



BEWARE!

THE IMPACT OF VIDEO GAMES ON MALE BRAINS

Co-written by **Dr. Ronald J. Swatzyna, PhD & Emma Barr**

You approach your child's bedroom door feeling anxious. When you knock on his door, there is no answer, so you let yourself in. He sits in front of his television, Xbox controller tightly in hand, eyes virtually unblinking, staring at the screen. You say his name a couple of times and get no response. When he finally seems to hear you, the irritation at being interrupted seems like a drastic overreaction to such a minor inconvenience. Many parents experience different versions of the same story and feel helpless and even slightly afraid. What you are observing is a real phenomenon – a video game addiction.

We've all heard the argument that violent video games make our young,

impressionable teens more likely to commit violent acts. This is nothing new and, in fact, people said the exact same thing about comic books in the 1960s. In actuality, this concern may be unfounded. Since the release of *Mortal Kombat* in 1995, violent juvenile crime has actually declined, but male college graduation rates have dropped along with it.

First-person shooter (FPS) games are a popular genre. The nature of these games is likely what spurred arguments about violent video games as the goal is to shoot and kill. However, calling them "violent" may not be accurate. "Thrilling" may be more accurate due to the primary neurochemicals by which they

are enjoyed and because FPS games are not the only genre that elicits these changes.

One such neurochemical is dopamine, which produces goal-seeking behaviors. Video games are designed to increase in difficulty after each level, keeping the behaviors going. This never-ending stream of goals is why video games are addictive. Thrilling video games trigger an adrenaline rush, an effect augmented by the increasingly realistic graphics of gaming consoles that serve to more fully immerse the player into the gaming world.

While gaming, blood flow to the front of the brain is greatly reduced, limiting focus on anything but the game. This may be why it is so difficult to get the attention of someone

who is gaming. Yet these effects are, for the most part, only seen in male teens. So, why is this happening to males more so than females?

Lack of female participation is not the reason, as studies estimate that females make up 48-52% of all gamers. Brain structure differences account for why males get a bigger rush from playing video games. This also means that males are more prone to aggressive behavior while gaming, especially in response to other female gamers. In fact, about 70% of female gamers report that they choose to play as male characters online to avoid the sexual harassment, sexist insults, death/rape threats, and/or stalking that they receive from male gamers. It appears "female-initiated disruption



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of a male hierarchy incites hostile behavior from poor performing males who stand to lose the most status” (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4503401/>). The toxic atmosphere that female gamers experience highlights the importance of moderating the amount of time that males spend gaming.

Excessive video gaming often manifests as symptoms similar to that of ADHD. This is because video games are so hyper stimulating; the brain has to develop filters in order to avoid being overwhelmed. In school, the lack of hyperstimulation makes it very difficult to focus on class lectures because of these filters. At home, parents experience increasing difficulty in getting their children to engage in conversation as they have developed a complete loss of interest in other age-related activities. To make matters worse, quitting video gaming all together does not return the brain to normal functioning and can even lead to withdrawal symptoms. Anxiety and anger are the first signs of withdrawal followed by depression and isolation. Like any other type of addiction, when it is affecting your child’s school performance, family life, and social interactions, it is a problem that needs to be dealt with professionally.

Parents can prevent video gaming from becoming an addiction. Middle school and high school are integrals times when role identity is developed in children. If your child spends the majority of their time in a cyber-world removed from reality, there is no time for the

development of a role identity, which has a set of associated meanings and expectations that shape your child’s character.

The second and most valuable lesson to teach your children is the concept of delayed gratification. Video games are all about instant gratification, so the value of delayed gratification is never learned. Success in life depends on one’s motivation to put in the hard work for a distant goal be it a college degree or playing a musical instrument. Parents who hand their children everything are doing a disservice to their child’s ability to thrive independently.

The intent of this article is not to disparage the use of video games as a pastime. There is no harm in participating in this activity in moderation and the negative effects described here are a result of over-use. The recommended amount of time one should spend gaming is still debated, with some research indicating that 1-3 hours a day is considered moderate. Many want to devote hours to a pastime that they enjoy, but when human interaction is waylaid by the time spent in a cyber world, the cost can be socially devastating as well. Understanding how video games affect the brain is the key to being able to enjoy them properly.

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PARENT RESOURCES

VIDEO GAME ADDICTION SYMPTOMS AND TREATMENT

American Addiction Centers website

Reviewed by Meredith Watkins, M.A., M.F.T.
<https://americanaddictioncenters.org/video-gaming-addiction>

10 Signs Of Video Game Addiction

<https://www.addictions.com/video-games/10-signs-video-game-addiction-parents-recognize/>

How to Tell If Your Child Is Addicted to Video Games – and How to Help

<https://www.mother.ly/parenting/how-to-tell-if-your-child-is-addicted-to-video-games-and-how-to-help>

‘Gaming Disorder’ Is Now Official

Medscape.com

Arefa Cassoobhoy, M.D., M.P.H.

<https://www.medscape.com/viewarticle/899119>

FOR THE INTERESTED READER:

Altered Brain Function in Online Gaming Addiction

Medscape.com

<https://www.medscape.com/viewarticle/905890>