

# Keeping pace: Walking speed may signal thinking problems ahead

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A new study shows that changes in walking speed in late life may signal the early stages of dementia known as mild cognitive impairment (MCI). The research is published in the June 12, 2012, print issue of *Neurology*, the medical journal of the American Academy of Neurology.

"In our study, we used a new technique that included installing [infrared sensors](#) in the ceilings of homes, a system designed to detect walking movement in hallways," said study author Hiroko Dodge, PhD, with Oregon Health and Science University in Portland and a member of the American Academy of Neurology. "By using this new monitoring method, we were able to get a better idea of how even subtle changes in walking speed may correlate with the development of MCI."

The study involved 93 people age 70 or older who lived alone. Of those, 54 participants had no cognitive impairment, 31 had non-memory related MCI and eight had memory-related MCI. Participants were given memory and thinking tests and had their walking speed monitored at their homes unobtrusively over a three-year period. Participants were placed in groups of slow, moderate or fast based on their average weekly walking speed and how much their walking speed fluctuated at home.

The study found that people with non-memory related MCI were nine times more likely to be slow walkers than moderate or fast walkers and the amount of the [fluctuation](#) in walking speed was also associated with MCI.

"Further studies need to be done using larger groups of participants to determine whether [walking speed](#) and its fluctuations could be a predictor of future memory and thinking problems in the elderly," said Dodge. "If we can detect [dementia](#) at its earliest phases, then we can work to maintain people's independence, provide treatments and ultimately develop ways to prevent the disease from developing. Our in-home monitoring approach has a lot of potential to be used for sustaining independence of the elderly."

Provided by American Academy of Neurology

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