



Skin beauty

Well-aging benefits of collagen

5g/day

Aging of the skin occurs when the epidermis thins, cell renewal slows and collagen is lost or damaged, leading to less moisture, less elasticity and firmness. Contributing factors to skin aging include genes, hormones, UV irradiation, smoking and pollution. All of these factors generate reactive oxygen species that damage the anti-oxidative defense mechanisms of the skin.

Naticol® collagen peptides offer well-aging solutions in products affordable enough for daily use.



WELL-BEING



Naticol® has clinically demonstrated its role as an ingredient in well-aging applications.



Weishardt



CLINICAL STUDY CSR3463 – METHODS AND RESULTS

This clinical study was double-blind, randomized, against placebo and carried on 60 healthy female subjects (mean 56 y.o.). The objective was to evaluate the anti-aging potential of daily oral intake of 5g of Naticol® fish collagen peptides on cutaneous measures and its tolerance. 5g of Naticol® was mixed with liquid and ingested in the morning. This study was conducted by CPCAD (clinical pharmacology center specialized in dermatology - Hospital of Nice, France). All measurements (including biometry measurements) were controlled by certified dermatologists.

This clinical study was performed according to French regulatory competent authority (ANSM) and approved by the local Ethical Committee (CPP). Consent was obtained from each subject before entry in the study.

› **Skin relief – Visia® CR**

Photographies of the face were taken using a standardized device, the VISIA® CR.

This device allows to take pictures using standardized lighting: white light, cross polarized light, parallel polarized light and UVA light. The replica was lit with incident light at 35° which produced shadowing behind each wrinkle.

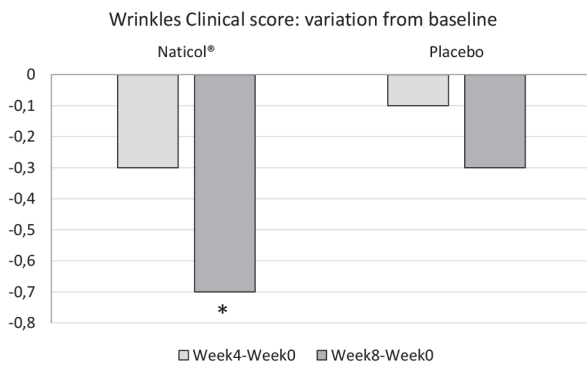


Figure 1 - The clinical assessment of the peri-orbital wrinkles at day 56, indicated a significant decrease of -11% compared to baseline for Naticol®

› **Elasticity - Cutometer SEM 575**

Cutometer® SEM 575 by COURAGE & KHAZAKA was used to measure a deformation perpendicular to the skin during 2 seconds, followed by a relaxation period of 2 seconds.

This method measures the degree of deformation and the time required for the skin to return to its original state. The deformation induced on the skin is measured by an optical system.

The measured parameters are: Ue, the elastic deformation; Ur, the elastic back deformation; Uf the total extensibility of the skin; Ua, the total deformation recovery; Ur/Ue the pure elasticity.

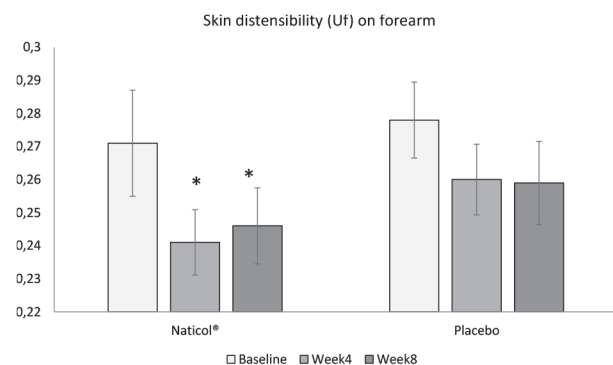


Figure 2 - Naticol® induced a significant decrease of Uf, indicating an increase of skin firmness (mean ± SEM, *: p<0.05).

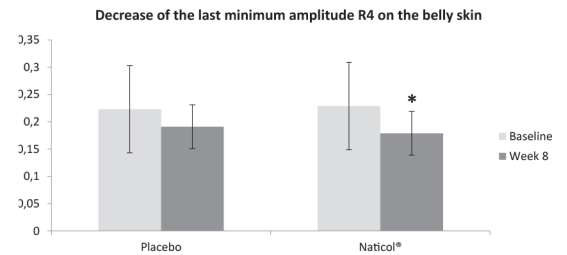


Figure 3 - The decrease of the last minimum amplitude R4 on the belly skin translates a belly skin firmness improvement in Naticol® group.

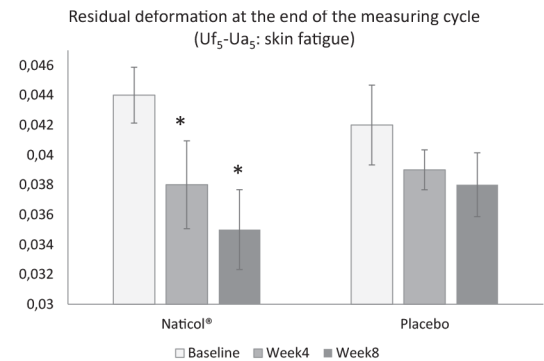


Figure 4 - The residual deformation on the face skin decreased at the end of the measuring cycle on the face for Naticol®.

› **Tolerance**

It was evaluated through a clinical examination and volunteer's questionnaire. Naticol® presents globally a good tolerance.

› **Conclusion**

In this clinical study, oral intake of 5g Naticol®/day, for 8 weeks, showed benefits on skin firmness and a reduction of wrinkle appearance. These results may also indicate a beneficial effect of Naticol®, fish collagen peptides, on the skin dehydration due to cold outside conditions.

These results are published in Journal of aging Research clinical Practice, (Duteil et al., 2016)*.

* Duteil L., Queille-Roussel C., Maubert Y., Esdaile J., Bruno-Bonnet C., Lacour J-P. (2016). Specific natural bioactive type 1 collagen peptides oral intake reverse skin aging signs in mature women. J. aging Res. clin. Practice; 5(2):84- 92.

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