

## Hard as nails

**New study shows that supplementation with GELITA's VERISOL® helps to restore nail strength in women affected by brittle nail syndrome**

They say that you never get a second chance to make a first impression. For women in particular, skin, hair and nails are the essential elements of a beautiful outer appearance. Being aware of one's beauty is a huge confidence booster — but it can be much more than that. In many jobs, well-tended hands and nails are a must have. Hands are like a personal business card and tell a lot about who we are. For many women, however, beautiful, nails are hard to achieve — even with a lot of care. In many cases, this is caused by brittle nail syndrome. GELITA has recently investigated the effects of collagen peptide supplementation on nail health and the results are very promising.



## Brittle nail syndrome

Brittle nail syndrome is a very common problem characterized by the increased fragility of the nail plate, exhibiting nail roughness, raggedness and peeling.

Approximately 20% of the population is affected, and women are affected twice as often as men. Patients usually complain that their nails are soft, dry, weak or easily breakable, and incapable of growing long.

The treatment of brittle fingernails is difficult and a considerable challenge for dermatologists.

Several topical and systemic therapies have been tried. In recent years, dietary supplements, nail moisturizers and nail strengtheners have been used, to name a few, but there is no evidence-based data to prove that these measures are effective. Now, new science in the field of beauty-from-within applications has investigated the effects of collagen peptide supplementation on the appearance, strength and growth of finger nails. The results give hope to people affected by brittle nail syndrome and seem to confirm the stimulatory effects of specific Bioactive Collagen Peptides® (VERISOL®) on epidermal and dermal metabolism.



## Collagen Peptides – what we know so far

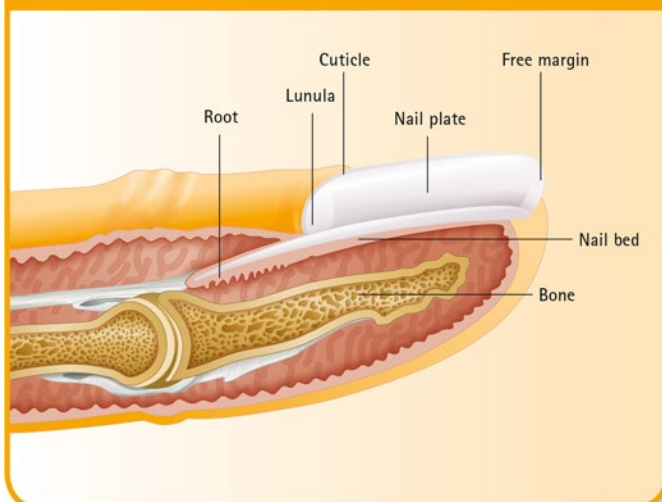
Collagen has been used as an effective ingredient in beauty products for many, many years. Around the world, it is among the most trusted active ingredients for women who prioritize their personal looks and outer appearance. Collagen is successfully being used in topical beauty and personal care products such as face creams and body lotions, shampoo and bath preparations and many more. However, studies have shown that the highest efficacy cannot be achieved from the outside. Beauty-from-within applications based on collagen peptides are state-of-the-art when it comes to achieving the best visible results and long-term improvements in skin health.

Collagen peptides are short-chain protein building blocks derived from the enzymatic hydrolysis of native collagen. In this process, the collagen is cut to obtain a specific bioactive peptide profile. A series of preclinical and clinical studies have shown that oral supplementation with VERISOL<sup>®</sup> collagen peptides leads to longer-term improvements in skin health. With their special amino acid composition and peptide profile, these specific collagen peptides influence the skin's collagen metabolism directly from the inside. In a completely natural way, they can slow down the skin's aging process, significantly improve its elasticity, structure and appearance, and help to strengthen the skin's connective tissue.

## Relocating the focal point

Although nail assessments were not the objective of these previous studies, an improvement in nail quality among the study participants was noticed as a positive side-effect. Additionally, there is a longstanding belief among consumers that the ingestion of collagen peptides is good for nails. However, there has not been any

The Bioactive Collagen Peptides<sup>®</sup> of VERISOL<sup>®</sup> improve growth and health of fingernails.



scientific evidence that collagen peptides are effective for this purpose. Now, for the first time, a clinical trial investigated the efficacy of a specific dosage (2.5 g/day) of VERISOL<sup>®</sup> on nail growth and brittle nail syndrome.

In this open, single-center clinical trial, a total of 25 healthy women received a daily dose of 2.5 g of GELITA's VERISOL<sup>®</sup> collagen peptides for 6 months, followed by a 4-week observation period. Participants were aged between 18 and 50 with a mean age of 39. All

of them displayed at least one sign of brittle nails, be it lamellar peeling, edge irregularities or nail roughness. Four weeks ahead of the treatment phase, all patients were clinically evaluated at a screening visit. Photographs were taken and markings on the nails were made for subsequent growth measurements.

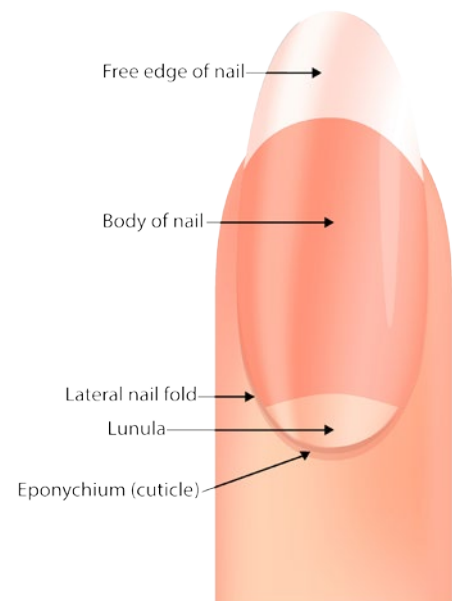
## Results

To evaluate the impact of VERISOL<sup>®</sup> on the symptoms of brittle nail syndrome — as well as the frequency of cracked or chipped nails and nail growth — patients were assessed immediately before starting the product treatment, after 12 weeks, after 24 weeks and 4 weeks after the last intake (washout phase).

With regards to nail growth, the intake of VERISOL<sup>®</sup> led to clear improvements after 12 weeks of treatment: daily collagen peptide supplementation promoted an increase of 10% nail growth. This increased to 12% after 24 weeks, and to 15% four weeks after the last intake.

The frequency of cracked or chipped nails also decreased significantly. Before starting the treatment, the participants' frequency of broken nails was 10 times per month on average. This decreased to 6 times after 24 weeks of treatment, representing a reduction of 42%, which continued during the washout phase.

Regarding typical brittle nail syndrome symptoms such as nail peeling, edge irregularities and nail roughness, the number of women displaying “severe” or “moderate” nail peeling halved after 12 weeks of treatment, whereas those with a “slight” score doubled. Participants with “severe” longitudinal splitting of the free edge reduced from 4% to 0% after 24 weeks of treatment with VERISOL<sup>®</sup>, and the “slight” scores increased from 17% to 38%. No clinically relevant changes were observed before and after treatment with collagen peptides for nail roughness. Of the 24 participants analyzed, 13 participants (54%) had fair improvement at week 12. At week 24, 64% achieved notably global improvement (excellent/good/fair). After the washout phase, 21 participants (88%) showed excellent/good/fair improvement.



At the end of the study, the majority of participants (80%) agreed that the use of VERISOL<sup>®</sup> had improved their nails' appearance and were totally satisfied or satisfied with the performance of the treatment. The participants were also asked to rate the overall improvement of their nails (from 0 to 10), and almost half of the patients (46%) rated this between 9 and 10. Moreover, 75% of patients perceived their nails to be stronger, and 71% felt that their nails were growing faster and longer.



## Stimulatory effect

Previous skin health studies with VERISOL<sup>®</sup> collagen peptides have shown that when ingested orally, they stimulate fibroblast cells in the dermal layer of the skin to increase overall extracellular matrix formation. By doing so, they influence the skin's collagen metabolism from inside, resulting in fewer wrinkles, improved skin elasticity and younger appearance. Now, the fact that in this most recent study the improvement of brittle nail syndrome was even more pronounced after the 4-week washout phase suggests a similar mechanism. Hence, the positive effects of

VERISOL<sup>®</sup> treatment are likely derived from the direct effect of these Bioactive Collagen Peptides<sup>®</sup> on the nail matrix and nail bed.

Additionally, the researchers concluded that the improvements in nail strength demonstrated in this trial may be a result of the increased water-binding capacity of brittle nails promoted by VERISOL<sup>®</sup> treatment.



## Almost unlimited application forms

VERISOL<sup>®</sup> is highly soluble and almost neutral in taste. Hence, it can easily be incorporated into various types of liquid and solid functional food applications or nutricosmetics without compromising the sensory profile – from collagen water and concentrated ready-to-consume liquid shots to tablets, capsules and flavored powder mixes. Even luxury foodstuffs such as coffee drinks and chocolate can be enriched with natural collagen peptides, allowing for beauty care with a touch of great-tasting indulgence.

As VERISOL<sup>®</sup> peptides are hydrolyzed to a specific short peptide length, they are easily digestible as well as highly bioavailable. Moreover, they are free from fat, cholesterol, carbohydrates as well as gluten and perfectly suited for use in non-allergenic foods. The nutricosmetics concept is also free from E-numbers, making it ideal for the development of clean label products too.

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