Optimized Curcumin

With Neurophenol®

DESCRIPTION

Optimized Curcumin with Neurophenol® is a unique formula containing two clinically supported and trademarked ingredients: Longvida® Optimized Curcumin with extended absorption and bioavailability, and Neurophenol® proprietary blend of standardized blueberry and grape extracts. Both ingredients support cognitive function in healthy aging adults.‡

INDICATIONS

Healthy aging and cognitive function[‡]

FUNCTIONS

Longvida® Optimized Curcumin, based on discoveries from UCLA, is a revolutionary ingredient for healthy brain aging. Longvida's® Solid Lipid Curcumin Particle (SLCP) Technology meets all three requirements for bioavailability: solubility, permeability, and stability, as evidenced by therapeutic levels of free curcumin detected in the bloodstream and target tissues. The SLCP technology formulation precisely preserves curcumin particles in a solid lipid base that protects the curcumin from the harsh environment of the stomach, and allows it to dissolve at the optimal point for absorption in the GI tract. The end result permits maximal absorption of the active free form of curcumin.‡

Curcumin is insoluble in water at neutral and acidic pH, undergoes rapid glucuronidation, and is generally thought to be poorly bioavailable and rapidly excreted. Several human pharmacokinetic studies have only detected curcumin in blood in the inactive glucuronide form. Free curcumin is the only form that has been shown to pass the blood-brain barrier.

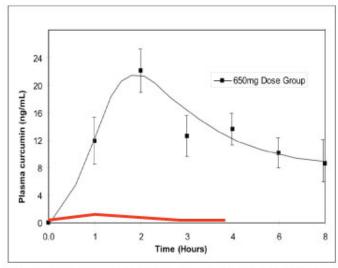
Phospholipid-curcumin* Phospholipid-curcumin* No free curcumin detected in human studies. (Marczylo 2007, Cuomo 2011) Pioavailability of free curcumin (brain permeable) Glucuronidated (not brain permeable) Glucuronidated (not brain permeable)

Longvida[®] Curcumin is supported by more than a dozen bioavailability studies showing extended absorption and 65 times more bioavailability than typical curcuminoids, with a half-life of 7 hours, versus 2 hours for phospholipid curcumin and 0-1 hours for unformulated curcumin.

PRODUCT DATA DOUGLAS LABORATORIES® 09/2019

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Longvida (black line) is 65 times more bioavailable than 95% curcuminoids (red line). (Gota et al. 2010)

Longvida® Curcumin has been shown in placebo-controlled clinical research to play a role in more than 10 cognitive pathways. A 30-day, randomized, placebo-controlled trial with low-dose Longvida® (400mg) in healthy, middle-aged subjects led to significant support versus placebo in the following markers related to cognitive health and healthy brain aging: amyloid-beta protein, catalase, total antioxidant capacity, sICAM-1, and salivary amylase.

High circulating levels of amyloid-beta in the brain may be associated with brain aging and cognitive function. A decrease in plasma amyloid in healthy individuals may represent alterations of amyloid in the brain and excretion from the body. Curcumin is an established binding agent of amyloid-beta *in vitro* and *in vivo*. Salivary amylase is an established marker for physiological and emotional stress. The impact of stress on healthy aging and cognition is well known. Stress is also correlated with increased amyloid-beta. A study using 80mg curcumin from 400mg Longvida® significantly reduced salivary amylase in 30 days. The same study also found an increase in plasma catalase, an antioxidant enzyme that binds with high affinity to amyloid-beta and eliminates peroxide radicals. \$\frac{1}{2}\$

Neurophenol®

Berries are high in antioxidants, and it is well documented that blueberries and fruit flavonoids play a significant role in memory support and a healthy aging brain. Polyphenols contained in berries may have multiple physiological effects that serve to support healthy brain function. Neurophenol® is a standardized blend of polyphenols from Canadian wild blueberries and French grapes. The active molecules in these berries are concentrated according to a proprietary manufacturing process in order to achieve a highly purified extract.‡

Neurophenol® supports cognitive function, as demonstrated in several recent studies. In a recent randomized, double-blind study of 200 healthy individuals between the ages of 60-70, Neurophenol® provided significant support for episodic memory and verbal recognition memory. Animal research suggests that Neurophenol® may also support spatial memory. Spatial memory is essential for recording information about orientation in the environment, while recognition memory is a key factor in the ability to recognize previous events. In a multi-national study of 200 older adults, Neurophenol® provided significant support for cognitive performance

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and memory at a dose of 600 mg per day over a six-month period. The supplement supported episodic memory or the ability to remember a past event. Neurophenol® also promoted the ability to encode and retrieve verbal information. For both outcomes, significant support was evident in the lowest quartiles of initial performance. These actions may be explained, in part, by modulation of the expression of genes involved in neuronal plasticity.[‡]

FORMULA (#202524-60X)

Serving size 2 Vegetarian capsules

Longvida® Optimized Curcumin Extract.... 400 mg

(from Curcuma longa rhizomes)

Proprietary Neurophenol® blend300 mg

Providing 85 mg of flavonoids (flavan-3-ols, phenolic acids,

flavonols, anthocyanins, resveratrol) from: Grape Extract (fruit, Vitis vinifera) and

Wild Blueberry Extract (fruit, Vaccinium angustifolium)

Other ingredients: Hydroxypropyl methylcellulose (capsule), microcrystalline cellulose, sunflower lecithin, stearic acid, maltodextrin, ascorbyl palmitate and silicon dioxide.

Longvida® is patented under US 9192644 & EP1993365 (other patents pending) and is a registered trademark of Verdure Sciences, Inc.

SUGGESTED USE

As a dietary supplement, adults take 2 capsules, 1-2 times daily or as directed by your healthcare professional.

WARNING: If pregnant, lactating, or taking prescription medications, consult a health professional prior to use. SIDE EFFECTS

Loose stools may occur initially if taking higher dosages than the recommended daily dose. STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

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For more information on Optimized Curcumin, visit douglaslabs.com

[‡]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.

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