The Pros and Cons of Screen Use

Research using data from the ABCD Study®, the largest long-term study of brain development and child health in the United States, has shown both positive and negative associations of screen use for preteens.

What is screen use?
Activities—such as texting, video gaming, and watching movies—done in front of a screen.

Youth use screens more as they get older

9-10 Years Old	11-12* Years Old	12-13* Years Old
4 hrs 0 min Per Day	5 hrs 54 min Per Day	7 hrs 42 min Per Day

*Although researchers only asked about screen use during non-school hours, some increases may have been related to social distancing during COVID-19.

Average daily screen use*

Boys spend more time on:
- Video Games
- TV & Movies Streaming

Time by Activity		
Video Games (single player)	Boys 1 hr 40 min	Girls 42 min
Video Games (multiplayer)	Boys 2 hrs 13 min	Girls 41 min
TV & Movies Streaming	Boys 2 hrs 20 min	Girls 2 hrs 6 min

Girls spend more time on:
- Video Chat
- Texting
- Social Media

Time by Activity		
Video Chat	Boys 26 min	Girls 51 min
Texting	Boys 38 min	Girls 1 hr 3 min
Social Media	Boys 39 min	Girls 1 hr 18 min

*12-13 years old (during COVID-19 pandemic)

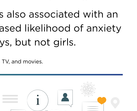
When comparing participants' screen use,* those who used screens more often showed a small increase in:

- Sleep problems
- Attention-deficit/hyperactivity disorder (ADHD)
- Lower grades in school
- Number of close friends

*Defined as non-school-related media use: TV, movies, videos, video games, texting, social media, or video chat.

Video gaming is associated with increases in:
- Problem-solving
- Flexible thinking
- Recalling facts & skills

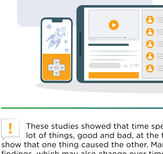
Social media is associated with decreases in:
- Problem-solving



Every additional hour spent watching videos meant less sleep

Together, more video watching *and* less sleep were related to small increases in:

Feeling anxious/ depressed	Feeling withdrawn/ depressed	Having thought problems
Example: *Too fearful or anxious.*	Example: *Would rather be alone than with others.*	Example: *Fears others are out to get them.*



More than 2 hours of screen use* per day was associated with a slight increased risk for having a depressive disorder, suicidal thoughts/attempts, and self-harm in boys and girls.

It was also associated with an increased likelihood of anxiety in boys, but not girls.

*Defined as video chat, social media, texting, gaming, online videos, TV, and movies.

During the COVID-19 pandemic, participants with poorer mental health and greater stress said they used screens more often than participants who had more social support and other coping behaviors.

Cyberbullying risk increases with each additional hour of screen use

Participants who played single-player video games had a **14% greater** chance of being cyberbullied for each additional hour of game time.

For each additional hour of *total* screen time, participants had an **11% greater** chance of experiencing cyberbullying and a **10% greater** chance of cyberbullying someone else.

! These studies showed that time spent on screens was associated with a lot of things, good and bad, at the time data were collected. They didn't show that one thing caused the other. Many things could have affected these findings, which may also change over time. Researchers continue to explore these questions.

Recommendations for Caregivers

- Consider limiting screen time to 2-3 hours per day.
- If your child spends time on social media, have regular conversations with them about cyberbullying.
- Consider limiting your child's use of smartphones and other devices at bedtime to help ensure they get enough sleep.

Adolescent Brain Cognitive Development®
Child Health | Family Life | Society | Brain | Behavior | Future

This information is made possible by the Adolescent Brain Cognitive Development Study

Thank you to ABCD families for giving so much of their time to make this study possible. Youth participating in this research help scientists answer important questions that improve their understanding about screen use in adolescence and beyond. These and other ABCD-supported studies help us learn more about how the brain develops, improving the health and well-being of youth now and in future generations.

Learn more: https://abcdstudy.org/families

News Coverage and References

Video gaming:

Video gaming may have some cognitive benefits for kids, study finds:
www.cnn.com/2022/10/24/health/kids-video-games-cognition-memory/index.html

Cyberbullying:

Study shows link between cyberbullying and suicidality in early adolescence:
www.sciencedaily.com/releases/2022/06/220627124955.htm

Screen use:

Screen media activity in youth: Friend or fiend?:
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Screen use during the pandemic:

Study shows significant changes in sleep timing and screen use among children during the pandemic:
www.news-medical.net/news/20220603/Study-shows-significant-changes-in-sleep-timing-and-screen-use-among-children-during-the-pandemic.aspx

High pandemic screen use among teens associated with worry and stress:
https://thehill.com/changing-america/well-being/mental-health/579576-high-pandemic-screen-use-among-teens-associated/

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