

## Optimized Curcumin With Neurophenol™

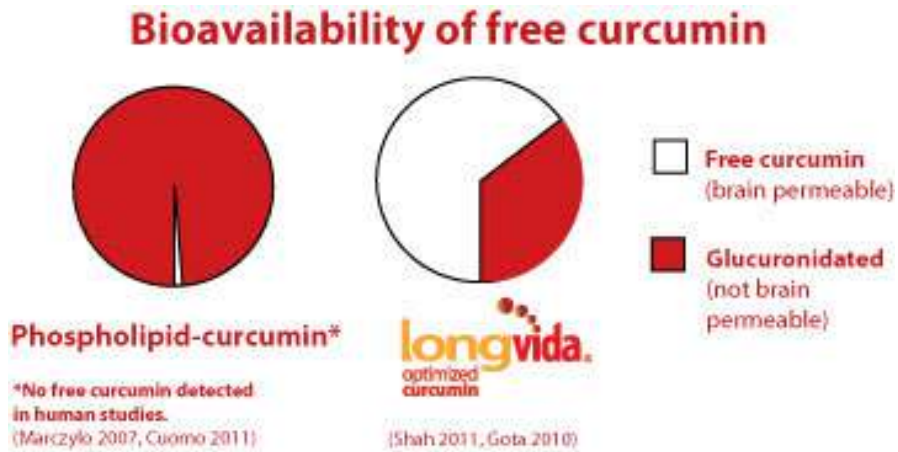
### DESCRIPTION

Optimized Curcumin with Neurophenol™ is a unique formula containing 2 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.†

### FUNCTIONS

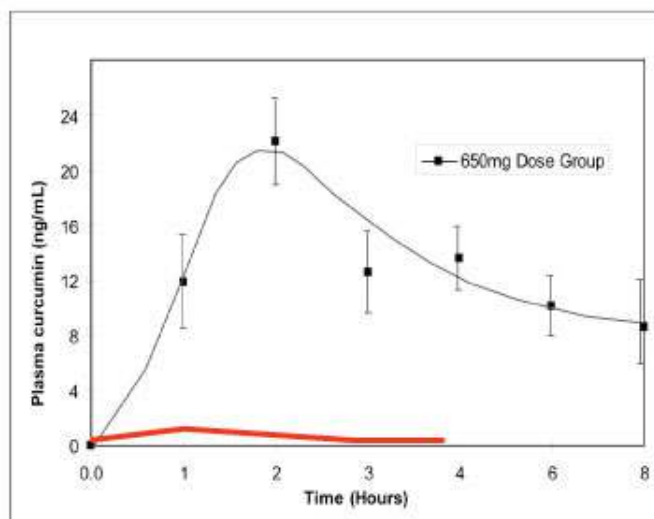
**Longvida® Optimized Curcumin**, based on patent pending discoveries from UCLA, is a revolutionary new ingredient for healthy brain aging. Longvida®'s Solid Lipid Curcumin Particle (SLCP) Technology meets all three requirements for bioavailability: solubility, permeability, and stability, as evidenced 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 in a way that preserves and 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.



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.

## Optimized Curcumin With Neurophenol™



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

Longvida® Curcumin has placebo-controlled clinical research to support its role 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. Curcumin is a potent antioxidant that is neuro-supportive.† Circulating levels of amyloid-beta are associated with levels that can be found in the brain, healthy 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.

### 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. Specifically, blueberry, strawberry, blackberry, grape and plum juices or extracts have all been successfully tested in various animal models of cognitive function. Studies in which elderly subjects consumed grape or blueberry juice daily for 12 weeks noted a significant benefits in verbal learning memory. **Neurophenol™** provides flavonoids from standardized extracts of wild blueberry and grape such as anthocyanidins, monomers, dimmers and oligomers. These fruits are being increasingly studied to better understand their effects on cognitive function. Neurophenol proprietary blend is currently being evaluated in a multi-centered, placebo-controlled, randomized, double blind study investigating cognitive function in healthy aging adults.

## Optimized Curcumin With Neurophenol™

### INDICATIONS

Optimized Curcumin is indicated as a dietary supplement for healthy aging and cognitive function.

### FORMULA (#202028-60X)

#### Serving size 2 Vegetarian capsules

LONGVIDA™ Optimized Curcumin Extract.... 400 mg

(from *Curcuma longa* root)

Proprietary Neurophenol™ blend ..... 300 mg

Providing 85 mg of flavonoids (monomers, oligomers, flavonols, anthocyanidins, and phenolic acids) from:

Grape Extract (fruit, *Vitis vinifera*) and

Wild Blueberry Extract (fruit, *Vaccinium angustifolium*)

Other ingredients: Hydroxypropyl methylcellulose (capsule), cellulose, phosphatidylcholine (from soy), stearic acid, maltodextrin, ascorbyl palmitate, and silicon dioxide.

Longvida™ is patent protected by EP 1993365, other patents pending, and is a registered trademark of Verdure Sciences, Inc.

### SUGGESTED USE

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

**WARNING:** If pregnant, lactating, or taking prescription drugs such as Coumadin/Warfarin, consult a physician prior to taking this product.

#### 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.

### REFERENCES

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**For more information on Optimized Curcumin, visit [douglaslabs.com](http://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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