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 defense 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. In a placebo controlled, single blind study, Yamashita et al. (2006) examined the effect of astaxanthin on skin condition. 49 women were supplemented with 4mg/d AstaReal® natural astaxanthin for 6 weeks vs a placebo group. The results showed a significant improvement in skin moisture and elasticity (Figure 1).

![Figure 1. Improvement in skin moisture and elasticity](image)

The placebo controlled, double blind study was performed on 49 women supplemented with 4mg/day astaxanthin or placebo for 6 weeks. Skin moisture content and elasticity was measured by instrumental assessments. (*p<0.05 compared with placebo) (6).

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).
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.

References & Selected Publications