

Bacopa with Synapsa™



INGREDIENTS

Doctor's Best Bacopa with Synapsa™ helps support an improvement in visual processing, learning rate, working memory, information retention and mental performance.* Synapsa™ supplementation can help decrease the rate of forgetfulness and improve multitasking accuracy.* Clinical studies show that Synapsa™ helps support mental performance in cognitively demanding environments such as test-taking.*

Synapsa™ is a patented standardized form of *Bacopa monnieri* with more than 30 years of clinical studies.

BENEFITS

- Synapsa™ is a patented, standardized form of *Bacopa monnieri* with over 30 years of clinical studies.
- Helps improve Attention Deficit Hyperactivity Disorder (ADHD) symptoms¹
- Helps support positive mood and healthy cortisol levels²
- Helps support mental performance, memory and facilitates learning^{2, 3, 4, 5, 6, 7, 8, 9, 10}

CLINICAL STUDIES

One study investigated the effectiveness of standardized *Bacopa monnieri* extract (SBME) in ameliorating the severity of ADHD symptoms in children. Thirty-one children, age 6-12 y participated in the trial. Participants received 225 mg/d SBME for 6 mo. Subsequent to participant screening the research team administered the Parent Rating Scale to assess baseline ADHD scores, and the team administered it again after 6 mo of treatment. SBME significantly reduced ADHD symptom scores, except for social problems. Symptom scores for restlessness were reduced in 93% of children, whereas self-control improvement was observed in 89% of the children. Attention-deficit symptoms were reduced in 85% of children. Similarly, symptom scores for learning problems, impulsivity, and psychiatric problems were reduced for 78%, 67%, and 52% of children, respectively. Standardized extract of *B monnieri* was found to be effective in alleviating ADHD symptoms and was well-tolerated by the children.¹

Another double-blind, placebo-controlled cross-over study assessed the acute effects of a specific extract of *Bacopa monnieri* (BM) in normal, healthy participants during completion of a multitasking framework (MTF). Seventeen healthy volunteers completed the MTF, at baseline, then 1h and 2h after consuming a placebo, 320 mg BM or 640 mg of BM. Treatments were separated by a 7-day washout. Outcome measures included cognitive outcomes from the MTF, with mood and salivary cortisol measured before and after each MTF completion. Change from baseline scores indicated positive cognitive effects, notably at both 1h and 2h after BM consumption on Letter Search and Stroop tasks, suggesting an earlier nootropic BM effect than previously investigated. There were also positive mood effects and reduced cortisol levels, indicating a physiological stress reduction mechanism for BM consumption. The researchers concluded that acute BM supplementation produced some adaptogenic and nootropic effects.²

Another study aimed to assess the acute effects of a specific extract of *Bacopa monnieri* (BM) in a double-blind, placebo-controlled study in normal, healthy participants who completed a cognitively-demanding series of tests. Twenty-four healthy volunteers completed six repetitions of the Cognitive Demand Battery (CDB) after consuming a placebo, 320 mg BM or 640 mg of BM in a cross-over design. The researchers found that the change from baseline scores indicated the 320 mg dose of BM improved performance at the first, second, and fourth repetition post-dosing on the CDB.³

Other researchers evaluated effects of *Bacopa monnieri* on cognitive function in healthy, elderly participants. The study was a randomized, double-blind, placebo-controlled clinical trial with a placebo run-in of 6 weeks and a treatment period of 12 weeks. Fifty-four (54) participants, 65 or older (mean 73.5 years), without clinical signs of dementia, were randomized to Bacopa or placebo. Forty-eight (48) completed the study, with 24 in each

Supplement Facts

Serving Size 1 veggie capsule
Servings per container 60 servings

	Amount per serving	% Daily Value
<i>Bacopa monnieri</i> whole plant extract (from Synapsa™, standardized to 55% Bacosides)	320 mg	†

† Daily Value not established.

Other Ingredients: Modified cellulose (vegetarian capsule), microcrystalline cellulose, silicon dioxide, magnesium stearate (vegetable source).

Suggested Adult Use: Take 1 capsule daily with or without food, or as recommended by a nutritionally-informed physician.

Non-GMO / Gluten Free / Soy Free / Vegan

Color may vary.

Store in a cool dry place.

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group. Participants were given *B. monnieri* 300 mg/day or placebo orally for 12 weeks. The primary outcome variable was the delayed recall score from the Rey Auditory Verbal Learning Test (AVLT). Other cognitive measures were the Stroop Task assessing the ability to ignore irrelevant information, the Divided Attention Task (DAT), and the Wechsler Adult Intelligence Scale (WAIS) letter-digit test of immediate working memory. The researchers concluded that *B. monnieri* has potential for safely enhancing cognitive performance in the aging.⁴

A meta-analysis included nine randomized, placebo controlled human intervention trials with ≥ 12 weeks of *Bacopa monnieri* and no co-medication. The analysis totaled 437 human subjects. Participants showed improved cognition by shortened Trail Making Test, part B test and decreased choice reaction time. The authors concluded that their meta-analysis suggests *Bacopa monnieri* has the potential to improve cognition, particularly speed of attention.⁵

Another randomized, double-blind, placebo-controlled trial investigated the effectiveness of *Bacopa monnieri* for memory performance improvement in healthy, older persons. Ninety-eight healthy participants >55 yr were included. Subjects received *Bacopa monnieri*, 300 mg/day, or placebo. Neuropsychologic and subjective memory assessments were performed at baseline and at 12 weeks. The study concluded that *Bacopa* significantly improved memory acquisition and retention in the healthy, older participants.⁶

A separate study investigated the effects of *Bacopa monnieri* on human memory. Seventy-six adults age 40-65 years took part in a double-blind, randomized, placebo-control study in which various memory functions were tested and levels of anxiety measured. There were three testing sessions: one prior to the trial, one after three months on the trial, and one six weeks after completion of the trial. The results show a significant effect of *Bacopa* on a test for new information retention.⁷

Other researchers tested *Bacopa* for cognitive-enhancing effects. Sixty-two participants completed the study with 80% treatment compliance. Neuropsychological testing using the Cognitive Drug Research cognitive assessment system was conducted at baseline and after 90 days of treatment with *Bacopa monnieri* or placebo. The *Bacopa monnieri* product significantly improved performance on the 'Working Memory' factor, more specifically spatial working memory accuracy. The number of false-positives recorded in the Rapid visual information processing task was also reduced for the *Bacopa monnieri* group. The researchers conclude that their study provides support for cognitive enhancing effects in healthy humans after a 90 day administration of the *Bacopa monnieri* extract.⁸

Another clinical trial meta-analysis aimed to calculate positive cognitive effect of the pharmaceutical Modafinil as a benchmark for two nutraceuticals, Ginseng and *Bacopa*. Researchers searched for clinical studies on neurocognitive effects of Modafinil, Ginseng and *Bacopa*. Studies undertaken on healthy human subjects using a double-blind, placebo-controlled-design were included. For each study, effect sizes (Cohen's d) were calculated for measures showing significant effects of treatment over placebo. The highest effect sizes for cognitive outcomes were 0.77 for Modafinil (visuospatial memory accuracy), 0.86 for Ginseng (simple reaction time) and 0.95 for *Bacopa* (delayed word recall). The researchers concluded that neurocognitive enhancement from well-characterized nutraceuticals, such as *Bacopa*, can produce cognition-enhancing effects of similar magnitude to pharmaceutical interventions.⁹

A review of *Bacopa monnieri* (BM) studies combines behavioral research with neuromolecular mechanisms of the cognitive-enhancing action of BM. The authors find that several randomized, double-blind, placebo-

controlled trials substantiate BM's nootropic utility in humans. They also find evidence for attenuation of dementia, Parkinson's disease, and epilepsy.



Studies reviewed indicate BM acts via the following mechanisms: antioxidant neuroprotection (via redox & enzyme induction), acetylcholinesterase inhibition and/or choline acetyltransferase activation, β -amyloid reduction, increased cerebral blood flow, and neurotransmitter modulation (acetylcholine [ACh], 5-hydroxytryptamine [5-HT], dopamine [DA]). The authors conclude that BM appears to exhibit low toxicity in humans.¹⁰

Science-Based Nutrition™

SCIENTIFIC REFERENCES

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