

body language

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Comparing the spec of Hyaluronic Acids

which causes gaps, and you then have to massage.

Most contemporary HA-based fillers are derived from molecularly dispersed soluble monomers, multifunctional cross-linkers and macromers. Traditional fillers are randomly interconnected, lack structural complexity, mechanical integrity, functional diversity, which you see in the extracellular matrix (ECM). The ideal goal should be to mimic the ECM.

Uma Jeunesse is based on a new technology of micro into sub-micro dimensions and synthesising the HA-based doubly cross-linked networks, the viscous elasticity, the particle size, surface functional group and intra-particle cross linking.

The end result is a significant reduction of cross-linking agent. The molecule is designed to replicate the enzymatic molecular mechanism of HA degradation and viscosity—a process where the molecule is imparted, a 3D spring-like property to the homogenous molecule. There is also a significant reduction of the endotoxin levels.

The closer the gel hardness is to ECM, the more biocompatible the filler will be. The gel hardness of ECM is difficult to measure but it's around 160 particles. The gel hardness of Uma Jeunesse is about 150–170 particles, compared with 200–600 particles for most fillers.

Viscosity of a product is determined by its composition and degree of cross-linking. The viscosity of Uma Jeunesse is about 30,000 milli-particles, which is very close to the ECM. Other fillers vary between 50,000–55,000.

Most modern dermal fillers are based on HA of synthetic origin. The endotoxin level in most fillers documented in the literature is about 0.5EU/ml. Uma Jeunesse is less than 0.1EU/ml. Over the past year, there have been no adverse events reported in the UK.

The choice of the cross-linking agent is important because most cross-linking agents are toxic. While BDDE is slightly less toxic, if there are large residual quantities of it in the product, injection site reactions will be seen.

Uma Jeunesse uses BDDE, but virtually all of the cross-linking agent has been removed. The residual BDDE in Uma Jeunesse is less than 1PPM. Most products contain 5PPM.

Molecular weight of synthetic HA varies between 2–2.5 million daltons and the synthetic high-molecular weight is used in Uma Jeunesse.

The concentration of HA is 24mg/ml. Most products have 70–80% cross-linked HA. Uma Jeunesse has more than 96% cross-linked HA.

Cross-linked HA will shrink and you will see a loss of aesthetic effect. If 96% is available for correction of the wrinkle, the aesthetic effect will not be lost.

Shelf life of Uma Jeunesse is three years; other fillers have two years. Injection site reactions, such as itching, bruising

and discolouration, are virtually unknown. Pain is less than 18%, while other fillers see 60–90% pain reactions.

Uma Jeunesse has less than 16% lumpiness, while other fillers have around 80% incidence.



STYLAGE

(IPN)-LIKE TECHNOLOGY

Dr Alain Lajeunie is a mesotherapist and aesthetic practitioner, and has provided training in both since 1999

The Stylage range comes from Vivacy, a French manufacturer which specialises in design manufacturing and distribution of HA. The first innovation involved Restylane's non-animal stabilised HA. The second generation had monophasic gel with Juvéderm, Teosyal and Esthelis. The third generation is now with Stylage—a non-animal HA with monophasic gel, multi cross-linked with an antioxidant.

Stylage uses interpenetrated cross-linked network (IPN-like) technology, which requires less BDDE. This results in a safe, long-lasting product for all skin types. It contains mannitol, a natural antioxidant that acts against free radicals. It has optimised elasticity for easy modelling and reshaping, even for delicate areas like the nose, temples and hands. It has a high viscoelasticity for good filling capacity and natural aesthetic results thanks to its smoothing effect.

With IPN-like technology, you have two structures—the monophasic A and B structure, and the IPN-like structure. The two are mechanically independent, so Stylage is easy to inject and the increased density of its cross-linking nodes make it long-lasting. Products in the range include Stylage HydroMAX for mesotherapy, Stylage S for fine lines, Stylage M for medium wrinkles, Stylage L for deep wrinkles, Stylage XL for depressions and Stylage Lips.

You can combine products for targeted treatment, such as injecting classic products deep into the skin and the mesotherapy gel superficially in a single procedure.

Stylage Lips and Stylage M are also available with Lidocaine to reduce pain for the patient. The filler concentrations are: S, 16mg; M, 20mg; L, 24mg; and XL, 26mg. Stylage Lips is between S and M with 18.5mg concentration.

Free radicals are one of the major causes of cell destruction and damage to elastin and collagen fibres, micro-polysaccharides and the lip membrane. Skin becomes thinner, atrophic, ruptured and wrinkles appear. During the injection you also have an inflammatory reaction with the production of superoxide radical and hydroxyl radical, which attack the HA and adjacent cells.

The antioxidant mannitol is naturally present in nature in celery, olives and raspberries, and is well tolerated in the skin. Mannitol scavenges free radicals and provides optimal resistance to degradation. The average satisfaction index showed a clinical evaluation of 96%, followed by eight investigators during one year. The products have good durability and tolerance and are used in more than 20 countries.

Stylage HydroMAX is a mesotherapy product, so treats the signs of ageing, not wrinkles. It complements the effects of Stylage. There are two injection techniques, superficial micro injections and the PPP technique, for restructuring the tissue and smoothing the wrinkles.



Training sessions are supplied by the manufacturers and distributors of fillers. Independent companies offer their own tuition, too