



Focus Attention Powder

Stock #1843-0 (3.3 oz.)

Focus Attention Powder provides important nutrients recognized for their effects on optimal brain and nervous system function, as well as their antioxidant properties. Focus Attention Powder is formulated to enhance memory, mental focus, clarity of thinking and overall learning ability in both children and adults.

Bacopa monniera is revered in Ayurvedic medicine for its apparent anti-anxiety, anti-fatigue and memory-enhancing effects. Bacopa's ability to improve cognitive function (acquiring of knowledge) has been confirmed by experimental and clinical research. Bacopa is used clinically for enhancing memory, for epilepsy and insomnia, and as a mild sedative. Active constituents in bacopa, known as bacosides, are attributed with the ability to enhance nerve impulse transmission, thereby improving memory and general cognition. A study of 40 Indian schoolchildren (ages 6-8), given bacopa daily for 3 months, showed improvements in maze-learning, immediate memory and perception, and reaction/performance times. Likewise, bacopa extract was reported to significantly improve both short- and long-term

memory in children with mental retardation.¹⁻⁶

Choline is a precursor to acetylcholine, an important neurotransmitter believed to facilitate concentration and memory function. Insufficient production and release of acetylcholine is a contributing factor in declining cognitive and memory function associated with aging and Alzheimer's disease. Choline is also crucial for healthy brain and mental development in unborn babies and infants—serum (blood) choline levels are concentrated 100-fold in nursing mothers' milk.^{7,8}

DMAE (dimethylaminoethanol), a naturally-occurring nutrient present in small quantities in the brain and in certain seafood, has demonstrated positive effects on brain function, including improving intelligence, learning ability, memory and mood. One of the few substances capable of crossing the blood-brain barrier, DMAE protects brain cells against oxidative (free radical) damage. DMAE also enhances production of choline, which is utilized by the brain to create acetylcholine (an important neurotransmitter that increases learning ability and memory). Research confirms that older adults suffering memory loss exhibit reduced acetylcholine levels. Research also shows that DMAE effects positive behavioral changes (reduced anxiety, depression and irritability) in patients with senile dementia. Furthermore, studies have shown DMAE to be effective for children diagnosed with learning and behavior disorders, including attention-deficit disorder (ADD). DMAE is often promoted as a natural alternative to Ritalin (the controversial drug typically prescribed for ADD). DMAE is considered a safe and effective alternative to amphetamines like Ritalin, especially since there are no reported side effects on blood pressure or heart rate, no induced "jitteriness" or loss of appetite, and no serious disruption of sleep.⁹⁻¹⁴

Flax seed is an excellent source of essential fatty acids (EFAs), important nutrients that must be supplied in the diet since they are not produced in the body. EFAs are found in high amounts in the brain and are essential for normal brain function and the regulation of mood and perception. EFA deficiency can reduce the number and size of brain cells and disrupt communication between brain cells, thus affecting growth, learning and thinking. Flax seed provides nature's richest supply of the EFA known as alpha-linolenic acid (ALA), which is particularly essential for healthy brain development—animal studies have confirmed permanent learning disabilities among adult offspring of mothers whose diets lacked sufficient ALA.¹⁵⁻²⁰

Fructooligosaccharides (FOS), naturally-occurring simple carbohydrates found in certain vegetables and herbs, discourage the growth of most undesirable colonic bacteria, while encouraging the growth of bifidobacteria (one of several beneficial strains of colonic bacteria). Regular intake of foods rich in FOS may help reduce the risk of colon cancer and may also assist calcium absorption.²⁰⁻²²

Ginkgo biloba provides significant antioxidant protection against free radical damage to brain and nerve cells. Ginkgo also helps prevent metabolic disruptions that can cause a lack of blood supply to the brain by increasing oxygen utilization, cerebral circulation, and the uptake of glucose by brain cells. A review of over 40 clinical studies confirmed that ginkgo effectively decreased all symptoms of impaired mental function associated with cerebral insufficiency (insufficient blood flow to the brain). Numerous studies also indicate benefits for delaying the mental degeneration seen in early stages of Alzheimer's disease. However, ginkgo's positive effects are not limited to the elderly—a double-blind study of young women showed that ginkgo significantly increased reaction times during a memory test. Furthermore, the German Commission E recommends ginkgo for improving memory and learning capacity.^{7,23-26}

Grape seed extract is a rich source of plant flavonoids called proanthocyanidins, which are powerful antioxidants

(approximately 50 times stronger than vitamins C and E). Many grape proanthocyanidins can cross the blood-brain barrier to protect brain cells and nerve endings against free radical damage caused by exposure to air pollution, certain carcinogenic chemicals, tobacco smoke and ultraviolet light.^{7,27,28}

Grape skin extract contains a powerful antioxidant known as *resveratrol*. Animal studies have shown resveratrol to be a potent neuroprotective (protects nerve cells) agent in focal cerebral ischemia (loss of blood flow to a specific part of the brain). Resveratrol's beneficial effects may be related to its vasodilating (dilate blood vessels) activity, its antioxidant properties, its ability to prevent platelet aggregation (blood-clotting), or a combination of all of these actions.^{29,30}

Inositol, considered part of the B-vitamin complex, is needed by the neurotransmitter acetylcholine for healthy cognitive and memory function. Inositol is also required for the proper function of the neurotransmitter serotonin—a decrease in brain levels of inositol may induce depression, as shown by low levels of inositol in individuals suffering from depression.^{16,31}

Lo Han (*Momordica grosvenori*) is an exotic fruit known for its intensely sweet flavor—one of its constituents (mogroside V) is approximately 150 times sweeter than sucrose (sugar). Thus, Lo Han fruit is often used as a natural, non-sugar sweetener, much like stevia leaves.^{32,33}

Malic acid is a naturally-occurring antioxidant and essential component for the production of ATP (adenosine triphosphate). ATP is the basic fuel of life, providing virtually all of the energy needed by the body. ATP is the only source of energy for cells, thus adequate levels of ATP must be maintained for normal cellular function, including brain function. Malic acid also appears to be instrumental in preventing hypoxia (decreased oxygen delivery to the cells), which inhibits ATP production and causes fatigue. Malic acid is one of several "fruit acids" or alpha-hydroxy acids (AHAs) found in apples, grapes, cranberries, and other fruits and vegetables.^{9,10,34,35}

Melissa officinalis, or Lemon balm, is widely used as a relaxing tonic and mild sedative for anxiety, restlessness and irritability. German researchers found that the volatile oil in melissa is primarily responsible for the herb's calming effect on the central nervous system. Melissa's sedative properties have been confirmed in animal studies. In addition, melissa has been shown to improve cholinergic activity (processes involving acetylcholine—an important neurotransmitter involved in concentration and memory function. Many "old-time" herbals recommended melissa for improving both mood and cognitive function. Additional research shows that melissa provides more antioxidant activity than vitamins C and E.³⁶⁻³⁹

Siberian ginseng has long been used in China as a tonic to improve general health, relieve mental and physical stress, improve mental alertness, restore memory, and increase stamina. A 3-month randomized, double-blind, placebo-controlled study showed that those taking Siberian ginseng demonstrated significant improvements in selective memory, as well as significant effects upon feelings of well-being and activity levels. The German Commission E has approved Siberian ginseng as a tonic for times of fatigue and declining capacity for work or concentration.^{40,41}

Stevia leaf extract is used as a natural alternative to sugar, since its incredible sweetness ranges from 200 to 300 times that of common table sugar. Stevia extract is also considered non-caloric. In addition, stevia has been studied for its ability to significantly inhibit the growth of plaque in the mouth and prevent tooth decay. Stevia is ideal for use in children's treats to help avoid tooth decay, weight gain and possible hyperactivity (associated with sugar intake).⁴²⁻⁴⁵

B vitamins (collectively referred to as the B-complex vitamins) play a critical role in brain function and nervous system health, and are vitally important for stabilizing mood and reducing the effects of stress on the body. B vitamin deficiencies may manifest as psychosis and cognitive impairment, as well as irritability, nervousness, tiredness and depression (even to the point of being suicidal). For example, Korsakoff's syndrome (a psychotic personality disorder) is a result of vitamin B₁ deficiency, while a lack of niacin (vitamin B₃) is associated with delirium, dementia and memory deficits. Many hormone-induced mental or emotional disturbances may be improved with vitamin B₆ supplementation, perhaps owing to the fact that B₆ helps convert amino acids into monoamines (an important group of neurotransmitters). Abnormally low levels of vitamin B₁₂ have been linked with Alzheimer's disease, and folic acid deficiency is associated with forgetfulness, psychosis, dementia and Alzheimer's disease. Based on well-documented evidence, many practitioners use high doses of B-complex to alleviate psychiatric symptoms such as anxiety, mild depression, nervousness and poor memory. Large doses of B-complex have also improved the condition of hypersensitive children who failed to demonstrate favorable results with drugs such as Ritalin.^{20,36,46,47}

Focus Attention Powder contains B₁, B₂, B₆, B₁₂, niacinamide, pantothenic acid, folic acid and biotin, as well as natural raspberry flavor and citric acid.

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