

Sleep and Screens

2024

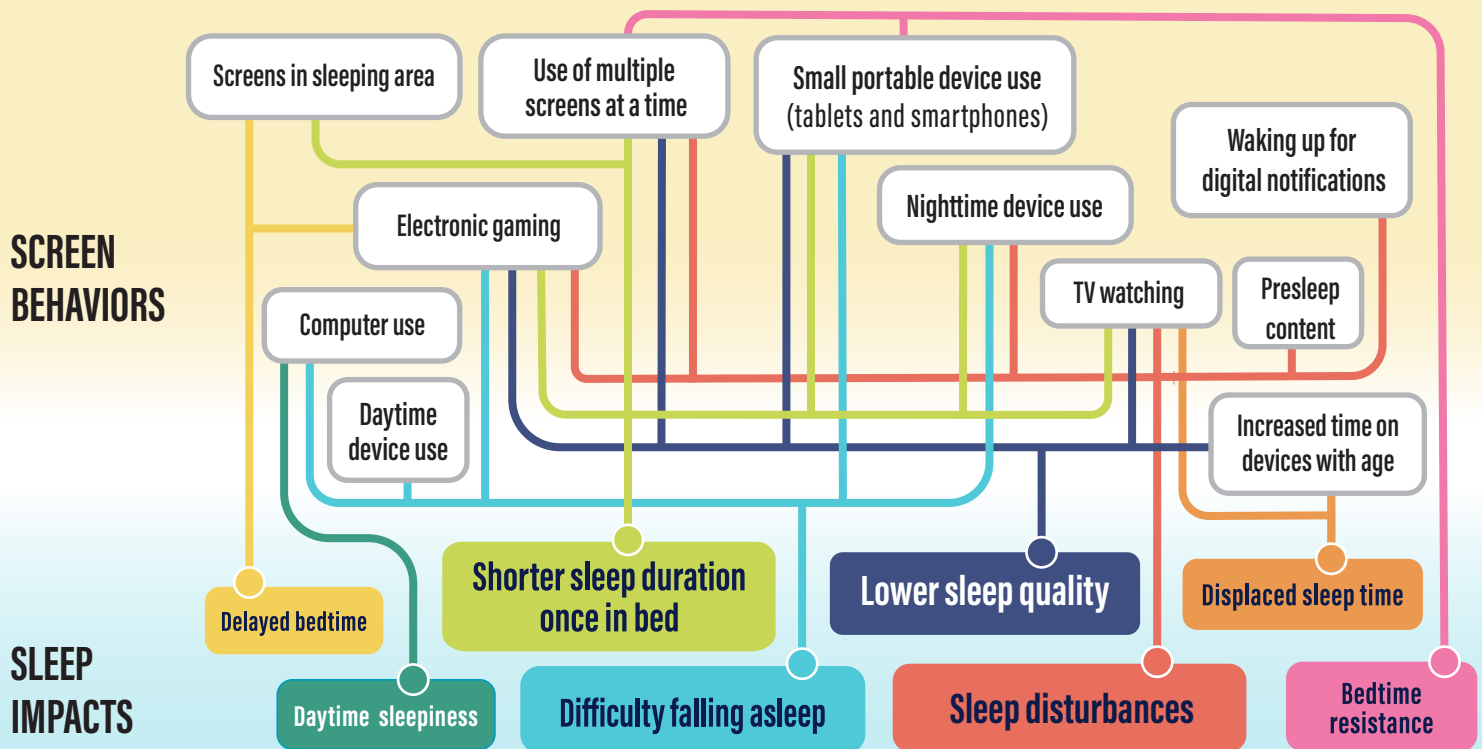


Sleep is an essential component of optimal health for both children and adults, playing an important role in cognitive and brain development, body weight and hormone regulation, immune support, body and brain replenishment, emotion regulation, and mental well-being. Significant amounts of daily media use by the majority of children and adolescents has raised concern regarding its possible effects on sleep health. A 2024 panel study on sleep reached consensus that screen use impairs sleep health for children and adolescents ages 5-19 years old.

(Hartstein et al., 2024)

Screen Use and Child/Adolescent Sleep

Current sleep health research indicates a number of associated effects between specific types of media use and poor sleep health outcomes, with use of portable (vs non-portable) electronic devices, pre-bedtime, and interactive (vs passive) screen use associated with more impacts on sleep health.



More daily screen use on any device for children and adolescents of all ages is associated with poorer sleep outcomes. Each additional hour of daily screen time increases the risk of a sleep disorder.

(Abid et al., 2024; Bellagamba et al., 2021; Bozkurt et al., 2024; Charmoran et al., 2020; Chen et al., 2024; Cheung et al., 2017; Chindamo et al., 2019; Chiu et al., 2022; Echevarria et al., 2023; Exelmans & Van den Bulck, 2017; Garrison et al., 2011; Gaya et al., 2023; Helm & Spencer, 2019; Hysing et al., 2015; Johansson et al., 2016; Khan et al., 2023; Khan et al., 2024; Mireku et al., 2019; Nagata et al., 2023; Nathanson & Beyens, 2018; Nishioka et al., 2022; Nosetti et al., 2021; Pillion et al., 2022; Restrepo et al., 2020; Royant-Parola et al., 2018; Twenge et al., 2019; Vézina-Im et al., 2022; Zhu et al., 2020)

In 2022, adolescents spent almost equal amounts of time sleeping and using screens.

(Poirier et al., 2024)

Daily screen use increases with age throughout childhood and adolescence.

(Common Sense Media, 2019; Diler & Başkale, 2022; Horiuchi et al., 2020)

Girls may be more affected than boys by the impacts of digital media use on sleep health.

(McManus et al., 2021; Poulain et al., 2024; Yoon et al., 2021; Zhu et al., 2020)

Neurodivergent youth have an increased risk for sleep problems with increased screen use.

(Becker & Lienesch, 2018; Dong et al., 2023; Lin et al., 2019)



Nighttime Screen Use by Children and Adolescents

Most children are using screen devices before bed with 97% of adolescents using screen devices the hour before bed.



(Bozkurt et al., 2024; Brushe et al., 2022; Fitzpatrick et al., 2022; Hysing et al., 2015; Johansson et al., 2016; Mireku et al., 2019; Pillion et al., 2022; Reardon et al., 2023)



PRESCHOOLERS

- 56% of preschoolers habitually use media before bed.



CHILDREN

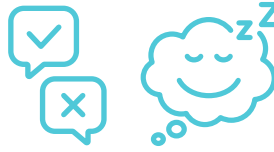
- 33% of kids ages 8-14 years keep phones on at night.
- 25% of kids ages 8-14 years wake up for phone notifications and immediately check their phone.



ADOLESCENTS

- More than 70% of adolescents have 2+ devices in their bedroom at night.
- 32% of adolescents report using a screen device in the dark.
- 24% of adolescents report using a smartphone in bed for over an hour daily.

(Bozkurt et al., 2024; Fitzpatrick et al., 2022; Gamble et al., 2014; Lee et al., 2022; Mireku et al., 2019)



Smartphones (86%) and laptops (59%) are the most commonly used devices before bed.

(Smith et al., 2020)

Features of Screen Devices That Impact Sleep

- **Phone notifications**
- **Content**
 - **Under 5 years old**
 - Violent content, entertainment content
 - **Older children**
 - Emotional, violent, mature-rated, and weight-related content during the day is associated with less sleep.
 - Drinking/drug related content during the day is associated with later sleep onset.
- **Screen brightness/blue light***

*Effects of blue light inconsistent in research

(Axelsson et al., 2022; Charmoran et al., 2020; Eto & Higuchi, 2023; Garrison et al., 2011; Hartstein et al., 2023)

Why are adolescents using screens at night?

According to teens, they use screens at night for:

- Fear of Missing Out (*FOMO*)
- Concern of not being as available as others (*social norms*)
- To fill time



(Conlin & Sillence, 2021; Daniels et al., 2023; Scott et al., 2019)

How much sleep do children and adolescents need?

Infants 4-12 months	12 to 16 hours per 24 hours (including naps)
Children 1-2 years old	11 to 14 hours (including naps)
Children 3-5 years old	10 to 13 hours (naps optional)
Children 6-12 years old	9 to 12 hours
Teens 13-18 years old	8 to 10 hours

(Paruthi et al., 2016)

Family Recommendations For Promoting Sleep Health

• Family communication and routine

- Talk with kids about the importance of healthy sleep from early ages.
- Build family routines around sleep and regular bedtimes with pre-sleep calming activities and avoidance of screen media.
- Create sleep-friendly bedrooms - restrict screen devices from sleep spaces, including TVs, video games, computers, tablets, and cell phones.
- Encourage children of all ages to develop autonomy and self-regulatory skills to maintain healthy screen media habits.

• Self-educate

- Take personal responsibility.
- Acquire knowledge from trustworthy sources.
- Understand the negative effects of evening use of light-emitting screens on sleep.
- Consider insufficient sleep as a contributing factor for youth exhibiting mood, academic, or behavioral problems.

(Hale et al., 2018; Jakobsson et al., 2024)

