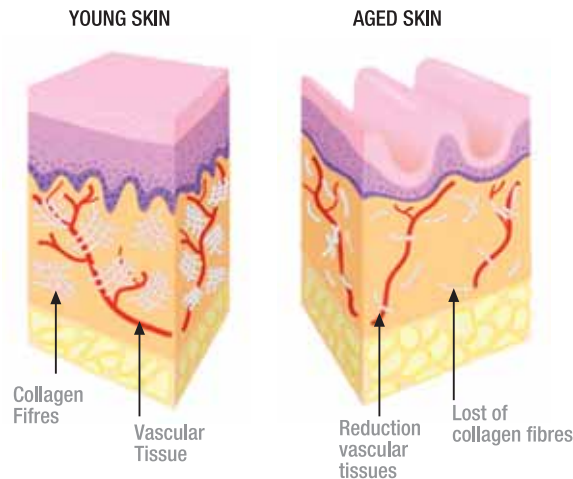


PROCESS OF CELL AGEING



Ageing is associated with changes in the molecular structure of DNA, proteins and lipids. The accumulation of these structural changes forms the basis of cellular aging.

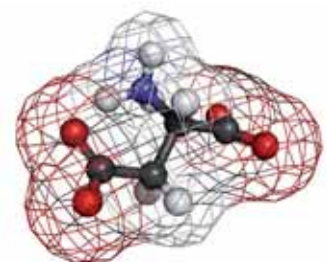
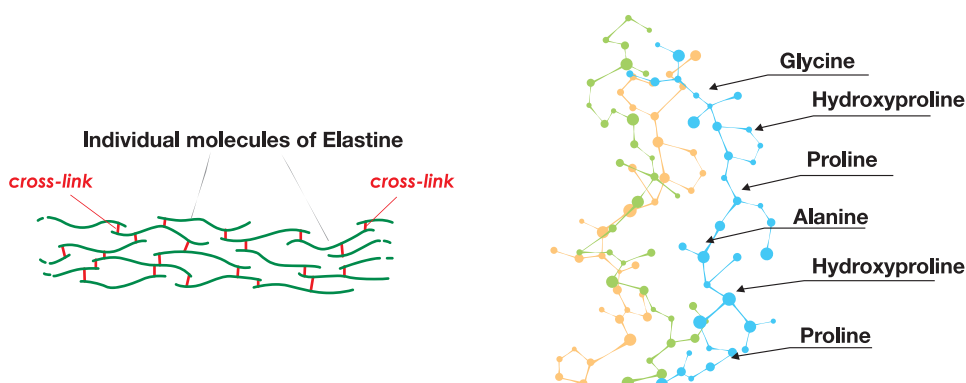
The use of the common Bio revitalizing, made with hyaluronic acid, amino acids and vitamins, provides substances able to moisturize and nourish the cells of the dermic tissue, without however improving the activities of the extra-cellular matrix.

In modern chemistry, amino acids and precursors play a key role due to their wide availability and the wide range of activities they perform in many biochemical processes, scientific research is increasingly oriented towards the study of new formulative technologies in order to realize biostimulants able to interact with the physiology of the skin combining high effectiveness and maximum tolerability.

The ingredients that make up these innovative medical injectable devices consisting of a clear viscoelastic hydrogel, form an innovative synergy ideal for treating face and body.

THE STRUCTURAL PROTEINS

Collagen is made up of polypeptide chains, called A chains, closely intertwined to form a super compact helix. The primary structure of the individual chains is composed of more than 1400 amino acids and is characterized by the repetition of numerous triplets of sequence: glycine, proline, hydroxyproline (Gly-Pro-Hyp)_n. **Elastin** is a fibrous protein consisting of two polypeptide subunits called tropoelastin. The tropoelastin is composed of long propellers rich of Gly separated by short stretches of Lys and Ala. The two subunits are connected to each other by crosslinking that give two- and three-dimensional elasticity. **Lysine** is an essential amino acid, (the human body cannot synthesize it, so it can only be ingested pre-prepared with food). Lysine is mainly present in foods that provide animal proteins. It inhibits viruses growth, produces L-carnitine which improves tolerance to stress, fats' metabolism and has an anti-inflammatory effect, promotes bone growth by helping collagen formation, the fibrous protein that makes up bones, cartilage and other connective tissues, helps calcium absorption. The amino acid proline is the main constituent element of the stabilizer proteins of collagen and elastin. More than 10% of the elementary particles of collagen's molecules are composed of only proline. It is an important amino acid for the regeneration of skin and tendon structures. The amino acid **Proline** is a major component of the structural protein of the body, collagen and elastin. A quarter to a third of collagen reinforcement rods, for example, consist of proline. **Glycine** is a non-essential amino acid present in small quantities in the vast majority of proteins found in tendons and muscles; it constitutes about one third of the collagen structure. Glycine is required to build protein in the body and in the synthesis of nucleic acids, RNA construction, DNA, and other amino acids in the body. **Hydroxyproline** is a heterocyclic amino acid that constitutes, with the proline, the main component of collagen. It differs from the proline by the presence of a group of hydroxyl (OH) fixed to the atom of C (gamma). Hydroxyproline is an important component of collagen protein, together with proline play the key roles for the stability of collagen allowing marked fibre twist.



PEPTIDYAL | HX



Each pack contains two pre-filled syringes of 2.5 ml each

Composition: Sodium Hyaluronate 18 mg/ml, Hydroxyapatite CaHA 0.01%, Glycine and L-Proline

A NEW BIOSTIMULATION AND REVITALISATION CONCEPT

The ingredients that make up this innovative medical injectable device consists of a hydrogel transparent viscoelastic, form an innovative synergy ideal for face and body treatment.

Non-animal **Hyaluronic Acid** is obtained by an innovative production process in which an **extraordinarily unique purity** is ensured due to the **non-use of chemical solvents** normally used for the extraction of synthetic hyaluronic acid.

Peptidyal HX has **one of the highest concentrations of hyaluronic acid (18 mg/ml)** in combination with **amino acids**, among products of the same category present on the market.

The **Hyaluronic Acid** of **Peptidyal HX** has a specific average molecular weight obtained after the calculation of complex stoichiometric coefficients, which allows us to obtain:

- ✓ an **action on the surface**, ensuring exceptional hydration and filmogenic action binding to the stratum corneum with tensor and protective effect.
- ✓ a **deep action** stimulating the production of proteins in the deep layers for skin compactness and elasticity also reducing the depth of wrinkles and skin depressions.

The amino acids **proline** and **glycine** in association with hyaluronic acid are useful for the formation of **new collagen**, as the fibroblasts require, with advancing age, an increasing amount of amino acids.

Peptidyal HX also contains **0.01% of calcium hydroxyapatite**, the presence of this important and innovative ingredient for a biostimulant product, is justified by the fact that hydroxyapatite microspheres stimulate even more fibroblasts in the production of neocollagen and the degradation of the same Hyaluronic acid is much more gradual thanks to the inclusion in the composition of **CaHA**.

PEPTIDYAL | HX

THE HX'S ADDED VALUE

Cosmetic surgery is certainly the most immediate solution, but difficult to access due to the high execution costs and long recovery times after surgery.

In recent years, the cost-effective alternative, is injectable biomaterials, cross-linked and not, based on **hyaluronic acid** (safe and handy component) and **calcium hydroxyapatite** (preferred for density, white color and for "biological correction" induced by hydroxyapatite micro-particles).

Peptidyal HX is proposed as an ideal alternative solution for treating all types of wrinkles, skin laxity on face and body.

In its formulation it includes in fact all the positive aspects of hyaluronic acid and hydroxyapatite, avoiding the cross-linking of these ingredients that can sometimes "stimulate" unwanted reactions, despite having zero protein residues.

SUPERIOR PURITY OF RAW MATERIALS

The under-eyelid implant site, as known, is very sensitive; **Peptidyal hx**, used in very small quantities (always under 0.02 ml) with cannula placement, can be a valid solution for dark circles.

It is therefore important not to exceed the amount of product injected, in order to avoid the appearance of edema which, although they're reversible and certainly temporary, can persist for several days and therefore be very annoying for the patient.

Peptidyal hx has been designed with an extremely "nature" orientation using a particular hyaluronic acid obtained from a non-pathogenic bacterial strain, totally free of protein residues, which prevents the onset of that swelling. This results in a product whose safety is considered higher than normal.

Recommended treatments:

The peculiar formulation of **Peptidyal HX** allows, with a few treatment sessions, to have the firmness and tone of the skin, as well as promote hydration and skin re-sensitization of face and body. We recommend 3 sessions every two weeks to alternate depending on the situations with Peptidyal 2%.

Depending on the areas to be treated, mass infiltration or grid technique (multiple injections) are suggested in a horizontal and vertical direction so as to form a lattice in the treated area and especially in the periorbital area. It is advisable to use Peptidyal HX before and after laser treatments.

1
exceptionally pure
hyaluronic acid

2
very high
concentration
(18mg/ml) of
hyaluronic acid

3
**0,01% calcium
hydroxyapatite
(CaHa)
in microspheres**

4
**proline + glycine
+ hyaluronic acid
= new collagene**

PEPTIDYAL 2



*Each pack contains 2 pre-filled syringes of 2.5 ml each
Composition: sodium hyaluronate 20 mg/ml + amino acids*

AN EXCLUSIVE BIO-REGENERATING FORMULA

Peptidyal 2 is the result of an innovative scientific study aimed at the development of a Bio regenerating product able to actively support the physiological functional restoration of the skin, and in particular of the extra cellular matrix. **Peptidyal 2** is able to stimulate fibroblasts, thanks to the use of amino acids and precursors to produce collagen, elastin and hyaluronic acid and slow their catabolic metabolism with scavenger action on oxidative stress in particular on reactive Oxygen Species (ROS) and reactive Nitrogen Species (RNS). It also reactivates the biological processes repairing and regenerating tissue. Functional for the hydration and regeneration of skin dehydrated and damaged by aging and sunlight exposure, **Peptidyal 2** is indicated for skin rejuvenation, in the treatment of stretch marks and as an adjuvant of intradermal fillers.

It is inserted in the protocol of aesthetic repairing and regenerative medicine. Non-animal derivation Hyaluronic acid is obtained through an innovative production process in which is ensured an extraordinarily unique purity due to the non-use of chemical solvents normally used for the extraction of the hyaluronic acid of synthesis; Moreover Peptidyal 2 can boast among the highest concentrations of hyaluronic acid HA in the medical aesthetic panorama (**for each 2.5 ml syringe from 45 to 50 mg hyaluronic acid!**).

PEPTIDYAL 2

PROTOCOL OF USE

Peptidyal 2 due to its regenerative features is recommended as:

Post-laser treatment - Pre- and post-peel treatment - Compendium for filling with Dermal fillers

YOUNG SKINS:

For the 1st month we recommend 2 treatments every 15 days from each other.

For the 2nd and the 3rd month, 1 treatment per month.

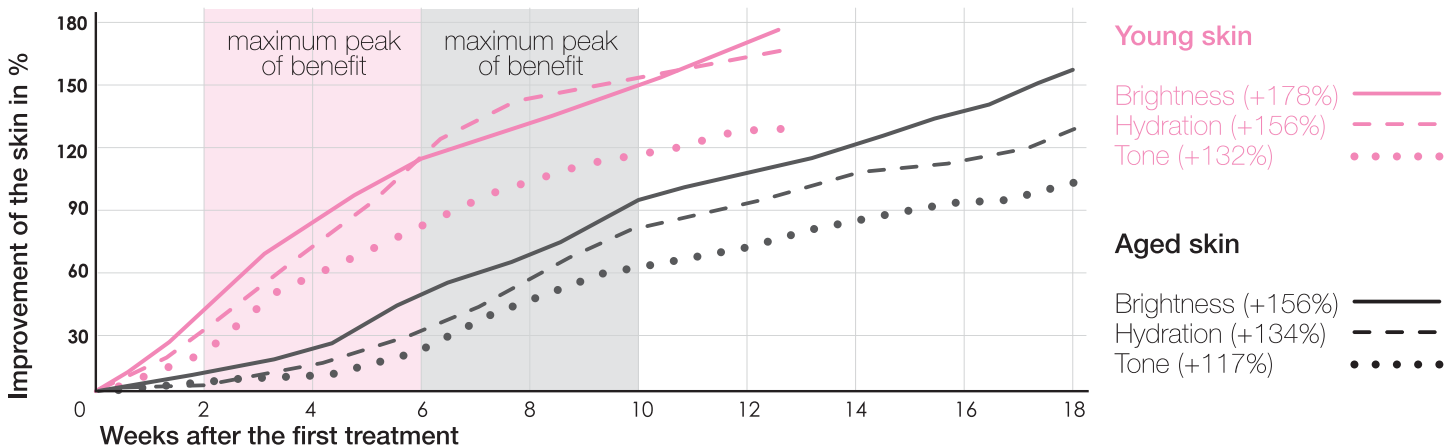
AGED SKINS:

For the 1st month there are recommended 3 treatments every 10 days from each other.

For the 2nd and the 3rd month, 2 treatments per month

For the 4th month, 1 application.

IMPROVEMENT OF THE SKIN: LIVE STUDY



The indications in the protocol refer to standard conditions. At the discretion of the doctor, depending on the skin type to be treated, the use of Peptidyal 2 or Peptidyal HX is optional. Data obtained from independent research centres in Italy and Switzerland on a sample of 98 individuals aged between 29 and 72.

EXCEPTIONAL RESULTS IN VITRO

Thanks above all to the action of amino acids and their precursors present in Peptidyal 2 (obtained in high quantities by an exclusive stabilization procedure) in addition to the already mentioned very high concentration of hyaluronic acid, according to the latest in vitro tests carried out by independent research centres, extraordinary average values have been recorded:

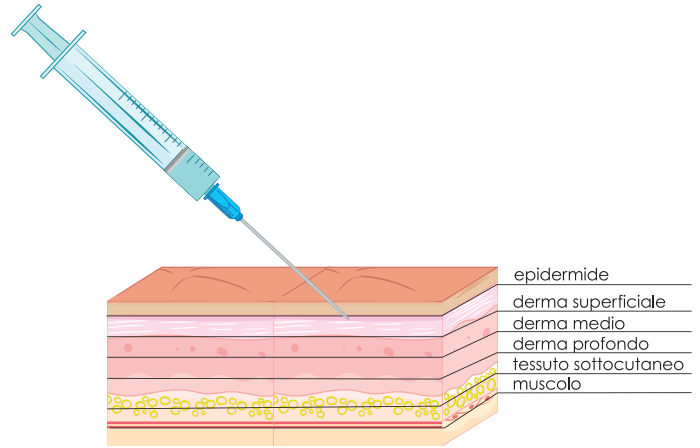
Proliferation of Fibroblasts + 185%
Synthesis of collagen +298%

MORE PERFORMED INJECTION TECHNIQUES AND PRODUCT POSITIONING

Point by Point

30G - 13mm needle

With linear technique, or with a point by point technique, a good correction of the imperfections can be obtained. To increase the revitalizing effect, it is possible to make further linear grafts, parallel to the previous ones, or scattered points. Often also in young subjects, it is possible that the lack of skin tone is translated, especially during the mimicry, in the ripple of the skin or in the appearance of fine wrinkles. Hyaluronic acid makes it possible to significantly improve a fabric that is not very elastic and fragile.

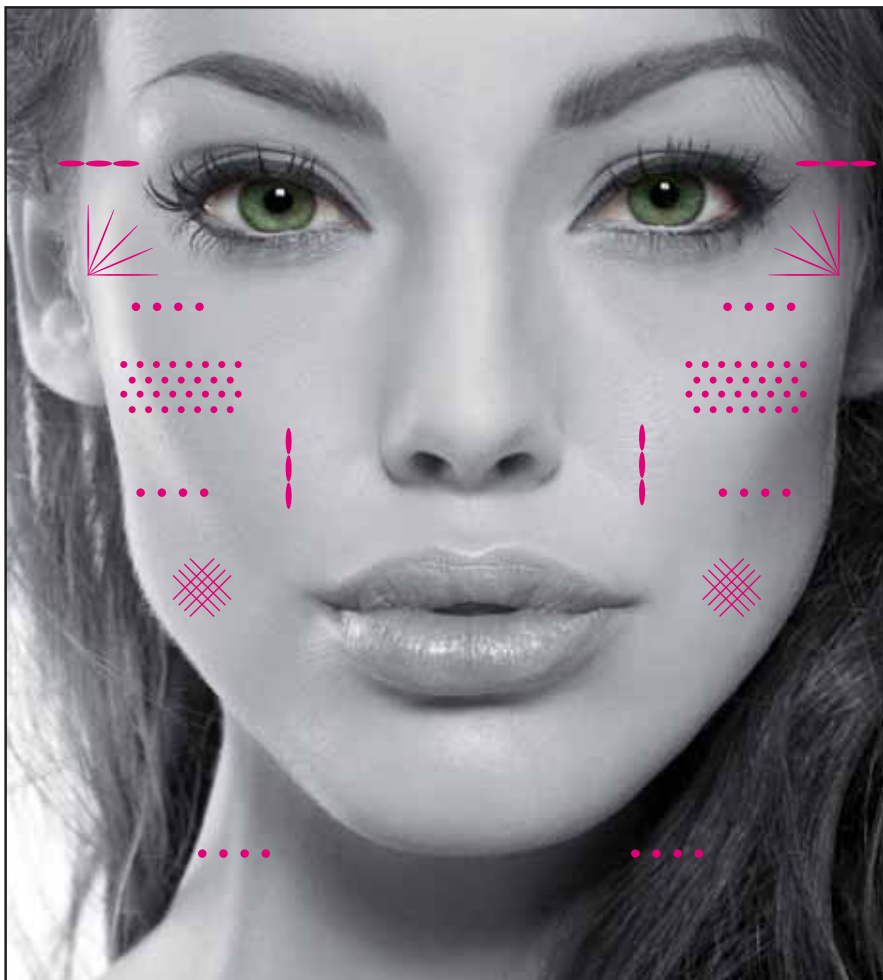
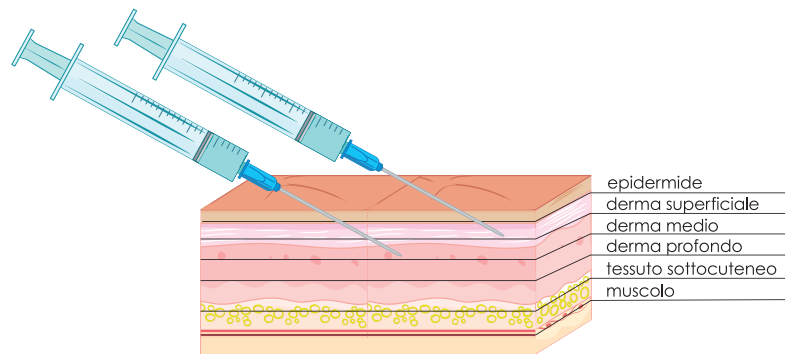


Nappage

30G - 13mm

or 32G/346 - 4mm needle

Perform numerous very superficial intracutaneous injections in the area to be treated spaced of 2-3 mm, with angle of incidence to the skin surface of 30-60 degrees, by inserting the needle 2-3 millimetres.



TECHNIQUES



Fan technique



Cross-hatching technique



Retrotracing



Nappage



Point by point

CLEAR AND VISIBLE **ANTI AGING** RESULTS SINCE THE FIRST TREATMENTS

Gender: female

Age: 38 years

Affected area: cheeks

Protocol: 3 on a bi-weekly basis

Product/(S): Peptidyal HX + Peptidyal 2

Infiltrations: point by point



before

after

Gender: female

Age: 63 years

Affected area: scars

Protocol: 2 every 3 weekly

Product/(S): Peptidyal HX + Peptidyal 2

Infiltrations: point by point



before

after

Gender: female

Age: 50 years

Affected area: eye bags

Protocol: 3 on a bi-weekly basis

Product/(S): Peptidyal HX

Infiltrations: point by point



before



after

CLEAR AND VISIBLE **ANTI AGING** RESULTS
SINCE THE FIRST TREATMENTS

Gender: female

Age: 47 years

Affected area: cheeks

Protocol: 3 on a bi-weekly basis

Product/(S): Peptidyal HX + Peptidyal 2

Infiltrations: point by point



before

after

Gender: female

Age: 36 years

Affected area: lip contour

Protocol: 2 every 3 weeks

Product/(S): Peptidyal HX + Peptidyal 2

Infiltrations: point by point



before

after

Gender: female

Age: 67 years

Affected area: wrinkled eyes + cheeks

Protocol: 3 on a bi-weekly basis

Product/(S): Peptidyal HX

Infiltrations: point by point



before

after