

Lifelong learning tied to lower Alzheimer disease risk

A lifetime of mental stimulation — like reading, writing and learning new skills — may help protect the brain as we age. People with the highest levels of cognitive enrichment have a much lower risk of Alzheimer disease and, typically, they experience cognitive impairment years later than those with lower levels.

This connection with better Alzheimer outcomes is the main conclusion of a study published recently in 'Neurology', the medical journal of the American Academy of Neurology. The findings show an association, but not proof, that lifelong learning directly mitigates the onset of Alzheimer's disease.

Researchers explored how mental stimulation across different life stages may shape brain health later on.

The results were striking. People in the top 10 per cent for lifelong cognitive enrichment had a 38 per cent lower risk of Alzheimer's and a 36 per cent lower risk of mild cognitive impairment compared to those in the bottom 10 per cent.

Increased mental engagement was also tied to delays in disease onset, up to five years later for Alzheimer's and seven years later for mild cognitive impairment.

Study Outcomes.

"Our study looked at cognitive enrichment from childhood to later life, focusing on activities and resources that stimulate the mind," said study author Andrea Zammit, PhD, of Rush University Medical Center in Chicago.

"Our findings suggest that cognitive health in later life is strongly influenced by lifelong exposure to intellectually stimulating environments."

Study Tracked Cognitive Enrichment

Researchers followed 1,939 adults with an average age of 80 who did not have dementia at the beginning of the study. Participants were tracked for about eight years.

To better understand lifelong learning, the team examined cognitive enrichment at three stages of life. Early life factors, before age 18, included how often participants were read to, how frequently they read books and newspapers and if they studied a foreign language for more than five years.

Middle age enrichment included income level at age 40, access to educational resources and how often participants visited places like museums or libraries.

Later life enrichment, starting around age 80, focused on activities such as reading, writing, and playing games.

Over the course of the study, 551 participants developed Alzheimer's, while 719 developed mild cognitive impairment.



Brain health may extend into advanced age

The results of the research point to the importance of older people pursuing lifelong learning and engaging socially.

The timing of disease onset also differed significantly. People with the highest enrichment developed Alzheimer's at an average age of 94, compared to age 88 for those with the lowest enrichment, more than a five-year delay.

For mild cognitive impairment, those with higher enrichment developed symptoms at an average age of 85, compared to age 78 for those with lower enrichment, a seven-year delay.

In a smaller group of participants who died during the study and underwent autopsies, those with higher enrichment showed stronger memory and thinking abilities and slower cognitive decline before death. These benefits remained even after accounting for early brain changes associated with Alzheimer's, including the buildup of proteins called amyloid and tau.

Expanding Access to Enriching Activities

"Our findings are encouraging, suggesting that consistently engaging in a variety of mentally stimulating activities throughout life may make a difference in cognition," said Zammit.

Source: American Academy of Neurology. Note: Content edited for style and length.