

Anticipatory Guidance: Media and Sleep



According to the National Sleep Foundation, many adolescents need 8 to 10 hours of sleep, with some needing as much as 7-11 hours. Sleep is crucial for healthy growth and development, and screen media use before bed has been shown to negatively affect sleep behaviors in adolescents.

What the Evidence Says

- Physical problems can result from a lack of sleep, most notably obesity.¹
- Cognitive, emotional, and psychological problems can also result from a lack of sleep, including difficulties with learning, listening, concentrating, and solving problems,² and anxiety and depression,³
- Screen media use can also lead to sleep onset latency and sleep disruption. The “blue light” from screens can disrupt the circadian rhythm, and adolescents are particularly susceptible to this.⁴ Using screens before bed can cause adolescents to go to bed later, and not sleep as long.^{5,6}
- When teens sleep near screen media, such as a smartphone on their nightstand, or a TV in their bedroom, noises and notifications from these devices can disrupt their sleep. Notifications from mobile phone and tablets, whether audio or vibration notifications, can disrupt sleep.⁷

Recommendations

- Encourage adolescents to adopt a healthy sleep routine that does not include falling asleep listening to music, watching videos, or texting in the middle of the night. Advise adolescents to avoid all screens (phones, tablets, video games, television) at least one hour before bed. Highlight the importance of creating a calm sleep atmosphere with a regular bedtime, even on weekends.
- Instruct patients to charge phones, tablets, and laptops outside of the bedroom overnight, and to keep TVs out of the bedroom.
- If the adolescent is suffering from drowsiness, ensure that parents understand the dangers of sleep deprivation. For adolescent patients, this includes not driving when drowsy. When sleep deprived, an individual is as impaired as driving with a blood alcohol content of .08%, which is illegal for drivers in many states.
- If patients insist on using screen media before bed, advise them to turn on Night Shift Mode on an iOS device (iPhone or iPad), which changes the screen to a warmer color that is easier on the eyes. Similar apps on Android exist (Night Shift, Twilight).
- Ensure that the patient is getting enough exercise in order to get quality sleep.

Future Directions

Sleep is crucial for healthy development in youth. As technologies become more prevalent in our lives, it is important to understand how they can affect sleep.

References

1. Fatima Y, Doi SAR, Mamun AA. Longitudinal impact of sleep on overweight and obesity in children and adolescents: A systematic review and bias-adjusted meta-analysis. *Obes Rev.* 2015;16:137-149. doi: 10.1111/obr.12245.
2. Kopasz M, Loessl B, Hornyak M, et al. Sleep and memory in healthy children and adolescents – a critical review. *Sleep Med Rev.* 2010;14:167-177. doi: 10.1016/j.smr.2009.10.006.
3. Lemola S, Perkinson-Gloor N, Brand S, Dewald-Kaufmann JF, Grob A. Adolescents' electronic media use at night, sleep disturbance, and depressive symptoms in the smartphone age. *J Youth Adolesc.* 2015;44:405-418. doi: 10.1007/s10964-014-0176-x.
4. Figueiro M, Overington D. Self-luminous devices and melatonin suppression in adolescents. *Lighting Research & Technology.* 2015;48:966-975. doi: 10.1177/1477153515584979.
5. Hale L, Guan S. Screen time and sleep among school-aged children and adolescents: A systematic literature review. *Sleep Med Rev.* 2015;21:50-58. doi: 10.1016/j.smr.2014.07.007.
6. Pieters D, De Valck E, Vandekerckhove M, et al. Effects of pre-sleep media use on sleep/wake patterns and daytime functioning among adolescents: The moderating role of parental control. *Behav Sleep Med.* 2014;12:427-443. doi: 10.1080/15402002.2012.694381.
7. Adachi-Mejia AM, Edwards PM, Gilbert-Diamond D, Greenough GP, Olson AL. Txt me i'm only sleeping: Adolescents with mobile phones in their bedroom. *Fam Community Health.* 2014;37:252-257. doi: 10.1097/fch.0000000000000044.

Suggested Reading

Hale L, Kirschen GW, LeBourgeois MK, et al. Youth screen media habits and sleep: Sleep-friendly screen behavior recommendations for clinicians, educators, and parents. *Child and Adolescent Psychiatric Clinics.* 2018;27:229-245. doi: 10.1016/j.chc.2017.11.014.

LeBourgeois MK, Hale L, Chang A-M, Akacem LD, Montgomery-Downs HE, Buxton OM. Digital media and sleep in childhood and adolescence. *Pediatrics.* 2017;140:S92. doi: 10.1542/peds.2016-1758J.

Scott H, Woods HC. Fear of missing out and sleep: Cognitive behavioural factors in adolescents' nighttime social media use. *J Adolesc.* 2018;68:61-65. doi: 10.1016/j.adolescence.2018.07.009.

Twenge JM, Krizan Z, Hisler G. Decreases in self-reported sleep duration among u.S. Adolescents 2009–2015 and association with new media screen time. *Sleep Med.* 2017;39:47-53. doi: <https://doi.org/10.1016/j.sleep.2017.08.013>.