

How Screen Time Creates Kid ‘Dopamine Addicts’ With Bad Habits

Research shows that children's brains on screen time look a lot like children's brains on cocaine, and scientists are just starting to discover what that means.

By Lauren Vinopal May 03 2019, 10:47 AM



If iPads, smartphones, and screens seem like drugs for kids, it's because they have a lot in common with uppers when it comes to a child's developing brain. Screen time, sugar, and reward all flood kids' brains with dopamine, the same feel-good chemical released when people do cocaine or see that someone liked their Instagram post. Dopamine feedback loops are an area of increasingly intense concern as scientists grapple with the biological consequences and causes of digital actions. Is dopamine addictive in the purest sense of that term? Not exactly. Dopamine drives and reinforces habits without creating a biological need. But habits matter, especially for kids.

Scientists cannot say for sure that increased dopamine uptake during childhood increases the risk of substance abuse in adulthood. However, psychologists are learning that the dopamine from screens is impairing children's impulse control, increasing the demand for instant gratification, and causing more kids to try and "swipe" real pictures and punch books as if they're touch-screens.

This is why screens and electronics run the risk of keeping kids in a chronic state of hyper-arousal, leaving them agitated yet somehow exhausted. This heightened state makes it harder for children to retain information, perform in school, interact socially, relate to others, and self-soothe and regulate emotions. This is not just a result of the reward center of the brain being overstimulated in response to screens, but a consequence other important areas of their developing brains being underused, explains psychologist Doreen Dodgen-Magee, who's also the author of *Devised! Balancing Life and Technology in a Digital World*.

“The brain works on a use it or lose it principle,” she says. “Unless we are intentionally creating opportunities for focus, for delay of gratification, and for boredom, the portions of the brain that regulate these functions have the potential to show less robust, and possibly even diminished, function.”

Dopamine is a neurotransmitter that works by traveling between different synapses and neurons in different parts of the brain that control when and how people eat, sleep, move, learn, and maintain attention. When people are triggered by some sort of external stimuli, like *Paw Patrol* or methamphetamine, a rush of dopamine is released through neural pathways to the reward system. This tells a person what their doing feels good and they should do more of it.

There’s ample evidence that screens trigger a release of dopamine, which eventually wears down these pathways in the brain and increases the demand for more stimuli.

Genetics also plays a role in how people respond to dopamine. For instance, studies show that children with the dopamine D4 receptor 7-repeat allele are more likely to struggle with ADHD, childhood aggression, and other behavioral problems. Generally speaking, the flood of dopamine children experience from screens strains the reward system of a child’s brain before it’s fully developed. This means that their brains crave more dopamine while producing less dopamine naturally to self-regulate the surge, which could make it harder to experience joy from natural causes.

“Screen time leads to dopamine release. This means that the more screen time, the more addicted to screen time your child will become,” family therapist Katie Ziskind explains. Ziskind, who specializes in digital detoxing, recommends parents think of it like candy. Sure, it’s impossible to shelter kids from it completely, but that doesn’t mean it has any value to them. “Create and teach healthy boundaries around screen time. Do not use it as a reward.”

In extreme cases, the screen-based dopamine feedback loop can lead to behavioral problems that can only be addressed with a digital detox. Dodgen-Magee and Ziskind agree that proactive prevention is the best strategy for parents, and the best way to do this is by modeling healthy smartphone and screen habits. Set limits for how much you look at your phone and for how long your kid watches something on a tablet or TV, according to the American Academy of Pediatrics’ and World Health Organization’ recommendations for their age group, and stick to them. And if your kid watches something, try to watch it with them and talk to them about it. This will engage the other important parts of their brain and it may turn up some interesting theories on *Peppa Pig*.

To further dopamine-proof your kid, prioritize playing outside, physical activity, and interacting with nature as well, which can reduce behavioral issues and foster healthy development. And whatever you do, never use screen time as a reward. Their brains are already going to do that anyways.

“Our routines with our devices make it so our children are overly comfortable with overstimulation and have underdeveloped important skills that will make them successful in the long run,” Doreen Dodgen-Magee says. “But it’s always easier to establish healthy norms than to break bad habits.”

<https://www.fatherly.com/health-science/screen-time-hurts-kids-dopamine-addiction/>