

## Memory may decline rapidly even in stage before Alzheimer's disease

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Memory and thinking skills may decline rapidly for people who have mild cognitive impairment, which is the stage before Alzheimer's disease when people have mild memory problems but no dementia symptoms, and even more rapidly when dementia begins, which is when Alzheimer's disease is usually diagnosed. The research is published in the March 23, 2010, print issue of *Neurology*, the medical journal of the American Academy of Neurology.

"These results show that we need to pay attention to this time before <u>Alzheimer's disease</u> is diagnosed, when people are just starting to have problems forgetting things," said study author Robert S. Wilson, PhD, of Rush University Medical Center in Chicago.

The study involved 1,158 people living in Chicago with an average age of 79. A total of 149 of the participants had Alzheimer's disease, 395 had mild cognitive impairment, and 614 had no thinking or memory problems.

Memory and thinking skills tests were given to the participants at the beginning of the study and again every three years. People took part in the study for an average of 5.5 years, and up to 11 years.

The thinking skills of those with mild cognitive impairment declined twice as fast each year as those who had no cognitive problems, while the skills of those with Alzheimer's disease declined four times as fast as those with no cognitive problems.

At the beginning of the study, scores on a global cognition test ranged from an average of 0.5 for people with no thinking problems to 0.2 for people with mild cognitive impairment to -0.5 for people with Alzheimer's disease. Scores declined by 0.04 per year for those with no thinking problems, by 0.09 for those with mild cognitive impairment, and by 0.17 for those with Alzheimer's.

"The changes in rate of decline occur as the brain atrophies due to the disease, first mainly in the hippocampus during the initial symptomatic stage, referred to as mild cognitive impairment, then in the temporal, parietal and frontal cortex during the dementing illness phase of Alzheimer's disease," said David S. Knopman, MD, of the Mayo Clinic in Rochester, Minn., and Fellow of the American Academy of Neurology, who wrote an editorial accompanying the article.

Provided by American Academy of Neurology

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