MUSHROOMS
ON THE MIND

MUSHROOM COUNCIL

Mushrooms aren't just tasty toppings on pizza or found in salad bars; they're nutrient powerhouses that bring flavor, sustainability and versatility to the table **and** may benefit brain health.

As a part of the MIND diet, a plant-forward eating pattern designed to support brain health, mushrooms provide several nutrients and bioactive compounds that may play a role in supporting brain health, with ergothioneine as the standout.

GETTING TO KNOW ERGO

Ergothioneine, or **ERGO**, is an amino acid that is being examined for its role in brain health. Lower blood levels of ergothioneine may be associated with the severity of cognitive disease.[1] Some researchers suggest that the American diet may be low in ERGO, a nutrient that may help protect against chronic age-related diseases, including cognitive decline.[2]

An analysis of U.S. adults age 60 and older using NHANES data found that participants who reported eating more mushrooms performed better on several cognitive tests, including measures of memory and processing speed. These encouraging results suggest mushrooms could play a role in supporting normal cognitive function in aging. Because the study was cross-sectional and relied on self-reported diet information, the findings show associations rather than cause and effect. Still, this nationally representative study highlights a promising link that warrants further prospective and clinical research to better understand the potential role of mushrooms in maintaining brain health.[3]

Mushrooms are one of the **top** food sources of ERGO. Shiitake, oyster, king trumpet and lion's mane are especially abundant in ERGO.

Ergothioneine Content of Mushroom Varieties*

CRIMINI 1MG

PORTABELLA 2MG

OYSTER 14MG

WHITE BUTTON 4MG

KING TRUMPET 24MG

BEECH 5MG

SHIITAKE 11MG

MAITAKE 2MG

LION'S MANE 17MG

*per 100g of mushrooms, USDA FoodData Central, Foundation Foods, 2025.

References

1. Wu LY, Cheah NK, Cheah IK, et al. Low plasma ergothioneine predicts cognitive and functional decline in an elderly cohort attending memory clinics. *Antioxidant.* 2022,11(9):1717.
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HERE'S A LOOK AT THE EVIDENCE

- A prospective study of 496 older adults attending memory clinics in Singapore found that those subjects with lower blood levels of ergothioneine, an amino acid found in mushrooms, experienced faster decline in memory, language and daily function over several years. These findings are compelling because they suggest ergothioneine may serve as an early marker of cognitive decline, pointing toward new avenues for research on diet and brain health. Although the study was observational and conducted in a clinical population, the results underscore the need for further trials and broader population studies to clarify whether ergothioneine could play a protective role in cognitive aging.[4]

MORE MUSHROOMS, MORE MEMORY?

Emerging evidence suggests mushrooms might do more than flavor your meals — they may also support your brain health with age.

- In yet another study of 663 older adults in Singapore, researchers found that higher mushroom consumption was associated with a substantially lower likelihood of having mild cognitive impairment. This observation is especially intriguing because the association remained significant even after adjusting for demographic and lifestyle factors. While the study's cross-sectional design means we cannot conclude causality, the findings add to a growing body of evidence pointing to mushrooms as a potentially beneficial dietary component for cognitive health. Additional longitudinal and interventional studies will be important to confirm and extend these promising results in other populations.[5]

LET'S KEEP IN TOUCH

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References

4. Wu LY, Cheah IK, Chong JR, Chai YL, Tan JY, Hilal S, Vrooman H, Chen CP, Halliwell B, Lai MKP. Low plasma ergothioneine levels are associated with neurodegeneration and cerebrovascular disease in dementia. *Free Radic Biol Med.* 2021 Dec;177:201-211. doi: 10.1016/j.freeradbiomed.2021.10.019. Epub 2021 Oct 19. PMID: 34673145.

5. Feng L, Cheah IK, Ng MM, Li J, Chan SM, Lim SL, Mahendran R, Kua EH, Halliwell B. The association between mushroom consumption and mild cognitive impairment: A community-based cross-sectional study in Singapore. *J Alzheimers Dis.* 2019;68(1):197-203. doi: 10.3233/JAD-180959. PMID: 30775990.