

New clinical study about benefits of 2.5g Naticol® for skin beauty

A daily oral administration of 2,5g Naticol® (fish collagen peptides) reduces facial wrinkles (Crow's feet/ perioral wrinkles), improves significantly skin firmness, skin complexion homogeneity and skin radiance. These are the most recent results obtained from a clinical study conducted by CPCAD/ Hospital of Nice (France) on assessment of Naticol® effects on skin aging signs.



we all want to find ways to keep our skin beautiful and wrinkle free. As, the skin is the first visible sign of aging, it's also the most important dermatologic concern.

Collagen which is found into dermal connective tissues contributes to skin firmness and smoothness. It is essential in maintenance of body structure and is referred to as the body's cement that holds everything in place. However, due to intrinsic (hormones, genetics) and extrinsic factors (nutrition, stress, smoking, UV pollution...), collagen structure can be disorganized and destroyed. Indeed, all of these factors generate oxidative stress through the production of reactive oxygen species (ROS). This oxidative stress leads to a cascade of events including inflammation, and to qualitative and quantitative loss of collagen (collagen fibers are fewer and depleted).

Preclinical and clinical experiments investigat-

ing the effects of oral collagen peptide supplementation have indicated that Fish collagen hydrolyzates may stimulate collagen synthesis and repress skin damage caused by UVA due to antioxidant/ anti-inflammatory activities. Shynia et al. also reported that oral intake of fish collagen peptides may also help to maintain skin smoothness, hydration, elasticity and reduce skin wrinkles.

These investigations have mainly focused on impacts of daily doses of 5 to 10g of fish collagen peptides.

In this double blind, randomized, against placebo study, Weishardt has evaluated the effects

of its specific fish collagen peptides (Naticol®) on skin aging signs, after an oral intake of 2,5g/day, for 8 and 12 weeks.

Clinically proven efficacy

This study was carried out on 95 mature women mean-aged 55,6 years old, randomized in parallel groups to receive a once a day 2,5g dose of specific fish collagen peptides (Naticol®) or the placebo for 12 weeks.

Skin biomechanics and clinical assessment of the facial wrinkles (crow's-feet and perioral) and skin complexion homogeneity were evaluated

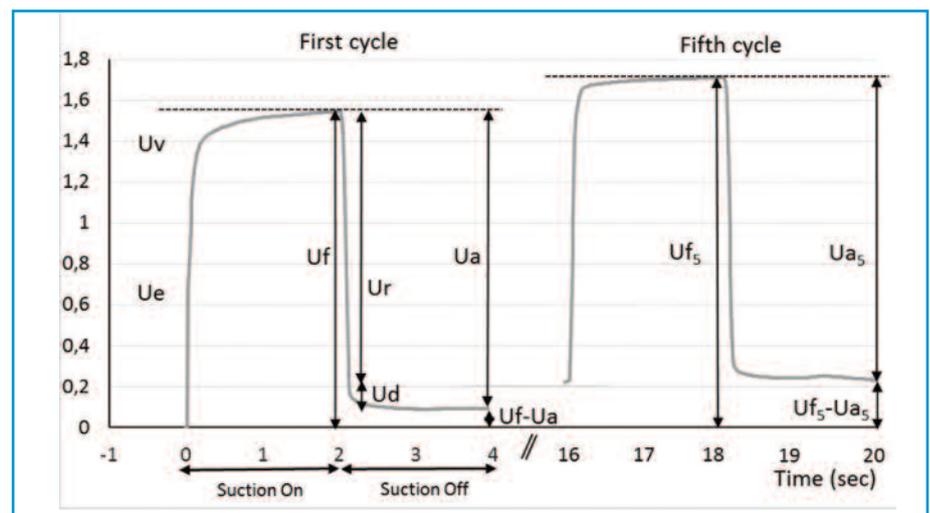


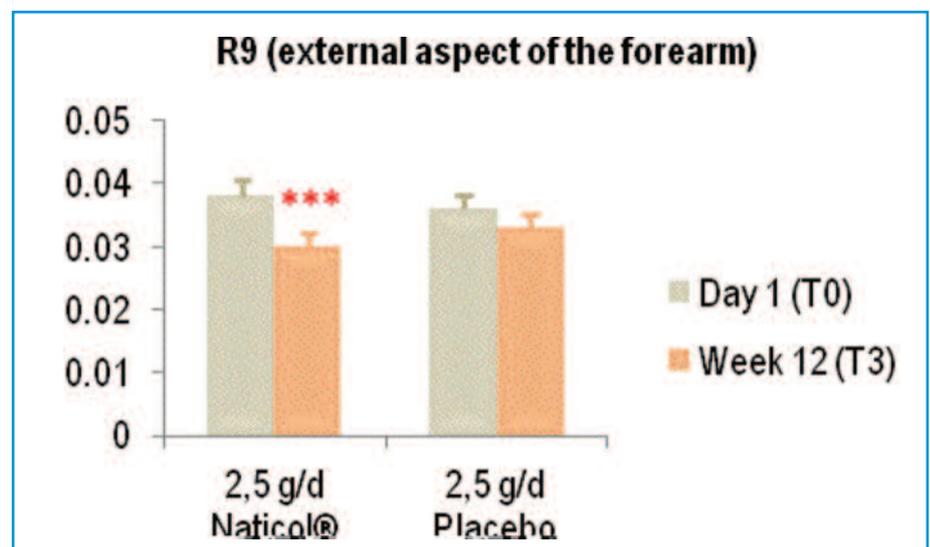
Figure 1 Above: Skin deformation curve as a function of time

Figure 2 Below: Mean change from baseline in residual deformation at the end of the measuring cycle (R9) on the external aspect of the forearm

Naticol®, your perfect ingredient for well-aging

Naticol® will express all of its benefits in the following applications :

- >Nutritional supplements
- >Functional food
- >Functional beverages



after 8 and 12 weeks of treatment. A subject satisfaction questionnaire and Investigator global efficacy appreciation (IGEAs) were used as well.

Skin firmness improvement (R9)

The skin biomechanics results indicated a significant improvement of skin firmness for Naticol® after 8 and 12 weeks. The figure 2 shows the significant decrease of residual deformation at the end of the measuring cycle (R9) for Naticol® on the forearm ($p \leq 0,001$). No significant change was seen in the Placebo group.

Clinical score for facial wrinkles (Crow's feet)

Clinical evaluation of facial wrinkles (Crow's feet/perioral) was performed by a trained clinician using Bazin-Doublet's atlas. The clinical assessment of the perioral and Crow's feet wrinkles from baseline showed a significant decrease of the mean score of wrinkles at week 12. The figure below shows the decrease of the median clinical score for perioral wrinkles. (Figure 3)

Skin complexion homogeneity and radiance

A visual analogic scale (VAS) was used to assess the level of skin complexion homogeneity between 0 (very heterogeneous complexion) and 10 (very homogeneous complexion).

Skin complexion homogeneity was significantly increased for 2,5g/d Naticol® after Week 8 ($p \leq 0,001$) while no significant change was recorded in the Placebo group. Same results were obtained about skin radiance after 8 weeks



(Naticol® demonstrated a significant increase). (Figure 4)

Safety and good tolerability

In this 2,5g/d clinical study, tolerance of the Naticol® (specific fish collagen peptides) was evaluated through a clinical examination and volunteer's questionnaire. Naticol® presented globally a good tolerance.

Additionally, Naticol® is obtained from enzymatic hydrolysis of the gelatin which is recognized as GRAS (generally recognized as safe).

Naticol is also highly absorbed due to its low molecular weight. It is free from fat, cholesterol, gluten and E-number (ideal for development of clean label products).

Conclusion

The latest Weishardt clinical study demonstrates effectiveness of 2,5g Naticol® /day on skin firmness, radiance and complexion homogeneity. Naticol® (specific fish collagen peptides) also shows a significant reduction of wrinkles. This new data complements results from Weishardt previous studies proving effectiveness of Naticol® on skin beauty (firmness, wrinkle reduction...).

The combined results of Weishardt clinical studies provide a scientific foundation for the development of innovative Beauty from Within nutricosmetics, which are used by a growing number of consumers. These new results also support Naticol® use in new nutri-cosmetics applications such as gummies, capsules for significant benefits with only 2,5g/day dosage.

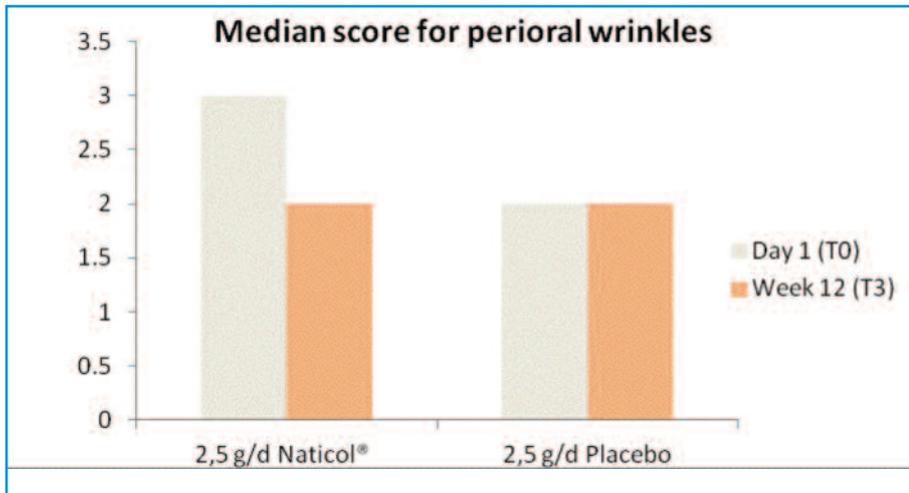
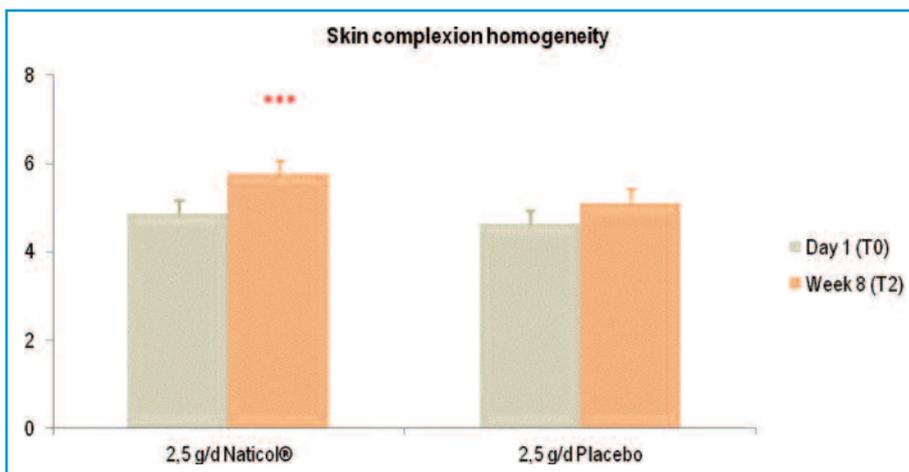


Figure 3 Above: Median clinical score for perioral wrinkles

Figure 4 Below: Change from baseline in clinical assessment of skin complexion homogeneity



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About Weishardt

WEISHARDT is a French company with more than 170 years of experience in the field of the collagen. It is a world leader in the production and sale of collagen products.

Weishardt's innovative fish collagen peptide products are registered under the trademark Naticol® and are mainly directed to functional food & beverage applications, cosmetofoods, nutraceutical and well-being products.

WEISHARDT is supported by Europe and Region Midi- Pyrenees to invest more than US\$ 2 million grant for its Research about its fish collagen peptides. Innovation is the key force of the company that continuously looks for innovative and new health solutions to provide to its customers.