

# Dementia onset and brain aging slowed with daily multivitamin, study finds

Alex Mitchell

Medical experts have found that taking a daily multivitamin can ward off cognitive decline by up to two years, according to a new study out of Massachusetts General Hospital.

**Cognitive decline is one of the first and primary symptoms associated with Alzheimer's and dementia diseases**, which combined affect 55 million people worldwide, according to the World Health Organization. *"Cognitive decline is among the **top health concerns** for most older adults, and a daily supplement of multivitamins has the potential as an appealing and accessible approach to slow cognitive aging,"* said the first author of the new study Chirag Vyas.

The new findings, published in The American Journal of Clinical Nutrition, showed that **a daily multivitamin of 20 essential nutrients "helps prevent memory loss and slow down cognitive aging,"** according to senior author Dr. Olivia Okereke.

The study included assessments of 573 individuals over two years. Those who were taking the multivitamin, compared to a placebo group, saw significant benefits to their memory's ability to learn, store and retrieve information.

Researchers also found improvements in areas of orientation, attention, language fluency and related abilities known as global cognition by up to two years as well.



Dementia onset and brain aging slowed with daily multivitamin, study finds: 'Exciting' © Provided by New York Post

**New research shows that taking a multivitamin can prevent mental decline.** Halfpoint – stock.adobe.com  
Fellow Brigham and Women's Hospital researcher Howard Sesso called the discovery "exciting" and evidence that multivitamins are safe and a potentially beneficial health support supplement.

*"It is now critical to understand the mechanisms by which a daily multivitamin may protect against memory loss and cognitive decline with a focus on nutritional status and other aging-related*

*factors,"* Sesso said.

# Alzheimer's Breakthrough as Five New Subgroups Identified

Pandora Dewan

Scientists have made a breakthrough in our understanding of Alzheimer's after identifying five new subcategories of the disease. The discovery opens the door to **more targeted disease treatments**, as well as **more accurate genetic risk assessments and prognoses**.

Alzheimer's, the most common form of dementia in the United States, affects roughly 5.8 million Americans, according to the U.S. Centers for Disease Control and Prevention. **The progressive condition is characterized by memory loss and cognitive decline in the regions of the brain involved in thought, memory and language.** Scientists believe the condition is **caused by an abnormal buildup of proteins in and around the brain cells**, but exactly what triggers this process is still unclear.

At a molecular level, Alzheimer's differs among patients, meaning **not everyone responds well to the same treatments**. But now new research from a large team of neuroscientists and Alzheimer's disease specialists has revealed that these differences can be divided into **five distinct categories**. The research was published

in the journal Nature Aging. In its study, the team took samples of the cerebrospinal fluid from 419 Alzheimer's patients and 187 control volunteers. Cerebrospinal fluid is a watery liquid that surrounds and protects the brain and spinal cord and allows for the transfer of nutrients and impurities in and out of these regions. Being in direct contact with the brain, the fluid also provides a minimally invasive way to study the molecular fingerprints of neurodegenerative disease.

The team analyzed each sample for the presence of 1,058 different proteins, and distinct patterns began to emerge quickly. Among the Alzheimer's patients, these patterns could be divided into five distinct categories. These protein profiles varied, from those associated with excessive structural reorganization in the brain to those indicative of a leaky blood-brain barrier.

The team also found that each of these subtypes was associated with **distinct genetic risk factors**. *"The subtypes also differed in cortical [cell death] patterns and survival times, underscoring their clinical relevance,"* the authors wrote. *"Given the distinct patterns of molecular processes and Alzheimer's disease genetic risk profiles, it is likely that Alzheimer's subtypes will require specific treatments."*

More work is needed to determine these subtype-specific effects, but the authors say that the discovery highlights the **importance of personalized medicine** in Alzheimer's treatment.