

# Natural memory enhancer

### Composition

MOnera® syrup: Each 5 ml syrup contains extracts of Bacopa monnieri 1.21 gm, Asparagus racemosus 0.30 gm, Ipomoea paniculata 0.30 gm, Terminalia chebula 0.30 gm, Vetiveria zizanioides 0.30 gm, Zingiber officinale 0.30 gm, Foeniculum vulgare 0.30 gm with some other ingredients as per BNAF.

### Description

*Bacopa monnieri* (L) belongs to the Scrophulariaceae family and commonly known as 'Brahmi' has been used in Ayurvedic system of medicine for centuries. It is a small, creeping herb with numerous branches and grows in wet soil. Flowers and fruits of Brahmi appear in summer and the entire plant is used medicinally.

### Active constituents

Compounds responsible for the pharmacological effects of Bacopa include alkaloids, saponins and sterols. Other active constituents are betulic acid, stigmastarol, beta-sitosterol as well as numerous bacosides. The constituents responsible for cognitive effects are bacoside A & B.

### Pharmacology

The triterpenoid saponins and other bacosides are responsible for Bacopa's ability to enhance nerve impulse transmission. The bacosides aid in repair of damaged neurons by enhancing kinase activity, neuronal synthesis, restoration of synaptic activity and modulating the cholinergic and GABAergic neurotransmission, and ultimately improves nerve impulse transmission.

Bacosides appear to have antioxidant activity in the hippocampus, frontal cortex and striatum. Bacopa extracts modulate the expression of certain enzymes involved in generation and scavenging of reactive oxygen species in the brain. It exerts a protective effect against DNA damage in astrocytes and human fibroblasts.

Asparagus racemosus is a well-known nervine tonic. It plays the role of an antioxidant by attenuating free radical induced oxidative neural damage. Antioxidant compound racemofuran of AR shows an enhancement in glutathione peroxidase (GPx) activity and glutathione content, and reduction in membranal lipid peroxidation and protein carbonyl.

# Indication

Monera® syrup is indicated in Memory loss/Cognitive deficit, Age Associated Memory

Impairment (AAMI), Attention Deficit Disorder (ADD), Dementia, Convulsion and Epilepsy in children, Alzheimer's disease, Autistic Spectrum Disorder (ASD) and Drug addiction.

# Dose and administration

Children

2 - 5 years: 1 teaspoonful (5 ml) 2 - 3 times daily after meal for three months.

6 - 12 years: 1 - 2 teaspoonful (5 - 10 ml) 2 - 3 times daily after meal for three months.

Above 12 years and Adult: 2 - 3 teaspoonful(10 - 15 ml) 3 times daily after meal for three months.

### Side effects

There are no side effects associated with the use of Bacopa in the above mentioned therapeutic doses. Bacopa has been used safely as an Ayurvedic medicine for hundreds of years.

#### Contraindication

Bacopa is well tolerated but caution should be taken in hyperthyroidism, fever and acute infection. Patients with medical conditions should talk to their doctors before taking Bacopa.

### **Drug interactions**

Bacopa may potentiate the activity of thyroid stimulating drugs or decrease the effects of anti-thyroid medications. It is important to note that this effect is not typically expected at the normal therapeutic dose for humans. Bacopa may work to decrease the toxicity of several drugs like morphine, and other opiate drugs. It has also been shown to reduce the decline in cognitive function associated with phenytoin, an anti-seizure medication.

#### Pregnancy and lactation

Women who are pregnant or nursing are advised to consult with a physician prior to use Bacopa. Although medical literature has not reported any adverse effects related to fetal development during pregnancy or to infants who are breast-fed.

#### Storage

Keep the medicine away from direct sunlight & moisture, dry & cool place below  $30^{\circ}$  C. temperature. Keep the medicine out of the reach of children.

## How supplied

Each PET bottle contains 100 ml Moneral® syrup.

Manufactured by

SQUARE PHARMACEUTICALS LTD. AYURVEDIC DIVISION BSCIC, Pabna, Bangladesh www.squarepharma.com.bd

