



# Brahmi

(*Bacopa monnieri*)

Bacopa is an important medicinal herb used in Ayurveda, where it is also known as "Brahmi" after Brahmā, the creator God of the Hindu pantheon. *Brahmi* was initially described around the 6th century A.D. in texts such as the Charaka Samhita, Atharva-Veda, and Susrut Samhita as a medhya rasayana—class herb taken to sharpen intellect and attenuate mental deficit.

*Brahmi* displays in-vitro antioxidant and cell-protective effects.<sup>1</sup> Several studies have suggested that *Brahmi* extract may have protective effects in animal models of neurodegeneration.<sup>2</sup>

*Brahmi* is a perennial, creeping herb native to the wetlands of southern India, Australia, Europe, Africa, Asia, and North and South America.<sup>3</sup>

#### Active contents:

The best characterized compounds in *Brahmi* are saponins known as bacosides, with jujubogenin or pseudo - jujubogenin moieties.<sup>4</sup> Other saponins called bacopasides I–XII have been identified more recently.<sup>5</sup> The alkaloids brahmine, nicotine, and herpestine have been catalogued, along with D- mannitol, apigenin, hersaponin, monnierasides I–III, cucurbitacin and plantainoside - B.<sup>6,7,8</sup>

#### Herb actions:

**Memory Booster:** *Brahmi* extract is able to increase memory formation by the enzyme Tryptophan Hydroxylase (TPH2) and increasing the expression of the serotonin transporter (SERT).<sup>9</sup> It is considered as one of the best herbal medicine to improve memory power and concentration. In ayurveda, it is known as 'Food for the Brain'.

**Anxiety and depression:** Persons over the age of 65 taking 300mg *Brahmi* extract experienced a decrease in both anxiety and depression in a double-blinded study.<sup>10</sup>

**As a Supplement in Epilepsy:** *Brahmi* has been shown to have various benefits in the treatment of epilepsy such as reducing convulsion occurrence.<sup>11</sup>

**Indication:** Memory loss, Poor concentration, Stress, Insomnia, Insanity.

**Contraindication:** None

**Dose:** 1 Capsule two to three times a day or as advised by the Physician.

**Composition:** Each capsule contains 400 mg standardized extract of Brahmi ( *Bacopa monnieri*).

#### References :

1. Russo A, Borrelli F (April 2005). "Bacopa monniera, a reputed nootropic plant: an overview" *Phytomedicine (Review)* 12 (4): 305–17.
2. Dhanasekaran, M.; Tharakan, B.; Holcomb, L. A.; Hitt, A. R.; Young, K. A.; Manyam, B. V. (2007). "Neuroprotective mechanisms of ayurvedic antidementia botanical Bacopa monniera". *Phytotherapy Research* 21 (10): 965–969.
3. "USDA GRIN Taxonomy". Retrieved 20 arch 2014.
4. Sivaramakrishna, C; Rao, CV; Trimurtulu, G; Vanisree, M; Subbaraju, GV (2005). "Triterpenoid glycosides from Bacopa monnieri" . *Phytochemistry* 66: 2719–2728.
5. Chakravarty, A.K; Garai, S.; Masuda, K; Nakane, T; Kawahara, N. (2003). "Bacopasides III–V: Three new triterpenoid glycosides from Bacopa monniera". *Chem Pharm Bull* 51: 215–217.
6. Chatterji, N; Rastogi, RP; Dhar, ML (1965). "Chemical examination of Bacopa monniera Wettst: Part II—Isolation of chemical constituents". *Ind J Chem* 3: 24–29.
7. Chakravarty, AK; Sarkar, T; Nakane, T; Kawahara, N; Masuda, K (2008). "New phenylethanoid glycosides from Bacopa monniera". *Chem Pharm Bull* 50: 1616–1618.
8. Bhandari P, Kumar N, Singh B, Kaul VK. Cucurbitacins from Bacopa monnieri. *Phytochemistry* 2007.
9. Charles PD, et al Bacopa monniera leaf extract up-regulates tryptophan hydroxylase (TPH2) and serotonin transporter (SERT) expression: implications in memory formation . *J Ethnopharmacol.* (2011).
10. Chatterjee M, Verma P, Palit G Comparative evaluation of Bacopa monniera and Panax quniquifolium in experimental anxiety and depressive models in mice. *Indian J Exp Biol.* (2010)
11. Hanmugasundaram ER, Akbar GK, Shanmugasundaram KR Brahmighritham, an Ayurvedic herbal formula for the control of epilepsy . *J Ethnopharmacol.* (1991)