

Ashwagandha for Cognitive Function

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STORY AT-A-GLANCE

- › Ashwagandha led to significant improvements in memory and cognitive function in people with mild cognitive impairment
- › Compared to placebo, those who took ashwagandha had greater improvements in memory, executive function, sustained attention and information-processing speed
- › Ashwagandha's sedative properties may be involved in its brain-boosting powers, as relieving stress and sleeping troubles may in turn benefit cognitive function

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Ashwagandha (*Withania somnifera*) is an herb that's been an important part of Ayurvedic medicine since ancient times. Literally translated from its Sanskrit roots, ashwagandha means "smells like a horse," which may hint more at its essence than its actual smell. It's suggested by some Ayurvedic health practitioners that the herb was so named because it provides the strength and stamina of a horse. Meanwhile, its species name, *somnifera*, is a nod to its sedative properties.¹

While ashwagandha is sometimes referred to as Ayurvedic or Indian ginseng,² it is not in the ginseng family. The ashwagandha plant is a shrub with yellow-green flowers and orange-red berries native to Pakistan, India and Sri Lanka.

The leaves and root are most often used medicinally. According to Ayurvedic tradition, ashwagandha is considered a rasayana herb, which means it may promote youth and

longevity while alleviating suffering. It's a broad but fitting description, as this herb has a wide range of beneficial properties, including being adaptogenic, which means it helps you manage stress.

"[I]t also is believed to be quite helpful to the elderly by providing energy and relieving pain, inflammation, and nervous debility," according to the American Botanical Council,³ and research suggests it has brain benefits as well.

Ashwagandha May Improve Memory and Cognitive Function

Memory enhancement is one of ashwagandha's traditional uses, particularly the root. A 2017 study published in the *Journal of Dietary Supplements* bears this out, as it studied the use of ashwagandha root extract for improving memory and cognitive functions in 50 people with **mild cognitive impairment (MCI)**.⁴

MCI is a slight decline in cognitive abilities that's associated with an increased risk of developing more serious dementia, including Alzheimer's disease. Participants received either ashwagandha root extract or a placebo for eight weeks. Those who took ashwagandha had significant improvements in a number of areas compared to the placebo group. This included greater improvements in:

- Short- and long-term memory
- Executive function
- Sustained attention
- Information-processing speed

The researchers pointed to ashwagandha's sedative properties as a potential mechanism behind the memory benefits, noting they "may be indirectly involved in improving memory and cognition in human subjects, as stress, anxiety and sleep disorders can affect normal cognitive function."⁵

Ashwagandha may also help to slow down the deterioration of brain cells in people with dementia. It was found to repair brain cell damage and rebuild neuronal networks and

synapses. This herb may also help deal with depression because of its ability to combat mental and emotional stress. Separate research found it alleviated obesity-induced cognitive impairments in rats.⁶

Researchers even wrote in PLOS One, "Ashwagandha leaf derived bioactive compounds have neuroprotective potential and may serve as supplement for brain health."⁷

Ashwagandha May Buffer Some of the Effects of Sleep Deprivation, Stress

Ashwagandha has traditionally been used in Ayurveda as a sleep aid, and research suggests it has antianxiety and anti-inflammatory properties that may help to manage sleep deprivation-induced stress and associated functional impairments.⁸

Its stress-reducing properties are well known, as ashwagandha helps your body reduce production of cortisol (stress hormone) by as much as 28%. In fact, when given to study participants with a history of chronic stress, they experienced significantly reduced cortisol levels and a reduction in scores on all the stress assessment scales tested. Researchers concluded:⁹

"The findings of this study suggest that a high-concentration full-spectrum Ashwagandha root extract safely and effectively improves an individual's resistance [toward] stress and thereby improves self-assessed quality of life."

Beyond this, in a study of people with moderate to severe anxiety, those who took ashwagandha extract experienced a reduction in anxiety and stress along with improved vitality, motivation and general health.¹⁰

Ashwagandha: An All-Around Health Tonic

Ashwagandha is best known for its calming, stress-relieving qualities, but its uses extend far beyond this. In the journal *Central Nervous System Agents in Medicinal Chemistry*, ashwagandha is described as an "elixir" that's used in a global fashion to not

only increase longevity but also to "normalize physiological functions, disturbed by chronic stress, through correction of imbalances in the neuroendocrine and immune systems."¹¹

"Ashwagandha is regarded as tonic, aphrodisiac, narcotic, diuretic, anthelmintic, astringent, thermogenic and stimulant," note researchers in the African Journal of Traditional, Complementary and Alternative Medicine, who went on to list its many benefits for different health conditions and disease processes:¹²

"Ashwagandha is commonly available as a churna, a fine sieved powder that can be mixed with water, ghee (clarified butter) or honey. It enhances the function of the brain and nervous system and improves the memory.

It improves the function of the reproductive system promoting a healthy sexual and reproductive balance. Being a powerful adaptogen, it enhances the body's resilience to stress. Ashwagandha improves the body's defense against disease by improving the cell-mediated immunity. It also possesses potent antioxidant properties that help protect against cellular damage caused by free radicals."

In areas where Ayurvedic medicine is widely recognized (such as India, Nepal and Malaysia), ashwagandha root may be used to treat inflammatory disorders, impotence in men and diseases associated with wasting or weakness.¹³ Some even say it may be used to treat "almost all disorders that affect ... human health."¹⁴ In addition, ashwagandha may be useful for:

Improving stamina	Gastric ulcers
Neurodegenerative diseases such as Parkinson's, Huntington's and Alzheimer's	Energy levels
Mitochondrial health	Inflammation
Rheumatoid arthritis	Osteoarthritis

Increasing muscle mass and strength

Lowering blood sugar levels

Beyond this, the American Botanical Council has compiled even more uses for ashwagandha (in this case the root), noting:¹⁵

"Some of the documented uses of the root of ashwagandha include as a hypnotic for treating alcoholism (along with leaf); treatment for brain fog, colds and chills, childhood emaciation, emphysematous dysphonia (difficult speech caused by emphysema, with leaf), fever, glandular swelling, impotence or seminal debility.

... [T]o counteract loss of memory and muscular energy, nervous exhaustion, rheumatic fever, rheumatic swelling, senile and general debility, spermatorrhea, syphilis, and ulcers. In Tanzania, the root is used as a sexual stimulant and to promote uterine contractions."

How to Use Ashwagandha

If you're considering using ashwagandha, talk to your holistic health care practitioner first, as even natural remedies, like herbs, can sometimes interact with other medications or supplements you may be taking.

If you're pregnant or breastfeeding, avoid ashwagandha, as studies suggest that when taken in excess it can cause spasmolytic activity in the uterus, which can result in a premature birth. In general, however, ashwagandha is associated with only mild side effects, if any, and appears to be safe for most people.

Dosages typically range from 125 to 1,250 milligrams (mg) daily, with the higher end leading to the most significant effects in clinical studies.¹⁶ Ashwagandha can also be used in essential oil form topically (diluted with a carrier oil), especially for pain relief or fighting stress. If you prefer, dried ashwagandha root can also be made into a tea, which you can sip at your leisure. One recipe from Cure Joy is as follows:¹⁷

Ashwagandha Tea

Procedure

1. Take 2 teaspoons of dried ashwagandha root.
2. Immerse it in approximately 3 1/2 cups boiling water.
3. Allow it to boil for 15 minutes.
4. Remove the root from the liquid.
5. Strain to remove any remaining plant matter in the water.
6. Consume 1/4 cup twice daily.

Finally, while ashwagandha isn't the typical "herb garden" plant like thyme or basil, it's relatively easy to grow (as an annual if you live in an area with cold winters) and will provide you with your own ready supply for teas and tinctures. To grow your own ashwagandha, here's what you should know:¹⁸

1. Your soil should be sandy and well-draining. It's best to plant your seeds in a sunny part of your garden. It is nearly impossible to grow ashwagandha in a moist environment; it thrives in dry soil.
2. The plant should not be watered all the time and should only be watered when it seems "thirsty."
3. The ideal growing temperature is between 70 and 95 degrees Fahrenheit (21 to 35 degrees Celsius). If the temperature is lower, expect the plant to grow at a much slower pace. The ashwagandha plant should be fully grown in about 150 to 180 days.

Sources and References

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