Guide to Teen Sleep

Why Teens Can't Sleep (and how to help them)

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Your Adolescent and Their Sleep

You and all the other parents in the world thought sleep issues ended years ago! Unfortunately, that is far from the truth. Beginning at around age 10 to 12, kids will once again have issues falling asleep and possibly even staying asleep. And the ramifications of chronic sleep deprivation can impact many different areas of your kid's life. So, you're right to be concerned. I hope this information helps...at the very least to realize you're not the only parent dealing with this.

Speaking of Teens

DISCLAIMER: I am not a mental healthcare provider and nothing I say in this Guide should be taken as advice regarding your child's mental health. I have researched and interpreted the information contained in this Guide from various credible resources including scientific journal articles. Please consult your child's pediatrician or mental healthcare provider if you suspect they may an emotional or mental health issue or disorder. If they display signs that they may want to harm themselves, please call 988 for assistance or 911 for an imminent threat.

One factor that can have enormous consequences for an adolescent's mood, emotions and behavior is sleep deprivation. Adolescents are notorious for staying up too late and being extremely difficult to wake in the morning. This can be maddening for parents, but adolescents suffer as well. What may look like poor decision making or a bad habit is in fact, neurobiological.

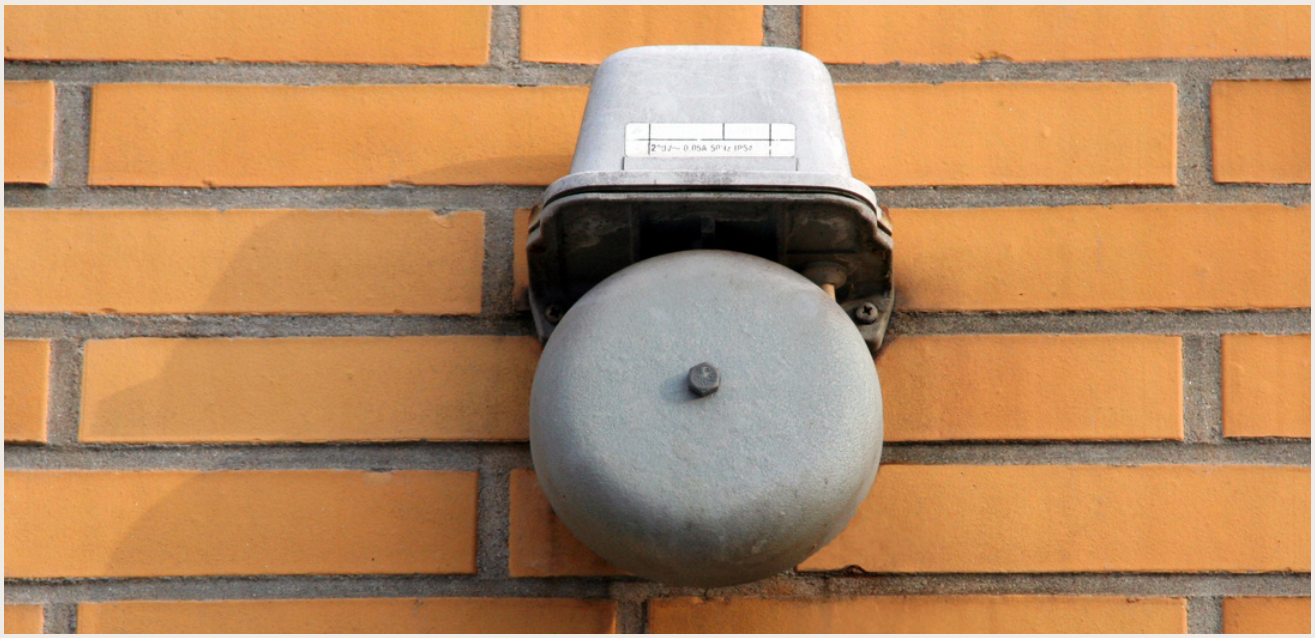
Specifically, the hormone associated with sleep onset, melatonin, is to blame for this sudden shift in nighttime routine. Melatonin is a hormone primarily produced from tryptophan (an amino acid) by several different tissues within the body but primarily in the pineal gland located deep inside the brain.

The suprachiasmatic nucleus ("SCN") of the hypothalamus (part of the limbic system) contains the human biological clock that controls the circadian rhythms in an approximate 24-hour cycle. The SCN controls the pineal gland's production of melatonin by taking cues from light entering the retina.

Therefore, melatonin is released at a gradual rate over a 24-hour period. Production gradually increases as the sun begins to go down, peaking in the middle of the night and then steadily declining as the sun comes up and becomes brighter throughout the day. Artificial light from a brightly lit room and the blue light emitted from electronic devices such as TVs, computers and cell phones can also delay the release of melatonin.

Unfortunately, with the onset of adolescence the biological clock shifts and that gradual increase in the production of melatonin is delayed for at least a couple of hours after nightfall. This 2-hour delay in the production of melatonin means at least a 2-hour delay in getting to sleep at night.

Obviously, if an adolescent is getting to sleep two hours later, they need to sleep two hours later in the morning to get enough sleep. According to Mary A. Carskadon, Ph.D., Director of Chronobiology/Sleep Research at the E.P. Bradley Hospital and Professor of Psychiatry and Human Behavior at Brown Medical School in Providence, R.I., adolescents need at least 9.25 hours of sleep a night. According to Carskadon's research they are getting, on average, around 2 to 3 hours less than that. This is because despite the fact that adolescents' natural sleep cycle has changed and shifted forward at least by a couple of hours, most schools still begin at approximately 8:00 a.m.



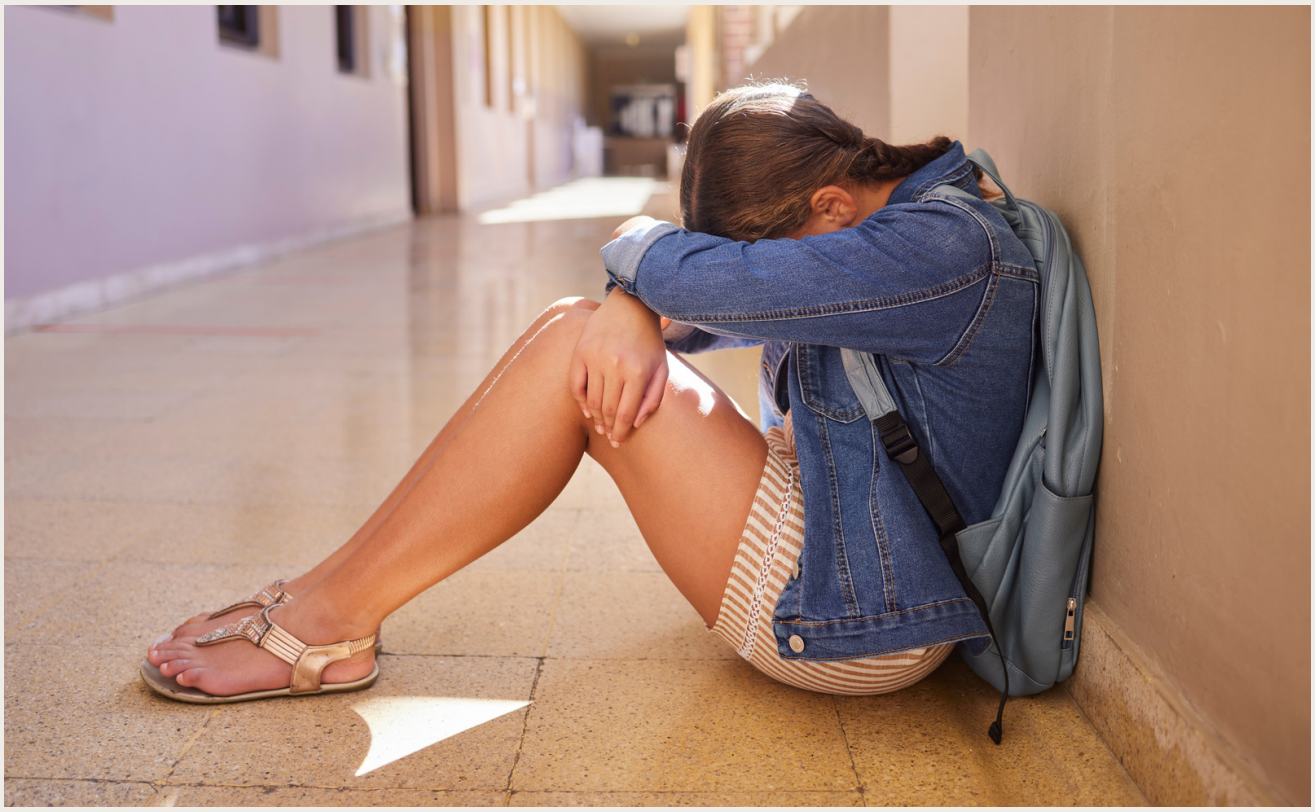
Researchers conducted a large-scale study, published in The Journal of Adolescent Health in 2010, indicating 23% of American high school students get only an average of 6 hours sleep per night with roughly 10% getting only around 5 hours and only 8% getting the recommended amount of sleep. According to the CDC's 2013 statistics, roughly 68% of high school students get less than 8 hours sleep per night, with girls less likely than boys and upper classmen less likely than lower classmen, to get enough sleep.

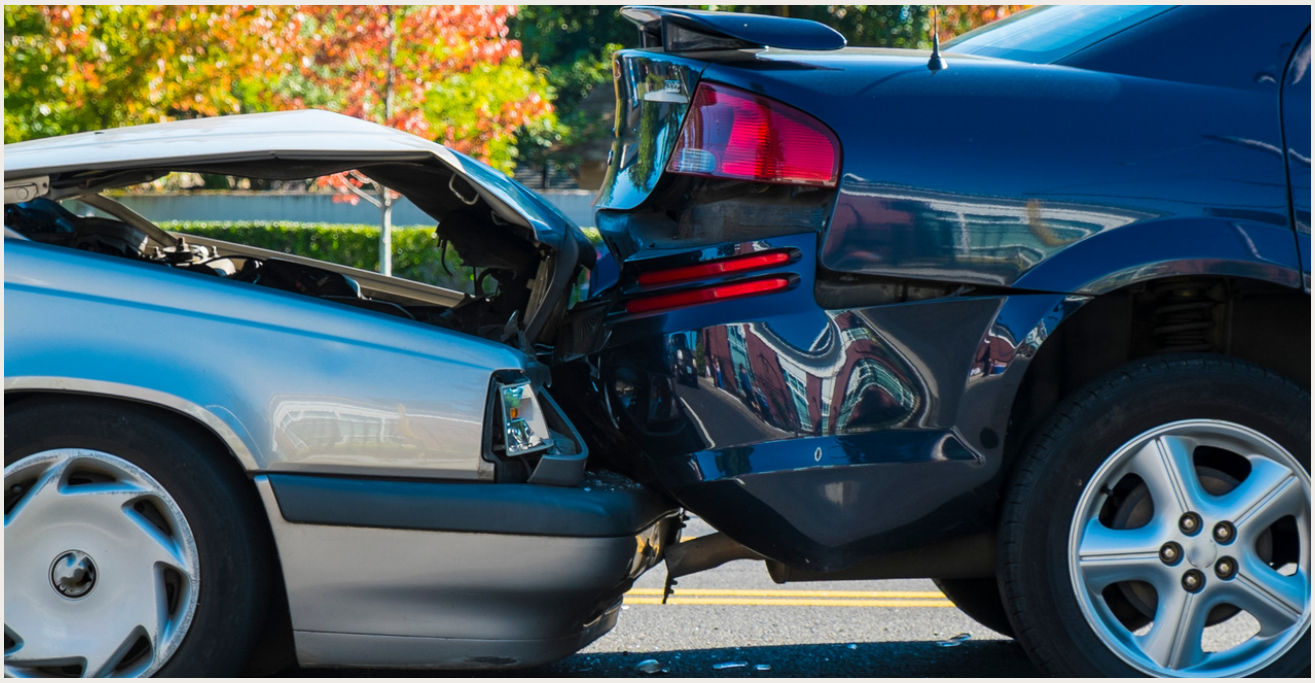
This overall lack of sleep for adolescents likely equates to a decline in the capacity for learning, poor grades, and higher percentages of tardiness and absenteeism. Carskadon explains that adolescents with chronic sleep deprivation are walking around in a haze, which she compares to having an astigmatism. This haze affects every aspect of their mood, ability to regulate their emotions, relationships, and focus.

In 2014 a group of researchers conducted an interesting study involving 50 adolescents between the ages of 14 and 17. The study took three weeks and compared parents' and participants' questionnaires at the end of each week. The participants were restricted to 6.5 hours in bed per night for one 5-day period and required to spend 10 hours in bed per night in another 5-day period. The study found, not surprisingly, after 5 days of restricted sleep, the participants were more anxious, angry, tired, irritable and less able to regulate their emotions than during the week of more time spent in bed.

Other experts claim lack of sleep can cause adolescents to exhibit symptoms like those associated with ADHD, including hyperactivity, lack of focus and inability to stay on task. Obviously, for one already diagnosed with ADHD this could exacerbate the problem, but it could also increase the possibility of misdiagnosis. Studies have also linked sleep deprivation to adolescent use of nicotine and caffeine (in an effort to get through the day) and alcohol (to try and lift the dip in mood caused by inadequate sleep).

Alarmingly, symptoms of depression are twice as likely to appear in adolescents who do not get enough sleep and adolescents who get fewer than 7 hours of sleep a night are "68% more likely to have at least one risk factor for suicide." Numerous studies have also found evidence of a link between insufficient sleep and suicidal ideation.





But the risk of physical harm does not stop there. Driving to school without enough sleep the night before, can be deadly. One estimate puts the percentage of car crashes caused by a drowsy driver at 7% with car crash fatalities at 16.5%. These percentages equate to approximately 6,000 people dying in car crashes caused by drowsy drivers per year. Although 12 to 19-year-old adolescents account for less than 1% of yearly deaths in the U.S., the leading cause of death among adolescents is car crashes.

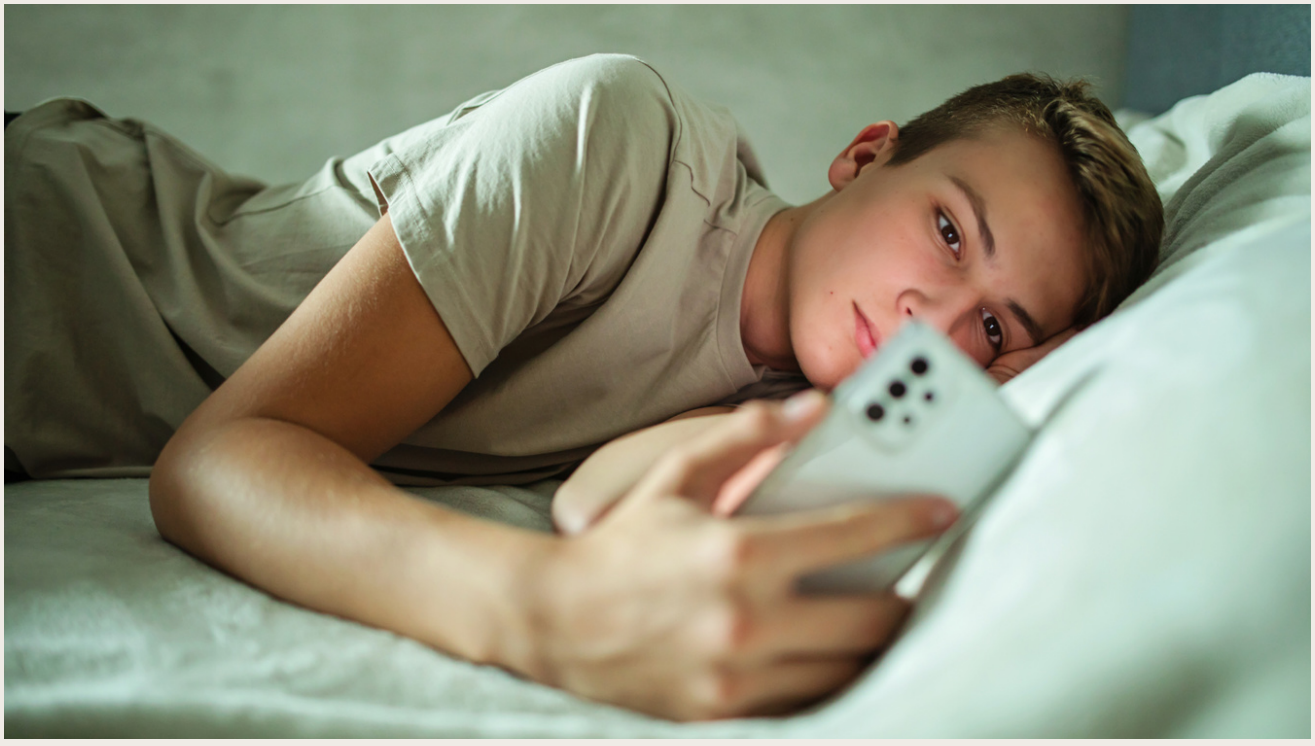
There is no doubt, the risk to adolescents from lack of sleep is significant and only adds to the litany of issues caused by the imbalance in the brain's subcortical and cortical systems. We know the changing circadian rhythm coupled with current school start times are primarily to blame for adolescent sleep deprivation. As one expert in neuroscience pointed out, teens should still be asleep when most schools start in the morning. Optimally, middle, and high schools should not start until 10:00 am to allow for this two-hour delay in melatonin production.

As Carskadon and other experts have pointed out however, changing something as ingrained in our society as school start times is extremely difficult. There are many stakeholders to convince that the benefit would outweigh the downstream inconvenience. To implement a later start time for middle and high school would involve major policy and societal changes. Of course, convincing school boards, teachers and administrators is one hurdle, but parents and employers are another. Many parents would be required to report to work before their kids even get out of bed. Would employers shift work hours? Would parents lose jobs? Would kids be able to handle this responsibility on their own?

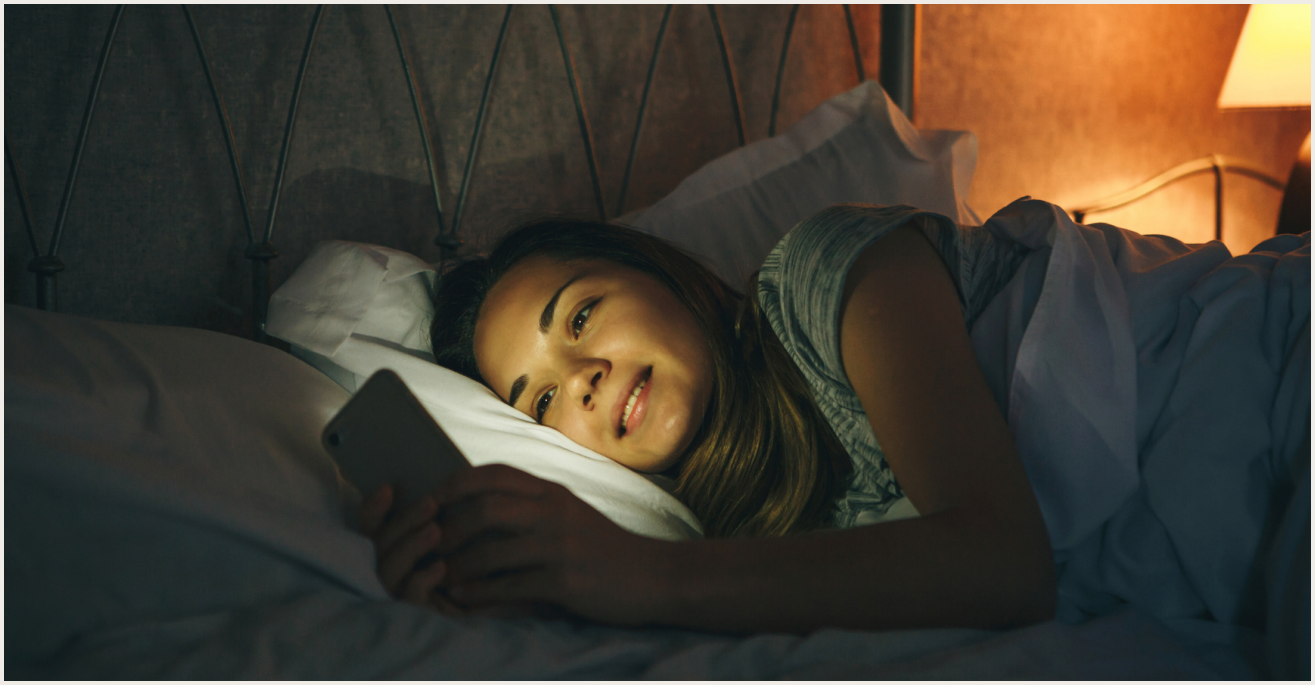
Additionally, if school starts two hours later, it would necessarily shift dismissal by two hours, which would then shift after-school practices and activities. Some experts already advocate for a longer school day to ensure children of working parents do not spend those afternoon hours unsupervised before parents get home from work. Laurence Steinberg, Ph.D., one of the world's leading experts in adolescence and professor of psychology at Temple University says, "If kids are spending those hours unstructured and unsupervised, it's a recipe for experimenting with sex, drugs and delinquency. We know that kids are deterred when they're in settings with adults around."

And even if school start times were delayed, would adolescents really get those two extra hours of sleep? That's certainly debatable, especially if everything were to shift forward by those two hours.

Of course, the delay in melatonin production is not the only reason adolescents are not getting enough sleep. The pervasive use of electronic devices along with an abundance of social media platforms, has taken a serious tole on the adolescent population. Social media induced anxiety and depression and dependence on cell phones has had a dramatic effect on sleep. Phones are the new security blanket with many middle and high schoolers keeping them turned on and in the bed with them every single night. This habit takes the fear of missing out to new level. According to a 2019 report sponsored by Common Sense Media, 68% of adolescents between the age of 12 and 18 keep their phones either in the bed with them or within reach each night (29% keep them in the bed).



Not only that but 36% of them check their phones during the night. And we have all heard the warning to turn off electronic devices an hour or two before bed, (due to the melatonin-delaying blue light) but 70% of adolescents use their phones within 30 minutes of going to bed. Even if they are not using electronics right before bed or keeping them in the bed at night, other research indicates spending three or more hours a day on social media increases an adolescent's chance of getting less than 7 hours of sleep by 28%. And daily users of social media, no matter the time spent, increase their chances of losing sleep by 19%. The bottom line is that adequate sleep is not only essential to the adolescent's social, emotional, and intellectual development but also to their mental health and physical safety. Yet coming up with a workable solution for the problem may prove very difficult indeed.



Evidence suggests that when parents take a firm stand on rules for sleep, it helps adolescents make better decisions about time-management, which may ultimately help them get more sleep. The following tips come from a resources such as the Child Mind Institute, UCLA Health, The National Sleep Foundation, and various academic journal articles. Not all of these tips will work for your family or adolescent and some of them you may have heard of before and even tried to implement. Keep in mind that what didn't work 6 months ago may very well work now and what doesn't work now, may just work sometime in the future. Of course, don't try to implement all of these tips at one time. Try one for a week or two then try another. Just remember the goal is to help your teen get more sleep and if you're constantly arguing all the new rules, that's not going to help. *Baby steps*.

Routine

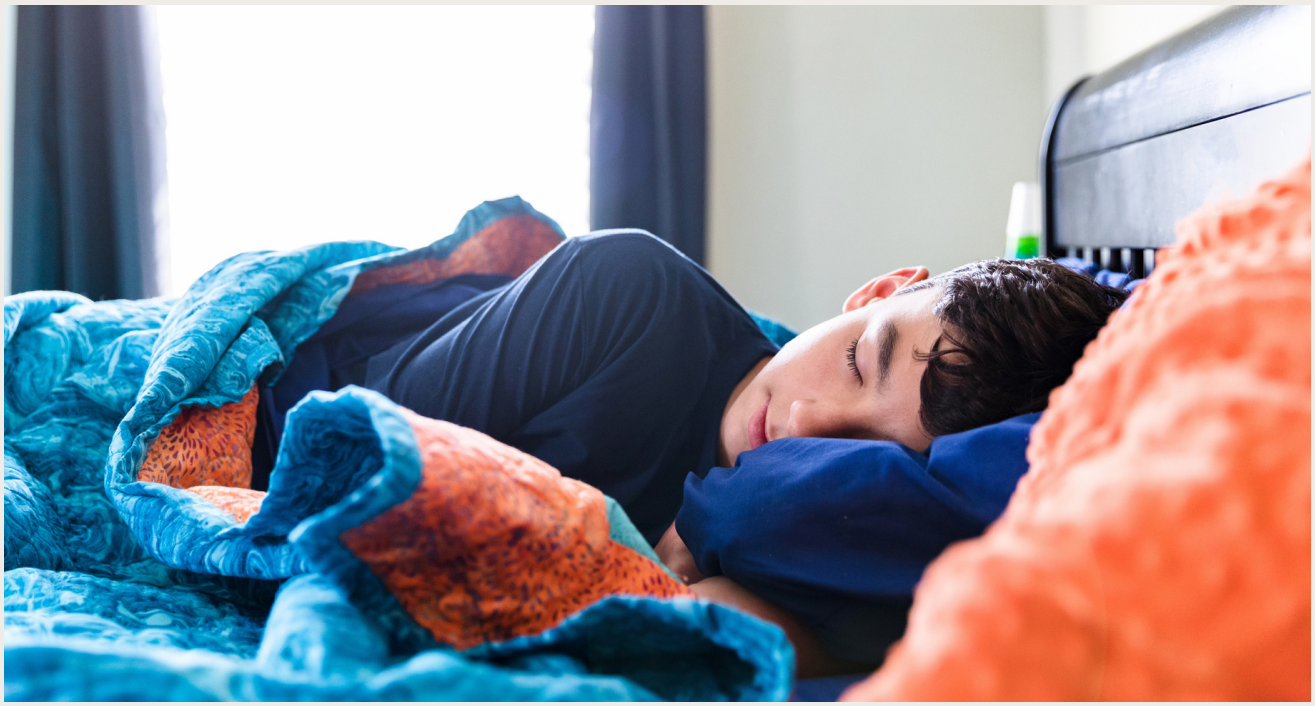
- Routines are as important now as they were when they were babies (arguably, more important). A bedtime routine signals the brain it's time for sleep. Depending on how long it takes to get your child headed to bed, you could start as long as an hour before bedtime.

- Discuss the routine with your child and suggest including things like:
  - repacking the backpack and making sure everything needed is packed for morning (allows them to sleep a little longer in the morning)
  - get clothes and shoes out for the next morning (to insure no morning freak-outs and more sleep)
  - take the cell phone out of the room (see below)
  - write in their journal
  - brush, floss, take any medicine, wash face, etc.
  - turn lights off or dim and listen to a meditation app

Bedroom

- Make sure there is no light seeping into their room from the outside (use black out blinds or curtains) and that there are no lights from anything else in the room - even light from an alarm clock can cause a problem for some kids.

- Make the bedroom a place for sleep only. Avoid doing homework in the bedroom, gaming, even watching TV if possible.



Electronics

- Stop gaming at least 2 hours before bedtime to allow the brain to calm down and to avoid the melatonin-slowing blue light.

- Remove the cell phone from the bedroom at least one hour before bedtime. This should be non-negotiable (even if they fall asleep OK with the blue light from the device, they may still wake back up with all the notifications from their phone). Keep the phone with you to charge until morning.

Homework

- Have them finish homework right after getting home and not saving it for bedtime if at all possible. Especially encourage doing it at school if they are given time to do so.

- If homework is getting in the way of sleep, you may want to start a movement to give less homework. If schools can't open later to provide enough hours of sleep, they can cut back on homework to make sure students are not giving up one minute of it. Present the science to the administration or even the school board. Read more about the homework issue here.

Extracurriculars

- If they are having a hard time finishing homework because of all the extra-curriculars, it may be time to rethink their schedule. College applications mean nothing if their mental and physical well-being is not top priority. Perhaps one of the extracurriculars can go.

- Discuss with them which activities they truly want to be involved in and set priorities.

Eating, Drinking Exercise

- Avoid caffeine after 4 pm (includes eating chocolate) – don't even keep in the house if it's too much of a temptation for them.

- Avoid snacks within an hour and a half of bedtime – some of them contain caffeine and if they have allergies, food sensitivities or gastrointestinal issues, this could delay sleep.

- Do, however, try to make sure they are getting enough exercise during the day and eating as healthy as possible (model this behavior for them).

Sleep Aids

- Always talk to your pediatrician about any over-the-counter melatonin supplement. There is very little regulation over the supplements and long-term effects on adolescents are unknown. There are no prescription drugs approved in the U.S. to treat childhood insomnia. The American Academy of Sleep Medicine says prescription medication for kids or teenagers is usually not the best solution as doctors must adjust adult dosages based on weight.

- To try and help them fall asleep earlier, offer a guided meditation app or white noise app (although some experts say these stimulate the brain so keep that in mind) using your phone (you can retrieve it after they've fallen asleep).

In the Morning

- Opening the curtains in the morning and turning on lights will help signal the brain that it's time to wake and help set the brain's biological clock.
- Try setting an alarm clock across the room so they have to get up to hit snooze
- The smell of breakfast may also help arouse the brain so if you can do a little cooking early, that can help
- Turn on their favorite music to get them going

Making Up for Lost Sleep

- Avoid napping after school. It drains their energy for other things and will keep them up even later. If they must nap, keep it 30 minutes or less and no later than 5 pm.
- *Don't let them stay up longer than 2 hours past bedtime or sleep in more than 2 hours past normal wake times on the weekend.* This will severely disrupt their brain's biological clock and make it extremely difficult come Monday morning.

Advice to Give Your Child

In addition to discussing the tips above, if your child consistently wakes up in the middle of the night, you may want to offer some of the following advice:

- Don't look at the clock – it will only make you more anxious about falling asleep if it's later than you want it to be
- Don't try and force yourself to fall asleep – turn on a very dim light and flip through a book, use the guided meditation app again, etc. but keep it low-key
- If you have something on your mind, write it down in your journal or keep a notebook for just that reason sitting by your bed so you can jot things down as you think of them – now it's on paper and hopefully, out of your mind
- If you keep having problems, I'll help you keep a sleep log, and we'll write down what you did the hour before bed and how much you slept – and see if we can figure out a pattern. We'll keep trying different things until we find something that works.
- If having trouble falling asleep more than 30 minutes, get out of bed, read a book, listen to calm music, don't turn on bright lights or look at a screen though.

Chronic sleep deprivation can lead to some devastating consequences for adolescents. If your child is having trouble going to sleep or staying asleep, the American Academy of Sleep Medicine recommends the first step in a treatment plan is to use behavior modification like the items listed above, to change sleep habits. If this doesn't work for you, see your child's pediatrician and do your homework regarding recommendations.

Best of Luck!

[156] Heidi Moawad, MD Teenage Circadian Rhythm, November 7, 2016, https://www.neurologylive.com/view/teenage-circadian-rhythm
[157] There are also synthetic forms of melatonin that can be helpful for falling asleep when the natural sleep cycle has been interrupted (e.g.: jet lag)
[158] https://www.neuroscientificallychallenged.com/blog/know-your-brain-suprachiasmatic-nucleus
[159] https://www.neuroscientificallychallenged.com/blog/know-your-brain-pineal-gland?rq=melatonin
[160] https://www.sleepfoundation.org/articles/how-blue-light-affects-kids-sleep
[161] https://www.neurologytimes.com/blog/teenage-circadian-rhythm
[162] The National Sleep Foundation recommends 8-10 hours a sleep per night for teens age 4-17 and 7-9 hours for young adults age 18-25. Hirshkowitz, Max et al. “National Sleep Foundation’s Sleep Time Duration Recommendations: Methodology and Results Summary.” *Sleep Health*, vol. 1. no. 1, Mar. 2015, pp. 40–43, DOI: https://doi.org/10.1016/j.sleh.2014.12.010.
[163] https://childmind.org/article/teenagers-sleep-deprived/
[164] https://www.cdc.gov/sleep/data_statistics.html
[165] PBS, *Public Broadcasting System*
[166] https://childmind.org/article/happens-teenagers-dont-get-enough-sleep/
[167] Baum, Katherine T., Anjali Desai, Julie Field, Lauren E. Miller, Joseph Rausch, and Dean W. Beebe. "Sleep restriction worsens mood and emotion regulation in adolescents." *The Journal of Child Psychology and Psychiatry* 55.2 (2014): 180-190.
[168] https://childmind.org/article/happens-teenagers-dont-get-enough-sleep/
[169] https://childmind.org/article/happens-teenagers-dont-get-enough-sleep/
[170] 2017 Child Mind Report p 5
[171] See Park, Woong-Sub, Kwang Ik Yang, and Hyeyun Kim. "Insufficient sleep and suicidal ideation: a survey of 12,046 female adolescents." Sleep Medicine 53 (2019): 65-69; Liu, Xianchen, Zhen-Zhen Liu, Ze-Ying Wang, Yanyun Yang, Bao-Peng Liu, and Cun-Xian Jia. "Daytime sleepiness predicts future suicidal behavior: a longitudinal study of adolescents." SLEEP 42.2 (2019); Franić, Tomislav, Žana Kralj, Darko Marčinko, Rajna Knez, and Goran Kardum. "Suicidal ideations and sleep-related problems in early adolescence." Early Intervention in Psychiatry 8.2 (2014): 155-162.
[172] See Owens, J.M., et al. “Prevalence of Drowsy Driving Crashes: Estimates from a Large-Scale Naturalistic Driving Study.” AAA Foundation for Traffic Safety (2018), in which research showed driving sleepy can rival driving drunk.
[173] https://www.cdc.gov/nchs/products/databriefs/db37.htm
[174] https://www.npr.org/sections/ed/2018/05/15/609769519/why-teenagers-should-understand-their-own-brains-and-why-their-teachers-should-t
[175] https://www.npr.org/sections/ed/2014/10/04/351187049/q-a-plumbing-the-mysteries-of-the-teenage-brain
[176] 2017 Child Mind Report p 5
[177] https://www.commonsensemedia.org/sites/default/files/uploads/research/2019-new-normal-parents-teens-screens-and-sleep-united-states-report.pdf p 25-26 (However, parents beat kids with 70% keeping the phone nearby or in bed each night)
[178] 2017 Child Mind Report p 5

Hey there!

I'm Ann Coleman and struggled parenting my son during his teen years. After turning things around, I continued studying the science of adolescence and of parenting adolescents. I made the switch from attorney to parent educator and podcaster to help you avoid the mistakes I made.

If you enjoyed this Guide you may be interested in **PARENT CAMP**, which will help you strengthen the relationship with your teen, decrease the conflict and improve their behavior. Check out the **PARENT CAMP** membership and learn about the course, the weekly meetups with me, the monthly expert Q & As with subject matter experts who cover everything from drug use to self-harm, and the community forum, weekly challenges, and more.

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