



AGELOC YOUTH RESEARCH

CLINICAL STUDY: EFFECT ON AGING DEFENSE MECHANISMS (ADMs)

The peer-reviewed clinical study results below were published in the Journal of Cosmetic Dermatology in 2016. The study provides further validation of the science behind ageLOC Youth—Nu Skin’s most advanced anti-aging supplement developed to deliver a wide range of systemic youth preservation benefits.

The human body is exposed to a number of internal and external factors that contribute to the aging process. Such damaging factors can include stress, oxidative damage, DNA damage, pollution, metabolic by-product accumulation, toxins, and a variety of other factors that can be collectively described as “aging aggressors.” Fortunately, humans have several mechanisms to mitigate the damage caused by aging aggressors.

Examples of these cellular protective aging defense mechanisms (ADMs) include DNA protection and repair mechanisms, mechanisms that regulate inflammatory balance, and antioxidant protection mechanisms. However, such protective ADMs can be compromised by aging aggressors, leading to accelerated aging.

The interaction between ADMs and aging aggressors is important throughout the body. Skin provides a convenient model to examine these types of interactions.

Background

The objective of this study was to determine whether, by bolstering ADMs, ageLOC Youth could support the body’s ability to respond to ultraviolet radiation (UVR) exposure. Thirty-six healthy women with fair skin between the ages of 40 to 75 were assessed before and after taking ageLOC Youth for eight weeks. The study used ultraviolet (UV) light as an aging aggressor.

Before and after taking ageLOC Youth, the researcher exposed three 1-cm diameter areas of participants’ non-sun-exposed skin to different doses of simulated UV light (1 MED, 2 MED, and 3 MED). One minimal erythema dose (MED) is defined as the lowest dose of UVR to cause erythema, or visible reddening of the skin, 24 hours after exposure.

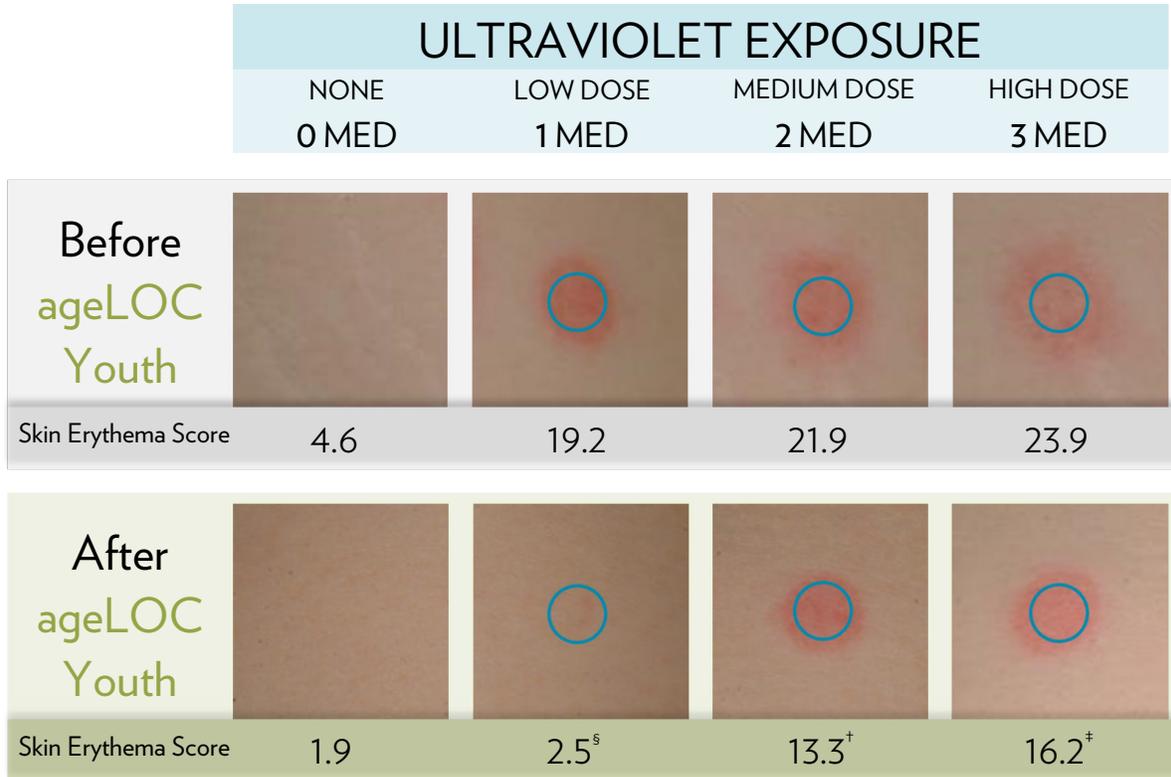
Results

ERYTHEMA

Twenty-four hours after UV exposure, erythema was measured using a dermospectrophotometer at each of the three exposed skin sites as well as at an area of non-exposed skin in the same area (0 MED).

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Below are pictures taken before and after supplementation of a representative subject. The blue circles represent the area of skin that was exposed to UV light. There was significantly less erythema after taking ageLOC Youth for eight weeks.



 = AREA OF SKIN EXPOSED TO UVR

[§]p=0.1 [†]p=0.02 [‡]p=0.01

APOPTOSIS

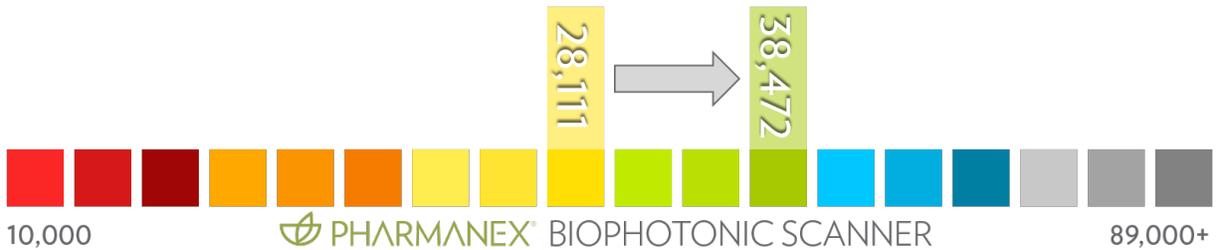
Twenty-four hours after UV exposure, a 2mm skin punch biopsy was also taken from the area of skin exposed to 3 MEDs. A board-certified dermatologist then analyzed the tissue, counting the number of apoptotic (dead) cells. The dermatologist was blinded as to whether the biopsies were taken before or after supplementing with ageLOC Youth. This assessment demonstrated a 50 percent reduction in damage after just eight weeks of taking ageLOC Youth (p<0.005).

AVERAGE APOPTOTIC CELL COUNT (cells/mm ²)	
Before ageLOC Youth	11.3 ± 0.9
After ageLOC Youth	5.3 ± 0.9 [*]

^{*}p<0.005

SKIN CAROTENOID CONCENTRATION

Skin carotenoid concentrations were also measured noninvasively in the palm of the hand using the BioPhotonic Scanner. Before taking ageLOC Youth, the average Skin Carotenoid Score (SCS) was 28,111. After taking ageLOC Youth for eight weeks, the average SCS increased 10,000 points to 38,472 ($p < 0.0001$).



Conclusion

This study demonstrates how ageLOC Youth supports ADMs in the skin and maintains the body's ability to defend against certain aging aggressors.

ageLOC Youth supported multiple ADMs important for cellular protection as evidenced by measurable and significant improvements in erythema (a marker of inflammatory response), apoptosis (a marker of DNA protection), and skin carotenoid concentration (a marker of antioxidant protection). Please note that even though ageLOC Youth supported the body's ability to respond to UVR exposure, it is not intended to be a substitute for sunscreen.

In addition, the dramatic effects in just eight weeks indicate that the benefits are achieved from the total blend of ingredients—not simply the contribution of one or two individual ingredients.

(Jan 2017)

Reference:

Wood SM, Mastaloudis AF, Hester SN, Gray R, Kern D, Namkoong J, Draelos ZD. Protective effects of a novel nutritional and phytonutrient blend on ultraviolet radiation-induced skin damage and inflammatory response through aging defense mechanisms. *J Cosmet Dermatol.* 2016 Nov 24.

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