

# BioSil™

## SUPPORTS HAIR, SKIN, AND NAIL HEALTH



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BioSil is not made out of collagen; rather, it generates collagen through the body's own natural pathways. BioSil's patented choline-stabilized orthosilicic acid (ch-OSA®) is clinically proven to make genuine collagen regeneration a reality. BioSil “turns on” the body's actual collagen-generating cells known as fibroblasts for stronger, healthier, and thicker hair, and stronger nails, as well as fewer fine lines and wrinkles, and improved skin elasticity.

### PRODUCT SUMMARY

BioSil is a patented source of ch-OSA that is clinically proven to help with the formation of collagen for thicker and stronger hair, fewer fine lines and wrinkles, improved skin elasticity, and stronger nails. By activating key collagen-generating enzymes and protecting newly formed collagen, it provides the most beautiful results for healthy hair, skin, and nails. BioSil is non-GMO, gluten-free, and suitable for vegans.

### BENEFITS

- Clinically proven to help in the formation of collagen
- Helps support hair, skin, and nail health
- Increases skin elasticity
- Reduces fine lines and wrinkles
- Thickens and strengthens hair
- Encourages keratin production for nail growth and strength
- Protects both newly formed and existing collagen from breakdown
- Vegan

### RESEARCH

Collagen is the body's primary structural component and is widely recognized for its role in contributing to healthy, youthful-looking skin. As we age, our body's collagen production declines starting at age 21. This results in a loss of collagen in the skin's surface at a rate of 1% per unit area per year.<sup>1,2</sup> After menopause, women experience a more dramatic drop in collagen levels, losing as much as 30% of their skin collagen in the first five years.

As collagen levels decline, the “tight-mesh” matrix of collagen fibres that gives skin its resilience and elasticity begins to loosen. This loosening leaves the skin more vulnerable to UV damage, moisture loss, and visual signs of aging, such as wrinkles and loss of elasticity.<sup>1,3</sup>

Silicon is the third most abundant trace element in the human body. It plays an important role in collagen synthesis, with its highest levels found in the hair, nails, and skin's epidermis.<sup>4</sup> Before silicon can be absorbed from dietary sources, it must first be converted to orthosilicic acid (OSA).<sup>4</sup> This conversion depends on stomach acid levels, which can vary significantly among people.

BioSil stabilizes OSA through a patented complex with choline, resulting in ch-OSA. Unlike some other forms of silicon, ch-OSA does not require conversion in order to be absorbed and is considered the most bioavailable form.<sup>4</sup>

BioSil is clinically proven to increase body collagen and create a strong multi-directional collagen matrix.<sup>3,5</sup> This benefit was supported by a double-blind, placebo-controlled, randomized clinical trial that supplemented women ages 40–65 years with two 10 mg doses of ch-OSA per day. Supplementation was shown to yield a 90% increase in blood silicon levels in comparison to baseline, confirming its bioavailability. Women who took ch-OSA were found to have remarkable improvements in the mechanical properties and microrelief of their skin after 20 weeks. This included a 30% reduction in fine lines and wrinkles and an 89% improvement in skin elasticity compared to the placebo group.<sup>3</sup>

Silicon is also involved in the synthesis of glycosaminoglycans, which have structural roles in the formation of keratin, a protein found in hair and nails.<sup>5</sup> The strength of hair is related to its thickness and the quantity of keratin found within it.<sup>5</sup> In a randomized, double-blind, placebo-controlled study, women categorized as having fine hair were supplemented with 10 mg of ch-OSA taken twice per day for nine months. Compared to the placebo group, women who took ch-OSA experienced significant improvements in the morphology and tensile properties of their hair, including a 12.8% increase in diameter thickness and a 13.1% increase in strength.<sup>5</sup> These results supported the findings from another study that reported a decrease in the brittleness of women's hair after 20 weeks of supplementation with ch-OSA.<sup>3</sup>

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As with hair, nail health relies on sufficient keratin production. This is often gauged by the strength, clarity, and smoothness of the nails. Not only did research findings show improvement in the quality of women's skin and hair, but also in their nails. Using a virtual analog scale, women reported that their nails became stronger, clearer, and smoother after supplementation with ch-OSA.<sup>3</sup>

### INGREDIENTS

#### VEGETARIAN CAPSULES (0153, 0157, 0177)

**Each vegetarian capsule contains:**

Silicon (choline-stabilized orthosilicic acid) ..... 6 mg  
Choline (choline chloride)..... 112 mg

**Non-medicinal ingredients:** Microcrystalline cellulose, vegetarian capsule (cellulose, purified water), purified water.

**Recommended adult dose:** 2 capsules daily or as directed by a health care practitioner.

*This product does not contain artificial preservatives, colour, or sweeteners; corn, dairy, soy, starch, gluten, or yeast. Completely free of animal parts and suitable for vegetarians/vegans.*

#### DROPS (0155, 0169)

**Medicinal ingredients:** Silicon (as stabilized orthosilicic acid) (ch-OSA)

**Non-medicinal ingredients:** Choline chloride, glycerol, purified water.

1 drop of BioSil (approx. 0.05 mL) is equivalent to 1 mg of silicon.

**Recommended adult dose:** Mix 5 drops in a glass of juice twice a day (morning and evening) and drink immediately or use as directed by a health care practitioner.

*This product does not contain artificial colour or sweeteners; corn, dairy, soy, starch, wheat, yeast, or gluten. Completely free of animal parts and suitable for vegetarians/vegans.*



### CAUTION

Do not use if you are pregnant or breastfeeding. Do not apply to the eyes or on broken skin. Keep out of reach of children.

#### LIQUID VEGETARIAN CAPSULES (0420, 0425)

**Each vegetarian capsule contains:**

Silicon (choline-stabilized orthosilicic acid) ..... 5 mg  
Choline (chloride)..... 100 mg

**Non-medicinal ingredients:** Vegetarian capsule (carbohydrate gum [cellulose], purified water), purified water, silica.

**Recommended adult dose:** 1 capsule 2 times daily or as directed by a health care practitioner.

*This product does not contain artificial preservatives, colour, or sweeteners; corn, dairy, soy, starch, gluten, or yeast. Completely free of animal parts and suitable for vegetarians/vegans.*

### References

1. Mohiuddin, A. K. (2019). Skin aging & modern edge anti-aging strategies. *Int J Dermatol Skin Care*, 1, 8-62.
2. Ganceviciene, R., Liakou, A. I., Theodoridis, A., et al. (2012). *Skin anti-aging strategies. Dermatoendocrinol*, 4(3), 308-19.
3. Barel, A., Calomme, M., Timchenko, A., et al. (2005). Effect of oral intake of choline-stabilized orthosilicic acid on skin, nails and hair in women with photodamaged skin. *Arch Dermatol Res*, 297(4), 147-53.
4. Jurkić, L. M., Capanec, I., Pavelić, S. K., et al. (2013). Biological and therapeutic effects of ortho-silicic acid and some ortho-silicic acid-releasing compounds: New perspectives for therapy. *Nutr Metab*, 10(1), 2.
5. Wicket, R. R., Kossmann, E., Barel, A., et al. (2007). Effect of oral intake of choline-stabilized orthosilicic acid on hair tensile strength and morphology in women with fine hair. *Arch Dermatol Res*, 299(10), 499-505.