PARENT RESOURCE

Understanding Screen Time in Children -A Neurodevelopmental Perspective



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Introduction

As the digital age continues to influence childhood development, concerns around screen time and its effects on young minds have become a growing topic of research. Pediatric neurodevelopmental psychologists urge parents to remain informed about the implications of screen exposure, particularly during critical developmental stages. This resource is designed to provide insights on how screen time impacts infants, toddlers, and young children, supported by key research findings and guidelines.

American Academy of Pediatrics (AAP) Recommendations

- **No screens until 18–24 months:** The AAP strongly recommends no screen exposure for children under 2 years of age except for video chatting with family or friends. Screens include TV, video games, and other digital devices.
- **Moderation for toddlers and older children:** For children 2–5 years, screen time should be limited to one hour per day of high-quality programming, with active engagement from parents.
- **Parental involvement:** Parents should engage in co-viewing and discussions with children to ensure meaningful use of screen time.





1 Infants and Screens

Developmental Delays: Studies show that exposing infants to screens too early can:

- Impact brain function
- Impair vision health
- Slow language skills
- Delay motor skills
- Reduce bonding and attachment



Cognitive Development: Screen time during infancy can slow the growth of brain functions, such as the ability to:

- Stay focused
- Store/recall information
- Solve problems

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Toddlers and Screens

Language Development: A toddler's brain develops quickly, and screen time can get in the way of learning language. Watching screens passively means less talking and interaction, which slows language development.



Social Skills:

Toddlers who spend too much time on screens may struggle to develop essential social skills such as:

- Understanding emotions
- Less interest in others
- Following directions



Screens and Sleep

Sleep Disruption: According to Amanda Gardner's 2011 article in Time Magazine, screen time before bedtime has significant effects on:

- Melatonin production, which can effect children's ability to fall asleep.
- This disruption contributes to poor sleep hygiene, negatively impacting overall health and cognitive development.
- When children experience poor sleep, they may crave unhealthy foods and struggle with blood sugar management, increasing the risk of obesity.

Screens and Obesity

Increased Sedentary Behavior:

Too much screen time often means less movement, which can lead to weight gain in children. Sitting for long periods, especially while snacking on unhealthy foods, slows down metabolism and increases the risk of obesity.





Screens and Behavior

Aggression and Irritability:

Studies have linked watching too much screen time. especially shows or games that are violent or move really fast, can make young kids angrier and easily upset. It can also make it harder for them to pay attention or stay calm when they need to. They will begin to prefer screens to other activities and become easily upset if screens are not available.



Screens and Social Development

Impaired Social Skills: Too much screen time can get in the way of learning how to connect with others. Kids who spend a lot of time on screens may struggle with emotions, social cues, and handling conflicts, and they may also develop difficulty with eye contact. Face-to-face interaction is key to building these important skills.



Screens and Neurodevelopment





Attention: Too much screen time makes it harder for kids to focus on non-digital activities. They may struggle to pay attention to things that aren't on a screen and have trouble finishing tasks.

Language: Watching screens, especially without doing anything, is associated with delayed language skills. Young children learn best by talking with people, not by watching videos. Research supports that children who watch more screen media have fewer verbal exchanges with parents and caregivers.

Sensory: Fast-moving images and loud sounds can overwhelm a child's senses. This may lead to difficulties in processing their surroundings or cause them to constantly seek overly stimulating environments.

Motor: Children who spend a lot of time on screens often miss out on physical play, which can lead to weaker coordination and slower development of movement skills. It can also result in poor awareness of their body in space.

Learning and Memory: When children focus on screens, they miss chances for hands-on learning. This can affect how well they remember things and how their thinking skills grow.

White Matter Development: Studies show that too much screen time may reduce white matter in the brain, which is important for learning and movement. This can have lasting effects on development.



Autism and Screens

Challenges with Digital Media: Dr. Victoria L. Dunckley wrote in an article for *Psychology Today*, that too much screen time can make things harder for kids with autism. It might cause more anxiety, irritability, and repetitive behaviors. Bright lights and sounds from screens can be overwhelming, leading to more stress or even aggression. That's why it's important for parents to keep an eye on screen use and set limits to help their kids feel better.





Post-Pandemic Screen Time Dilemma

During the COVID-19 pandemic, kids spent more time on screens for school, fun, and talking to friends. This made it harder for parents to tell between learning time and playtime on screens. Experts are still studying how this affects kids in the long run, but many believe that too much screen time, even for school, can be bad for kids' mental health and growth. Parents can help by:

- Limiting screen time
- Encouraging physical activity
- Making sure kids do other things besides using screens













bit.ly/ScreenTimeMyopia

bit.ly/ScreenTimeDelay

bit.ly/ScreenSleepKids

bit.ly/ScreensandSocialKids

bit.ly/TinyTotsScreen