

College students may get health benefits from less than one extra hour of sleep

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Anne-Marie Chang is an assistant professor in Penn State's Biobehavioral Health Department. Credit: Patrick Mansell

College life can be rigorous and exhausting, but new research suggests that just one extra hour of sleep a night is not only possible, but can also

have significant health benefits for college students.

In a study led by Penn State, researchers found that when asked to extend their sleep, [college](#) students were able to get an additional 43 minutes of sleep per night on average. They also experienced less sleepiness during the day and had [lower blood pressure](#).

Anne-Marie Chang, assistant professor of biobehavioral [health](#) and nursing, said the findings—recently published in the journal *Sleep Health*—suggest that getting more sleep is a feasible and attainable goal for most college students.

"A relatively minor commitment to get a little more sleep can make a real impact on improving your health," Chang said. "Our participants were young and healthy and still saw significant, clinically relevant improvements. That, to me, really highlighted the fact that longer sleep, especially if you're not getting enough, can lead to physiological changes."

According to the researchers, getting enough sleep is an issue for people of all ages. While experts recommend seven to nine hours of sleep per night for young adults, previous research has found that 36% of [young adults](#) are getting less than seven hours per night and 14% are averaging less than six hours per night.

Chang said not getting enough sleep could lead to a range of issues in college students, including impaired mood and cognitive performance.

"Mood is something that's of concern in this group with anxiety being so prevalent," Chang said. "Not getting the right quantity or quality of sleep affects cognitive performance, as well. Studies have shown sleep loss is related to poor grades, poor performance, and lack of effort and motivation. Also, other health behaviors like risky behavior, diet and

eating behaviors, and sedentary behavior are all tied to lack of sleep or poor sleep."

The researchers followed 53 healthy undergraduate students for the study. At the beginning of the study, all participants visited the lab to have their height, weight, [blood pressure](#) and heart rate measured. They also received accelerometers that, when worn on their wrist, recorded their movement and sleep. The researchers instructed the students to sleep according to their usual schedule for the first week.

One week later, the participants visited the lab again. The researchers once again measured [blood](#) pressure and heart rate, downloaded data from the accelerometers, and informed the participants of their average sleep per night. Then, they instructed the participants to extend their sleep by at least one hour per night for the following week. The researchers measured blood pressure and [heart rate](#) at the participants' final visits after week two.

The researchers found that 77% of participants increased their nighttime sleep by more than 15 minutes per night, and 66% increased their sleep by more than 30 minutes per night. Even though researchers instructed participants not to nap, 54.7% of participants still took naps at some point during the week.

Additionally, participants reported less sleepiness during the day. While 40% reported excessive sleepiness during the first week, more than half of those participants reported lower sleepiness scores, in the non-excessive range, after increasing their sleep. The researchers also found that participants' systolic blood pressure was significantly reduced by seven points.

"We were really blown away by the blood pressure results," Chang said. "Not only were the results statistically significant but they were also

clinically relevant. Seven points is a large change in systolic blood pressure."

Chang added that while this study focused on one aspect of sleep—sleep duration—she believes it is an important one.

"Not getting enough sleep is a real problem for students," Chang said, "and I think we've shown that given the opportunity, education and encouragement, [college students](#) can change the way they prioritize sleep. I think this can have a wider scope beyond the people who participated in the study. Hopefully other people will see that sleep can have a real effect on their health, it's something they can do."

More information: Abagayle A. Stock et al, Effects of sleep extension on sleep duration, sleepiness, and blood pressure in college students, *Sleep Health* (2019). [DOI: 10.1016/j.sleh.2019.10.003](#)

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