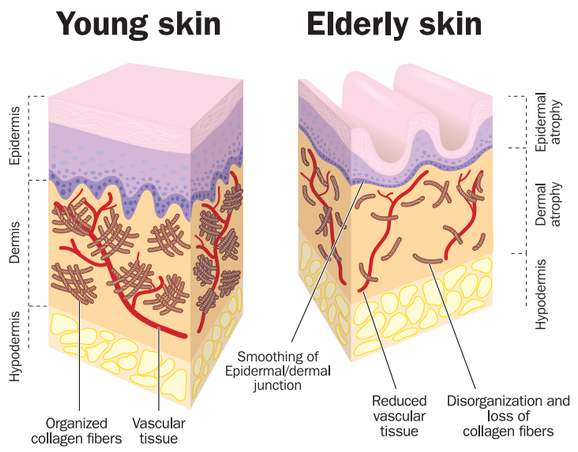
Skin Health

The skin is the largest organ in the human body and protects the body from various external environmental factors. Skin comprises two layers, the epidermis and the dermis. The dermis contains a large amount of extracellular matrix components such as collagen fibrils and glycosaminoglycans mainly produced by fibroblasts. Collagen is one of the most important and vital structural substances in our bodies: over 75% of our skin is type I collagen.

Maintaining the integrity of the skin's extracellular matrix is important to conserve a youthful appearance. As early as our 30s, collagen production begins to decrease and our skin's natural reserve of collagen begins to diminish, gradually collapsing the skin's dermal layer and creating an ideal opportunity for wrinkle development. The aging process is accelerated when the skin is exposed to harmful UVA and UVB light: the water content of the outermost layer of the epidermis (stratum corneum) declines, the epidermis thickens (hyperplasia), and there is a marked decrease of type I collagen in the dermis.



Skin is not a simple organ. In the stratum spinosum of the epidermis, large numbers of immune cells (Langerhans cells) are present. Epidermal cells secrete a variety of soluble proteins that control the functions of the skin and body. In the dermis, nerve bundles and networks, blood and lymphatic vessels are distributed in the extracellular matrix, whose main component is collagen. Thus, it is important to determine which skin functions are improved by collagen peptide ingestion, and how these improvements lead to better facial skin condition.

Nippi Collagen

Nippi Collagen is a leader in providing marine collagen peptides to the health and wellness market. As a global innovator, Nippi focuses on providing consistently high-quality products by implementing strict manufacturing standards without sacrificing environmental responsibilities. Nippi Collagen continually strives to improve and position the company as an innovator and global provider in natural, bioactive technologies.

Collagen has long been used all over the world in foods, cosmetics, personal care and medicine, indicating that collagen is a highly safe material with no side effects. Collagen peptides have GRAS (Generally Recognized as Safe) status with the FDA and are approved for human consumption by Health Canada.

Collagen supplements offer tremendous growth potential, and new creative product launches are continuing to grab consumers' attention in beauty-from-within, joint, bone, weight management and immune health applications. At Nippi, we offer collagen peptides extracted through a proprietary hydrolysis process. Nippi Collagen is produced from 100% fish skin and scales that would otherwise be discarded and is sourced from a sustainable and traceable supply chain. Nippi Collagen is not irradiated and is GMO- free, presenting unmatched advantages. Nippi marine collagen peptides are odor- and taste-free and are considered superior to other collagen-based products.

Contact us for more information and technical assistance:

1-866-905-5955

or visit us at **www.nippicollagen.com**

Nippi Collagen is lactose-, soy- and gluten-free.

*These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure or prevent any disease.

Nippi Collagen NA Inc.

Collagen Peptides for Beautiful Skin

Skin Health Clinical Research 2014

True Beauty Starts from Within

Nippi Collagen embraces the benefits of "Beauty from the Inside Out." Collagen improves skin properties to achieve optimal skin condition, acting as an active agent in slowing down the signs of skin aging.

Clinical research has shown ingesting Nippi Collagen has numerous positive effects on skin health, including:

- Observed improvements to the skin: minimizes fine lines, wrinkles and uneven appearance of skin due to aging
- Skin texture, tone and smoothness are all significantly improved, resulting in a more youthful appearance
- Provides clear anti-aging benefits, dermal rejuvenation and may upregulate skin collagen metabolism

nippi Collagen

Premium Collagen Peptides

Facial Skin Study - 2014

Effects of Nippi Collagen Peptide Ingestion on Facial Skin Parameters

Methodology: This research was designed to study the effectiveness of Nippi Collagen on skin parameters related to cutaneous aging by a randomized, placebo-controlled, double-blind trial. In a clinical trial, 88 women aged 35-65 years were given 5g of Nippi fish collagen or dextrin (placebo) once daily for 8 weeks, with 43 and 45 subjects included in each group. Before treatment and at 4 and 8 weeks of treatment, digital images of the face skin were analyzed by VISIA® Complexion Analysis (Canfield, USA) with multiple end points for facial skin parameters related to cutaneous aging. A daily diary and a subjective self-assessment questionnaire of facial skin condition were asked at 0, 4 and 8 weeks at the conclusion of the study. This test was performed by SOUKEN after approval of Ethical Review.

Observations: Nippi conducted a clinical test in 2014 in order to examine the effects of collagen peptide ingestion on the skin of healthy women aged 35-65 years. In this study, volunteers ingested 5g Nippi Collagen peptide or placebo daily after dinner for 8 weeks, without knowing which material they were consuming. At 0, 4 and 8 weeks, wrinkles, pores, age spots (brown and red skin lesions inclusive of hyperpigmentation, melasma, acne spots, vascular lesions and lentigines) and texture (variation in tone and smoothness on the skin surface) were objectively measured with VISIA. Overall, wrinkles, texture, tone and smoothness were all significantly improved, resulting in a more youthful appearance.

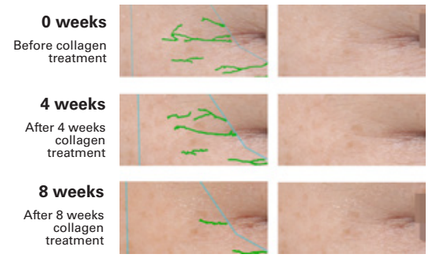
Study Conclusion

Nippi Collagen provides clear anti-aging benefits and dermal rejuvenation and may upregulate skin collagen metabolism. Daily intake of Nippi Collagen peptide results in a significantly improved facial skin condition at both 4 and 8 weeks and has a beneficial impact on skin health.

CHANGE IN WRINKLES – The *VISIA Wrinkle Analysis* measures wrinkles as furrows, folds or creases in the skin, which occur with sun exposure and are associated with decreasing skin elasticity. Significant correlation between age and number of wrinkles was observed in the subjects of this study. The number of wrinkles increases significantly with age. The number of wrinkles decreased by 8% after ingesting of marine collagen peptide for 8 weeks, corresponding to a 4-year-younger appearance.

Results: The number of wrinkles was significantly less in the collagen group (8%) than in the placebo group after 8 weeks of treatment.

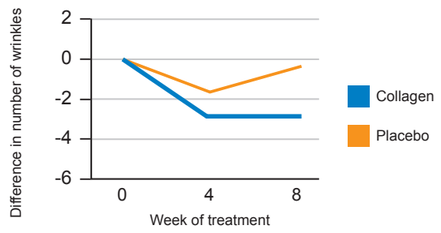
Conclusion: Daily intake of Nippi Collagen peptide for 8 weeks significantly reduces wrinkles on the face, resulting in a more youthful appearance.



Wrinkles in the original photographic image (right) were identified by their long and narrow shape and traced by VISIA (left). Figures show an example of trimmed images around the eye of a subject in the collagen group.

YOUNGER APPEARANCE

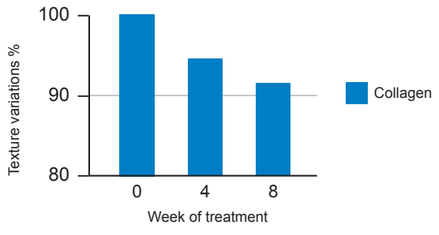
8% Reduction in Wrinkles



CHANGE IN TEXTURE – The *VISIA Texture Analysis* measures skin color and smoothness by identifying gradation in color from surrounding skin tone, as well as peaks and valleys on the skin surface. A variation in skin surface texture results in uneven appearance.

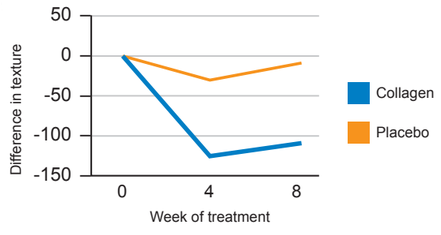
Results: In the collagen group, the number of texture variations had significantly decreased at 4 weeks and 8 weeks compared with 0 weeks.

Conclusion: Daily ingestion of Nippi Collagen peptide signifiantly improves the overall look of facial skin, resulting in a more even appearance (-10%) at both 4 and 8 weeks.



MORE EVEN APPEARANCE

10% Difference in Skin Texture

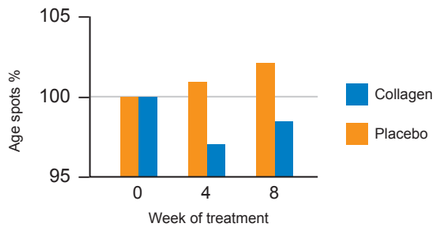


CHANGE IN AGE SPOTS – The *VISIA Spot Analysis* measures age spots such as brown and red skin lesions inclusive of hyperpigmentation, melasma, acne spots, vascular lesions and lentigines. Brown spots occur from an excess of melanin, which is produced by melanocytes in the bottom layer of the epidermis and causes an uneven appearance in the skin.

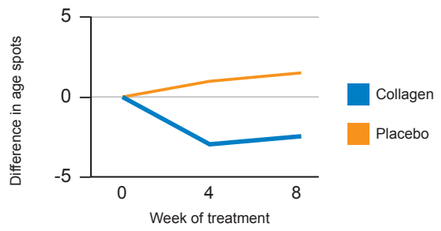
Results: In the placebo group, the number of age spots tended to increase (+3%). In contrast, in the collagen group, the number of age spots (brown and red skin lesions inclusive of hyperpigmentation, melasma, acne spots, vascular lesions and lentigines) had significantly decreased at 4 weeks as compared to before treatment (0 weeks).

Conclusion: Daily ingestion of Nippi Collagen peptide significantly reduces age spots and improves the overall look of facial skin, resulting in a brighter appearance.

BRIGHTER APPEARANCE



5% Difference in Age Spots

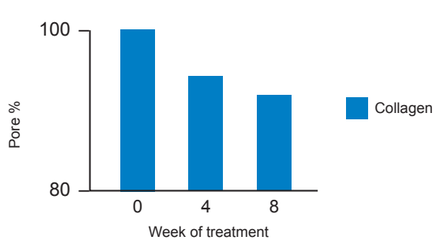


CHANGE IN PORES – The *VISIA Pore Analysis* measures surface openings on the skin. Pores are different from spots and are identified by their darker color, smaller size and circular shape. Pores are connections from the sebaceous glands and hair follicles to the surface of the skin and are essential to skin function. The appearance of facial pores increases due to a variety of factors including sun exposure and aging as well as accumulated oil or dead skin cells and genetics. All have a negative impact on collagen and elastin—the two components of the skin's structural support system. As pores lose support due to a loss of collagen, they look larger.

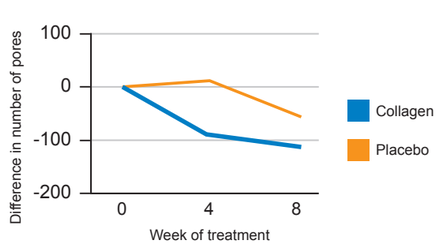
Results: In the collagen group, the number of pores had significantly decreased at 8 weeks compared with 0 weeks. In contrast, no significant change was detected in the placebo group.

Conclusion: Daily intake of Nippi Collagen peptide significantly reduces the number of pores on the face, making them less noticeable.

LESS NOTICEABLE PORES

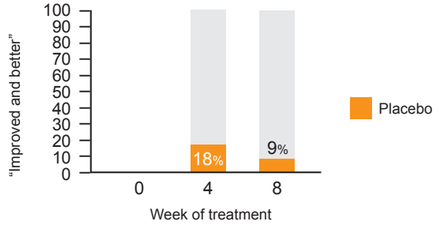


7% Reduction in Pores



OVERALL ASSESSMENT OF SKIN HEALTH – In addition to a daily diary, participants were asked to provide a self-evaluation with specific criteria at the end of the study. At 4 and 8 weeks, the answer of "improved and better" was significantly more frequent (36% and 68%, respectively) in the collagen group than in the placebo group.

Results: Daily oral intake of Nippi Collagen peptide for 4 and 8 weeks improved the overall skin condition of the face, affecting fine lines, wrinkles, age spots and pore size. Additionally hyperpigmentation, texture, tone and smoothness were all significantly improved, resulting in a more youthful appearance.



68% Overall Improvement