

Do Video Games Cause ADHD?

Why kids with attention problems are so focused—even fixated—on the screen

Caroline Miller – Child Mind Institute

We hear it from frustrated parents: Why is it that my child, who finds it almost impossible to stay in his chair and focus on the lesson at school, can nonetheless sit in front of a video screen, transfixed, for hours? He fits all the criteria for attention deficit hyperactivity disorder (ADHD) — except when he’s playing video games. And when you tell him to stop and come to dinner, you’d better be prepared for pushback.

Seeing this combination of behaviors prompts parents to wonder several things: Does playing video games actually *cause* ADHD? Does it make it worse? Or does the intense focus this child brings to video games suggest that he doesn’t have ADHD after all?

Let’s take these one at a time.

Special appeal

First, “there is no evidence whatsoever that TV or video games cause ADHD,” explains [Dr. Natalie Weder](#), a child and adolescent psychiatrist at the Child Mind Institute who has treated many kids with the disorder. That said, super-fast-paced TV shows and video games do have a special appeal for kids who have ADHD.

“If you think about SpongeBob, or a video game, there’s never a second when there’s nothing happening on the screen,” Dr. Weder notes. “If you’re playing a video game, you have to immediately respond; otherwise you lose. You don’t have time to think. So kids with ADHD are very drawn to that — here are no gaps for them to start thinking about something else.”

Bursts of attention

Video games effectively hold the attention of kids who find it very challenging to concentrate in the rest of their lives. But what’s happening when kids are absorbed in video games isn’t the same kind of paying attention that other tasks require.

“Continuous activity doesn’t mean sustained attention,” points out [Dr. Ron Steingard](#), a child and adolescent psychiatrist at the Child Mind Institute. “The task is changing so rapidly, short bursts of attention are all that’s involved. These games are constantly shifting focus, and there is instant gratification and reward.”

It makes sense the kids with ADHD would find games more compelling than the average person. “Nothing else in life moves that quickly and rewards that spontaneously,” notes Dr. Steingard.

Hyper-vigilance

Dr. Steingard points out that one theory developed by evolutionary biologists for the [presence of ADHD](#) in the gene pool is that it gave early tribes an advantage to have people watching the periphery of the camp who were hyper-vigilant to any sign of danger, from any direction. Similarly, “video games throw stimuli at many different visual points, and to play well you have to be able to pay attention to all of them at the same time. If you’re too linear or methodical it won’t work.”

Are these games addictive for children with ADHD, since presumably they trigger the release of dopamine? “Only in the sense that any pleasure is addictive,” says Dr. Steingard. “Anything that makes you feel good drives the same circuit path.”

But the claim has been made by some researchers that the constant stimulation and instant rewards of games raise the bar for kids to pay attention in normal, less stimulating situations where you have to work harder to get rewards.

Gaming time

[An Iowa State University study](#) of some 3,000 children and adolescents from Singapore, measured over 3 years, found that children who spent more time playing video games were more impulsive and had more attention problems. Researchers interpreted the findings to suggest that video game playing can “compound kids’ existing attention problems.”

But the study results don’t offer supporting evidence that the games cause or worsen the attention problems — they just suggest that kids who play the most have more severe ADHD symptoms. Dr. Steingard says there’s no evidence of causality here. It could be that kids who have the most severe ADHD symptoms are the most drawn to video games.

What gamers are missing

That isn’t to say that kids spending an unlimited amount of time playing these games isn’t harmful, but it’s a different kind of harm. The problem is that all that screen time means time *not* spent doing other things more valuable for their development, including interacting with family and friends.

Since social skills are a challenge for many kids with ADHD, who have trouble paying attention and reining in their impulsivity, the cost can be high. “It’s not healthy socially to spend a lot of time by yourself playing games in lieu of doing something with people,”

says Dr. Steingard. But he adds that that's a global concern — not just for kids with ADHD. “No kid should spend unlimited time sitting in front of a screen in lieu of playing with other kids.”

The American Academy of Pediatrics [recommends an hour per day of total media screen time](#) for elementary school children, and two hours for kids in secondary school. American children, Gentile says, currently average more than six hours of screen time per day.