Neuron Growth Formula is a specially formulated nutrient blend that improves brain function by promoting the outgrowth of axons and dendrites (neurites). Brain aging is characterized by several factors including neuronal death, diminished production of brain hormones and neurotransmitters, and the buildup of metabolic products in the brain cells. Structural changes also occur, particularly the loss of neurites, the filamentous processes that transmit electrical impulses to synapses where interneuronal communication takes place. The disruption of the neural communications network effectively prevents brain cell “cross-talk” and results in substantial physiological and behavioral impairment. The nutrients in Neuron Growth Formula have been shown to significantly enhance the outgrowth of neurites in both juvenile and aging brains.

**Mechanism of Action**

Neuron Growth Formula provides a comprehensive nutritional solution to the normal age-related loss of neurites.

**Acetyl L-Carnitine**

Acetyl L-carnitine (ALC) has been shown to increase nerve growth factor (NGF) activity as much as 100-fold. NGF is one of the body’s most important neurotrophins, responsible for the development and maintenance of nerve cells, including the outgrowth of neurites. ALC enhances the rate of neurite outgrowth by increasing the expression of neuronal NGF receptors. Acetyl L-carnitine also prevents lipofuscin (oxidized protein) buildup in brain cells.

A related compound, acetyl L-carnitine arginate, works synergistically with ALC by mimicking the action of nerve growth factor itself. When administered in conjunction with ALC, both the rate and extent of neurite outgrowth is dramatically increased.

**Uridine**

Uridine, a ribose-containing nucleoside, is essential for the formation of RNA. Animal studies show that uridine is incorporated into polysomes in the brain during learning experiences, a process that greatly increases the efficiency of mRNA-dependent protein expression in the brain. Uridine supplementation enhances the outgrowth of axons and dendrites during growth and development stages, as well as in older animals. When uridine was administered orally to older animals, it increased two measurements of neurite outgrowth by 181 percent and 221 percent, compared to control animals. In these animal studies, uridine enhanced memory retention and offset the age-related decrease in brain phosphatidylcholine levels.

**Gotu Kola**

Gotu kola contains several active principles called asiaticosides. These phytochemicals improve cognition in older animals while stimulating axon-dendrite growth and out branching in key areas of the brain. Gotu kola improves cognition and outgrowth in both older animals and during the early growth and development stages of younger animals. Gotu kola has been used for centuries as a brain tonic in the Ayurvedic and Chinese traditions; its use has been recorded for 2,000 years.

**Ginkgo Biloba**

Ginkgo biloba has been shown to reduce the free radical oxidative stress in aging brains. It is also able to make improvements in the structural changes to neurites caused by the presence of protein plaque deposits. Ginkgo leaf extract is a well-known promoter of blood circulation to the brain.

**Recommended Applications**

- Improves focus and concentration
- Helps maintain cognitive function
- Helps reverse age related decline in cognition and memory
- Helps promote healthy brain function with age-related structural changes

**References**


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.