

Enhance Your Skin's Natural Beauty with AstaReal®

Beautiful skin from the inside out



The outer appearance of the skin is a reflection of a person's inner health and vitality

Skin is the largest organ of the body and its health is crucial for our survival. It is the first line of defence and plays an important role in helping the body carry out vital processes. The skin has a complex structure consisting of different layers with each having unique and important functions.

Our skin is constantly exposed to oxidative stress from internal and external stressors such as bad diet, metabolic byproducts and various environmental factors like pollution and UV rays. Oxidative stress stimulates the production of highly reactive molecules called 'free radicals' which initiate a chain reaction, attacking other cells and causing damage to the skin, such as fine lines, wrinkles, roughness and loss of elasticity.

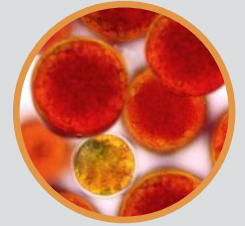
In order to slow down the aging process and reduce the visible signs of aging, protection must be provided to all layers to the skin, from the inside out.

"When looking to prevent or manage skin problems, most people believe that products that are applied topically are the most effective solution. Products that are applied to the surface of the skin predominantly affect the epidermis – the outermost layer – and are limited in their ability to penetrate into deeper layers of the skin. Studies have shown that oral supplementation with natural astaxanthin provides protection to all layers of the skin, thus promoting healthy, radiant skin from the inside out."

What is Natural Astaxanthin?

It is a naturally occurring carotenoid which is derived from the microalgae *Haematococcus pluvialis*.

As well as being the most powerful antioxidant known to science, it also has potent anti-inflammatory properties. Natural astaxanthin's distinct advantage in comparison to other antioxidants, is its ability to span the entire lipid bilayer of the cell membrane, thus providing superior protection from the inside out. This is a vital aspect of natural astaxanthin's anti-aging power as protection is provided to the different layers of the skin; from the visible surface to the delicate deep layers where new skin is formed.



Research & Key Findings

A large body of research has shown that astaxanthin can enhance overall skin health by improving skin moisture, elasticity and reducing wrinkles. A randomized, double-blind placebo controlled study by Tominaga *et al.* (2012) involving 36 healthy male subjects showed that crow's feet wrinkles, elasticity and transepidermal water loss (TEWL) were improved after 6 weeks of daily supplementation with 6mg of AstaReal® natural astaxanthin. Moisture content and sebum oil level on the cheek zone also showed strong tendencies for improvement (figure 1).

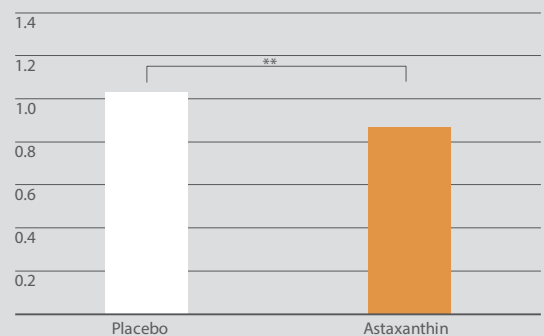


Figure 1. Improvement in transepidermal water loss (TEWL)

The randomized double-blind placebo controlled study involving 36 healthy male subjects for 6 weeks. Elasticity and TEWL were analysed (* $p < 0.01$ compared with placebo) (1).

These findings have led other research groups to look further into the benefits of astaxanthin for skin health. In another study by Tominaga *et al.*, the effect of astaxanthin on wrinkle reduction and skin elasticity was investigated. 28 female subjects (20-55 yrs) were given a dietary supplement and a topical product containing astaxanthin for 8 weeks. The results indicated a significant reduction in the depth of the subject's fine and line-like wrinkles (Figure 2).

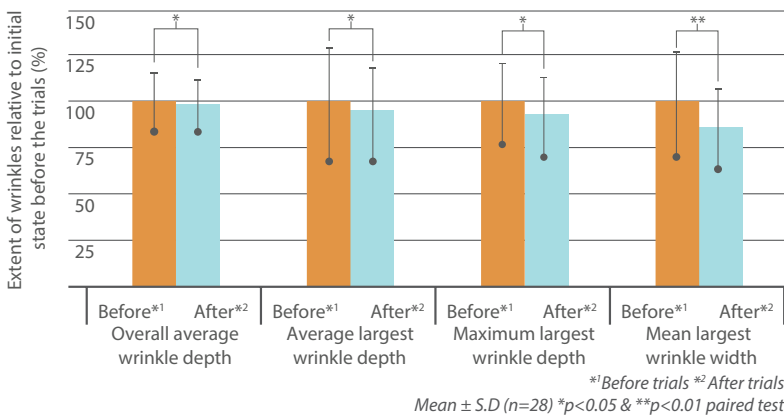
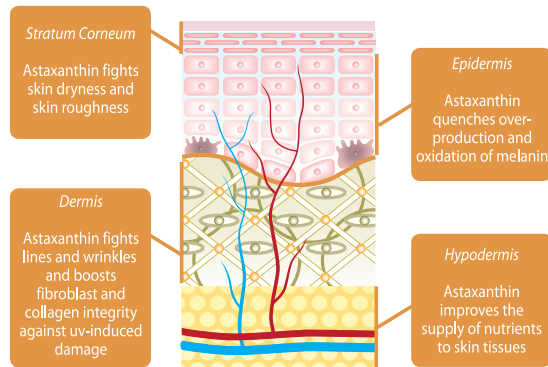


Figure 2. Significant reduction in depth of wrinkles after using astaxanthin

“Natural astaxanthin is not only a powerful antioxidant, but also a potent anti-inflammatory.”

In another study, Camera. *et al.* (2008) tested the photoprotective effect of astaxanthin (AX) against UVA-induced oxidative stress in human dermal fibroblasts (HDF). Astaxanthin's protective effect was evaluated in comparison to other antioxidants, including Beta-Carotene (BC) and Canthaxanthin (CX). The results showed that AX exhibited a significantly superior photoprotective effect and counteracted the above mentioned UVA-induced damage compared to BC and CX. Furthermore, a 2017 study by Tominaga *et al.* showed that AstaReal® natural astaxanthin has proactive benefits for the skin.



The superior protection that natural astaxanthin provides to the skin compared to other antioxidants has encouraged skin care experts and health professionals around the world to endorse it as an essential anti-aging nutraceutical.

Benefits of Natural Astaxanthin for Skin Health:

- 1 Improves elasticity by strengthening the collagen layer
- 2 Reduces the size of wrinkles and improves skin micro texture
- 3 Revitalizes photo aged skin by quenching free radicals in all skin layers

AstaReal® – The Most Studied Brand

The AstaReal Group is recognized as an authority in natural astaxanthin science and research. AstaReal's high quality natural astaxanthin is the most studied form of the nutrient worldwide. The clinical database for AstaReal® includes 60+ clinical trials with more than 1400 participants undergoing treatments lasting from 2 weeks to 6 months.

Superior Product Range

AstaReal AB offers a range of bulk products to fit different formats, allowing for the development of innovative products that add astaxanthin's unsurpassed antioxidant power.

In addition, AstaReal AB has developed a range of finished formulations containing AstaReal® natural astaxanthin, each expertly developed to support a number of health areas.



References & Selected Publications

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