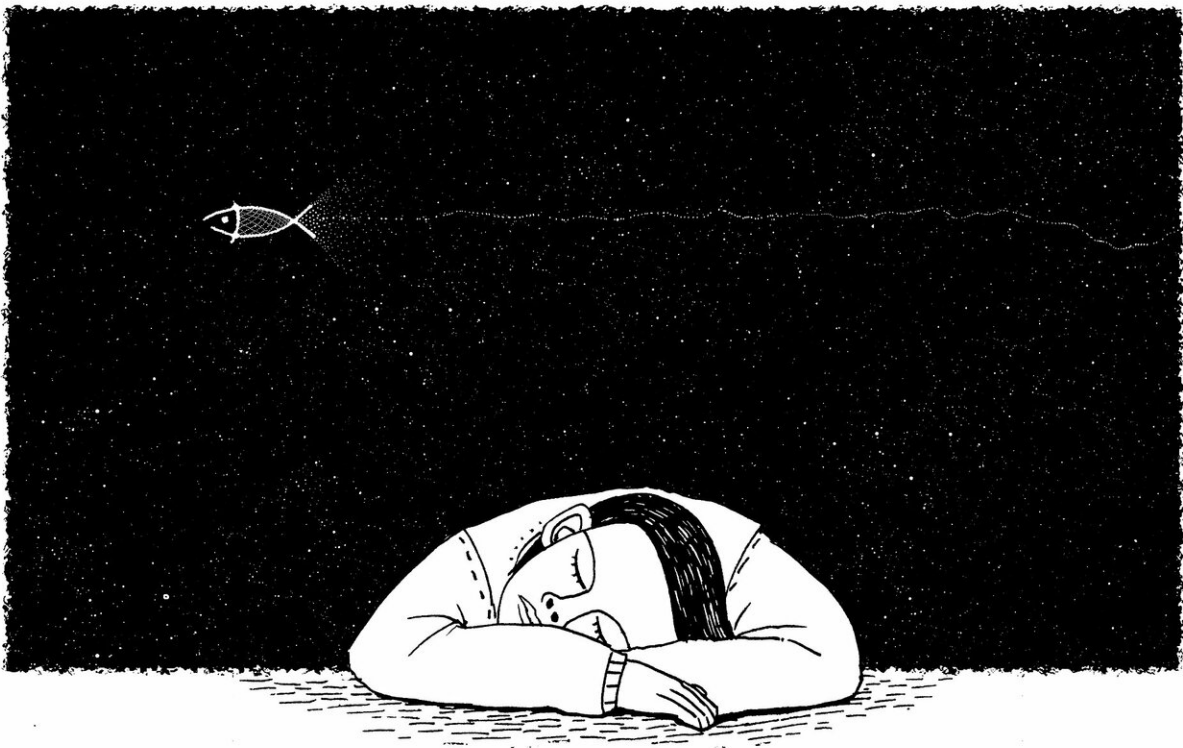


How COVID-19 has altered sleep in the United States and Europe

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Stay-at-home orders and "lockdowns" related to the COVID-19 pandemic have had a major impact on the daily lives of people around the world and that includes the way that people sleep, two studies report June 10 in the journal *Current Biology*. Both studies show that relaxed

school and work schedules and more time spent at home has led people to sleep more on average with less "social jetlag" as indicated by a reduced shift in sleep timing and duration on work days versus free days. But, at the same time, one of the studies also finds that the pandemic has taken a toll when it comes to self-reported sleep quality.

"Usually, we would expect a decrease in social jetlag to be associated with reports of improved sleep quality," says sleep researcher and cognitive neuroscientist Christine Blume from the University of Basel's Centre for Chronobiology, Switzerland. "However, in our sample, overall sleep quality decreased. We think that the self-perceived burden, which substantially increased during this unprecedented COVID-19 lockdown, may have outweighed the otherwise beneficial effects of a reduced social jetlag."

In their study, Blume and colleagues including Marlene Schmidt and Christian Cajochen explored the effects of the strictest phase of the COVID-19 lockdown on the relationship between social and biological rhythms as well as sleep during a six-week period from mid-March until end of April 2020 in Austria, Germany, and Switzerland. Their data showed that the lockdown reduced the mismatch between social and biological sleep-wake timing as people began working from home more and sleeping more regular hours from day to day. People also slept about 15 minutes longer each night. However, the self-reported data indicated a perception that sleep quality had declined.

In the other study, Kenneth Wright at the University of Colorado, Boulder's Sleep and Chronobiology Laboratory and colleagues asked similar questions by comparing sleep prior to and during Stay-at-Home orders in 139 university students as they shifted from taking their classes in-person to taking them remotely. As the team reports, nightly sleep duration increased by about 30 minutes during weekdays and 24 minutes on weekends. The timing of sleep also became more regular from day to

day, and there was less social jetlag.

Students stayed up about 50 minutes later while staying home during weekdays and about 25 minutes later on weekends. Students that tended to sleep less before the effects of COVID-19 took hold showed the greatest increase in the amount of sleep after they stopped going to in-person classes. After the Stay-at-Home orders went into effect, 92 percent of students got the recommended 7 hours or more of sleep per night, up from 84 percent before.

"Insufficient sleep duration, irregular and late sleep timing, and [social jetlag](#) are common in modern society and such poor sleep health behaviors contribute to and worsen major health and safety problems, including heart disease and stroke, weight gain and obesity, diabetes, mood disorders such as depression and anxiety, substance abuse, and impaired immune health, as well as morning sleepiness, cognitive impairment, reduced work productivity, poor school performance and risk of accident/drowsy driving crashes," Wright said. "Our findings provide further evidence that poor sleep behaviors are modifiable in [university students](#). A better understanding of which factors during Stay-at-Home orders contributed to changed sleep health behaviors may help to develop sleep health intervention strategies."

"Not surprisingly, this unprecedented situation of the pandemic and the lockdown increased self-perceived burden and had adverse effects on sleep quality," Blume said. "On a positive note, though, the relaxation of social schedules also led to an improved alignment between external or social factors determining our sleep-wake timing and our body's internal biological signals. This was also associated with overall, more sleep."

From a sleep health perspective, the increase in sleep duration and regularity are welcome changes, say the researchers. For those having trouble with [sleep quality](#), Blume suggests engaging in physical activity

under the open sky.

More information: Christine Blume et al, Effects of the COVID-19 lockdown on human sleep and rest-activity rhythms, *Current Biology* (2020). [DOI: 10.1016/j.cub.2020.06.021](https://doi.org/10.1016/j.cub.2020.06.021)

Kenneth P. Wright et al. Sleep in University Students Prior to and During COVID-19 Stay-at-Home Orders, *Current Biology* (2020). [DOI: 10.1016/j.cub.2020.06.022](https://doi.org/10.1016/j.cub.2020.06.022)

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