



AGELOC Y-SPAN RESEARCH

CLINICAL STUDY: EFFECT ON BRAIN HEALTH

The peer-reviewed, double-blind clinical study results below were published in the journal Free Radical Biology and Medicine in 2020. The study provides further validation of the science behind ageLOC Y-Span—Nu Skin's most advanced anti-aging supplement developed to deliver a wide range of systemic youth preservation benefits.

BACKGROUND

Glutathione is one of the most important antioxidants in the body, especially in the brain. However, glutathione levels typically decline with aging, which leaves the brain more vulnerable to oxidative damage. Neuroenergetics (energy levels in brain cells) and neurotransmission have also been shown to decline with aging, which can impact aspects of brain health such as memory and normal brain function.

Pharmanex scientists have identified a blend of nutrients that supports healthy aging and wanted to determine its effects on brain health. This blend is found in ageLOC Y-Span. The objective of this clinical study was to determine whether taking ageLOC Y-Span positively impacts metabolites related to neuroprotection, including glutathione, and neuroenergetics, including the ratio of glutamine to glutamate.

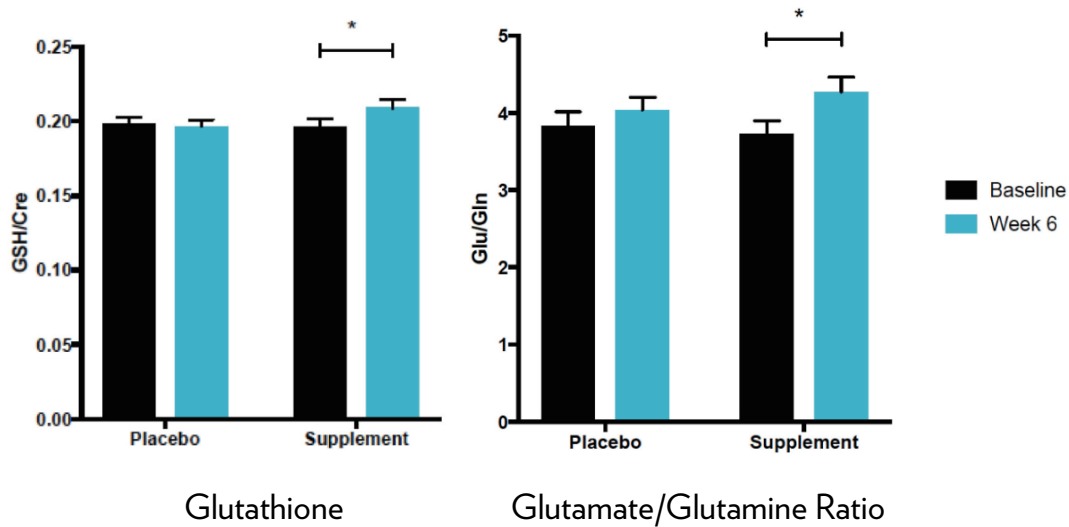
METHODS

Sixty-three healthy men and women between the ages of 40-60 were randomized into two groups; one group was given ageLOC Y-Span, and the other group was given a placebo. Subjects underwent a noninvasive brain imaging process called Proton Magnetic Resonance Spectroscopic measurement (MRS) at baseline and again after 6 weeks. This measurement looked at changes in brain chemistry of specific brain metabolites including glutathione, glutamate, and glutamine.

RESULTS

The participants taking ageLOC Y-Span showed a statistically significant increase in glutathione measurements after 6 weeks, whereas the participants in the placebo group showed no increase. Glutathione was measured as a ratio of glutathione to creatine (GSH/Cre); creatine levels remained unchanged between baseline and 6 weeks.

The participants taking ageLOC Y-Span also showed a statistically significant increase in their glutamate to glutamine ratio (Glu/Gln) from baseline to 6 weeks. This change was not significant in the placebo group.



DISCUSSION

Preventing or mitigating this age-related decline of glutathione is critical for maintaining brain health. Glutathione plays a key role in detoxifying certain damaging compounds in the brain, as well as protecting the brain against pro-inflammatory compounds and oxidative stress. Therefore, glutathione has neuroprotective effects, and an increase in glutathione is linked with increased neuroprotection.

The other main aspect of this study was the effect this dietary supplement had on neuroenergetics. Glutamate and glutamine are two forms of a neurotransmitter found in the brain. The brain converts glutamate to glutamine and back again as it is used. The ratio of glutamate to glutamine is reflective of how much energy the brain has—a higher ratio is correlated to higher energy (in other words, improved neuroenergetics), and it is also linked to improved neuroprotection as well.

SUMMARY

This clinical study showed that 6 weeks of supplementation with ageLOC Y-Span increased key brain metabolites, including glutathione and the ratio of glutamate to glutamine, to improve neuroprotection and neuroenergetics in the brain. To the best of our knowledge, this is the first study to demonstrate a nutritional supplement blend increases metabolites involved in neuroprotection and neuroenergetics in brains of healthy humans.

(Jun 2020)

Reference:

Mastaloudis A, Sheth C, Hester SN, et al. Supplementation with a putative calorie restriction mimetic micronutrient blend increases glutathione concentrations and improves neuroenergetics in brain of healthy middle-aged men and women. *Free Radic Biol Med.* 2020;153:112-121.

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