



## Ginkgo / Gotu Kola

(with Bacopa)

Stock #899-6 (60 tablets)

Ginkgo/Gotu Kola with Bacopa combines herbs proven to enhance blood flow to the brain and lower limbs, improve venous integrity, and enhance cognitive function and memory.

Ginkgo/Gotu Kola with Bacopa may be helpful for early stages of Alzheimer's disease, mild anxiety, attention span and concentration, cognitive function and learning problems, impaired mental function, short-term memory loss, varicose veins and venous insufficiency (a condition where the veins do not properly return blood to the heart).

**Ginkgo biloba** provides significant antioxidant protection against free radical damage to brain and nerve cells. Ginkgo also helps prevent metabolic disruptions—which can cause impaired blood flow to the brain—by increasing cerebral circulation, oxygen utilization 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 (lack of blood flow to the brain). Symptoms of cerebral insufficiency that have responded favorably to ginkgo include impaired mental function and short-term memory loss, depression, headaches, tinnitus, vertigo and suppressed vitality.<sup>1-5</sup>

Numerous studies also indicate the benefits of ginkgo for delaying the mental degeneration seen in early stages of Alzheimer's disease. Ginkgo facilitates improved nerve transmission rate, enhanced cognitive activity, increased synthesis of brain neurotransmitters, and normalized acetylcholine receptors in the part of the brain primarily affected by Alzheimer's disease, the hippocampus. However, ginkgo's positive effects are not limited to the elderly—a double-blind study of young women showed that ginkgo significantly increased their reaction times during a memory test. The German Commission E also recommends ginkgo for improving memory and learning capacity.<sup>1-5</sup>

Since *Ginkgo biloba* reduces the clotting time of blood, this herb may increase the effectiveness of other anticoagulants, and should therefore, be used with caution if taking anticoagulant or antiplatelet drugs.<sup>1,6-9</sup>

**Gotu kola** has been established as an effective treatment for venous insufficiency of the lower limbs (inadequate drainage of venous blood in the legs) and varicose veins. Numerous studies conducted by European and Italian researchers have shown *Gotu kola* significantly improves symptoms associated with varicose veins, particularly swelling of the legs and overall discomfort and tiredness. *Gotu kola* has also been suggested as a possible treatment for hemorrhoids, since they are a type of varicose vein.<sup>1,10-12</sup>

A 1992 review of the clinical trials of *Gotu kola* revealed significant improvement in venous insufficiency symptomatology (heaviness of the legs, numbness/tingling sensations, night cramps) and physical appearance (ankle edema, foot swelling, leg ulcers, spider veins, vein distension) in approximately 80% of patients. *Gotu kola* appears to work by improving the structure and function of the connective tissue sheath surrounding veins, thus reducing hardening of the veins and improving venous blood flow.<sup>1,10,12</sup>

There is some evidence to suggest that *Gotu kola* may also help improve mental function. A 12-week study conducted in India found that *Gotu kola* significantly increased the mental abilities of 30 developmentally disabled children, as evidenced by improvement in the children's attention and concentration on assigned tasks. Furthermore, research suggests that *Gotu kola* may provide mild tranquilizing and anxiolytic (anxiety-relieving) effects. A double-blind placebo-controlled trial of 40 individuals found *Gotu kola* reduced "startle" responses to sudden loud noises, suggesting, though not conclusively proving, that *Gotu kola* may be helpful for relieving anxiety.<sup>1,10,12</sup>

**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, as recorded in Ayurvedic texts, has been confirmed by experimental and clinical research. Bacopa is used clinically for enhancing memory, for epilepsy and insomnia, and as a mild sedative. Ayurvedic treatment centers in India use bacopa to relieve anxiety in mentally ill patients. Active constituents in bacopa, known as bacosides, are attributed with the ability to enhance nerve impulse transmission, thereby improving memory and general cognition.<sup>12-16</sup>

A study conducted in India involving 35 adult patients with anxiety neurosis, given bacopa daily, demonstrated significant increases in concentration and immediate memory span, as well as improvement in on-the-job mental fatigue. Significant improvement in other symptoms such as headache, insomnia, irritability, nervousness, palpitation and tremors, was also reported.<sup>13</sup>

Bacopa has also been shown to help children. 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-term and long-term memory in children with mental retardation.<sup>13,17</sup>

Each tablet of Ginkgo/Gotu Kola with Bacopa provides 40mg of concentrated *Ginkgo biloba* leaves (standardized to 24% ginkgo flavone glycosides), 100mg of *Gotu kola*, and 50mg of *Bacopa monniera* leaf (standardized to 20% bacosides).

#### References:

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- <sup>5</sup>Null PhD, G. *The Clinician's Handbook of Natural Healing*. NY, NY: Kensington Books, 1997.
- <sup>6</sup>Newall, C., et. al. *Herbal Medicines*. London, England: The Pharmaceutical Press, 1996.
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- <sup>9</sup>Tyler PhD, V. *The Honest Herbal*. Binghamton, NY: The Haworth Press, Inc., 1993.
- <sup>10</sup>Bratman MD, S. and Kroll PhD, D. *Natural Health Bible*. Prima Publishing, 1999.
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- <sup>12</sup>Barnett, R. & Barone, J. *Ayurvedic Medicine: Ancient Roots, Modern Branches*. Concorp Mgmt., 1996.
- <sup>13</sup>Kidd PhD, P. "A Review of Nutrients and Botanicals in the Integrative Management of Cognitive Dysfunction." *Alternative Medicine Review*; 1999, 4(3): 144-161.
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- <sup>16</sup>Tripathi, Y.B., et. al. "*Bacopa monniera* Linn. as an antioxidant: mechanism of action." *Indian Journal of Experimental Biology*; 1996, 34(6): 523-526.
- <sup>17</sup>Lodha, R. & Bagga, A. "Traditional Indian systems of medicine." *Annals of the Academy of Medicine, Singapore*; 2000, 29(1): 37-41.