

SAMVEDANA

Screen time.....how much is too much?

Screen time is an inescapable reality of modern childhood, with kids of every age spending hours upon hours in front of iPads, smart phones and televisions.

That's not always a bad thing: Educational apps and TV shows are great ways for children to sharpen their developing brains and hone their communication skills—not to mention the break these gadgets provide harried parents. But tread carefully: A number of troubling studies connect delayed cognitive development in kids with extended exposure to electronic media.

The effects of screen time on children

❖ The effects of screen time on brain development

A landmark 2010 study found screen time for children 6 months of age is associated with less cognitive development by 14 months; babies that had 60 minutes of digital media exposure by 6 months of age, scored roughly one-third lower on tests of their cognitive and language skills 8 months later. Other studies have supported this finding, linking early screen time to increased risk of delayed cognitive development at age 2 years, across parental income and education levels.

This is in part because babies as old as 15 months aren't cognitively able to transfer knowledge picked up from a 2-D screen to their 3-D lives; the more time they spend watching screens, even if it's 'educational' content, the less time they spend gathering knowledge from experiences in the real world.

❖ The effects of screen time on language development

For babies age 8 to 16 months, studies have shown each hour of viewing baby-aimed videos is associated with a decrease in language development. In fact, two hours or more of screen time a day for babies under 12 months made them six times more likely to have a language delay later.

And it's worth noting that even when babies aren't directly viewing the digital content (as in, when a TV is playing in the background), it can still inhibit their language development. Both of these outcomes are rooted less in what is happening (the screen time) and more in what isn't once the iPad or TV switches on: parent-child interaction, which is how babies and toddlers pick up language. (Remember — what they see and hear on a screen isn't transferable to real life interaction.)

❖ **The effects of screen time on physical development**

There has been an exponential increase in the number of children with myopia — nearsightedness — in the past few decades. While it seems intuitive to blame hours spent staring at pixels, it doesn't hold up to scientific evidence. However, screen time is the much more common replacement to outdoor activities in the sun — and a lack of sunlight seems to be the key link behind the climbing rates of childhood myopia around the world. More importantly, prolonged screen time is linked to increased risk of obesity .

❖ **The effects of screen time on social/emotional development**

For babies, toddlers and preschoolers, most of their learning is about picking up the unwritten patterns of social interaction and emotional management that allow them to function in and interact with the world. The problem is, when it comes to screen time, that because of small children's inability yet to transfer the lessons of the screen (assuming there are any) to real-world understanding, this critical social and emotional development doesn't happen, at least not in the amount needed; the time for the parent-child interaction and free play that teach these skills is spent in front of a screen.

This leads to all sorts of social and emotional issues that parents probably only recognize as bad behavior: Studies have associated digital media-watching for toddlers (especially if it's toddler-aimed entertainment) with such effects as more frequent physical aggression, disobeying rules, cheating, stealing, and destruction. In other words, screen time for toddlers can cause acting out behavior — which can become a self-perpetuating cycle, as often, parents use digital devices as a surefire way to soothe a fussy baby or calm a preschooler's tantrum.

❖ **The long-term health effects of screen time for children**

Finally, increased screen time for children negatively predicts long-term well-being in general, but particularly undermines two areas critical to kids' long-term healthy growth and development: **sleep and physical activity**.

And for people of all ages — from babies to adults — the negative effects of screen time on sleep have been clearly documented. For children, this is a particularly high price to pay, considering from babyhood to the teen years, children encode and retain what they've learned throughout the day during their hours unconscious.

Much of the issue lies with the fact that what makes tablets and iPhones so great — dozens of stimuli at your fingertips, and the ability to process multiple actions simultaneously — is exactly what young brains do not need.

Tablets are the ultimate shortcut tools: Unlike a mother reading a story to a child, for example, a smart phone-told story spoon-feeds images, words, and pictures all at once to a young reader. Rather than having to take the time to process a mother's voice into words, visualize complete pictures and exert a mental effort to follow a story line, kids who follow stories on their smart phones get lazy. The device does the thinking for them, and as a result, their own cognitive muscles remain weak.

❖ **Trouble making friends**

The brain's frontal lobe is the area responsible for decoding and comprehending social interactions. It is in this corner of the mind that we empathize with others, take in nonverbal cues while talking to friends and colleagues, and learn how to read the hundreds of unspoken signs—facial expression, tone of voice, and more—that add color and depth to real-world relationships.

So how and when does the brain's frontal lobe develop? Not surprisingly, the most crucial stage is in early childhood, during that same critical period, and it's dependent on authentic human interactions. So if your young child is spending all of his time in front of an iPad instead of chatting and playing with teachers and other children, his empathetic abilities—the near-instinctive way you and I can read situations and get a feel for other people—will be dulled, possibly for good.

❖ **Life has no on/off switch**

Have you ever seen a mother chuckle as her baby tries to “swipe” a real photograph, or punch their fingers onto a poster or book as if it were a touch screen? It may seem cute, but it points to something much deeper in the child's brain—an internalization that all actions have an immediate effect, and all stimuli elicit a quick response.

This is true in the on-screen world, but nowhere else. When every finger swipe brings about a response of colors and shapes and sounds, a child's brain responds gleefully with the neurotransmitter dopamine, the key component in our reward system that is associated with feelings of pleasure. Dopamine hits in the brain can feel almost addictive, and when a child gets too used to an immediate stimuli response, he will learn to always prefer smart phone-style interaction—that is, immediate gratification and response—over real-world connection.

This pattern mimics, in a less intense manner, the dangerous cycle psychologists and physicians regularly see in patients with drug and alcohol addictions.

Too much screen time for children isn't life-threatening, and parenting is full of all sorts of trade-offs; for your family, more rather than less digital media might be worth it. But the effects of digital media-watching can add up over years and turn into bad habits and behaviours that self-perpetuate beyond what parents can control. That doesn't mean this generation of children are doomed — it just means parents need to learn how to make screen time work for children, rather than against them. And you can learn that here.

Try these strategies for trimming screen time.

- **Don't feel that you have to go cold turkey.** Make gradual changes. Do your kids usually watch hours of TV daily or are they used to constantly having the TV on as background noise? If so, try cutting down 1 hour a week to start.

- **Unplug your child's room.** Having a TV in your kid's room can interfere with her sleep, making her wired at night and tired during the day. It can also lead to overeating and more sedentary behavior, and an increased risk of obesity. Keep the TV and computer out of your child's room. If you put TVs and computers in a central location, you can better monitor the time spent in front of them.
- **Create a screen time schedule.** Once you've established a TV time limit, sit down with your child every week and let him figure out how he plans to use it. Just make sure that screen time doesn't occur during meals or within an hour of bedtime. Otherwise, honour the agreement. For example, let your child watch TV freely, without interruptions from you. If kids have a say in the schedule, they'll be more likely to follow it.
- **Cover the TV when it's not in use.** Put a blanket over the unit or store it in a cabinet with the doors closed when no one is watching it. It's basically 'out of sight, out of mind, if it's not obviously out in front of them, they'll be less likely to be drawn to it."
- **Talk to older kids about TV advertising.** You might approach this by helping them see how advertisers often work hard to persuade them to make poor food choices. Then talk about healthier choices such as fruits, vegetables, and whole grains. This can lead to a great discussion about healthy food and activity.
- **Mind your own screen time.** If you spend a chunk of your day surfing the net or watching TV, you can't expect to pry your kids loose from their screens. Keep track of your screen time. Avoid channel surfing, and only watch TV shows that you really watch.
- **Encourage other activities.** Reading, doing puzzles or board games, playing outside, and spending time with friends or family are a few of the healthy activities your kids can engage in instead of watching TV, playing video games, or being on the computer.
- **Stand your ground. Be consistent.** Chances are, cutting back on your child's screen time will cause some conflicts. "You need to remember that you are in control. Think of yourself as the electronics posse. But also stay calm and remind your child why these limits are important. In the end, you and your child will reap the rewards.

When very small children get hooked on tablets and smart phones, they can unintentionally cause permanent damage to their still-developing brains. Too much screen time too soon. The very thing impeding the development of the abilities that parents are so eager to foster through the tablets. The ability to focus, to concentrate, to lend attention, to sense other people's attitudes and communicate with them, to build a large vocabulary—all those abilities are harmed."

Put more simply, parents who jump to screen time in a bid to give their kids an educational edge may actually be doing significantly more harm than good—and they need to dole out future screen time in an age-appropriate matter.

Between birth and age three, for example, our brains develop quickly and are particularly sensitive to the environment around us. In medical circles, this is called the critical period, because the changes that happen in the brain during these first tender years become the permanent foundation upon which all later brain function is built. In order for the brain's neural networks to develop normally during the critical period, a child needs specific stimuli from the outside environment. These are rules that have evolved over centuries of human evolution, but—not surprisingly—these essential stimuli are not found on today's tablet screens. When a young child spends too much time in front of a screen and not enough getting required stimuli from the real world, her development becomes stunted.

And not just for a while. If the damage happens during these crucial early years, its results can affect her forever.

Don't trash those tablets for good

Despite the danger that overexposure to smart phones can pose for young brains, there are a lot of benefits to letting little ones use technology. Once a child is over the age of two, feel free to allow limited screen time—think an hour, max, of playing with tablets and iPhones each day—to help develop coordination, hone quick reactions, and even sharpen language skills. As with all the other toys and tools available to your developing child, smart phone use should stay in moderation, and never stand in for human interaction or real-world face time.

The bottom line? Power off regularly to help your child understand the clear boundaries between the virtual world and the real one.

Wishing you a great festive season....

Happy Parenting

(ANUPAMA CHAND)