

Too much sleep bad for brain, study says

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Credit: University of Western Ontario

Preliminary results from the world's largest sleep study have shown that people who sleep on average between seven to eight hours per night performed better cognitively than those who slept less – or more – than this amount. Western neuroscientists at the Brain and Mind Institute released their findings today in *Sleep*.

According to the study, approximately half of all participants reported

typically sleeping less than 6.3 hours per [night](#), about an hour less than the study's recommended amount. One startling revelation was that most participants who slept four hours or less performed as if they were almost nine years older.

Another surprising discovery was that sleep affected all adults equally. The amount of sleep associated with highly functional cognitive behaviour was the same for everyone (seven to eight hours), regardless of age. Also, the impairment associated with too little or too much sleep did not depend on the age of the [participants](#).

"We found the optimum amount of sleep to keep your brain performing its best is seven to eight hours every night. That corresponds to what the doctors will tell you need to keep your body in tip-top shape, as well. We also found that people that slept more than that amount were equally impaired as those who slept too little," says Conor Wild, Owen Lab Research Associate and the study's lead author.

Participants' reasoning and verbal abilities were two of the actions most strongly affected by sleep while short-term memory performance was relatively unaffected. This is different than findings in most scientific studies of complete sleep deprivation and suggests that not getting enough sleep for an extended period affects your [brain](#) differently than staying up all night.

On the positive side, there was some evidence that even a single night's sleep can affect a person's ability to think. Participants who slept more than usual the night before participating in the study performed better than those who slept their usual amount or less.

The world's largest sleep study was launched in June 2017 and within days more than 40,000 people from around the world participated in the online scientific investigation, which includes an in-depth questionnaire

and a series of cognitive performance activities.

"We really wanted to capture the sleeping habits of people around the entire globe. Obviously, there have been many smaller sleep studies of people in laboratories but we wanted to find out what sleep is like in the real world," said Adrian Owen, a Professor at The Brain and Mind Institute and the former Canada Excellence Research Chair in Cognitive Neuroscience and Imaging.

"People who logged in gave us a lot of information about themselves. We had a fairly extensive questionnaire and they told us things like which medications they were on, how old they were, where they were in the world and what kind of education they'd received because these are all factors that might have contributed to some of the results."

More information: Conor J Wild et al. Dissociable effects of self-reported daily sleep duration on high-level cognitive abilities, *Sleep* (2018). [DOI: 10.1093/sleep/zsy182](https://doi.org/10.1093/sleep/zsy182)

Provided by University of Western Ontario

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