

Can Lion's Mane Decelerate Alzheimer's Disease Progression?



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In the US, mortality rates from Alzheimer's disease (AD) have steadily and significantly increased over the past 30 years. Despite this alarming progression, pharmaceutical research has yet to identify a drug which effectively halts this crippling disease. Research on *Hericium erinaceus* -- also known as lion's mane in reference to its shaggy appearance -- has demonstrated unique potential to modify the progression of AD and other neurodegenerative disorders.

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Animal and in vitro research constitute the bulk of *Hericium* exploration to date. But its clinical applications are supported by its extensive history of use in traditional Chinese medicine as a tonic, anti-cancer drug, gastritis medication, and for influencing the central nervous system.

Hericium contains extensive bioactive metabolites, including polysaccharides, terpenoids, sterols, myconutrients, and more. Combined, these constituents offer neuroprotection, anti-inflammatory actions, and stimulate nerve growth factor (NGF) synthesis, along with many other beneficial properties.

Preclinical studies (in vitro and animal) show that *Hericium* has actions which could help slow or reverse the progression of AD. Animal studies show that lion's mane increases nerve growth factor levels and may enhance short term memory.¹ NGF induces the growth and proliferation of sympathetic and sensory neurons, and is believed to help prevent neurodegenerative disease such as AD.

In an animal study with mice that are predisposed to developing AD, lion's mane has been shown to decrease production of amyloid-beta (AB) protein, which is implicated in the pathophysiology of plaque creation in the brain of AD patients. The treated mice were also shown to have increased production of NGF.²

In another mouse study, lion's mane has been shown to upregulate lipoxin A4, an anti-inflammatory and neuroprotective leukotriene in the brain.³

In a clinical trial, *Hericium* was shown to improve cognitive function. This small double-blind, placebo controlled study involved older Japanese patients with mild cognitive impairment. They took 250 mg lion's mane three times daily for a month, and were shown to improve specific types of memory, most notably spatial short-term and visual recognition memory.⁴

It's evident that more clinical research is needed to fully understand the potential applications of lion's mane, but most preclinical evidence strongly suggests it offers much-needed neuroprotective applications. Kevin Spelman, PhD presented the research and clinical applications of this intriguing fungus at a past Restorative Medicine Conference. Here is an interview that we did with Dr. Spelman after his lecture.

References

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