

Let Teenagers Sleep

Adults need to stop making it so hard for high school students to get a good night's rest.

By Henry Nicholls

Mr. Nicholls is a journalist and science teacher. Sept. 20, 2018

A fresh-faced batch of teenagers just began a new school year, but will they get the most out of it? In the mornings, many are forced to get to school much too early. And at night, ubiquitous screens are a lure that's hard to resist. This double whammy is a perfect lesson in sleep deprivation.

This much appears to have been recognized by California lawmakers, who've [passed a bill](#) that, if signed by Gov. Jerry Brown, will see many middle and high schools moving to later start times over the next few years. This is a milestone that would send a clear message to the rest of the country: Sleep deprivation is an issue with profound implications for public health.



Three out of every four students in Grades 9 to 12 [fail to sleep](#) the minimum of 8 hours that the [American Academy of Sleep Medicine](#) recommends for their age group. And sleep deprivation is unremittingly bad news. At its most basic, insufficient sleep results in reduced attention and impaired memory, hindering student progress and lowering grades. More alarmingly, sleep deprivation is likely to lead to mood and emotional problems, increasing the risk of mental illness. Chronic sleep deprivation is also a major risk factor for obesity, Type 2 diabetes, hypertension, cardiovascular disease and cancer. As if this weren't enough, it also makes falling asleep at the wheel much more likely.

It is important to understand why teenagers have a particularly hard time getting enough sleep, and what adults need to do to help.

First, a reminder of the basic biology: After puberty, adolescents are no longer the morning larks of their younger years. They become rewired as night owls, staying awake later and then sleeping in. This is not part of a feckless project to frustrate parents, but is driven by changes in the way the brain responds to light.

New technology habits aren't helping. More teenagers now turn to activities involving screens at night. According to a report this year from the [Pew Research Center](#), some 95 percent of children aged 13-17 now have access to a smartphone, up from 37 percent in 2012 and 73 percent in 2015. A [Centers for Disease Control and Prevention](#)

survey from 2017 reveals that 43 percent of high-school students are playing computer or video games for more than three hours a day on an average school night. Given the binge viewing encouraged by the likes of Netflix and YouTube and the pressure to nurture social networks like Facebook, Instagram and Snapchat, the total screen time for youngsters is probably well **in excess of six hours a day**, on average.

The growth in screen time is particularly problematic for sleep. Not only does it eat into the time available for rest, but the blue light emitted by LEDs, TVs, tablets and smartphones suppresses the body's secretion of melatonin, the hormone that signals it's time to sleep. Overdosing on screens at night effectively tells the brain it's still daytime, delaying the body's cues to sleep even further.

Parents should set real limits on screen time, model responsible use of devices and praise children who show signs of regulating their own media consumption. In the hour before bedtime, there should be a moratorium on bright lights in the home, avoiding devices and harsh LED bulbs often found in kitchens and bathrooms.

Excessive screen use is compounded by a dangerous tradition: starting high school abnormally early. Based on data available from 2015, 86 percent of high schools started before 8:30 a.m., and one in 10 high schools had a start time before 7:30 a.m. Prying a teenager out of bed at 6 a.m. to get to school is the equivalent of waking an adult at 4 a.m. The brain will be at its least active in the 24-hour cycle, which explains the monosyllabic grunts of teenagers as they lumber to the school bus.

In 2014, the [American Academy of Pediatrics](#) recommended that middle and high schools start no earlier than 8:30 a.m., a policy now backed by the American Medical Association, the C.D.C. and many other health organizations.

Whenever schools have managed the transition to a later start time, students get more sleep, attendance goes up, grades improve and there is a significant reduction in car accidents. The RAND Corporation estimated that opening school doors after 8:30 a.m. would contribute **at least \$83 billion** to the national economy within a decade through improved educational outcomes and reduced car crash rates. The Brookings Institution calculates that later school start times would lead to an average **increase in lifetime earnings** of \$17,500.

Since 2014, several states have passed legislation related to school start times, but California's legislation would go further. By 2021, most middle and high schools across the state would have to start at 8:30 a.m. or later.

"This is truly landmark legislation," said Terra Ziporyn Snider of the grass roots organization [Start School Later](#), which has been campaigning for change since 2011. "It is becoming less acceptable to run schools at unhealthy hours, and this bill reflects that sentiment."

Changing the operating hours of an institution so central to the community is far from easy. It requires strong leadership and adjustments by school bus companies and businesses offering services like child care and extracurricular clubs. But despite the upheaval involved, making such a shift would pay off in the long run. It is unthinkable that a school should operate with asbestos in the ceilings, with no central heating in winter or with rats in the kitchen. Starting school before 8:30 a.m. should be equally unacceptable.

Henry Nicholls (@WayOfThePanda) is a journalist, science teacher, trustee of Narcolepsy U.K., and the author of “Sleepyhead: The Neuroscience of a Good Night’s Rest.”

<https://www.nytimes.com/2018/09/20/opinion/sunday/sleep-school-start-time-screens-teenagers.html?action=click&module=Opinion&pgtype=Homepage>