



# ALEXIA RICH

## ORGONO<sup>®</sup> SILICA COLLAGEN BOOSTER



### Clinical Applications of Bioavailable Silicon



This information is intended for the exclusive use of health professionals



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## ORGONO® SILICA

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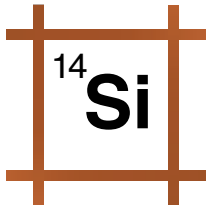
Stories shared during 10 years of experience





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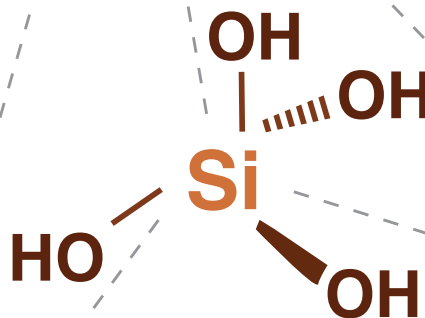
## ORGONO® SILICA Background



**Silicon**  
is a trace  
element

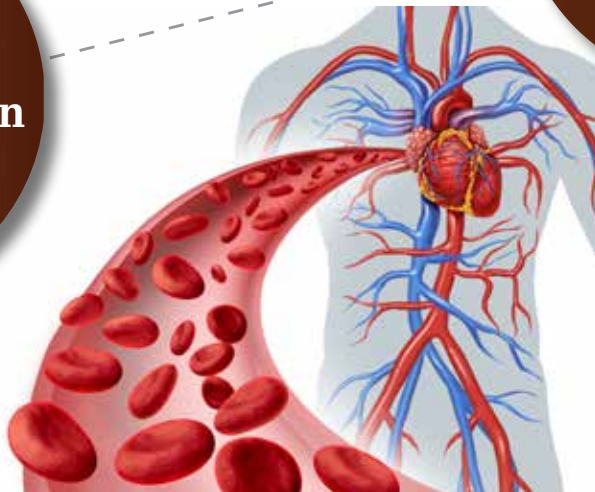
### Tissues rich in silicon:

- Extracellular matrix
- Connective tissue
- Joints
- Cartilage
- Bone
- Blood vessels
- Skin(and attachments)



It is transported  
in the blood as  
Silicic Acid

Humans have  
1 gram of silicon  
in the body



The EFSA Journal 2016.

The EFSA Journal 2009.

Van Dyck K, et al, Biological Trace Element Research 2000.

Berlyne GM, et al, Nephron 1986.

Adler AJ, et al, Am. J. Physiology-Endocrinology & Metabolism 1986.

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## ORGONO® SILICA Bioavailability

The silicon concentration in the blood changes according to the stages of life



**Pregnancy**  
3,3-4,3 ug/dl



**Nursing**  
34-69 ug/dl



**Adult**  
11-25 ug/dl



**Decrease with age:**  
In arterial vessels and skin

Silicon concentration is shown in micrograms (ug) per decilitre (dl) of blood serum.



### Absorption

1

Alexia Rich Orgono® Silica is well-absorbed orally. When it reaches the stomach it is transformed into silicic acid, and absorbed in the intestine, through cellular channels called aquaporins.

### Distribution

2

Silicon travels in the blood as silicic acid. It does not present plasma protein binding and it is rapidly distributed throughout the tissues.

### Elimination

3

Silicon is excreted in urine as silicic acid or magnesium silicate. There is no reported accumulation of silicon in the body.

Boqué N, et al, Centre Tecnològic de Nutrició i Salut, 2015.  
European Commission, EFSA Journal 2009.  
Van Dyck K, et al, Biological Trace Element Research 2000.  
Berlyne GM, et al, Nephron 1986.  
Calomme et al, Metal Ions in Biology and Medicine, 1998.

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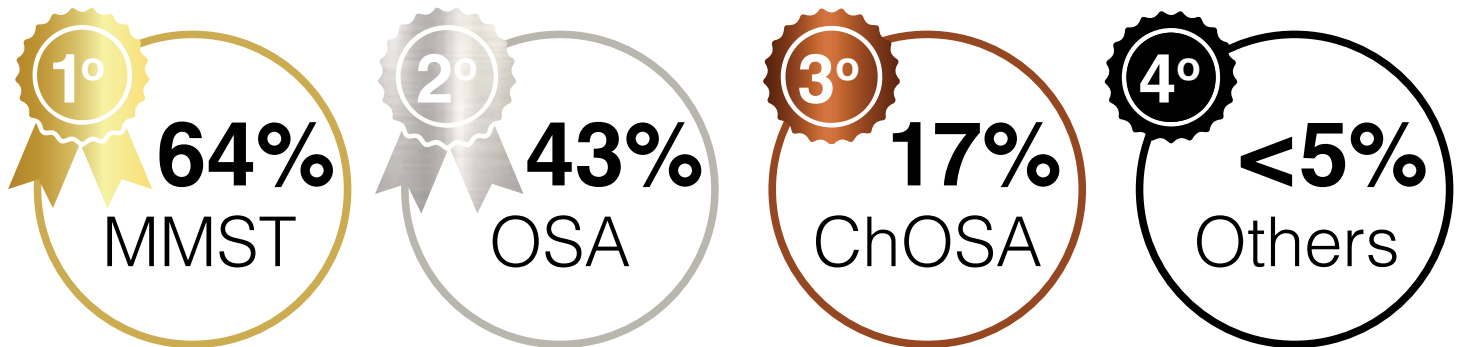


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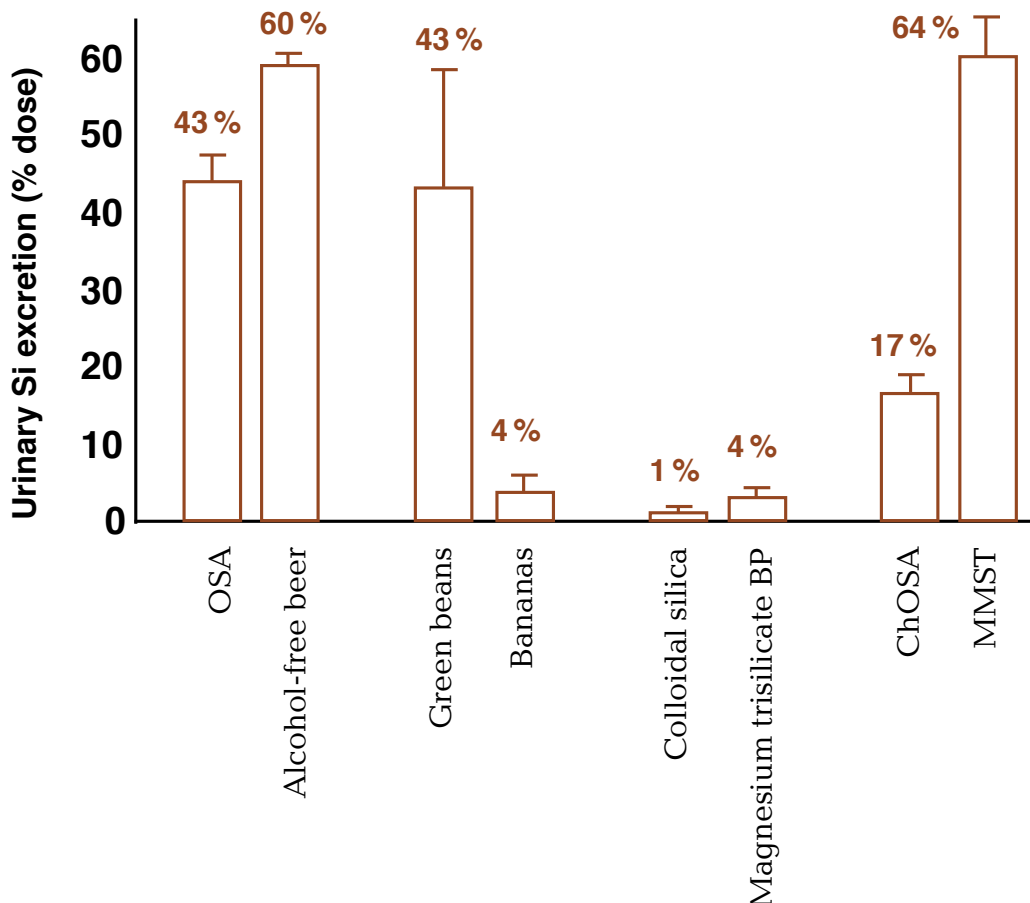
## ORGONO® SILICA Sources of Silicon

Are they always equal?  
A clinical study

Silicon in the form of monomethylsilanetriol (MMST) and silicic acid (OSA) show the highest bioavailability.  
Alexia Rich (Pty) Ltd only utilise MMST in their silica supplements.



### The comparative absorption of silicon from different foods and food supplements Sripanyakorn S, et al, Br J Nutr, 2009



In 2009 significant differences were reported in the bioavailability of silicon, when comparing foods and silicon-rich food supplements. They found that monomethylsilanetriol (64%) and silicic acid (43%) were the sources of silicon with greater bioavailability.



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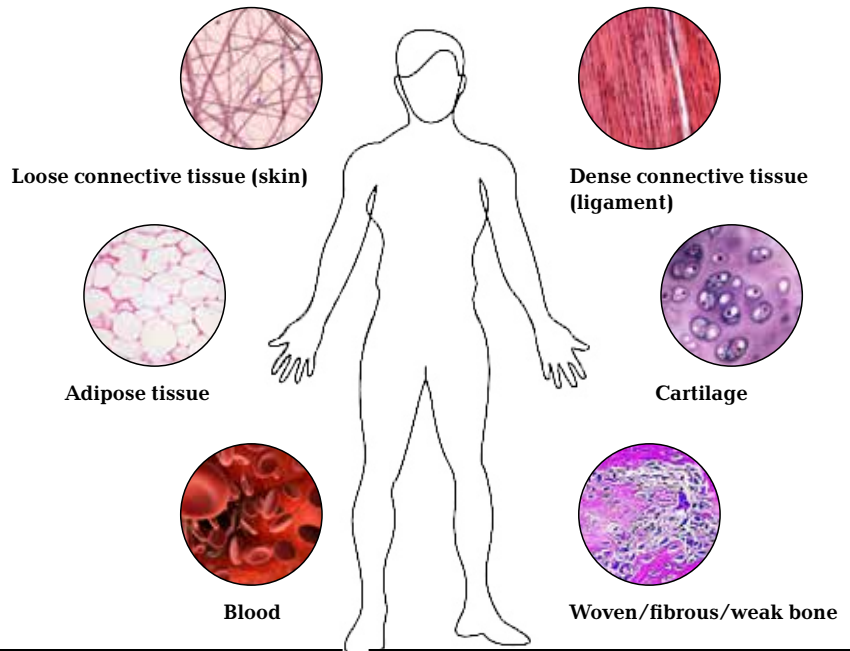
## ORGONO® SILICA Research

### Clinical applications

Preclinical and clinical investigations have focused on evaluating the effect of silicon on cellular nutrition and health maintenance.

### Enhances the synthesis of collagen

Silicon enhances the synthesis of collagen in: connective tissue, skin, joints, bones and the vascular system.



### Skin

- Wrinkle reduction
- UV spots control
- Increases moisture retention
- Improves the appearance

### Joints

- Promotes regeneration
- Strengthens the tissue
- Reduces pain

### Bones

- Increases calcification
- Promotes re-mineralisation
- Improves mineral density

**Collagen**, the most abundant protein in the  
**Connective tissue**  
serves as support for the cells and assists the transport of nutrients

### Vascular

- Increases the flexibility of the blood vessels





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## ORGONO® SILICA Research

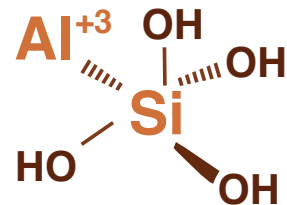
### Clinical applications

Studies have reported that Silicon, together with aluminium, has the ability to form aluminosilicate complexes and this contributes to ease its elimination from the body.

Aluminium is excreted in urine as aluminosilicate and it has been observed that the concentration of aluminium decreases in the body and increases in urine after the administration of food supplements with silicon.

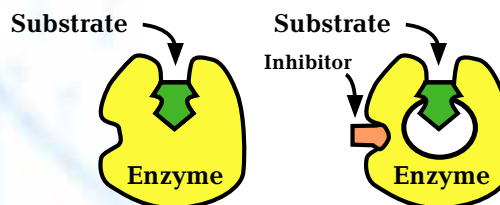
Silicon has been proposed as an alternative for the prevention and control of neurodegenerative diseases associated with the accumulation of aluminium in the nervous system.

### Allows the elimination of Aluminium



### The toxicity mechanisms of aluminium include:

- Inhibition of enzymatic activity
- Inhibition of protein synthesis
- Oxidative stress due to biometal imbalance
- Alterations in the function of nucleic acids
- Changes in the permeability of the cell membrane



### Aluminium has been associated with:

Chronic Fatigue Syndrome  
Osteodystrophy (defective mineralization)  
Macrophagic myofasciitis associated with vaccines  
Heterogeneous symptoms of autistic spectrum disorders  
Negative effects on hematopoiesis (related to iron)  
Oxidative stress in nervous tissue  
(Alzheimer's, Parkinson's, Multiple Sclerosis)



Li, et al, Metal Ions and Alzheimer's Disease 2017. .  
Jones, K, EBioMedicine 2017.  
Beardmore J, et al, Scientific Reports 2016.  
Noremberg, et al, Biol Trace Elem Res 2016.  
Maya S, et al, Biomedicine & Pharmacotherapy 2016.

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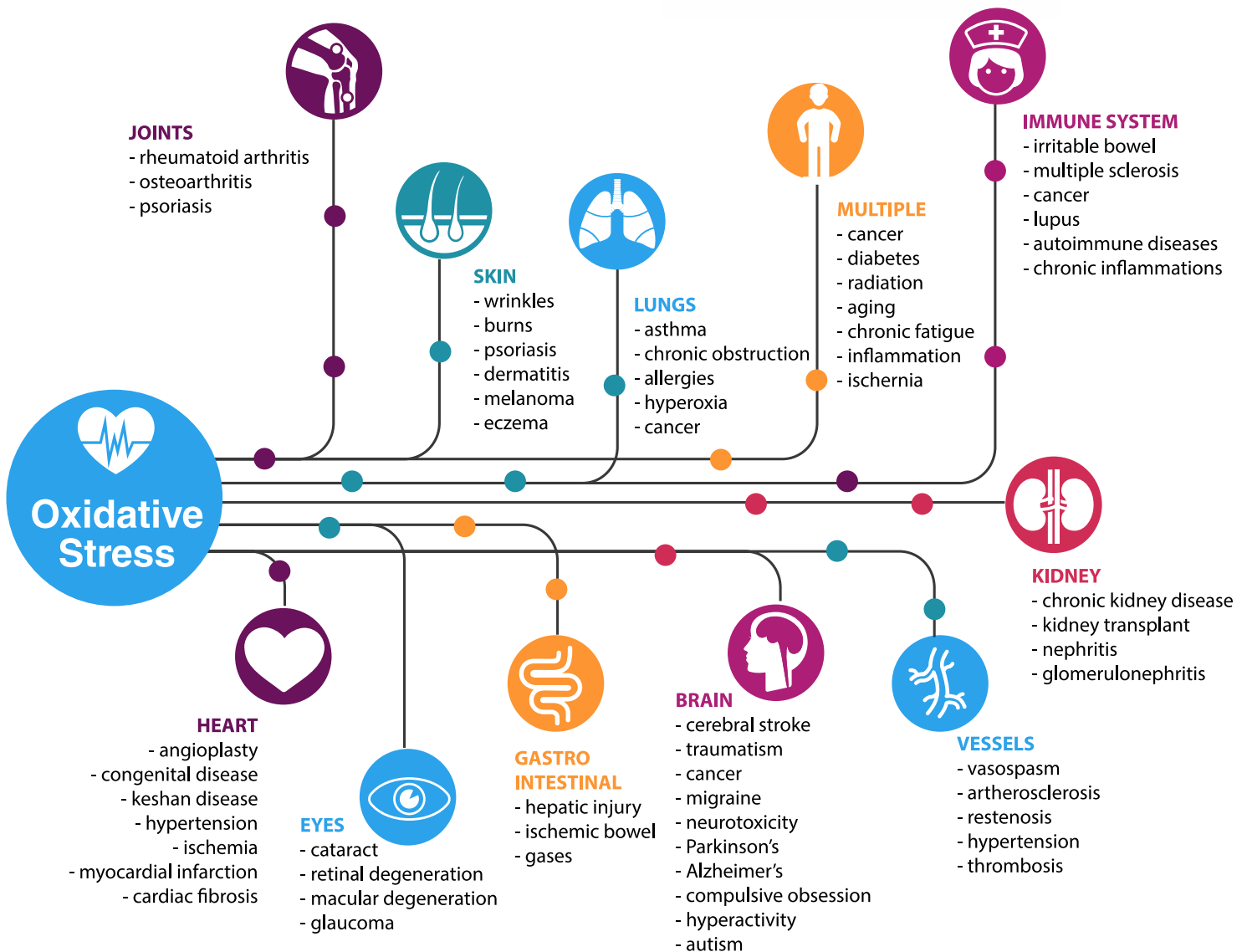
## ORGONO® SILICA Research

### Clinical applications

The administration of exogenous silicon reduces oxidative stress. The reduction of cellular oxidation, less synthesis of free radicals and a reduction of inflammation have been observed as a result of it.

Silicon helps maintain the balance of biometals such as iron, copper, zinc, manganese, magnesium and calcium, and helps to eliminate toxic metals such as aluminium.

### Reduces oxidative stress







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## Outcomes of the research

### Evaluation of Alexia Rich Orgono® on health parameters

#### Increased collagen synthesis and calcium deposition

Alexia Rich Orgono® products favour the synthesis of collagen in fibroblast cells and calcium deposition during osteoclast differentiation.

#### Dermological effects of Alexia Rich Orgono ® products

Double-blind,  
randomized,  
placebo-controlled  
clinical trial in  
healthy women



5 mgs of  
silicon were  
administered  
during 150 days,  
to evaluate the  
dermatological  
effect

**Transonychial evaluation of water in nails: Increased  
hydration in hands 24-28% and in feet 26-32%**



Evaluation of  
multispectral  
images of the  
skin: 46-75%  
improvement in  
wrinkles, 40%  
less UV spots,  
50•54% increase  
in eyelash length



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## ORGONO® SILICA Clinical studies

### Evaluation of Silicium in Joints and removal of Aluminium

#### Recovery of joint pains

The combination was evaluated on two Orgono® silica products – silicon was administered orally, and topically in the form of gel.

100% of subjects recovered the ability to perform daily activities

77% of subjects had decreased joint pain

87% Greater ease in the movement of joints

33-57% of discomfort in the joints disappeared

83% Better quality of life

Significantly improves sleep quality  $<0.05$

#### Removal of Aluminium in the hair

5mg /12 h silicon effect in Aluminium removal  
(150 days of treatment)

Evaluation minerals of hair  
by ICP-OES

Silicon increased 6.4% while  
Aluminium decreased 4-7%





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## ORGONO<sup>®</sup> SILICA

### Clinical cases

#### Stories shared in 10 years of experience

##### **Imperfect osteogenesis**

- Diagnosed from birth
- Multiple fractures in childhood
- Starts with 10mg of Silicon per day
- After 12 months of consuming Silicon, recovers bone density
- For 15 years, he has maintained the intake of silicon, leads a normal life, has not undergone fractures and has normal bone density

##### **Rheumatoid arthritis**

- Woman, 65 years, typical symptoms
- Failed treatment: cortisone AR
- Oral silicon 10 ml/8h, three months
- Application of silicon gel topically
- Complete remission of pain
- Recovery of emotional, physical and emotional stability
- She stopped using cortisone

##### **Multiple sclerosis**

- 29 year old woman
- Early diagnosis, presented crisis every 2-3 months
- The doctor indicates the administration of silicon to reduce the crisis
- After the intake of silicon the crises are reduced to zero for 2 years

##### **Crohn's disease**

- Disease for more than 10 years
- Treatment: cortisone in high doses
- In 1999 he decided to try silicon
- 6 months later he had no symptoms
- Continues with maintenance silicon
- In 2012 the colonoscopy shows the total disappearance of the disease
- To date, continues without relapses and with silicon intake

##### **Thyroid nodule**

- Prognosis: uncertain
- Proposed treatment: lobectomy
- Symptoms: fatigue, irritability, insomnia
- Choose as an alternative to treat with silicon orally and topically
- One month after the silicon intake the nodule disappeared
- Continues with silicon and has had no relapses

##### **You can consult THE WEBSITE to find more clinical reports shared directly**

These clinical cases were obtained from the website:

[www.benefitsofsilica.com](http://www.benefitsofsilica.com)



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