

Huperzine A

Chien Tseng Ta | Jin Bu Buan | Qian Ceng Ta | She Zu Cao | Shi Song

Introduction

Huperzine A is a naturally occurring cholinergic sesquiterpene alkaloid compound found in the firmoss *huperzia serrata*, along with other *huperzia* species (3). The term “Cholinergic” means that something acts on the neurotransmitter acetylcholine. Huperzine A does so by inhibiting the enzyme that breaks down acetylcholine (ACh), known as acetylcholinesterase. A terpene is a volatile unsaturated hydrocarbon (meaning it has double or triple bonds between carbons and a tendency to become a gas) found in the essential oils of plants, especially conifers & citrus trees. Alkaloids are nitrogenous organic compounds extracted from plants that have pronounced physiological effects in humans.

Chinese club moss, or *Huperzia serrata*, is the most common source of Huperzine A, and is famous for its neuroprotective and cognitive-enhancing effects.

Benefits

Acetylcholine is commonly referred to as the “learning neurotransmitter”. Aside from contributing to learning and memory, ACh also supports muscle contraction. It’s for this reason that students and “gym rats” alike commonly supplement with cholinergic supplements. As a cognitive enhancer, huperzine A inhibits acetylcholinesterase: the enzyme that breaks down acetylcholine, hence preserving acetylcholine levels. In fact, one study found that huperzine A was 8- and 2-fold more potent than donepezil and rivastigmine, respectively, in increasing cortical acetylcholine levels, with a longer-lasting effect (4).

Huperzine A has been shown to inhibit acetylcholinesterase for up to 6 hours, and one study showed increases in ACh levels up to 40% at 60 minutes (1).

Huperzine A has been shown to slow cognitive decline in the elderly, and those suffering from neurodegenerative diseases such as Alzheimer’s.

Huperzine A boasts non-cholinergic effects as well, such as regulating beta-amyloid precursor protein metabolism, and protecting against beta-amyloid-mediated oxidative stress and apoptosis (2). Hence, it may beneficially alter the pathogenesis of Alzheimer’s disease including the formation and deposition of beta-amyloid plaques (2).

Huperzine acts synergistically with acetylcholine producers such as Alpha-GPC; both of which can be found in our SUPER U formula.

Dosage & Side Effects

There is no recommended daily intake for Huperzine A, however supplementation tends to be in the range of 50-200 micrograms (mcg) daily taken without food (5). Other sources state the common supplemental dosage to be 200-500 mcg daily (6). Huperzine A appears to be safe based on human clinical trials. The half-life of Huperzine A ranges anywhere from 10-14 hours, and so to avoid excessive accumulation over time, it’s recommended that you don’t consume more than the recommended dosage within an average time span of 24 hours. Having said that, we were conservative as to include only 200 mcg of Huperzine-A in our SUPER U formula, rather than opting towards the upper end of the common dosage range. Consult your doctor

before using if you are currently taking any anticholinergic drugs, acetylcholinesterase inhibitors, or cholinergic drugs.

Although very unlikely with our modest dosage, potential side effects include nausea, diarrhea, vomiting, dry mouth, constipation, sweating, slurred speech, restlessness, loss of appetite, cramping, high blood pressure, dizziness, and slowed heart rate (6).

Our Sourcing

At Wend Wellness we use only fully natural ingredients in all our products. Our sourcing of Huperzine A is no different, as we provide you with a non-GMO, vegan, gluten free, and pure form of the product. All of our products are third party tested for purity. All Wend Wellness products are, and always will be, held to the highest standard of quality and efficacy.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, cure, or prevent any disease.

References

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