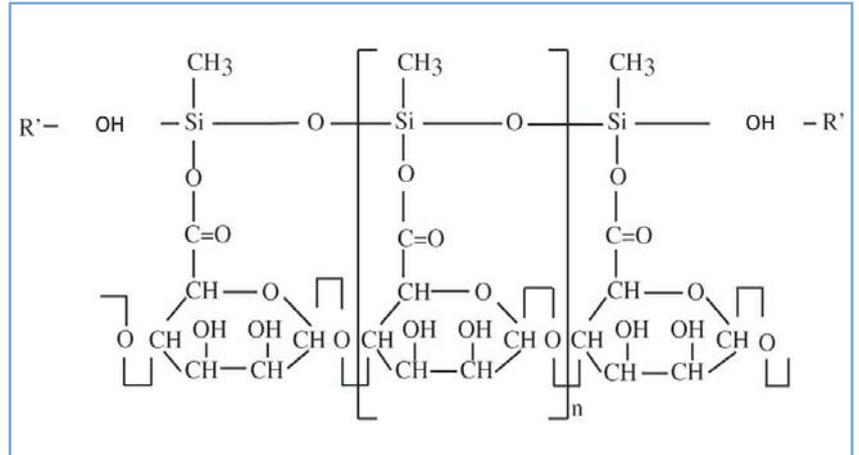


# Orgono Silica (monomethylsilanetriol)

*It has a wide range of action, as it is essential for forming and maintaining the connective tissue and the skin. It has a key role in the maintenance of youth and vitality of the body.*

- Restructures connective tissue, improves elasticity, and tissue plasticity.
- Supports collagen production and has a cytostimulating effect.
- Protects from free radicals attack, glycation, and any alteration of the connective tissue.
- Intensively moisturizes due to its water holding capacity.
- Activates lipolysis (the breakdown of fat stored in fat cells).



*An essential trace element of the extracellular matrix*

Silica is a constitutive element of the connective tissue and the skin. It takes part in the formation and organization of the extra cellular matrix (ECM). Natural silica concentration decreases when aging, leading to a tissue destructure and causing wrinkles.

A regular silica intake helps to minimize the negative effects on health caused by silicon deficiencies, restoring the connective tissue and slowing down the effects of aging.

As it has been already proved, Orgono silica is very effective on restoring the connective tissue and the effects this may cause (anti-wrinkles, protection, collagen stimulation, cell moisturization...).

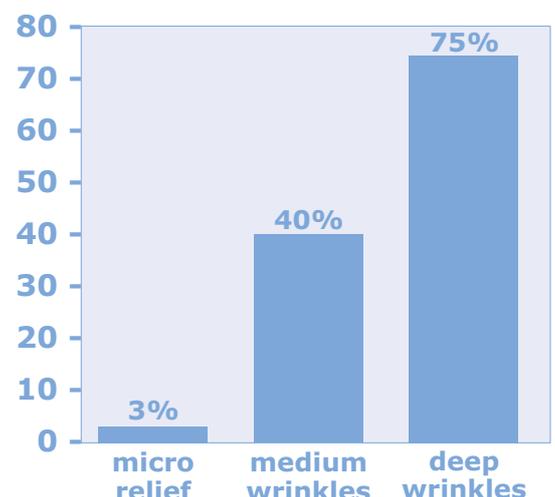
## *Uplifting and anti-wrinkle action*

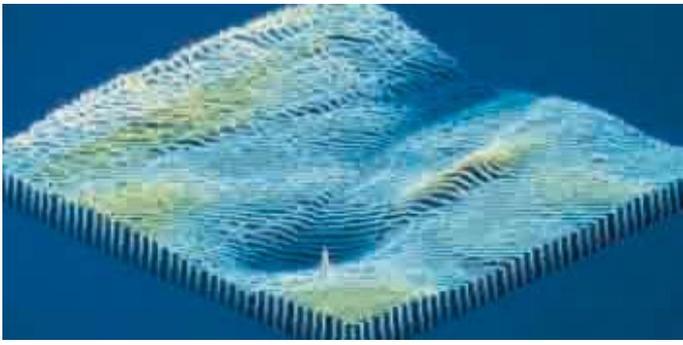
The formation of wrinkles involves changes in the elastic properties of the dermis due to the denaturation of the supporting tissue (collagen and elastin fibers).

Orgono Silica supports the synthesis of collagen and elastin, which have a firming and tightening action on the skin. This molecule helps reduce fatigue, diminishes the appearance of fine lines and wrinkles and restores luminosity.

*In vivo* Tests on deep, medium and surface wrinkles "of around the eyes" were carried out. The results demonstrated the smoothing effect of Orgono Silica on wrinkles (see pictures after 12 weeks) as it promotes collagen production and therefore, regenerates the skin.

% Decrease of wrinkles after treatment

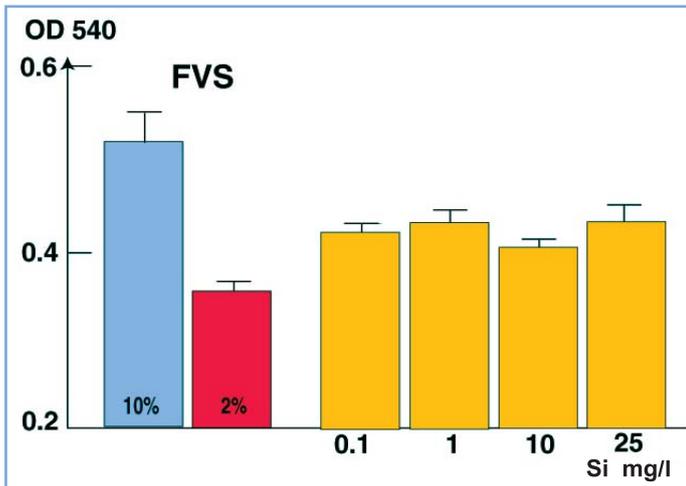




### Cellular renewal

Cutaneous cells stimulation, in particular for fibroblast, is a key factor for maintaining a healthy and young connective tissue. Monomethylsilanetriol enhance the growth of fibroblasts and stimulate their division. Therefore, this molecule contributes and helps to maintain a normal cellular renewal in aging tissue.

The stimulating effect of Orgono Silica is showed in the following graph. This test was carried out on a poor human fibroblast medium (FSC 2%). Results showed that Orgono Silica stimulate cell regeneration and production.



### Stretch mark removal

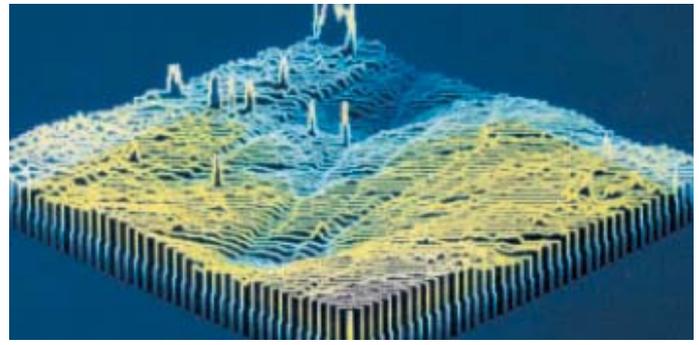
Because of its regenerative features, Orgono Silica is strongly recommended for all anti-stretch mark products (pregnancy, anti-cellulite, and other fast weight loss products). Its regular use would help to minimize and reduce stretch marks.

### Anti-inflammatory effect

The anti-inflammatory and soothing action of Orgono Silica has also been proved in several experiments. *In vivo* studies proved that Orgono Silica protects from cell infiltration and inflammation. *In vitro* studies showed a decrease in interleukins production.

Another *in vitro* study of the anti-inflammatory potential of Orgono Silica showed that it has an inhibitory activity against irritant and inflammatory agents on cultured human keratinocytes.

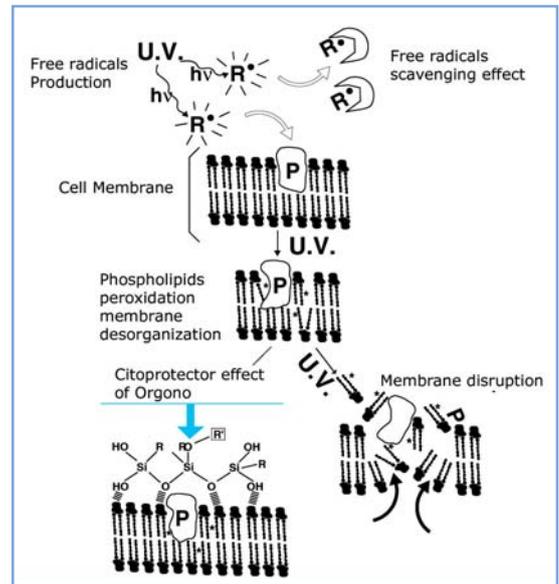
Based on these studies, Orgono silica helps to restore vascular tissues when inflamed.



### Against free radicals

Orgono Silica generates a lipid reorganisation on the fibroblast membrane, becoming more resistant to free radicals attacks.

Therefore, it has a protector effect against free radicals on cells.



### Antiglycation action (smoothing effect)

Glycation

Metabolic process activated by free radicals and oxidative stress. Also called the Maillard reaction and non-enzymatic glycosylation.

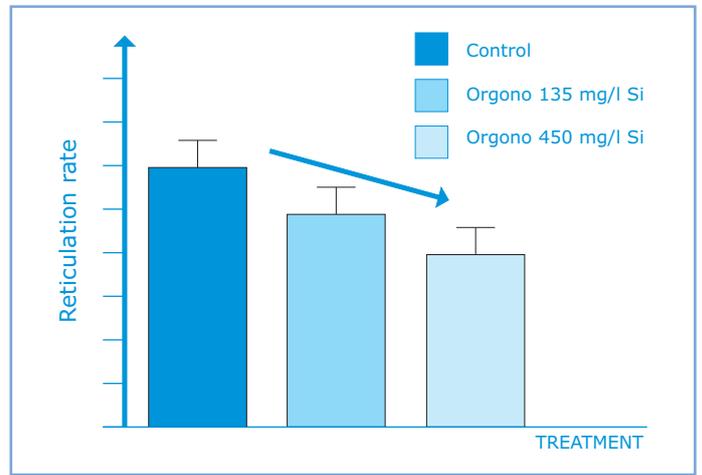
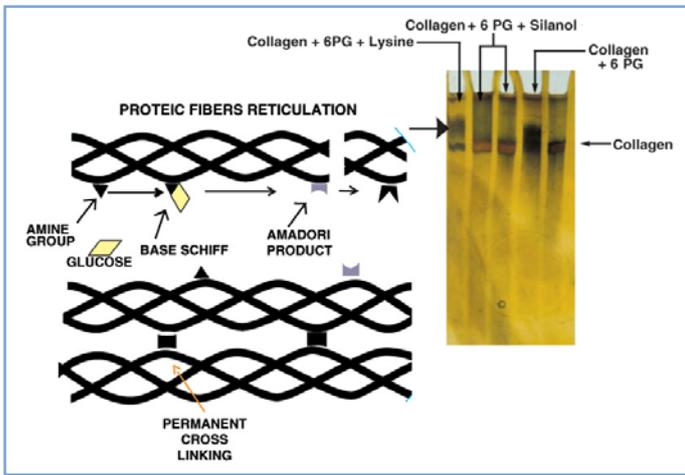
This reaction is the result of a sugar molecule, bonding to a protein or lipid molecule without the controlling action of an enzyme, leading to a protein alteration. This process is linked to a deficiency of silica.

All proteins and in particular cutaneous proteins such as collagen and elastin, are affected by the glycation, which reduces the rigidity and produces a loss of elasticity responsible for the appearance of dimpled skin. In this way, it combats aging and the skin's elasticity is enhanced.

The anti-glycation activity of Orgono Silica is demonstrated on a control protein (BSA), bonded to glucose by means of glycation.

Methylsilanols are well known for their anti-glycation properties. They protect specific protein sites and play an effect on carbohydrate oxidation products (e.g. 6PG or glucose-6-phosphate).





### Cell moisturization

Thickness and moisturization is improved by Orgono Silica. The hydroxyls functions of the Monomethyl-silanetriol, are the water deposits available in the cutaneous layers. Orgono Silica has a regenerating role and its water holding capacity, will allow a depth and permanent re-moisturization.

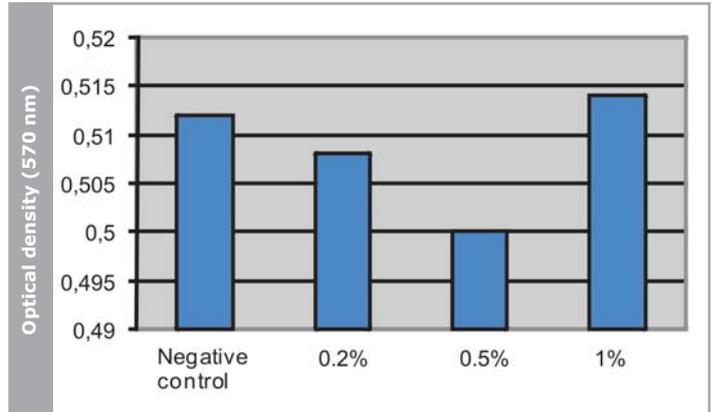
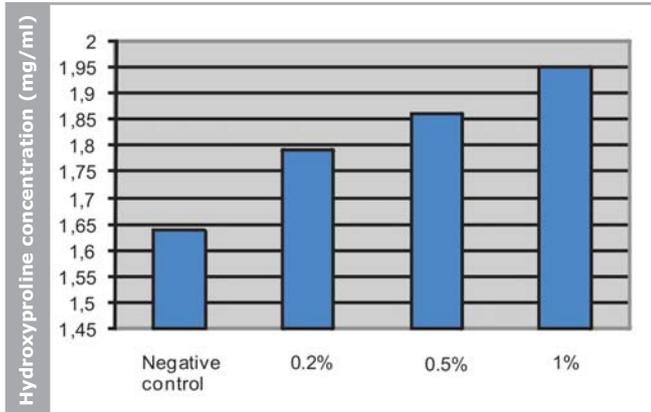
The moisturization effect by Orgono silica, was proved by a Fourier transform infra-red spectroscopy test realized on volunteers. The persistent activity of the moisturising activity was still evident one week after the treatment, and resulted from the tissue regeneration after the application of Monomethylsilanetriol.

### Collagen stimulation

Monomethylsilanetriol enhances collagen production, contributing to the connective tissue architecture and resilience. This is a direct consequence of their cyto stimulating effect.

The following graph shows that Orgono silica significantly enhances collagen production (by 13% and 19%) at concentrations of 0.5 and 1% respectively, on cultured fibroblasts in relation to the control.

The same experiment showed that Orgono Silica shows no toxicity regarding to the cultured human fibroblasts at different concentrations of 0.2%, 0.5% and 1%.



\*J.C Alonso, Dosage of collagen neo-synthesis. Institut d'Expertise Clinique Espagne, 2008

### Lipolytic action

Orgono silica acts at several and different levels in the lipolysis process:

- Helps to smooth tissue and reduces stretch marks.
- It improves and speed the triglycerids hydrolysis by stimulation of the adenylate-cyclase.
- Reducing swelling, possess an anti-inflammatory activity useful for anti-cellulite treatment.

Clinical studies and *in vitro* tests on adipocytes have demonstrated that monomethylsilanetriol, and therefore, Orgono silica stimulates lipolysis (glycerol release) compare to reference lypolitic agents as theophylline.

