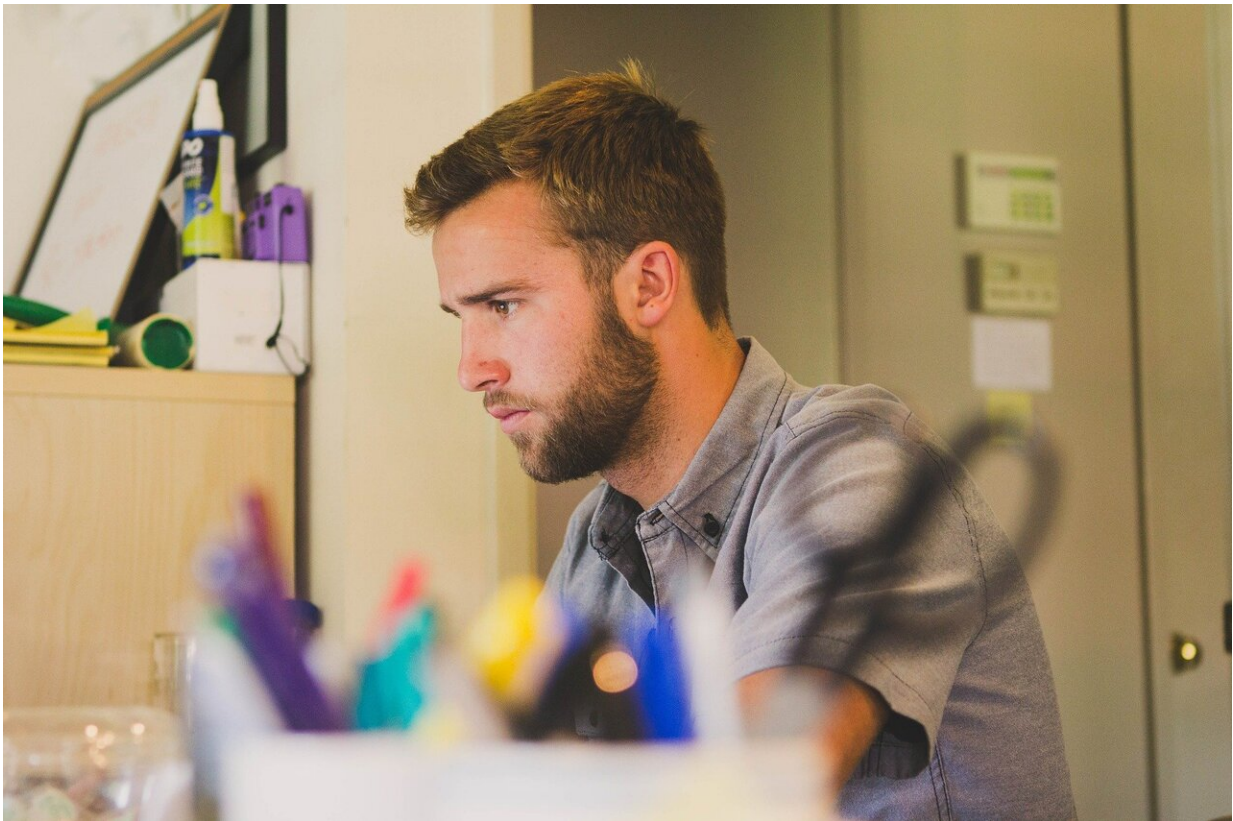


# Does using your brain more at work help ward off thinking, memory problems?

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The harder your brain works at your job, the less likely you may be to have memory and thinking problems later in life, according to a new study published in the journal *Neurology*. This study does not prove that

stimulating work prevents mild cognitive impairment. It only shows an association.

"We examined the demands of various jobs and found that cognitive stimulation at work during different stages in life—during your 30s, 40s, 50s and 60s—was linked to a reduced risk of mild cognitive impairment after the age of 70," said study author Trine Holt Edwin, MD, Ph.D., of Oslo University Hospital in Norway. "Our findings highlight the value of having a job that requires more complex thinking as a way to possibly maintain memory and thinking in old age."

The study looked at 7,000 people and 305 occupations in Norway.

Researchers measured the degree of cognitive stimulation that participants experienced while on the job. They measured the degree of routine manual, routine cognitive, non-routine analytical, and non-routine interpersonal tasks, which are skill sets that different jobs demand.

Routine manual tasks demand speed, control over equipment, and often involve repetitive motions, typical of factory work. Routine cognitive tasks demand precision and accuracy of repetitive tasks, such as in bookkeeping and filing.

Non-routine analytical tasks refer to activities that involve analyzing information, engaging in [creative thinking](#) and interpreting information for others. Non-routine interpersonal tasks refer to establishing and maintaining [personal relationships](#), motivating others and coaching. Non-routine cognitive jobs include public relations and computer programming.

Researchers divided participants into four groups based on the degree of cognitive stimulation that they experienced in their jobs.

The most common job for the group with the highest cognitive demands was teaching. The most common jobs for the group with the lowest cognitive demands were mail carriers and custodians.

After age 70, participants completed memory and thinking tests to assess whether they had mild cognitive impairment. Of those with the lowest cognitive demands, 42% were diagnosed with mild cognitive impairment. Of those with the highest cognitive demands, 27% were diagnosed with mild cognitive impairment.

After adjustment for age, sex, education, income and lifestyle factors, the group with the lowest cognitive demands at work had a 66% higher risk of [mild cognitive impairment](#) compared to the group with the highest cognitive demands at work.

"These results indicate that both education and doing work that challenges your brain during your career play a crucial role in lowering the risk of cognitive impairment later in life," Edwin said. "Further research is required to pinpoint the specific cognitively challenging occupational tasks that are most beneficial for maintaining thinking and memory skills."

A limitation of the study was that even within identical job titles, individuals might perform different tasks and experience different cognitive demands.

**More information:** Trine H. Edwin et al, Trajectories of Occupational Cognitive Demands and Risk of Mild Cognitive Impairment and Dementia in Later Life, *Neurology* (2024). DOI: 10.1212/WNL.0000000000209353

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