

Studies: Memory declines faster in years closest to death

April 4 2012

Two new studies published in the April 4 online issue of *Neurology*, the medical journal of the American Academy of Neurology, suggest that a person's memory declines at a faster rate in the last two-and-a-half years of life than at any other time after memory problems first begin. The second study shows that keeping mentally fit through board games or reading may be the best way to preserve memory during late life. Both studies were conducted by researchers at Rush University Medical Center.

"In our first study, we used the end of life as a reference point for research on memory decline rather than birth or the start of the study," said study author Robert S. Wilson, PhD, study author and [neuropsychologist](#) at Rush University Medical Center in Chicago.

For the study, 174 Catholic priests, nuns and monks without [memory problems](#) had their memory tested yearly for six to 15 years before death. After death, scientists examined their brains for hallmarks of Alzheimer's disease called plaques and tangles.

The study found that at an average of about two-and-a-half years before death, different memory and thinking abilities tended to decline together at rates that were 8 to 17 times faster than before this terminal period. Higher levels of plaques and tangles were linked to an earlier onset of this terminal period but not to rate of [memory decline](#) during it.

The second study, also conducted by Wilson, showed that keeping

mentally fit through board games or reading may be the best way to preserve memory during late life.

The study, which focused on mental activities, involved 1,076 people with an average age of 80 who were free of [dementia](#). Participants underwent yearly [memory](#) exams for about five years. They reported how often they read the newspaper, wrote letters, visited a library and played board games such as chess or checkers. Frequency of these mental activities was rated on a scale of one to five, one meaning once a year or less and five representing every day or almost every day.

"The results suggest a cause and effect relationship: that being mentally active leads to better cognitive health in old age," said Wilson.

The results showed that people's participation in mentally stimulating activities and their mental functioning declined at similar rates over the years. The researchers also found that they could predict participants' level of cognitive functioning by looking at their level of mental activity the year before but that level of cognitive functioning did not predict later mental activity.

Provided by Rush University Medical Center

Citation: Studies: Memory declines faster in years closest to death (2012, April 4) retrieved 12 May 2024 from <https://medicalxpress.com/news/2012-04-memory-declines-faster-years-closest.html>

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