



*Essederm*<sup>®</sup>

## What is hyaluronic acid and *Essederm* ?

Hyaluronic acid is a complex sugar of glucuronic acid & N acetyl glucosamine found in the human body cell. The concentration of hyaluronic acid in human body is about 50%.

### The function of hyaluronic acid is as follow:

- Moisture regulation
- Fibroblast activity increase
- Collagen synthesis stimulation
- Binding free radical
- Serves as diffusion medium for degradation products and nutrients

Young skin look fresh, firm and smooth due to high concentration of natural hyaluronic acid. By aging the presence of hyaluronic acid declines and body loses its elasticity, firmness, moisture and volume. Skin aging signs are wrinkles, folds, loss of volume around the face. Cross linked products are made from natural and non-genetically modified bacterial stem which is high in molecular weight. It is proven use of *Essederm* is highly effective and well-tolerated. The technology used to produce *Essederm* is the latest and it is a breakthrough in dermal fillers. It is a monophasic with CVH (Constant Visco-elastic Hyaluronic acid) technology, which make the injection much easier. *Essederm* has the highest concentration of cross link compare to other cross linked products. Cross linking with Divinylnsulfon-DVS which makes the volume of cross linked concentration between 70 to 90% compare to 1 to 20% of other cross linked dermal fillers.

The highly concentrated and cross-linked hyaluronic acid, which has a significantly higher viscosity compared to the initial mixture, is subsequently made into particles and stabilized, to facilitate the filling of the syringes without the need for any dilution.

Particularisation of the strong cross linked HA-gel mass and homogenisation without dilution in order to get a high visco-elastic and easy injectable final product.

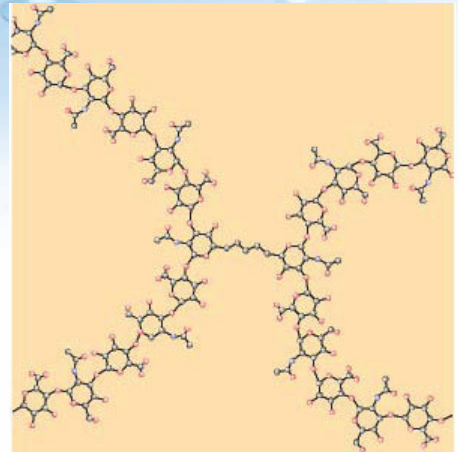
In the cross-linked sodium hyaluronate, the hydroxyl groups of the disaccharide from D-glucuronic acid and N-acetyl-D-glucosamine are cross-linked to each other by sulfonyl - to ethyl bridges. Sodium hyaluronate and divinyl sulfone form a continuous network and an aqueous gel during the reaction.

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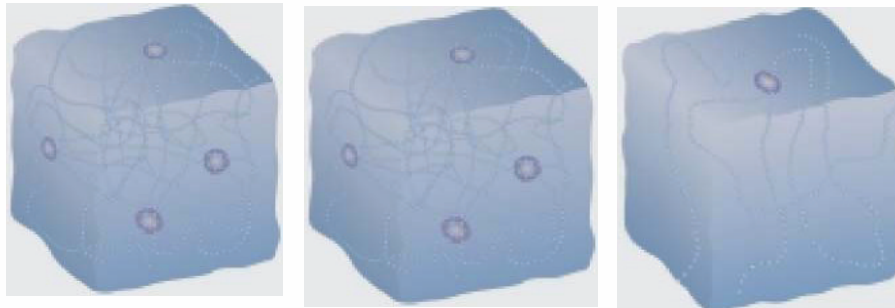
Rev. 01

## Biodegradable, Natural & Safe:

All our Esthetics products are biodegradable. However our extremely effective stabilization method makes it possible to maintain more volume with less material over a longer period of time. As *Essederm* gel is degraded, each molecule progressively binds more water (more free water-binding sites per molecule). This is known as isovolemic degradation. In practical terms it means that the implant volume is maintained until the hyaluronic acid is almost fully degraded. Since the body has its own system for absorbing hyaluronic acid, it disappears over time without trace.



The stabilized material is a continuous 3-dimensional molecular network i.e. a true gel in any shape and form.



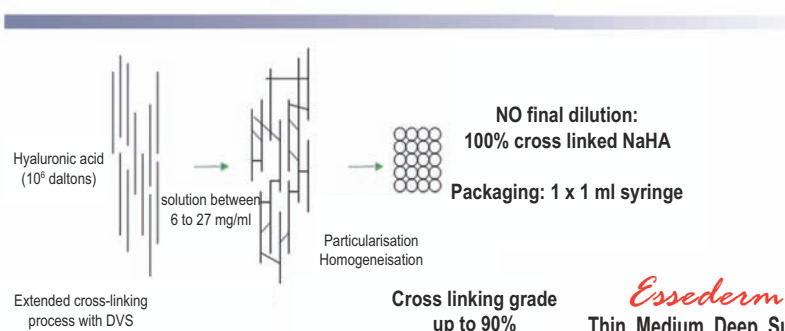
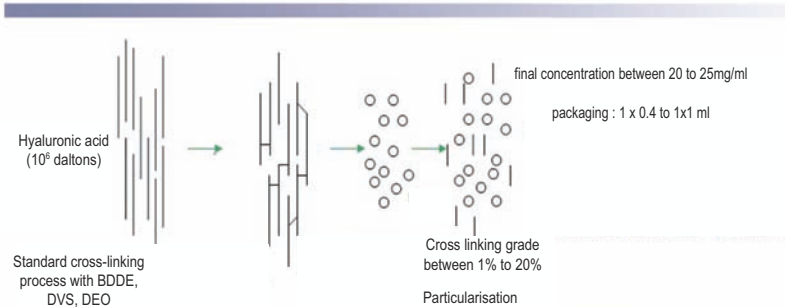
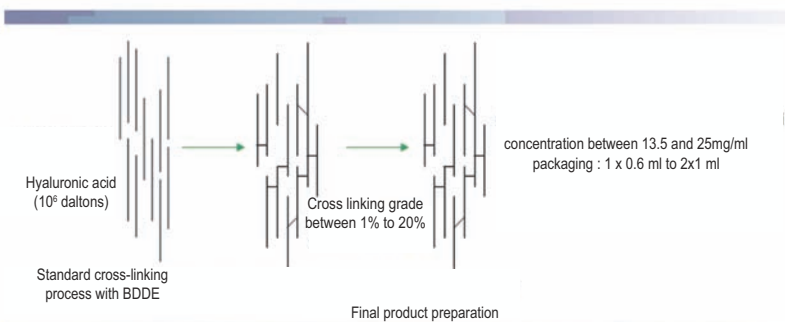
Initial

at 6 months

at 12 months

The products are isovolemicly degraded because they can hold more water the less concentrated they are.

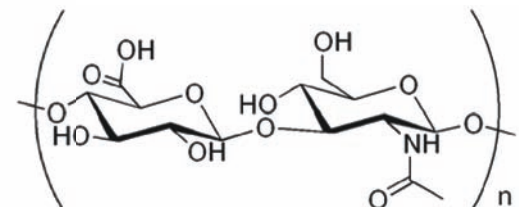
## Comparison Chart:



*Essederm*  
Thin, Medium, Deep, Subline

## Why *Essederm* is so different and better?

- 4 times more cross linked as other fillers
- Essederm* is 100% cross-linked hyaluronic acid is the first and only soft-tissue filler with this characteristic
- From 6 mg/ml to 27 mg/ml cross linking is the specification of the "density" of the final cross-linked hyaluronic acid
- No solvent, no anesthetics nor preservatives added
- Excellent volume effect without overcorrection
- Natural aesthetic results
- Easy to inject without pre-testing with 26/27/29/30G needles
- Less re-injections needed to continue the clinical results
- Storable at room temperature



### **Essederm performance:**

The *Essederm* products are easy to apply, accompanied by very mild pain, very safe and effective means to provide the skin with volume and improve contour irregularities associated with age. The follow-up after 6-12 months shows the long durability of the *Essederm* products.

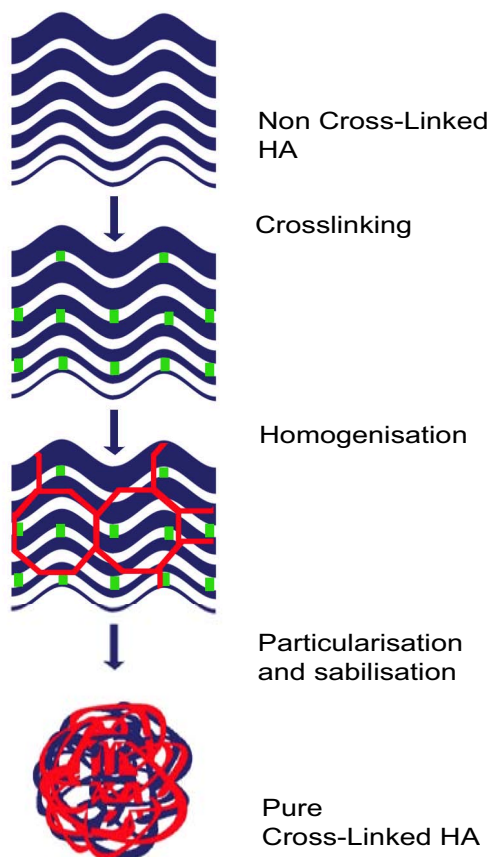
*Essederm* filler must be used for skin, according to the level of injection and the quantity is used.

The application is easy to perform & it is pleasant to the patient. Small number of patient have reported immediate reaction and medium term side effect as redness, swelling and hardening which faded away within about 1-3 days. Swelling which was resolved within 8 to 14 days.

### **New generation of cross link hyaluronic acid filler:**

*Essederm* family of products is the newest dermal filler which is the first and only soft-tissue filler made of highly cross-linked and pure hyaluronic acid. With this excellent innovation in the manufacturing stage, *Essederm* product line combines excellent viscoelastic properties which made it possible for easy injection and allows an exceptional long duration in the skin.

### **Essederm product line manufacturing process:**



*Essederm* contains Hyaluronic acid products which are obtained by biofermentation. There is no need for preliminary cutaneous test because it is non-animal origin. It is important to note that *Essederm* family of products contains neither anesthetics nor preservatives. The optimal concentration and overall high degree of cross linking is unique characteristics of *Essederm*.

### **Essederm product line with long lasting results:**

Due to a new manufacturing method resulting in highly cross-linked /highly concentrated hyaluronic acid with a high molecular weight that can resist degradation better with time. This characteristic allows not only to obtain optimal volume effect with less quantity but also slows down the degradation process. This unique characteristic, results in avoiding repeated and short time injections (which could be possible risks of complications) are no longer necessary.

### **Safe and effective:**

*Essederm* is a new generation of dermal filler, which sets higher standard in the market of cross link hyaluronic acid.

ReCosmo Inc, with the technology used to manufacture *Essederm* family of products based on research and development of the product is enjoying a great success. The *Essederm* family of products manufactures under strict quality controls to meet and surpass international standards.

### **Essederm with its unique long lasting characteristics:**

Hyaluronic acid (glycosaminoglycane) has the characteristic to adopt much stretched conformations, which can create volume much greater than its mass. With Its strong density of negative charges attracts a cloud of cations, like Na<sup>+</sup> causing the absorption of great quantities of water molecules in the matrix, which creates an osmotic pressure, or turgescence, which makes it possible for the matrix to resist compressive forces. *Essederm* is a nanotechnology that allows higher encapsulation of the active ingredients in a smaller molecule; this allows deeper penetration in the skin and more effective results.

As a result the degradation process is slowed considerably because *Essederm* has a high molecular weight and highly cross-linked. With its precisely adjusted concentration repeated and short time injections (which could be possible risks of complications) are no longer necessary.

*Essederm*®

# FAQ

## How long the treatment last?

The high degree of cross-linking supports a slower degradation of *Essederm* products in the tissue therefore *Essederm* products persist at least 6 to 12 months. The durability in the skin varies according to skin type, age and the way of life of the patient as well as treated area and injection technique. It can be necessary to renew the treatment partially in order to optimize the results and durability of the correction.

## Who should not use Essederm?

*Essederm* products should not be used on pregnant woman or breast feeding, patients presenting an auto-immune disease, antecedents of allergy or over-sensitiveness to the hyaluronic acid, or an immune-therapeutic treatment also *Essederm* products should not be injected into inflammatory and/or infectious skin (acne, herpes, impetigo...), a tendency to develop hypertrophic scars.

It should not be used in conjunction with any laser treatment, chemical peeling or dermabrasion.

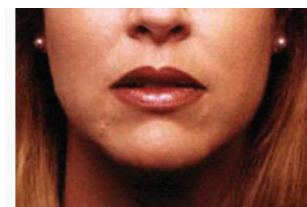
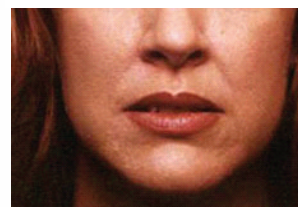
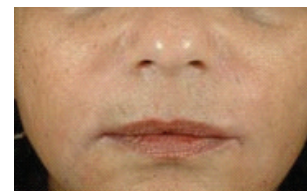
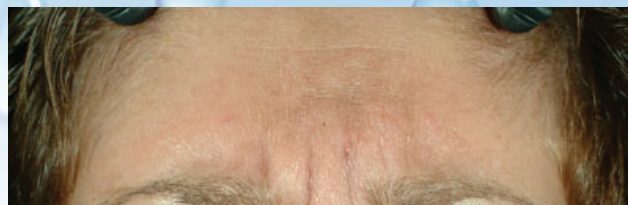
A prior consultation of the patient is necessary to know the medical history, especially aesthetic treatments (like prior injections) and to determine if *Essederm* products are suitable. For more information please refer to the packaging insert of *Essederm* products.

## Are there any adverse effects?

As with all skin fillers swelling and/or redness, with or without associated pain, may occur after the injection. These generally disappear within a few hours, days or in some cases within a week. Some rare cases of necrosis, abscess, granuloma or of over-sensitivity were described in the scientific literature after injections of hyaluronic acid.

Continuation of these reactions or appearance of any other side effects must be reported to the practitioner as soon as possible in order to resolve it by appropriate treatment. The distributor should also be informed about this incident. Before treatment, please inform your patient about the potential side effects related to this injectable implant.

## Before & After



**Essederm**<sup>®</sup>  
Cross linked Hyaluronic Acid