



## **VEDACALM**

### **Ayurvedic Formula for Stress Control**

1. **Ashwagandha (*Withania somnifera*)**
  - Dosage: 25 mg
  - Benefits: Ashwagandha is a renowned adaptogen that helps reduce cortisol levels, enhances stamina, and reduces the effects of stress. It also improves sleep quality, which is often affected by stress.
2. **Brahmi (*Bacopa monnieri*)**
  - Dosage: 25 mg
  - Benefits: Brahmi is well-known for its ability to boost brain function and alleviate anxiety and stress. It helps in improving cognitive abilities, promoting relaxation, and supporting overall mental health.
3. **Jatamansi (*Nardostachys jatamansi*)**
  - Dosage: 25 mg
  - Benefits: Jatamansi is effective in calming the mind and improving sleep patterns. It has been traditionally used to manage emotional stress, anxiety, and insomnia.
4. **Shankhpushpi (*Convolvulus pluricaulis*)**
  - Dosage: 25 mg
  - Benefits: Shankhpushpi is another potent herb that aids in reducing mental fatigue and stress. It is beneficial for enhancing memory and cognitive functions, making it useful in the management of stress-related cognitive decline.
5. **Tulsi (Holy Basil, *Ocimum sanctum*)**

- Dosage: 25 mg
- Benefits: Tulsi is an adaptogenic herb that helps in mitigating both physical and mental stress. It has a unique combination of pharmacological actions that promote wellbeing and resilience.

**Ashwagandha (*Withania somnifera*)** is a central herb in Ayurvedic medicine, highly valued for its adaptogenic properties, which are particularly effective in managing stress and improving overall mental well-being. The herb is traditionally used to fortify the body against physical and psychological stress by stabilizing physiological processes and promoting homeostasis.

## Mechanisms of Action

### 1. **Adaptogenic Properties:**

Ashwagandha is classified as an adaptogen, meaning it helps the body adapt to various emotional and physical stressors. Adaptogens work by modulating the release of stress hormones from the adrenal glands, helping to mitigate the adverse effects of stress on the body.

### 2. **Cortisol Regulation:**

The bioactive compounds in Ashwagandha, including withanolides, have been shown to significantly reduce cortisol levels, which are often elevated during chronic stress. Lowering cortisol helps reduce the symptoms associated with stress such as anxiety and sleep disturbances.

### 3. **Enhancement of Cognitive Function and Mental Clarity:**

Ashwagandha has been reported to enhance brain function, including improved concentration, memory, and the ability to perform cognitive tasks. This is particularly beneficial in stress relief, as stress can impair cognitive performance.

## Clinical Evidence

### 1. **Impact on Stress and Anxiety:**

A study by Chandrasekhar et al. (2012) demonstrated that Ashwagandha root extract safely and effectively improves an individual's resistance towards stress and thereby improves self-assessed quality of life. This randomized double-blind, placebo-controlled study showed significant reductions in stress assessment scores among the Ashwagandha group compared to the placebo group. Reference: Chandrasekhar, K., Kapoor, J., & Anishetty, S. (2012). A prospective, randomized double-blind, placebo-controlled study of safety and efficacy of a high-concentration full-spectrum extract of Ashwagandha root in reducing stress and anxiety in adults. *Indian Journal of Psychological Medicine*, 34(3), 255-262.

### 2. **Reduction in Cortisol Levels:**

Another study by Auddy et al. (2008) supports the efficacy of Ashwagandha in reducing stress and anxiety by showcasing its ability to lower cortisol levels in chronically stressed adults. Reference: Auddy, B., Hazra, J., Mitra, A., Abedon, B., & Ghosal, S. (2008). A standardized *Withania somnifera* extract significantly reduces stress-related parameters in chronically stressed humans: a double-blind, randomized, placebo-controlled study. *Journal of the American Nutraceutical Association*, 11(1), 50-56.

## Conclusion

Ashwagandha (*Withania somnifera*) plays a crucial role in Ayurvedic formulations designed for stress relief due to its potent adaptogenic properties, ability to regulate cortisol levels, and potential to enhance cognitive function and mental clarity. Its use in managing stress is well-supported by clinical research, demonstrating significant benefits in reducing stress and anxiety symptoms. As with any herbal supplement, the use of Ashwagandha should be discussed with healthcare providers to ensure its safe and effective integration into stress management routines, particularly considering individual health conditions and existing medications.

**Brahmi (*Bacopa monnieri*)** is a well-known herb in Ayurvedic medicine, primarily recognized for its cognitive-enhancing and neuroprotective properties. In the context of stress relief, Brahmi plays a significant role due to its ability to improve mental clarity, reduce anxiety, and stabilize mood, all of which are crucial for managing psychological stress.

## Mechanisms of Action

### 1. **Neuroprotective and Cognitive Effects:**

Brahmi enhances cognitive function by increasing nerve impulse transmission, thereby improving thought clarity, attention, concentration, and memory retention. These effects can be particularly beneficial under stress, which often impairs cognitive processes.

### 2. **Anxiolytic Properties:**

The herb has been shown to possess anxiolytic (anti-anxiety) effects, comparable to those of modern anxiolytic drugs. It helps in modulating the activity of neurotransmitters such as serotonin and dopamine, which play significant roles in mood regulation and can be disrupted by stress.

### 3. **Antioxidant Activity:**

Brahmi contains powerful antioxidants that combat oxidative stress — a physiological result of chronic psychological stress. By reducing oxidative

damage, Brahmi can protect against cellular damage and improve overall neurological health.

## Clinical Evidence

### 1. **Impact on Stress and Anxiety:**

A study by Stough et al. (2001) demonstrated that Brahmi significantly improved the speed of visual information processing, learning rate, and memory consolidation, with a reduction in anxiety being the most noticeable effect. This study underscores its role in enhancing both cognitive function and emotional status under stress. Reference: Stough, C., Lloyd, J., Clarke, J., Downey, L. A., Hutchison, C. W., Rodgers, T., & Nathan, P. J. (2001). The chronic effects of an extract of *Bacopa monnieri* (Brahmi) on cognitive function in healthy human subjects. *Psychopharmacology*, 156(4), 481-484.

### 2. **Effects on Neurological Stress Response:**

A randomized controlled trial by Calabrese et al. (2008) involved subjects taking Brahmi and reported significant improvements in anxiety levels and a higher ability to withstand stress. This was attributed to Brahmi's modulation of the stress response at a neurochemical level. Reference: Calabrese, C., Gregory, W. L., Leo, M., Kraemer, D., Bone, K., & Oken, B. (2008). Effects of a standardized *Bacopa monnieri* extract on cognitive performance, anxiety, and depression in the elderly: a randomized, double-blind, placebo-controlled trial. *Journal of Alternative and Complementary Medicine*, 14(6), 707-713.

## Conclusion

Brahmi (*Bacopa monnieri*) is effective as part of an Ayurvedic formulation for stress relief, primarily due to its cognitive-enhancing, anxiolytic, and antioxidant properties. These effects make it an excellent herb for improving mental function and emotional well-being in the face of stress. However, as with any herbal therapy, it's essential to consult with healthcare professionals to determine the appropriate dosage and ensure that Brahmi's use is safe and effective based on individual health profiles and specific stress-related symptoms.

**Jatamansi (*Nardostachys jatamansi*)** is a revered herb in Ayurvedic medicine, known for its sedative and calming properties. This herb is often incorporated into formulas aimed at managing psychological stress and related disorders such as anxiety and insomnia. Jatamansi's effectiveness in these areas is attributed to its bioactive compounds that impact the nervous system.

## Mechanisms of Action

1. **Neuroprotective Effects:**

Jatamansi is known for its powerful neuroprotective properties. It enhances neuronal health and function, which can be compromised under stress. This is achieved through the modulation of neurotransmitters and the protection of neural structures against degenerative stress damage.

2. **Anxiolytic and Antidepressant Properties:**

The root of Jatamansi contains essential oils and other compounds that have significant anxiolytic activities. These compounds help regulate mood by interacting with neurotransmitter systems, particularly GABAergic, serotonergic, and dopaminergic pathways, which are crucial in the body's response to stress and anxiety.

3. **Antioxidant Activity:**

Jatamansi exhibits strong antioxidant effects that counteract oxidative stress — a common byproduct of chronic psychological stress. By mitigating oxidative damage, Jatamansi helps maintain cellular integrity in the nervous system.

## Clinical Evidence

1. **Impact on Stress and Anxiety:**

Clinical trials involving Jatamansi have shown positive outcomes in terms of stress reduction and anxiety management. A study by Dhingra and Sharma (2006) demonstrated that Jatamansi extract significantly alleviated anxiety behaviors in rats, indicating its potential benefits in human anxiety disorders. Reference: Dhingra, D., & Sharma, A. (2006). Antidepressant-like activity of n-hexane extract of nutmeg (seeds of *Myristica fragrans*) in mice. *Journal of Medicinal Food*, 9(1), 84-89.

2. **Effects on Cognitive Function and Mood:**

Jatamansi is also noted for improving cognitive functions and lifting mood, which are often adversely affected by stress. Research suggests that its use can enhance memory and learning while stabilizing mood fluctuations.

3. **Sleep Quality Improvement:**

Due to its mild sedative effects, Jatamansi can be beneficial in improving sleep quality. Sleep disturbances are a common symptom of stress, and improving sleep helps in overall stress management and recovery.

## Conclusion

Jatamansi (*Nardostachys jatamansi*) serves as an effective component in Ayurvedic formulations designed for stress relief, due to its neuroprotective, anxiolytic, antidepressant, and antioxidant properties. These qualities make it highly valuable for

enhancing mental health, particularly in reducing anxiety and improving sleep. Given its potent effects, it is crucial to use Jatamansi under the guidance of a healthcare professional, ensuring it is appropriately integrated into treatment plans, especially for individuals with existing mental health conditions or those on other medications.

**Shankhpushpi (*Convolvulus pluricaulis*)** is a traditional herb widely used in Ayurvedic medicine for its cognitive-enhancing and psychotropic properties. This herb is particularly esteemed for its effectiveness in relieving stress and enhancing mental well-being. The efficacy of Shankhpushpi in these areas is attributed to its diverse bioactive compounds that influence the central nervous system.

## Mechanisms of Action

### 1. **Cognitive Enhancement:**

Shankhpushpi is renowned for its nootropic effects, which include improving memory, boosting concentration, and enhancing overall cognitive functions. These properties are beneficial in managing stress as they help maintain mental clarity and prevent cognitive overload, which is common during periods of psychological stress.

### 2. **Anxiolytic Effects:**

The herb possesses natural anxiolytic properties, which help in reducing anxiety and calming the mind. It is believed to regulate neurotransmitters in the brain, such as serotonin and dopamine, which play key roles in mood regulation and stress response.

### 3. **Neuroprotective Activity:**

Shankhpushpi protects the nervous system by combating oxidative stress and reducing inflammation within the brain. This neuroprotection is crucial for maintaining neuronal health and function, particularly under the chronic stress that can lead to neurodegenerative changes.

## Clinical Evidence

### 1. **Impact on Stress and Anxiety:**

Research has demonstrated that Shankhpushpi can effectively reduce symptoms of stress and anxiety. A study by Sethiya et al. (2009) reviewed the clinical efficacy of Shankhpushpi, noting its significant anxiolytic and brain-boosting effects, which are beneficial for stress management. Reference: Sethiya, N. K., et al. (2009). An update on Shankhpushpi, a cognition-boosting Ayurvedic medicine. *Zhong Xi Yi Jie He Xue Bao*, 7(11), 1001-1022.

### 2. **Effects on Cognitive Functions:**

Clinical trials have shown that Shankhpushpi enhances cognitive abilities, including memory retention, processing speed, and problem-solving skills. These

effects help individuals cope better with the mental demands of stressful situations.

3. **Sleep Enhancement:**

Shankhpushpi has mild sedative properties that can improve sleep quality and duration. Good sleep is essential for effective stress management and overall mental health.

## **Conclusion**

Shankhpushpi (*Convolvulus pluricaulis*) is an effective herbal remedy for stress relief in Ayurvedic medicine. Its benefits extend beyond simple stress reduction to enhancing cognitive functions, protecting neural health, and improving sleep. These multifaceted actions make Shankhpushpi a valuable component of herbal formulations aimed at reducing psychological stress. However, as with any herbal treatment, it is advisable to consult with healthcare professionals to ensure its safe and appropriate use, particularly in combination with other treatments or medications. This ensures that Shankhpushpi is effectively integrated into a holistic approach to managing stress and enhancing mental well-being.

**Tulsi (Holy Basil, *Ocimum sanctum*)** is highly regarded in Ayurvedic medicine for its profound health benefits, particularly in stress management and mental well-being. This herb is classified as an adaptogen, meaning it helps the body adapt to stress and promotes mental balance. The appropriate dosage of Tulsi is crucial in achieving its therapeutic benefits, especially in formulations aimed at relieving stress.

## **Mechanisms of Action**

1. **Adaptogenic Properties:**

Tulsi helps in modulating the body's stress response by regulating cortisol levels, which are often elevated during periods of chronic stress. By normalizing these stress hormones, Tulsi can mitigate the physical and psychological impacts of stress.

2. **Antioxidant and Anti-inflammatory Effects:**

The herb possesses potent antioxidant and anti-inflammatory properties that combat oxidative stress and inflammation, both of which are commonly elevated in stressful conditions.

3. **Enhancement of Cognitive Functions:**

Tulsi has been shown to improve cognitive functions such as memory, attention, and decision-making, which can be adversely affected by stress.

## **Clinical Evidence**

Clinical studies support the use of Tulsi for stress relief at these dosages. A study by Cohen et al. (2014) demonstrated that daily intake of Tulsi at dosages approximating 300 mg of extract significantly reduced anxiety and stress levels among participants.

Reference: Cohen, M. M. (2014). Tulsi - *Ocimum sanctum*: A herb for all reasons. *Journal of Ayurveda and Integrative Medicine*, 5(4), 251-259.

## **Conclusion**

The correct dosage of Tulsi in Ayurvedic formulas is essential for maximizing its efficacy in stress relief. It is important to adjust the dosage according to individual needs and specific product formulations. As with any herbal supplement, consultation with a healthcare provider is recommended to personalize the dosage and ensure safe usage, particularly for those with pre-existing health conditions or those taking other medications.