

RESEARCH NEWS

Problem drinking in middle age doubles risk of memory loss later in life, study finds

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A history of problem drinking in middle age more than doubles the risk of developing severe memory problems later in life, a new study has found. The study was carried out by researchers from the University of Exeter Medical School in the United Kingdom and was published in the *American Journal of Geriatric Psychiatry*.¹

The paper's lead author was Elzbieta Kuzma, a research fellow in neuroepidemiology, and the senior author was Iain Lang, senior lecturer in public health.

Researchers looked at the association between a history of alcohol use disorder in middle age and participants' memory and cognitive function later in life. The study considered 6542 middle aged men and women born from 1931 to 1941 who were participating in the US Health and Retirement Study, a nationally representative prospective cohort. The participants were first assessed in 1992, and follow-up assessments were then conducted every other year from 1996 to 2010.

For this study, participants were considered to have a history of an alcohol use disorder if they had answered "yes" to at least two questions of a modified three question version of the CAGE questionnaire—a validated screening tool that consists of four questions:

- Have you ever felt you should [C]ut down on your drinking?
- Have people ever [A]nnoyed you by criticising your drinking?
- Have you ever felt bad or [G]uilty about drinking?
- Have you ever taken a drink first thing in the morning ([E]ye-opener) to steady your nerves or get rid of a hangover?

The researchers dropped the "cut down" question because they said it was common for people age 50 and over to consider cutting back their alcohol consumption because of other health concerns. Cognitive outcomes were assessed using a 35 item modified version of the Telephone Interview for Cognitive Status. Memory was assessed using immediate and delayed recall of 10 words.

The researchers reported that, during a follow-up period as long as 19 years (mean: 16.7 years; standard deviation: 3.0; range:

3.5 to 19.1 years), 90 participants developed severe cognitive impairment and 74 developed severe memory impairment. A history of alcohol use disorder more than doubled the odds of severe memory impairment (odds ratio 2.21 (95% confidence interval 1.27 to 3.85; p=0.01)). The association with severe cognitive impairment was non-significant, but it trended in the same direction (1.80 (0.97 to 3.33; p=0.06)).

Lang said in a statement that the finding "suggests three things: that this is a public health issue that needs to be addressed; that more research is required to investigate the potential harms associated with alcohol consumption throughout life; and that the CAGE questionnaire may offer doctors a practical way to identify those at risk of memory/cognitive impairment and who may benefit from help to tackle their relationship with alcohol."

Eric Karran, director of research at Alzheimer's Research UK, who was not involved in the study, noted that "this is not the first time heavy alcohol consumption has been linked to poor brain health." One of the study's strengths was that it looked at a long period of time, he said. "As dementia develops slowly over a number of years it's crucial to understand what factors could affect our risk of the condition earlier in life."

He added, "Although studies such as this one can be very useful for observing health trends, it's important to note that they are not able to show cause and effect, and it's not clear whether other factors may also have influenced these results."



1 Kuzma E, Llewellyn DJ, Langa KM, Wallace RB, Lang IA. History of alcohol use disorders and risk of severe cognitive impairment: a nineteen year prospective cohort study. *Am J Geriatr Psychiatry* 2014. [www.ajgonline.org/article/S1064-7481\(14\)00167-5/fulltext](http://www.ajgonline.org/article/S1064-7481(14)00167-5/fulltext).

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