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CogniAid™ is formulated as an herbal alternative or as a companion product to our nutrient-based brain support product Brain Vitale™. While Brain Vitale's formulation primarily focuses on supplying the brain with nutrients and compounds that support optimal brain function and overall brain health, CogniAid™ supplies herbs and extracts that have been shown to work through a variety of mechanisms including acetylcholinesterase inhibitory activity, enhancing nerve impulse transmission, aiding in the repair of damaged neurons, and decreasing A β protein aggregation, among others, which help to support those with cognitive impairments, such as Alzheimer's disease and vascular dementia.*

Highlights

Huperzine A (HupA) is a naturally-occurring alkaloid compound found in the club moss *Huperzia serrata*, which upon ingestion acts as an acetylcholinesterase inhibitor. The deficiency in cholinergic neurotransmission in Alzheimer's disease (AD), among other mechanisms, can lead to symptoms of this disease. Acetylcholinesterase inhibitors act to increase available acetylcholine through the inhibition of the enzyme acetylcholinesterase. Improved cholinergic neurotransmission can manifest in stabilization or a less than expected decline in cognition, function and behavior.¹⁻⁵

HupA has been shown to ameliorate learning and memory deficiencies in animal models and AD patients by its modification of beta-amyloid peptide processing, reduction of oxidative stress, neuronal protection against apoptosis, and regulation of the expression and secretion of nerve growth factor (NGF) and NGF signaling. Finally, HupA can significantly improve the cognitive function in patients with mild to moderate vascular dementia because it acts as a selective inhibitor of acetylcholinesterase and it improves brain cell mitochondrial function which, when combined with the above properties, indicates that HupA can act as a neuroprotective agent.⁶⁻¹⁰

EGCg: The green tea polyphenol epigallocatechin-3-gallate or EGCg has been found to enhance and prolong the inhibitory time of HupA on acetylcholinesterase through the increasing affinity of HupA with the transport protein serum albumin.¹¹ This enhanced transport of HupA is a possible mechanism for the observed enhanced effect of EGCg on HupA bioactivity.¹² Additionally, EGCg may have beneficial effects for neuroprotection and cognitive function independently of its interaction with HupA. *In vitro* and pre-clinical studies suggest these are related to EGCg's antioxidant and anti-inflammatory properties and EGCg has also been shown to reduce accumulation of beta-amyloid (A β).¹³⁻¹⁷

Wild Blueberry Blend: This product contains a novel wild blueberry blend consisting of fruit, leaves and stems from three types of blueberries plus bilberry. Long-term consumption of blueberry polyphenols and flavonoids has been shown to improve and even reverse cognitive decline in animal studies, as these plant-based compounds can accumulate in the central nervous system. While acting as a potent antioxidant, blueberry extract can positively impact learning and memory in aged animals, while also acting to reduce stress-related cell signaling and increasing the capacity of neurons to maintain proper functioning during the aging process.¹⁸

Blueberry consumption also plays a role in the reduction of A β aggregation and subsequent synaptic failure.¹⁹⁻²⁰ A β is the main component of amyloid plaques, which can disrupt mitochondrial function and lead to neuronal cell death. Pathological levels of amyloid plaques are found in the brains of Alzheimer's patients. These plaques are believed to be either causative or exacerbating factors in the cognitive impairment characteristic of this disease. Also, the significant cognitive enhancement provided by blueberries is closely related to higher brain antioxidant production of glutathione and the inhibition of acetylcholinesterase activity.²¹⁻²⁴

CogniAid™ may help support overall brain health in those with the following*:

- Cognitive dysfunction
- Alzheimer's disease
- Memory deficits
- Vascular dementia
- Suboptimal learning performance

Bacopa monnieri is a well-known and frequently used remedy in India and has been used as a nerve tonic in Ayurvedic medicine since the 6th century. It is described as a neural tonic and memory enhancer²⁵ and as "an herb that sharpens the mind and the intellect."²⁶ As such, most modern research has focused on the mechanisms behind these properties. Active compounds, including triterpenoid saponins and their bacosides, are responsible for bacopa's ability to enhance nerve impulse transmission. The bacosides aid in the repair of damaged neurons by enhancing protein kinase activity, neuronal synthesis, reduction of beta amyloid levels, restoration of synaptic activity, and ultimately the improvement of nerve impulse transmission.²⁷⁻³⁰ Bacopa may also be neuroprotective via nitric oxide-mediated cerebral vasodilation.³¹

In human trials *Bacopa monnieri* has demonstrated improvements in various parameters of cognitive function in patients with Alzheimer's disease, including orientation of place, time and person, reading comprehension, and other parameters of memory, attention and mood.³² In healthy older adults Bacopa was also shown to improve various markers of cognitive function.³³

Vinpocetine is a highly potent vasodilator, acting by direct relaxation of the vascular smooth muscle. Vinpocetine enhances cerebral blood flow in patients with cerebrovascular disorders.³⁴⁻³⁶ Vinpocetine has been shown to cross the blood brain barrier, protect neurons from the toxicity of glutamate and N-methyl-d-aspartate (NMDA), decrease platelet and red blood cell aggregation, and increase red blood cell membrane flexibility in stroke patients as well as in healthy subjects. In those patients suffering from mild to moderate vascular dementia, vinpocetine benefited memory, learning, and global clinical measures of cognitive performance.³⁷

In three studies of older adults with memory problems associated with poor brain circulation or dementia-related disease, vinpocetine produced significantly more improvement than a placebo in performance on global cognitive tests reflecting attention, concentration, and memory.¹⁹

Supplement Facts	
Serving Size 2 capsules Servings Per Container 30	
Amount Per Serving	% Daily Value
Green Tea Extract (Decaffeinated) (<i>Camellia sinensis</i>) (leaf) [standardized to contain 98% polyphenols and 45% EGCG]	500 mg *
Wild Blueberry Blend [Alaska Blueberry (<i>Vaccinium alaskaense</i> How.), Oval-leaf Blueberry (<i>Vaccinium ovalifolium</i> Sm.), Alpine Blueberry (<i>Vaccinium uliginosum</i> L.), Dwarf Bilberry (<i>Vaccinium cespitosum</i> Michx.) (fruit, leaves, stems)]	300 mg *
Bacopa (<i>Bacopa monnieri</i>) (leaf) [standardized to contain 20% total bacosides (A&B)]	300 mg *
Vinpocetine (from Voacanga Extract) (<i>Voacanga africana</i>) (seed)	30 mg *
Huperzine-A (from Toothed Clubmoss Extract) (<i>Huperzina serrata</i>) (aerial parts)	250 mcg *

*Daily Value not established.

Other Ingredients: Cellulose (capsule), microcrystalline cellulose, vegetable stearate.



Ingredient Properties*

- Assists in inhibition of acetylcholinesterase: **Huperzine A, EGCg, Wild Blueberry Blend**
- May help reduce brain accumulation of beta amyloid: **Huperzine A, Wild Blueberry Blend, Bacopa monnieri**
- Provides antioxidant properties: **Huperzine A, EGCg, Wild Blueberry Blend, Bacopa monnieri, Vinpocetine**
- May help improve cerebral blood flow: **Vinpocetine**
- Neuroprotective properties: **Huperzine A, Wild Blueberry Blend, Bacopa monnieri, Vinpocetine**
- Support for normal neuron function: **Wild Blueberry Blend, Bacopa monnieri**

Recommended Use:

- Take two capsules per day with meals, or as directed by your health care practitioner.

The FDA has warned that consumption of vinpocetine may be associated with adverse reproductive effects. This product should not be consumed by women that are pregnant or wishing to become pregnant.

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/techsheet-references/cogni-aid-references.pdf>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities. Individual monitoring, including liver function tests, may be appropriate.

*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.

To contact Designs for Health, please call us at (860) 623-6314, or visit us on the web at www.designsforhealth.com.