



ElastiNew®

ElastiNew® has been developed specifically to preserve the elastic capital of the skin, and thus prevent skin's slackening, as well as the appearance of striae (stretch marks), scars, and wrinkles.

ElastiNew® is an identified protein fraction from Cucurbita Pepo, and combats striae, expression lines, and the appearance of scarring:

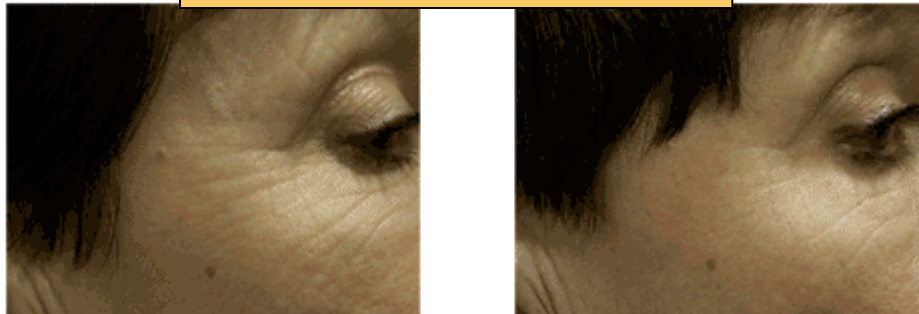
By limiting the enzymatic degradation of skin fibers.

- ElastiNew® inhibits the expression of MMP-1 and MMP-2, proteases involved in the degradation of elastic and collagen tissues of the skin.
- ElastiNew® thus limits the irreversible degradation of elastic tissue by reducing the synthesis of an enzyme with high elastolytic activity: cathepsin L.

By favoring the reorganization of the fibril network.

- ElastiNew® improves the architectural arrangement of the network of elastic and collagen fibers by boosting synthesis of Callgen I, the major component of the dermis, between which elastic fibers are interwoven.
- ElastiNew® stimulates the synthesis of fibrillin, a molecule involved in the formation of elastic tissue.

Anti-Wrinkle Effect of ElastiNew®
(Before) (After)



**Anti-Wrinkle effect of ElastiNew® (4%) after 56 days treatment:
Total wrinkled surface: -39% (Significant result.)**

ElastiNew[®] Technical Data

General Information...

INCI Name: Cucurbita Pepo Extract
Latin Name: Cucurbita Pepo

Appearance...

Form: Aqueous Solution
Aspect: Limpid
Odor: Characteristic
Color: Amber

Usage...

Rate: 2-4%
Solubility: Water. Fully soluble in aqueous medium. Soluble up to 40/60 ethanol/water.
Processing: Can withstand temperatures of up to 80C (176F) for at least two hours.
Stability: Stable between pH 2 and 10.

Storage...

Recommended: Store preferably at 20C (Refrigerate) and in a dark place.

Safety...

- Non-irritating, as evidenced by evaluation of skin safety on human volunteers.
- No mutagenicity according to the Ames test.
- No phototoxicity.
- No cytotoxicity.
- Non-allergenic in search for contact eczema.

Analytical Features...

Dry Matter: 50-70 g/l
Proteins: 38-50 g/l
pH: 6.5-7.5
Preservatives: Phenoxyethanol (0.36%)

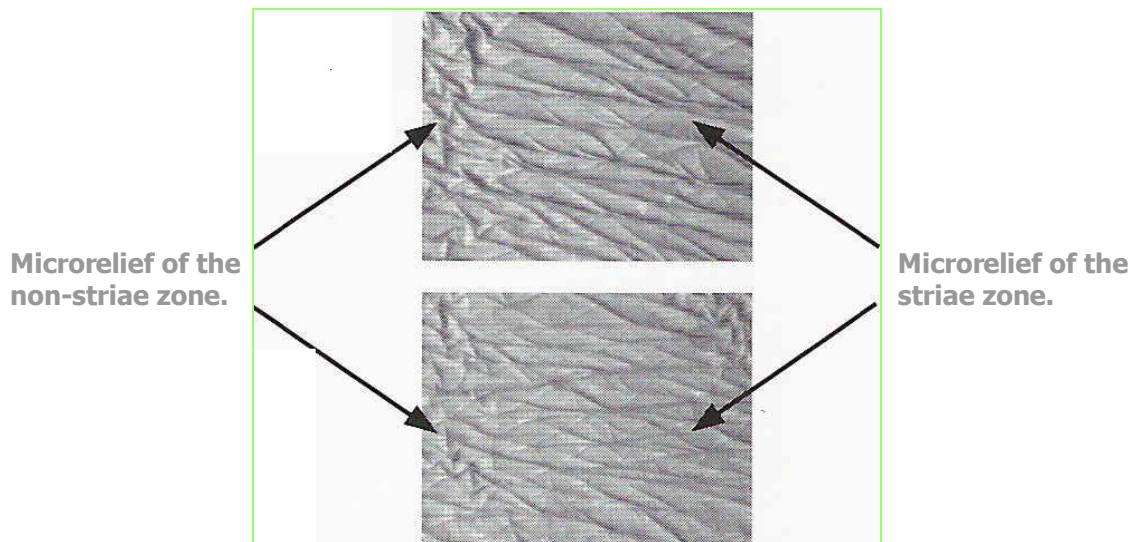
ElastiNew® IN-VIVO Studies

Studies on skin with striae and acne scarring were performed on 33 female volunteers, mean age 37 +2 years, for 42 days and 22 of the volunteers for 84 days.

Smoothing Microrelief...

Observation by profilometry and image analysis:

ElastiNew® reduces the differences in microrelief between striae and non-striae zones. After 84 days of twice daily application and in comparison to placebo, ElastiNew® significantly reduced the variation of mean roughness between striae and non-striae zones (14%, $P=0.016$). The distribution of the results showed that 76% of the volunteers presented this decrease.



After 84 days treatment with ElastiNew® in a striae zone.

Biomechanical Properties...

Cutometer measurements:

ElastiNew® restores elasticity, tone, biological deformation and the capacity of skin with striae to return to its initial state. ElastiNew® significantly reduces the variations of biomechanical parameters observed after 84 days of twice daily treatment between striae and non-striae zones treated with ElastiNew® compared to striae and non-striae zones treated with placebo.

Elasticity	Tone	Biological Deformation	Return to Initial State
+11%	+26%	-15%	+30%

ElastiNew® IN-VITRO Studies

Studies conducted on normal human fibroblasts and human fibroblasts from striae.

Protection of the fibril network of the ECM...

The following studies have determined the capacity of ElastiNew® at 2% to limit the activity of enzymes involved in the degradation of elastin and collagen fibers: cathepsin L, MMP-1 and MMP-2 by **up to 99%**.

Protection of elastin fibers...

Effect of the synthesis of cathepsin L- Western blot method.

Tested at 2%, ElastiNew® reduces the synthesis of cathepsin L in fibroblasts from striae and returns its level to that comparable to normal human fibroblasts significantly.

- **ElastiNew® reduced the synthesis of cathepsin L by 86% in Fibroblasts with striae treated with 2% ElastiNew® as compared to those untreated.**

Protection of collagen fibers...

Effect on the synthesis of MMP-1 – Western blot method.

Tested at 2% on fibroblasts from striae, ElastiNew® returns its level to that comparable to normal human fibroblasts significantly.

- **ElastiNew® reduced the synthesis of MMP-1 by 99% in Fibroblasts with striae treated with 2% ElastiNew® as compared to those untreated.**

Protection of collagen and elastin from final degradation...

Effect on the activity of MMP-2 – Zymography/Electrophoretic Protein Banding.

A study involving zymography, or electrophoretic protein banding was performed to determine the efficacy of ElastiNew® in limiting the activity of MMP-2, an enzyme participating on the final degradation of collagen fibers and in the hydrolysis of elastin.

- **The study showed that ElastiNew® at 2% results in a 69% reduction in the activity of MMP-2.**

ElastiNew® IN-VITRO Studies (continued)

Restoration of the network of collagen and elastin fibers...

The following studies have allowed us to determine the ElastiNew® effect on the synthesis of molecules involved in the organization of the fibril network, i.e. Collagen I and Fibrillin.

Synthesis of Fibrillin – Western blot method

The addition of ElastiNew® at 2% to the culture medium of fibroblasts from striae restores the fibrillin level to a value comparable to that of normal fibroblasts.

- **Fibrillin level in normal fibroblasts = 100**
- **Fibrillin level in fibroblasts from striae = 75**
- **Fibrillin level in normal fibroblasts + 2% ElastiNew® = 115**
- **Fibrillin level in fibroblasts from striae + 2% ElastiNew® = 99**

Synthesis of Collagen I – ELISA method

- **ElastiNew® at 2% led to a significant (62%) increase in the synthesis of Collagen I by fibroblasts from striae.**

ElastiNew® Summary & Uses

ElastiNew® is an ANTI-STRIAE, ANTI-WRINKLE, AND ANTI-SCARRING active ingredient that preserves the leastic capital of the skin.

We all know how unsightly striae, or stretch marks, as well as scarring such as that seen in acne can be. These issues result from a rupture of skin tissue due to the degradation of the network of collagen and elastin fibers. As the metabolic activity of these fibroblasts is altered, the fibril network is no longer renewed.

In order to improve skin resistance to and limit the appearance of these ruptures, and to reduce the appearance of wrinkles, we propose **ElastiNew®** an active ingredient that protects and repairs elastic and collagen tissue.

The defined protein of Cucurbita Pepo enables **ElastiNew®** to re-establish fibroblast homeostasis.

PROTECTION:

- Reduces synthesis of Cathepsin L by 86%.
- Reduces synthesis of MMP-1 by 99%.
- Reduces synthesis of MMP-2 by 69%.

RESTORATION:

- Increases Collagen I synthesis by 62%.
- Restores synthesis of Fibrillin to normal levels.

RESULTS:

- Improves elasticity by 11%.
- Improves tone by 26%.
- Reduces biological deformation by 15%.
- Produces an overall return to intial state +30%.
- Reduces the total wrinkled surface of skin by 39%.

For all it's excellent activities, ElastiNew® is recommended for inclusion in all the following...

- Anti-Aging products.
- Anti-Wrinkle formulae.
- Body care formulated for the prevention or attenuation of striae (stretch marks).
- Products formulated for the prevention or attenuation of acne scarring.

Ingredients
TO DIE FOR

Brought to you by...