

Ashwagandha for Stress Relief: A Comprehensive Guide

Anjali Krishna U S

Post Harvest Management (Department of Food science and technology),
Dr. YSPUHF, Solan, Himachal Pradesh

ARTICLE ID: 31

Introduction:

Ashwagandha, or *Withania somnifera*, is an evergreen plant that grows well in tropical and subtropical climates in Asia, Africa, and Europe. Its other name, "smell of a horse," reflects the unique horse-like perfume emanating from its roots. Although it is frequently referred to as Indian ginseng or winter cherry, it is not the same as real ginseng. Because of its adaptogenic properties, which aid in stress management, ashwagandha has long been prized in Ayurvedic and Unani therapy. The chemical profiles of the plant's roots and leaves differ, and the majority of supplements use root extracts. "Somnifera" refers to its reputation for promoting sound sleep. Ashwagandha is frequently used to reduce stress and anxiety, promote general health, and improve the quality of sleep. It includes a number of bioactive substances, including alkaloids and withanolides (steroidal lactones). While other substances could potentially be involved, withanolides are thought to be mostly in charge of its therapeutic actions.

Historical and Ayurvedic Significance:

The name ashwagandha is derived from the Sanskrit language, meaning "smell of a horse," which refers to its unique aroma and the belief that it imparts strength and vitality similar to that of a horse. For over 3,000 years, this herb has been used in Ayurveda to:

- Relieve stress and anxiety.
- Boost energy and endurance.
- Support healthy sleep and cognitive function.



- Promote longevity and immune health.

Role in Stress Management:

1. **Adaptogenic Qualities:** By regulating the hypothalamus-pituitary-adrenal (HPA) axis, which governs the production of cortisol, the primary stress hormone, ashwagandha functions as an adaptogen, assisting the body in adjusting to stress. Excessive cortisol levels brought on by ongoing stress might have a detrimental effect on health. Ashwagandha may lessen the negative psychological and physiological impacts of stress by lowering cortisol levels, according to research.
2. **Effect on Cortisol:** According to a 2012 research that appeared in The Indian Journal of Psychological Medicine, using ashwagandha supplements might lower cortisol levels by up to 30%. Participants also reported significant reductions in stress and anxiety.
3. **Improved Sleep:** Sleep disturbances brought on by ongoing stress can result in a vicious cycle of exhaustion and anger. By lowering cortisol levels and relaxing the nerve system, ashwagandha has been demonstrated to enhance the quality of sleep. Ashwagandha users reported improved sleep onset and duration, according to a 2020 Cureus research.

Some benefits of ashwagandha include:

- **Better sleep:** Ashwagandha has been linked to improved sleep quality, helping to alleviate insomnia.
- **Stress and anxiety reduction:** Research indicates that ashwagandha supplementation can reduce feelings of stress and lower cortisol levels.
- **Weight management:** Chronic stress can lead to weight gain, but preliminary studies suggest that ashwagandha may help reduce cravings and improve eating behavior, supporting weight loss.
- **Enhanced cognitive performance:** Ashwagandha may boost memory, attention, and executive function, possibly due to the antioxidant effects of withanolides on the brain.



- **Thyroid support:** Some evidence suggests that ashwagandha can stimulate an underactive thyroid, but anyone considering it for thyroid issues should consult with a healthcare provider.

Challenges of Ashwagandha Use:

Seeking advice from a healthcare practitioner is crucial because figuring out the proper dosage of ashwagandha can be complicated. Dosage recommendations are frequently determined by the milligram content and withanolide % of the supplement. For example, the biological effect of a 300 mg supplement containing 5% withanolides will be greater than that of a 300 mg supplement containing 1.5% withanolides. To adjust the dosage, your doctor may also use saliva tests to monitor your cortisol levels. For instance, if your evening cortisol levels are high and interfere with your sleep, they would advise taking ashwagandha before bed.

Dosage and Administration:

1. **Forms:** Ashwagandha is available in various forms, including powders, capsules, teas, and tinctures.
2. **Typical Dosage:** Clinical studies typically recommend doses of 250–600 mg of standardized ashwagandha extract daily.
3. **Timing:** Evening use is common for sleep aid, but timing may be adjusted to meet individual needs.

Who Should Avoid Ashwagandha?

- **Pregnant or breastfeeding women:** Due to limited safety data, it's advised to avoid ashwagandha during pregnancy or breastfeeding.
 - **Individuals with autoimmune conditions:** Those with autoimmune diseases, such as rheumatoid arthritis, lupus, or multiple sclerosis, may experience an overstimulated immune response from ashwagandha, which could worsen symptoms.
 - **People with thyroid disorders:** If you have an overactive thyroid, ashwagandha may
- www.justagriculture.in



worsen the condition. Individuals with hypothyroidism should only use it under the guidance of a healthcare provider.

- **Nightshade sensitivity:** Ashwagandha belongs to the nightshade family, and individuals who are sensitive to nightshades, such as tomatoes or peppers, may also experience adverse reactions.
- **Upcoming surgery:** Ashwagandha could enhance the effects of anesthesia or other medications, so it's recommended to stop using it at least two weeks before surgery.
- **Hemochromatosis:** Since ashwagandha contains iron, those with hemochromatosis, a condition of excess iron storage, should avoid it.

Conclusion:

Ashwagandha, a natural treatment for stress and other contemporary health issues, exemplifies the inventiveness of ancient Indian medicine. It is a useful supplement to health regimens because of its adaptogenic qualities, which are backed by both traditional methods and recent studies. Ashwagandha continues to support health and vigor by fusing traditional knowledge with scientific proof.

References:

1. Chandrasekhar, K., et al. (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*.
2. Lopresti, A. L., et al. (2021). "A systematic review of the effect of ashwagandha on stress and anxiety in adults." *Journal of Evidence-Based Integrative Medicine*.