Astaxanthin and Skin Health

- Enhance your skin beauty with astaxanthin.
- Improve skin smoothness and oil control.
- Treat and control age spots.
- Reduce wrinkles and protect skin cells from within.

Human skin is mainly composed of epidermis and dermis which form the largest organ in a body. In addition to the function of protecting the body from environmental changes, human skin also has multiple aesthetic values. Aging causes the skin to lose its suppleness and elasticity; however, UV-induced radical oxygen is more harmful to the skin because it accelerates the aging process. Astaxanthin can inhibit the activity of radical oxygen with its potent antioxidative power by acting rapidly against it on the skin surface, epidermis and dermis, thus maintaining healthy and beautiful skin.

### Astaxanthin Inhibits Melanogenesis

Astaxanthin inhibited melanogenesis in cultured human epidermis models.

![Graph showing melanin production inhibition](image)

**Study Method:**

Astaxanthin's inhibition of melanogenesis in cultured human epidermis models was measured.  

### Astaxanthin Inhibits Melanin Production - 1

Astaxanthin and L-cysteine’s inhibition of melanin production was evaluated in cultured human epidermis models.  

![Graph showing melanin inhibition rates](image)

**Study Method:**

A cultured human epidermis model was transiently treated with astaxanthin or tranexamic acid in advance of the study. Inhibition of melanin production was evaluated in the models exclusive of extracellular astaxanthin or tranexamic acid.

* by Labcyte MELANO-MODEL (Japan Tissue Engineering Co., Ltd.)

### Astaxanthin Inhibits Melanin Production - 2

A cultured human epidermis model was transiently treated with astaxanthin or tranexamic acid in advance of the study. Inhibition of melanin production was evaluated in the models exclusive of extracellular astaxanthin or tranexamic acid.

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### Age Spot Treatment

The age spot area visibly reduced after 8 weeks treatment.

![Graph showing age spot size reduction](image)

**Study Method:**

29 healthy female subjects took 6mg of astaxanthin supplement and applied astaxanthin topical product for 8 weeks. Comparison of age spots between 0 and 8 weeks were determined by image analysis.
Astaxanthin Repairs Wrinkles  
(By Analysis Methods with Replicas)

Wrinkle topography of the subject’s crow’s feet was evaluated with replica by image analysis before and after the treatment.

Relative Values (start value as 100%)

Study showed that astaxanthin worked effectively in wrinkle analysis parameters.

Cell Protection Comparison with Other Anti-oxidants

Astaxanthin’s cell protection ability was compared with other anti-oxidants.

Cell viability (%)

Study showed that astaxanthin had the highest ability to protect cells.

Improvement of Oil Control

Astaxanthin reduced the sebum secretion on the skin surface.

Sebum oil reference value after 6 weeks

Do you feel better about your skin oil balance after taking astaxanthin?

Improvement of Corneum Water Volume

10 female subjects with dry skin took 6mg of astaxanthin supplement and applied astaxanthin topical product (manufactured by Fuji Chemical) for 8 weeks. Corneum water volume in the subjects’ cheek was evaluated before and after the study.

Study showed that astaxanthin improved corneum water volume of dry skin.

References

Further Reading