

# Ashwagandha

## Improves Memory, Cognitive Function



### THEORY:

One of the central herbs in Ayurveda, root extract of ashwagandha (*Withania somnifera* Dunal) has been used for its neuroprotective, anti-stress and rejuvenative effects, connected to its interplay with multiple systems in the body, including the nervous system, endocrine system and energy production system. While it has been used for brain support, clinical research is still needed to outline its effect on memory improvement and different aspects of cognitive function. This study sought to explore ashwagandha's impact on memory, visuo-spatial processing, executive function and attention, and information processing speed.



### PARAMETERS:

The eight-week prospective, randomized, double-blind, placebo-controlled study included 50 healthy adults over age 35; exclusion criteria included moderate/severe memory impairment, known neuropsychiatric conditions, persistent endocrine disorders and severe co-morbid medical conditions. The use of nootropic agents, memory enhancing drugs or alternative medicines was prohibited during the study. Participants received a full-spectrum root extract of ashwagandha (as KSM-66 Ashwagandha from Ixoreal Biomed), receiving 300 mg per dose, twice daily, or placebo capsules twice daily. Efficacy parameters were judged using the Wechsler Memory Scale III scores for memory and cognition domains. No differences between groups were seen in vital parameters at baseline.



### OUTCOME:

At the end of the eight weeks, for the participants taking ashwagandha:

Immediate and general memory subsets improved significantly.

Spatial span—a part of working memory—was significantly improved.

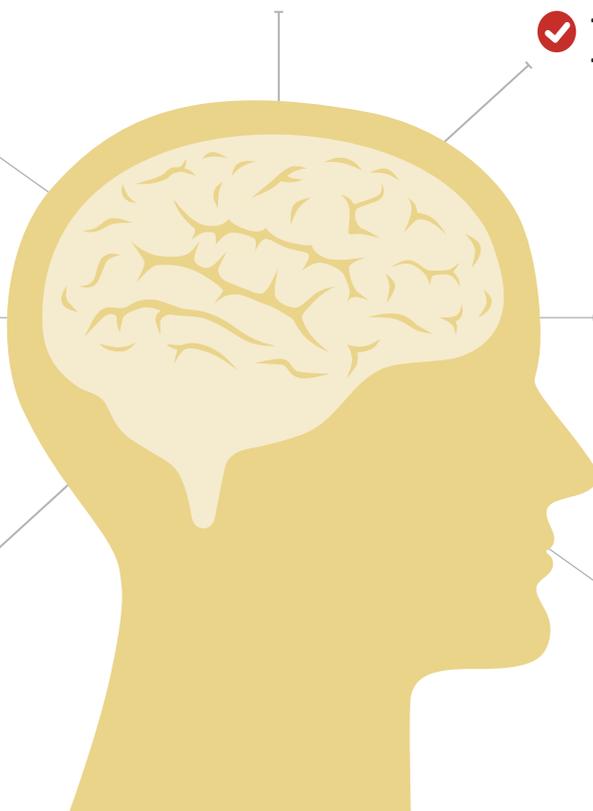
Time for the Trail Making Test was significantly reduced, showing improved information processing speed.

Executive function overall and in subsets improved significantly.

All the changes reported were statistically significant at eight weeks.

The sustained attention test showed significant improvement.

No adverse events were seen, and subjective assessment of tolerability was excellent.



Researchers concluded: "Ashwagandha can be effective in improving immediate memory and general memory, and in improving executive function, attention and information processing speed without any side effects."



### IMPACT:

As various developed countries face the challenges of supporting an aging population, many people fear the decline in their overall health, as well as the specific challenges associated with a decline in cognitive function. A recent study out of Japan found older adults are significantly concerned about cognitive decline, which can impact mental health.<sup>1</sup> Further, there has been a rise in the availability of products purporting to improve memory and cognitive function, which may fight cognitive decline or even boost intelligence.<sup>2</sup> Ashwagandha's history of safe, efficacious use in the area of brain health, coupled with these preliminary results, suggest a larger clinical trial could confirm its role in cognitive support.

1. *Gerontologist*. 2015;55(Suppl\_2):707-8. DOI: 10.1093/geront/gnv355.10

2. *Psychology Today*. 2012 Mar 26. "Training Working Memory: Why and how."

Source: Choudhary D, Bhattacharyya S, Bose S. "Efficacy and Safety of Ashwagandha (*Withania somnifera* (L.) Dunal) Root Extract in Improving Memory and Cognitive Functions." *J Diet Suppl*. 2017;14(6):599-612.