in alfa5 reductase process
Adjust sebum production
Provide the essential nourishment to the hair bulb
Thicken hair cortex
Restructure the hair cuticle
Redensify the medulla
Restore radiance of the foliage

Actives Saw Palmetto, Centella, Biotin, Panthenol, Cystein, Taurin

Dose 5mL

Dilution Proportion 1:1

Treated areas Scalp

Frequency once each 7-10 days

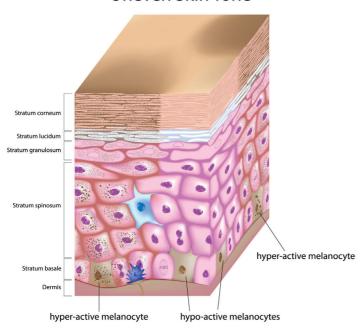
Sessions 10

Results Stimulates hair growth, protects hair structure & integrity.



### SKINESSE THE FIRST MESO-WHITENING EFFECT

### **Uneven Skin Tone**





Actives Kudzu, Pueraria, Albatin, Glutathione

Dose 0.3 - 0.5 mL

Dilution Proportion 1:1

Treated areas for each spot - Ø 1cm

Frequency once each 7 days

Sessions 4 - 6

Results reduction and/or fading of spots

Skinesse is the most effective and innovative sterile meso-cocktails for hyperpigmentations, melasma, sun damage, age spots, dyschromias, acne scars. Skinesse contains a complete formula thanks to its active ingredients that work in synergy. Skinesse's action is fast and visible from the first session.

SKINESSE contains natural ingredients, based on Kudzu root nodules (symbiozomes).
Similar structure to Hemoglobin in humans: acts as detoxyfier of free radicals skin lightener active.
Adjusts the activity of tyrosinase.
and helps to control melanogenesis through scavenging of nitrogen oxide (NO) radicals.

### Additional activities:

It also improves skin elasticity, stimulates production of collagen Curative action in Hyperpigmentation and tanned skins

It also contains Isoflavones Pueraria, antioxidant properties. It is not cytotoxic and is very stable in water solutions

How it works?

Step 1: Reduces NO• (melanogenic mediator) production

Step 2: Inhibits Tyrosinase and other enzymes as TRP-1

Step 3: Controls Melanosome transfer Additional activities:

Antioxidant, protection against UVA/ UVB, inflammation inhibitor, improves cell metabolism, protection of dermal matrix fibres.

Reduces the melanin quantity and also inhibits melanocytes dendricity, making difficult the melanosome trasfer to keratinocytes, in just 10 days.

### Albatin

It is a Phosphinic analogue of Alanine (Ala-P)
It is not cytotoxic and very stable in water solutions
How it works?

Albatin stabilizes DOPAchrome and inhibits the enzymatic activity of the

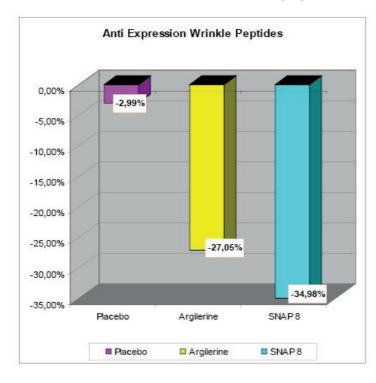
DOPAchrome tautomerase (TRP-2).

### Glutathione

Mechanism of action: it reduces the intermediates of the melanin. Glutation has a reducing group (SH) which can form a complex with copper and also reduces dopaquinone to DOPA.

### **BOTOPHASE**

**BOTOX-LIKE EFFECT** 



Botophase is a restructuring and firming facial treatment designed to act from the deep skin stratums in order to recover the good appearance of the skin. The unique combination of mimetic peptides such as: Argireline, SNAP-8 and Leuphasyl and other ingredients like Hyaluronic Acid and Retinol, has a specific effect smoothening the fine lines, as well as, it helps the skin to have a smoother, better, and more elastic skin look.

The formula includes active ingredients of tested efficacy, all of them act together over the main causes of the first signs of aging.

Botophase has a similar effect to botulinum (without any side effects), which is the relax of facial muscles and fibroblasts alongside the filling, anti- oxidating and nourishing effects he other ingredients provided.

Regulating the muscular tone, inhibiting the neuron acting over the nerve is a key factor to achieve the smoothening effect of the skin: The muscles contracts once received a neurotransmitter transported inside a vesicle. The protein complex SNARE (SNAP Receptor) is essential for the neurotransmitter's release during the synapse.

This complex is composed by 3 structures: VAMP, Syntaxin & SNAP 25. The union of the vesicle and the complex is needed to merge it with the neuron membrane and then releases the neurotransmitter acetylcholine.

The inhibition of the SNARE complex causes the muscular relax, but this time the mimetic peptides just lightly destabilizes the complex acting over the SNAP 25 protein, instead the irreversible way botulinum works destroying it. This way the synaptic vesicles can not anchor and release acetylcholine in an efficient way, which allows a certain neurotransmission while a muscular relax.

As a result, the muscular contraction is smoothened preventing the appearance of wrinkles.



Actives Argireline, Avena Sativa, HA, Retinol

Dose 2 - 4 mL

Dilution Proportion 1:1

Treated areas periocular and malar areas; smoker lines

Frequency once each 7 days

Sessions 4 - 6

Results 63% less wrinkle depth, visible improvement of the skin



Sife	Size of particle	Volume	Layers	Method	Position for client
Shallow wrinkles on face	٧	0.05mL/cm	Middle of dermis	Line	Lie supine
Deep wrinkles on face	B A	0.1mL/cm	Deep of dermis	Line	Lie supine
Nasolabial fold	В	0.5-1 mLl/side	Deep of dermis	Fan shaped	Lie supine
Forehead wrinkle	B A	0.1mL/cm	Subcutaneous layer Deep of dermis	Line	Lie supine
Frown lines	B A	0.1mL/cm	Deep of dermis	Line	Lie supine
Lip augmentation	8	0.5mL/side	Mucosa between	Punctiform	Sit
			muscle		
Orbital eyelid groove	В	0.1-0.3mLl/side	Subcutaneous layer	Punctiform	Sit
			Periosteal surface		
Invagination of upperlid	8	0.1-0.3mL/side	Orbital septum	Punctiform	Sit
			Periosteal surface		
Orbital zygomatic	В	0.5-1 mL/side	Subcutaneous layer	Punctiform	Siit
			Periosteal sur		
Augmentation rhinoplasty	В	0.5-1mL	Subcutaneous layer	Line	Sit
			Periosteal sur		
Earlobe	BA	0.25-0.5mL/side	Subcutaneous layer	Punctiform	Lie supine

A: Overage Dema - size of particles: 0.1-0.15mm, or 0.15-0.28mm; B: Overage Deep - size of particles: 0.28-0.5mm,or 0.5-1.25mm C: Overage Deeper - size of particles: 1.25-2.0mm

### Hyaluronate acid physicochemical property:

When the concentration of Hyaluronate acid is above 0.5%, it has high viscoelasticity. It has a nature for moisturize, it can be water sucking 1000 times weight than its own, and there is difference with other polysaccharides:

- 1. No sulfate radical
- 2. No unite with protein
- 3. With negative charge

### Hyaluronate acid biological characteristics

There is no difference with molecular structure among the living beings. Hyaluronate acid does exist in human tissue, including skin and connective tissue, with functions, like providing volume and keeping tissue steady and elasticity. A person with 70kilos has 15 grams pure hyaluronate acid, one thirds of them process metabolism every day. Exogenous hyaluronate acid is unable to stay long in human body, it can be transferred to liver via lymphoid tissue, degradation to water and carbon dioxide. In order to reduce the speed of degradation, in injection cosmetic field, we need to make those particles be cross-linked, making small molecules being a group of bigger size.

### Hyaluronate acid medical field

Non-cross linked, is used as ophthalmic and Orthopedic.

Cross-linked ,keeps the same physicochemical properties and its compatibility with tissue ,though with more particles diameter 125-1000 micron, after injecting to tissue,it can last more than 6 months .

As derma filler ,it has some unique properties

1.isovolemic degradation;

After degradation of some molecules from its cross-linked particles group, the left molecule can absorb more water ,which keeps the total volume no change. So the injection area can not be smaller and smaller thanks to these properties. That is why clinical tests always show having good effect, having to keep 95% volume all the time, until completely absorbed.

### 2. dynamic viscosity;

Viscosity reduces due to its increasing pressure and high temperature, so when having injection, increasing pressure makes the gel pass through the fine needle easily. When gel arrives to the wanted site viscosity returns as gel group again .

### Injection Techniques

Each technique has advantages for certain situations, and the ultimate determining factor is often surgeon preference. The angle of injection is determined by the depth of the defect. In general, more obtuse angles of insertion are used for deeper defects.

Fine to moderate rhytides and other superficial defects require injection into the mid dermis with an angle of approach of 30-45 degrees. Deeper rhytides may require an entry angle of greater than 45 degrees.

Fillers can be injected by one of the following 5 techniques: serial puncture, threading, fanning, and crosshatching.

- 1. Serial puncture to avoir irregularity involves injecting a series of small boluses of the filler along the length of the defect.
- 2. Threading for fine or superficial wrinkles involves tunneling the needle beneath the defect at the appropriate depth and injecting the product as the needle is withdrawn (linear threading).
- 3. Serial Threading for lip and nasolabial fold augmentation when combined with serial puncture, the technique is called serial threading.
- 4. Fanning to enhance tissue volume in areas such as the naso-labial triangle is similar to threading, but multiple threads are injected radially by changing direction without withdrawing the needle.
- 5. Crosshatching for facial contours and enhancing tissue volume involves injection of a series of threads perpendicular to one another in a grid. Both fanning and crosshatching techniques are used to fill larger defects and for facial shaping.

The choice of needle is determined by the viscosity of the filler.

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## OVERAGE CARREST CONTRACTOR CONTRA

Concentration: Volume capability:

Needle:

Packaging: Indications:

Estimated duration:

Injection area:



Concentration: Volume capability:

Needle: Packaging:

Indications:

Estimated duration:

Injection area:



Concentration:

Volume capability:

Needle:

Packaging:

Indications:

Estimated duration:

Injection area:

### OVE:









