



Collagène Originel

Biologique Recherche Introduces the First Formulation Made with Our Patented Type 0 Collagen

Collagen is a member of a family of structural proteins whose main function is to provide mechanical resistance to stretching, while keeping skin supple and firm. Intrinsic aging is one of the factors that most alters this structure by directly attacking the network of collagen fibers that compose it. While collagen increases and continues to accumulate until about age 25 when the skin reaches the peak of its mechanical resistance, it subsequently begins to naturally decrease by about 1% each year. This causes skin to flatten and then sag. Skin is more fragile and becomes thinner and more wrinkled.

Biologique Recherche has focused on two strategic research areas to promote skin restructuring:

- the junction between the dermis and epidermis: this area's resistance depends on collagen types IV and VII
- the skin mattress: this is the skin's dense elastic fiber support tissue whose density is based on the synthesis of type I and III collagen fibers

We developed **Collagène Originel** to specifically target the four main types of collagen using Type 0 Collagen, Silene extract green microalgae and soy glycopeptides. Each of these four active ingredients takes a specific action on each targeted collagen, enabling the **Collagène Originel** quintessential serum to **redensify skin in three dimensions**.

This regenerates skin, making it tighter, smoother and plumper. **The length of established wrinkles is significantly reduced.** Recommended for Skin Instants® with established wrinkles.



THE DIFFERENT TYPES OF COLLAGEN

The composition and structure of the extracellular matrix define the skin's mechanical properties. Collagen is one of the most abundant proteins in the animal kingdom: it alone represents 90% of the macromolecules making up the extracellular matrix.

Collagens are a category of fibrous proteins with a high molecular weight (about 300 kDa) that support the structural integrity of all connective tissues such as skin, bones, cartilage and tendons. They represent about 30% of the total protein mass of the human body, including more than 70% of the dry weight of the dermis.

In humans, there are 28 types of collagen with structures, molecular organizations and biological functions that can be very diverse. Skin mainly contains collagen types I and III (about 90%). Along with type V collagen, these fibrillar collagens form inextensible fibers that provide strength and rigidity to tissue.

Although their total content is low, other collagens have multiple properties depending on their type:

- Basement membrane formation and adhesion
- Fibrillar collagen assembly regulation
- Cell signaling and more

Collagens also play various essential roles in cell communication.

A COMPLEX STRUCTURE WHERE EACH TYPE OF COLLAGEN HAS A KEY ROLE

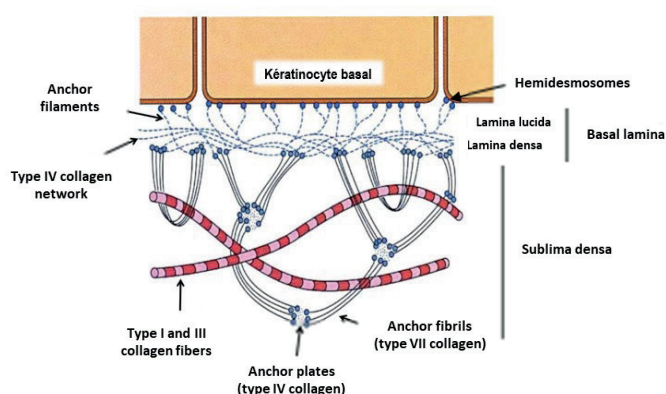
The epidermis is strongly anchored to the dermis thanks to a unique and complex structure, the dermal-epidermal junction. This is the interface between the dermis and the epidermis, which allows it to perform a set of fundamental biological functions such as:

- Ensuring good cohesion between the epidermis and the dermis to give the skin good mechanical strength
- Controlling communication between cells in the two skin layers
- Providing support for keratinocyte migration during inflammatory processes or during re-epithelialization as wounds heal
- Orienting keratinocytes for differentiation and proliferation

As shown in the diagram at right, it is composed of three overlapping areas:

- The hemidesmosomes that anchor the epidermis
- The basal lamina composed of the lamina lucida and the lamina densa (mainly composed of a network of type IV collagen)
- The dense sub-basal zone, called the sublima densa, which is mainly composed of anchoring fibrils (mainly composed of type VII collagen). These anchoring fibrils project from the lamina densa into the upper regions of the superficial dermis where they form semicircular loops around type I and III collagen fibers.

The complex organization of these protein structures strengthens basal lamina anchoring to the underlying dermis, improving communication between the cells of the dermis and the epidermis.



SKIN DAMAGE CAUSED BY AGING

IN THE DERMAL-EPIDERMAL JUNCTION

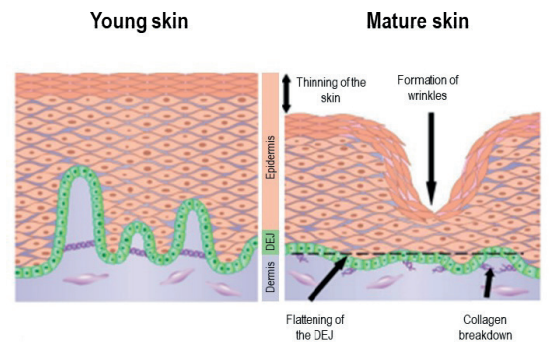
During skin aging, the dermal-epidermal junction's initial wavelike surface tends to flatten. This leads to a decrease in the surface area of the epidermis anchored to the dermis, which manifests as a loss of firmness, a slackening of the facial contours and the appearance of wrinkles.

This flattening of the dermal-epidermal junction is caused by degradation of type IV and VII collagens. The loss of collagen IV leads to thinning of the lamina densa as well as alterations in the anchoring fibrils. The loss of collagen VII leads to a decrease in anchoring fibrils and therefore a loss of epidermis/dermis connection, thus explaining the appearance of wrinkles. Levels of type IV and VII collagens that decrease with age must be restored to keep the dermal-epidermal junction in an optimal physiological state.

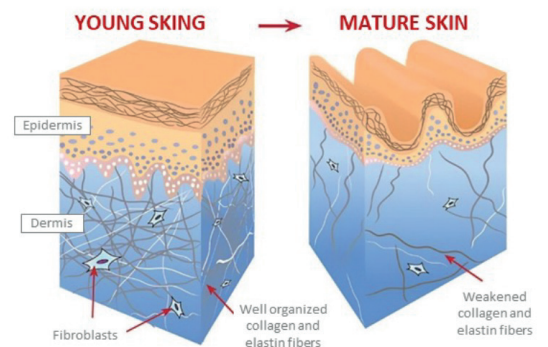
IN THE DERMIS

With age, profound disorganization progressively occurs in the dermis. Alterations in collagen fibers and elastic material, as well as changes in proteoglycan content, are the main characteristics of dermal aging.

Aging specifically affects the synthesis of type I and III collagen, as well as their proportion. The total collagen content decreases with age, especially type III collagen. This results in an increase in the type I/III ratio, which negatively impacts skin elasticity and healing.



Effect of aging on the skin



Impact of declining collagen and elastin fiber synthesis

REORGANIZE, RESTRUCTURE AND REDENSIFY THE COLLAGEN NETWORK WITH COLLAGEN TYPE-0

Type 0 Collagen is a pure innovation derived from marine biotechnology that stimulates collagen production at the gene and protein levels. It mainly targets type VII collagen, reinforcing the anchoring of cells to the basal lamina and thus restarting the dermis/epidermis interactions that decrease with age.

COLLAGEN TYPE-0: Patented Biologique Recherche Active Ingredient

Biologique Recherche's Research & Development department has found the purest collagen in a primitive planktonic organism that hasn't evolved in more than 600 million years. It is so ancient that it is the historical strain of all collagen types, the original base in its raw state, the mother of all collagen.

With an exclusive partner specialized in marine biotechnology for the medical sector, Biologique Recherche has developed a unique patented active ingredient called Type 0 Collagen.



TWO ACTION PLATFORMS

Dermal-epidermal cohesion platform

TARGETS TYPE VII COLLAGEN

Type 0 Collagen is derived from marine biotechnology. It stimulates collagen production at the gene and protein levels. It mainly targets type VII collagen, reinforcing the anchoring of cells to the basal lamina and restarting the dermis/epidermis interactions that decrease with age. It helps regenerate the epidermis.
> **Skin is restructured and regains firmness. The appearance of wrinkles is reduced.**

TARGETS TYPE IV COLLAGEN

Silene Extract counteracts the effects of chronological and biological aging by helping skin regain the biomechanical properties of younger skin. It promotes the expression of proteins that make up the dermal-epidermal junction (DEJ): collagen IV, laminin 5 and tenascin 4. These collagens increase the length of the DEJ and restore its wavelike structure, which is characteristic of young skin.
> **It makes skin firmer. The skin is tighter and wrinkles (nasolabial folds) are reduced.**

Redensifying Platform

TARGETS TYPE III COLLAGEN

Green Microalgae Extract is rich in proteins and essential nutrients.
> **It will stimulate the production of collagen I, collagen III and elastin to restore skin tone, firmness and density. It promotes the expression of dermal-epidermal junction components (collagen IV & VII, laminins 4 & 5) to ensure good cohesion between the epidermis and the dermis.**

TARGETS TYPE I COLLAGEN

Soybean Glycopeptides boost the synthesis of collagen I to consolidate the skin mattress.
> **It strengthens the skin's structure and density. The skin's microrelief is smoothed and wrinkles are reduced.**

PRODUCT BENEFITS

Collagène Originel has multiple benefits:

- Stimulates naturally occurring type I, III, IV and VII collagens
- Redensifies the skin in three dimensions
- Revitalizes and restores the wavelike structure of the dermal-epidermal junction
- Reduces wrinkle length

RECOMMENDATIONS FOR USE

Apply a few drops morning and/or evening onto the entire face, neck and décolleté in gentle ascending movements until completely absorbed.

Retail format: 8 ml–30 ml bottles

Professional format: 125 ml bottle

ABOUT BIOLOGIQUE RECHERCHE

For over 40 years Biologique Recherche's unique methodology has built a strong reputation for astounding effectiveness based on a clinical approach to skincare, delivering immediate and long-lasting results.

Combined with highly customized protocols and meticulous procedures which recondition the epidermis, Biologique Recherche's extensive range of skincare products are highly concentrated in botanical, marine and biological active ingredients that are formulated with no artificial fragrance in its own laboratory in France.

Biologique Recherche is the partner of choice in over 85 countries for exclusive medical spas and day spas in addition to the world's premier luxury hotel spas. Its flagship, the Ambassade, is located at 32 avenue des Champs Elysées in Paris.

Press contact: adeline.pastor@biologique-recherche.com – Tel.: +33 (0)6 17 51 73 06

BIOLOGIQUE RECHERCHE AMBASSADE
32, avenue des Champs-Elysées - 75008 Paris
www.biologique-recherche.com