

# Beauty From Within: A Synergistic Combination Of Astaxanthin And Tocotrienol For Beauty Supplements

## Introduction

Previously reported dermatological benefits of natural astaxanthin included anti-hyperpigmentation, melanin synthesis inhibition, and reduced photo-skin aging. Hence, the potency of astaxanthin for cosmetic effect is “clearly visible”. Another class of natural compounds called tocotrienols also offer cosmetic benefits. A member of the vitamin E family, its isomeric form (chemically identical, but structurally different) imparts greater protection against free radicals than its popular cousin, alpha-tocopherol. Tocotrienols are generally 40-60 times more powerful than alpha-tocopherols in terms of free radical protection. Both astaxanthin and tocotrienols are found naturally in daily foods we consume. By concentrating these into an oral beauty supplement, it can provide an excellent source of protection in addition to the daily skincare regime.

## Study Design

A double blind, placebo controlled study was performed in collaboration with the FCG Research Institute (Tokyo, Japan). 16 female subjects with dry skin conditions were selected (mean age 40 years old). The treated group (n=8) received a daily dose containing 2 mg - natural astaxanthin and 40 mg natural tocotrienols. In the placebo group (n=8), subjects received identical looking placebo soft-gel capsules. The following were analyzed in a standardized manner: dermatologist inspection, magnified skin surface inspection, skin moisture, sebum content, and a standardized questionnaire. The collected values at 2 and 4 weeks were then compared to the initial baseline readings.

## Conclusion

This initial study demonstrated the cosmetic benefits of oral astaxanthin and tocotrienol combined supplementation. Measurable differences started from 2 weeks after supplementation. By the 4<sup>th</sup> week, the treated subjects with dry skin characteristics exhibited: increased moisture levels ( $P < 0.05$ ), consistent natural oils, reduction of fine wrinkles and pimples ( $P < 0.01$ ). Consequently, these specific parameters contributed to the individual assessment that reported improved elasticity, reduced swelling under the eyes and better skin feeling after the test period. Placebo subjects skin conditions did not improve and generally worsened during the test period.

*Reference: Yamashita, E. (2002) Cosmetic Benefit of Dietary Supplements Containing Astaxanthin and Tocotrienol on Human Skin. Food Style 21 6(6):112-17.*