

Memory grows less efficient very early in Alzheimer's disease

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Even very early in Alzheimer's disease, people become less efficient at separating important from less important information, a new study has found.

Knowing this, clinicians may be able to train people in the early stages of Alzheimer's to remember high-value information better, according to a report in the May issue of [Neuropsychology](#), published by the American Psychological Association.

Remembering what's most important is central to daily life. For example, if you went to the grocery store but left your shopping list at home, you'd at least want to remember the milk and bread, if not the jam. Or, when packing for a trip, you'd want to remember your wallet and tickets more than your slippers or belt.

Participants in the study were recruited from the Washington University in St. Louis [Alzheimer's Disease](#) Research Center. They included 109 healthy [older adults](#) (average age of almost 75), 41 people with very mild (very early) Alzheimer's disease (average age of almost 76), 13 people with mild (early) Alzheimer's (average age of almost 77), and 35 younger adults (all 25 or under, average age of almost 20).

The researchers asked participants to study and learn neutral words that were randomly assigned different point values. When asked to recall the items, participants were asked to maximize the total value. All participants, even those with Alzheimer's, recalled more high-value than

low-value items. However, the Alzheimer's groups were significantly less efficient than their healthy age peers at remembering items according to their value. It meant they no longer maximized [learning](#) and [memory](#), which in healthy people are fairly efficient processes.

The authors speculated that Alzheimer's disease makes it harder for people to encode what they learn in a strategic way. Because encoding is the first step in long-term memory, this affects their ability to remember things according to their value.

The findings also demonstrate that value-directed learning stays intact in healthy aging. Older adults might not remember as much as younger adults, but when healthy, they remain able to distinguish what's important.

This research suggests the potential for improved memory training. People with early-stage Alzheimer's might remember important information better by learning to be more strategic and selective when encoding high-value information, even though it comes at the expense of neglecting less-important information, the authors said.

More information: "Memory Efficiency and the Strategic Control of Attention at Encoding: Impairments of Value-Directed Remembering in Alzheimer's Disease," Alan D. Castel, PhD, University of California, Los Angeles; David A. Balota, PhD, Washington University in St. Louis; and David P. McCabe, PhD, Colorado State University; *Neuropsychology*, Vol. 23, No. 3.

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