

# High blood pressure associated with risk for mild cognitive impairment

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High blood pressure appears to be associated with an increased risk for mild cognitive impairment, a condition that involves difficulties with thinking and learning, according to a report in the December issue of *Archives of Neurology*, one of the JAMA/Archives journals.

“Mild cognitive impairment has attracted increasing interest during the past years, particularly as a means of identifying the early stages of Alzheimer’s disease as a target for treatment and prevention,” the authors write as background information in the article. About 9.9 of every 1,000 elderly individuals without dementia develop mild cognitive impairment yearly. Of those, 10 percent to 12 percent progress to Alzheimer’s disease each year, compared with 1 percent to 2 percent of the general population.

Christiane Reitz, M.D., Ph.D., and colleagues at the Columbia University Medical Center, New York, followed 918 Medicare recipients age 65 and older (average age 76.3) without mild cognitive impairment beginning in 1992 through 1994. All participants underwent an initial interview and physical examination, along with tests of cognitive function, and then were examined again approximately every 18 months for an average of 4.7 years. Individuals with mild cognitive impairment had low cognitive scores and a memory complaint, but could still perform daily activities and did not receive a dementia diagnosis.

Over the follow-up period, 334 individuals developed mild cognitive impairment. This included 160 cases of amnesic mild cognitive impairment, which involves low scores on memory portions of the neuropsychological tests, and 174 cases of non-amnesic mild cognitive impairment. Hypertension (high blood pressure) was associated with an increased risk of all types of mild cognitive impairment that was mostly driven by an increased risk of non-amnesic mild cognitive impairment; hypertension was not associated with

amnesic mild cognitive impairment, nor with the change over time in memory and language abilities.

“The mechanisms by which blood pressure affects the risk of cognitive impairment or dementia remain unclear,” the authors write. “Hypertension may cause cognitive impairment through cerebrovascular disease. Hypertension is a risk factor for subcortical white matter lesions found commonly in Alzheimer’s disease. Hypertension may also contribute to a blood-brain barrier dysfunction, which has been suggested to be involved in the cause of Alzheimer’s disease. Other possible explanations for the association are shared risk factors,” including the formation of cell-damaging compounds known as free radicals.

Source: JAMA and Archives Journals

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