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REPORT

Life Extension Mix™ and Mitochondrial Energy Optimizer Now with Pyridoxamine

When sugars react with the body's proteins, the result is the formation of non-functioning glycated structures called Advanced Glycation End Products.¹ While glycation is a normal consequence of aging, it is far from desirable.²⁻⁵

The age-related reduction of visual acuity is a result, amongst other factors, of a lifetime of glycation reactions.⁶⁻⁸ Glycation is also associated with reduced arterial blood flow and long term kidney problems.⁹⁻¹¹ The effect of glycation can be seen in the form of cross-linked proteins that accumulate in neurons, endothelial cells, eye lenses, and senescent skin.¹²⁻¹³



Collagen accounts for about a third of our total body proteins. Glycation-induced collagen cross-linking in vascular wall, skin, muscle, and organs throughout the body leads to the inelasticity of tissues that are characteristic of aging.¹⁴ Glycation in arterial walls appear to be an especially deleterious event, causing cross-linking of collagen molecules to each other and to circulating proteins. This leads to plaque formation and loss of vascular elasticity.

SIMILARITY BETWEEN COOKED FOODS AND AGING

Glycation was first described in food products in the year 1912. When meat is cooked at high heat, particularly broiling and frying, rapid glycation or "browning" reactions occur as proteins interact with the sugars present. Advanced Glycation End Products (AGEs) from the diet can also be absorbed into our body, which make a significant contribution to the plasma and tissue pool of AGEs.

The same glycation process that takes place in cooked protein foods also happens at a slower rate to long-lived proteins of the body, such as collagen! This alarming phenomenon of our body slowly being cooked to death has motivated scientists to develop ways to block glycation reactions.

ANTI-GLYCATION NUTRIENTS

Life Extension members gained access to a validated anti-glycation agent when high-dose carnosine supplements first became available.¹⁵ Additional protection against glycation was shown in response to benfotiamine, a fat-soluble form of vitamin B1.¹⁶

For over a decade, however, governmental regulatory issues blocked access to one of the most important anti-glycation agents ... a unique form of vitamin B6 called pyridoxamine.

You may wonder why supplementing with more than one anti-glycating agent is desirable. The direct answer is that there are many chemical processes involved in the formation of advanced glycation end products in the body.^{1-5, 17} By blocking multiple chemical "checkpoints" involved in glycation reactions, one can optimally slow this devastating degradation of our living proteins.

Pyridoxamine has been extensively studied and its multiple anti-glycation properties make it important to include in a science-based daily supplement program.^{17a, 18-20} Pyridoxamine has been added to two popular formulas that many Life Extension members use everyday as part of an anti-aging program!

LIFE EXTENSION MIX™ NOW WITH PYRIDOXAMINE

A popular multi-nutrient formula long favored by Foundation members is Life Extension Mix. One reason so many people choose Life Extension Mix is the comprehensive blend of fruit and vegetable extracts it provides.

A unanimous recommendation of health experts is for Americans to consume more fruits and vegetables. Despite constant media publicity, the majority of us do not ingest enough of these plant foods each day.

Life Extension Mix provides 21 standardized fruit and vegetable extracts, along with high-potency vitamins, minerals and amino acids that form the cornerstone of a comprehensive health maintenance program. Life Extension Mix saves time and money by combining the most popular nutrients into one product, eliminating the need to take separate bottles of B-complex, vitamins C and E, minerals, and much more that would be required to achieve the same effects. The new Life Extension Mix contains 50 mg of pyridoxamine to help reduce glycation reactions in the body.

A keystone of a comprehensive supplement program, Life Extension Mix saves members money because it provides so many well-studied nutrients into one formula. If you are on a budget, the Life Extension Mix provides the best “cost-per-milligram” value.

With the addition of pyridoxamine, the new Life Extension Mix is now an even greater value. A complete description of the new Life Extension Mix formula.

MITOCHONDRIAL ENERGY OPTIMIZER NOW WITH PYRIDOXAMINE

Some of the most serious consequences of aging occur with the onset of inflammation and mitochondrial energy depletion in our cells.²¹⁻²⁵

All cells require healthy mitochondrial activity to perform life-sustaining metabolic processes.²⁶ As mitochondrial function weakens, so does the vitality of organs such as the heart and brain, or in some cases, the entire body.²⁷⁻³²

Mitochondrial Energy Optimizer contains a new microencapsulated R-lipoic acid designed to provide optimal restoration of youthful mitochondria energy output, while guarding against the generation of toxic free radicals. R-lipoic acid is more effective than alpha lipoic acid ³³⁻³⁵ commonly sold by commercial supplement companies.

Mitochondrial Energy Optimizer contains only the superior “R” form of stabilized lipoic acid along with the most neurologically active form of the critical carnitine amino acid called acetyl-L-carnitine arginate.³⁶⁻³⁷

Low-level systemic inflammation is involved with virtually every undesirable consequence of aging. Mitochondrial Energy Optimizer provides the most potent flavonoid (luteolin) to suppress the type of persistent inflammatory reactions that most often occur as a result of “normal” aging.³⁸⁻⁴¹

Anti-glycating nutrients such as high-dose carnosine and benfotiamine serve as a foundation for this advanced anti-aging formula. The new Mitochondrial Energy Optimizer contains 50 mg of pyridoxamine, making it the most comprehensive and cost-effective anti-glycation formulation anywhere.

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