

# Glaucoma may be linked to higher rates of reading impairment in older adults

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Glaucoma appears to be associated with slower spoken reading and increased reading impairment in older adults, according to a report in the January issue of *Archives of Ophthalmology*, one of the JAMA/Archives journals.

"Glaucoma [a common eye condition, which can damage the eye and cause loss of vision] affects 2 percent of U.S. adults older than 40 years, and as many as 10 percent have suspected glaucoma," according to background information in the article. "Determining who should be treated requires that we understand when and how glaucoma produces disability."

Pradeep Y. Ramulu, M.D., Ph.D., and colleagues at the Wilmer Eye Institute, Johns Hopkins University, Baltimore, tested 1,154 individuals (average age 79.7) to evaluate the relationship between glaucoma and spoken reading speed. Participants were asked to read non-scrolling text aloud. Those who read slower than 90 words per minute were defined as having impairment. Glaucoma status was determined by testing participants' visual fields, optic nerve images and medical records. Demographic information was also noted.

A total of 1,017 (95.6 percent) of participants did not have glaucoma. An additional 73 had unilateral glaucoma (glaucoma in one eye) and 64 had bilateral glaucoma (glaucoma in both eyes).

"Univariate analysis demonstrated reading impairment in 16 percent of subjects without glaucoma, 21.1 percent of subjects with unilateral glaucoma and 28.4 percent of subjects with bilateral glaucoma," the authors write. "Subjects with unilateral glaucoma showed similar reading speeds and odds of reading impairment when compared with subjects without glaucoma. Subjects with bilateral glaucoma read 29 words per minute slower than those without glaucoma and had roughly twice the odds of reading impairment."

"Lower levels of education were associated with slower reading speeds, and race persisted as a significant predictor of reading speed even after adjusting for education," the authors write.

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Source: JAMA and Archives Journals

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