

Think 8 hours of sleep is best? Think again!

Are you 38 or older? Then you may want to rethink how much sleep you truly need. A team of international researchers has found that less is more.

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Most of us have internalized it as a rule: A full night of sleep means eight hours for adults. But that may no longer be true once people hit a certain age.



A team of researchers from the University of Cambridge in the UK and Fudan University in China have found that seven hours of sleep may be the ideal amount of shut-eye for middleaged and elderly people.

In a study published in the journal *Nature Aging*, the researchers said they found that seven hours of sleep was best for cognitive performance and good mental health.

The researchers examined data from nearly 500,000 participants aged 38 to 73 years and found that insufficient — but also excessive — sleep were associated with impaired cognitive performance and worse mental health.

Study participants reported their sleep patterns and also answered questions about their well-being and mental health. They completed a number of cognitive tasks that tested their processing speed, visual attention, memory and problem-solving skills. And those who had had an uninterrupted seven hours of sleep did better across the board.

There is one caveat, though: 94% of the participants were white, so it's unclear whether the results are true for people of color and other ethnic or cultural backgrounds.

Another important factor is consistency. The best results were seen in people who showed little fluctuation in their sleep patterns over long periods of time and who stuck to the seven hours.

In other words, getting four hours of sleep ahead of a big meeting cannot be "made up" by sleeping 10 hours the next night.

Interrupted sleep: Risk of dementia

"Getting a good night's sleep is important at all stages of life, but particularly as we age," said Barbara Sahakian, a professor at Cambridge University and coauthor of the study.

The researchers said a lack of sleep is likely to hamper the brain's process of ridding itself of toxins. They also say that a disruption of slow-wave or deep sleep may be responsible for cognitive decline.

When deep sleep is disturbed, it affects memory consolidation and that can lead to the buildup of amyloid, a protein that can — if it fails to function as it should — cause "tangles" in the brain that are characteristic of some forms of dementia.

Insufficient or excessive sleep could be a risk factor for cognitive decline in ageing.

"While we can't say conclusively that too little or too much sleep causes cognitive problems, our analysis appears to support this idea," said Jianfeng Feng, a brain scientist and professor at Fudan University. "But the reasons why older people have poorer sleep appear to be complex, influenced by a combination of our genetic makeup and the structure of our brains."

Length of sleep affects brain structure

The researchers also looked at brain imaging and genetic data, but those data were only available for less than 40,000 of the participants.

That data showed that the amount of sleep could be linked to differences in the structure of brain regions like the hippocampus, which is considered the memory and learning center of the brain, and the precentral cortex, which is responsible for executing voluntary movements.

Since the risk of developing Alzheimer's and dementia — ageing diseases that come with cognitive impairments — has been linked to sleep duration, the researchers said that further work in the field of sleep science is essential.

"Finding ways to improve sleep for older people could be crucial in helping them maintain good mental health and wellbeing and [their] avoiding cognitive decline, particularly for patients with psychiatric disorders and dementias," Sahakian said.