# BEAUTY FOCUS<sup>™</sup> COLLAGEN+ DOUBLE-BLIND, PLACEBO-CONTROLLED CLINICAL STUDY

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### OBJECTIVE

The primary objective of this double-blind clinical study was to evaluate the efficacy and safety of taking Beauty Focus Collagen+, a dietary supplement drink.

#### BACKGROUND

The health and beauty of skin is increasingly important to consumers. Skin is one of the largest organs of the body and is subject to both intrinsic and extrinsic factors. Consumers use topical skin care treatments, such as cleansers, toners, serums, moisturizers, and skin care devices, to address these factors and improve the appearance of their skin. But more recently, consumers have included ingested supplements in their routines to optimize beauty. These dietary supplements can play an important role in skin health and beauty by providing nutrients the skin needs. To meet this need, Nu Skin has developed a unique dietary supplement drink called Beauty Focus Collagen+, which is a proprietary blend of collagen peptides, lutein (a carotenoid), and a wheat lipid extract (containing ceramides). This blend was created based on the ingredients' evident skin benefits and was tested in this clinical study to determine their efficacy and safety.

### STUDY DESIGN

This was a prospective, double-blind randomized, controlled study with 60 healthy, nonsmoking women and men between 40 and 60 years of age. Forty subjects were randomized to the Beauty Focus Collagen+ group, and 20 subjects were randomized to the control group. The Collagen+ group was given a unique product containing bioactive collagen peptides (2.5 g), lutein (5 mg), and a wheat lipid extract (70 mg). The control group was given a similar-looking product that contained maltodextrin, food coloring, and flavoring to match the properties of the supplement drink. Both groups also used a facial cleansing device, ageLOC LumiSpa, on half of the face daily to assess complementary benefits of using the device while supplementing with Collagen+. The ageLOC LumiSpa system is a novel 2-in-1 treatment and cleansing device that uses a unique counter-oscillating action in conjunction with a specially formulated treatment cleanser to stimulate and more effectively treat and cleanse skin. A Pharmanex BioPhotonic Scanner was also used to non-invasively measure carotenoid levels in the skin, as an indicator of antioxidant protection.

Each subject had their skin graded by a dermatologist at baseline, 30 days, 60 days, and 120 days of supplementation. Each subject's skin carotenoid level was also assessed at baseline, 30 days, and 120 days of supplementation. Statistical analysis was conducted on the clinical grading, along with an additional ordinal logistical regression test that was carried out to analyze the probability of a subject obtaining a more youthful score for the desired skin attributes.

#### RESULTS

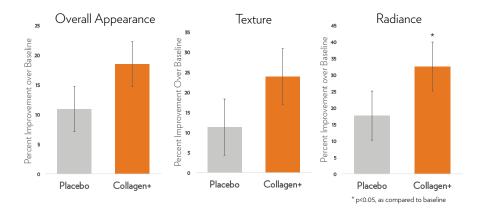
The results of this clinical study focused on clinical grading by a dermatologist on desired skin attributes.

### BEAUTY FOCUS<sup>™</sup> COLLAGEN+ CLINICAL GRADING

Because of the double-blind methodology of the study, subjects did not know whether they received the placebo or the supplement drink, nor did the dermatologist who graded the skin attributes know which subjects received the placebo or supplement drink.

The dermatologist used a scale to rate various skin attributes, including overall appearance, texture, and radiance, at different time points in the study. Based on this clinical grading, the dermatologist then calculated the average participant's percent improvement over baseline after four months of taking Collagen+. The study showed an 18% improvement in overall appearance, a 24% improvement in texture, and a 33% improvement in skin radiance.

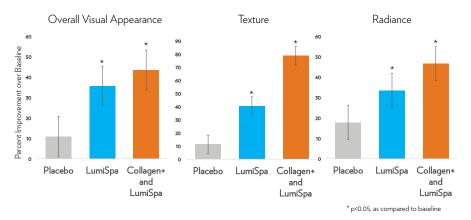
## Dermatologist Grading at 4 Months



### BEAUTY FOCUS<sup>™</sup> COLLAGEN+ & AGELOC<sup>®</sup> LUMISPA<sup>®</sup> CLINICAL GRADING

In the same study, to support the concept of taking care of your skin inside and out, researchers also evaluated the visible efficacy of taking Beauty Focus<sup>™</sup> Collagen+ and using the ageLOC LumiSpa system daily.

Researchers noted complementary benefits from taking Collagen+ and using LumiSpa during the same intervals of time. This included a 43% visual improvement in overall appearance, a 79% improvement in texture, and a 47% improvement in skin radiance (as measured by percent improvement over baseline, according to dermatologist grading after four months).



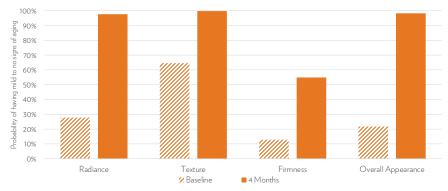
### Dermatologist Grading at 4 Months

### BEAUTY FOCUS™ COLLAGEN+ & AGELOC® LUMISPA® PROBABILITY ANALYSIS

A probability analysis was also carried out based on the dermatologist grading. This analysis focused on the probability of a subject having a rating of mild to no signs of aging for certain skin attributes, compared to moderate to severe signs of aging. The grading was based on a scale for signs of aging where 0 is none (best), 1 is minimal, 2 is mild, 3 is moderate, and 4 is severe (worst).

The results of this analysis showed that the probability of subjects having mild to no signs of aging at baseline was 28% for radiance, 65% for texture, 13% for firmness, and 22% for overall appearance. Participants using Collagen+ and ageLOC LumiSpa had a high probability of showing mild to no signs of aging after using these products for four months, with 98% for radiance, 99% for texture, 55% for firmness, and 98% for overall appearance. This indicates that subjects were graded as having more youthful skin after using these products for four months, compared to baseline.

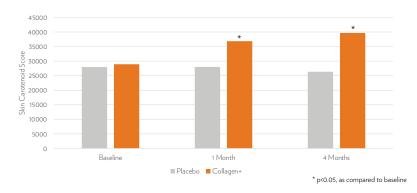
### Reduced Signs of Aging Probability Analysis



### SKIN CAROTENOID SCORE

Skin carotenoid scores were also measured during this study using a Pharmanex BioPhotonic Scanner. The Scanner is a cutting-edge device that non-invasively measures carotenoid levels in living tissue using optical technology, providing an immediate indication of a person's skin carotenoid levels and antioxidant status. The technology of the Scanner is based on an optimal method known as Resonant Raman Spectroscopy, which has been used for many years in research laboratories.

The average skin carotenoid score in this study for the control group at baseline was 27,950, after 30 days it was 28,000, and after 120 days it was 26,350. The average skin carotenoid score for the group that took Beauty Focus Collagen+ at baseline was 28,900, after 30 days it increased significantly to 36,825, and after 120 days it again increased to 39,650. This equates to an average increase of 10,750 after 120 days of taking Collagen+.



### Skin Carotenoid Measurement

### CONCLUSION

Beauty Focus<sup>™</sup> Collagen+ was shown to significantly improve skin texture, skin radiance, and overall appearance of the skin. Collagen+ also significantly increased skin carotenoid scores, as measured with a Pharmanex<sup>®</sup> BioPhotonic Scanner. And Collagen+ even provides the skin with nutrients it needs to prepare it for better results from topical skin care regimens—as confirmed by demonstrating that Beauty Focus Collagen+ and ageLOC<sup>®</sup> LumiSpa provided complementary benefits. Collagen+ was also well tolerated by the subjects, which was expected based on the excellent safety profile of the individual ingredients.

### REFERENCE

Shelly Hester, Steven Wood, Russell Gray, Dale Kern, Zoe Draelos, Collagen Supplement Improves Skin Attributes in Healthy Adults, Current Developments in Nutrition, Volume 5, Issue Supplement\_2, June 2021, Page 321, https://doi.org/10.1093/cdn/nzab037\_031



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1-800-487-1000