

BALANCED BRAINS

A Developmental Guide for Recommended Screen Use

INFANT (→ Ages 1 month to 1 year) **SCREENS AS PROVIDER**

Key Developmental Milestones	Primary Impacts of Problematic Screen Use	Clinical Recommendations STOP Protocol (refrain from...)	Clinical Recommendations START Protocol (replace with...)
Smiles to get your attention Knows familiar people Reacts when you leave Looks for objects when they are out of sight / hidden Plays games with you (eg. pat-a-cake) Executive functioning skills: emotional regulation, task initiation (playing with toys), basic problem solving (finding a toy); object permanence	Interrupts learning of cognitive, language, motor, or socio-emotional skills from human caregivers May change organic infant development of competence and mastery through exposure to real-life challenges Infants can imitate things they see on screens (6-14 months old) More than 2 hrs per day of TV exposure can cause significant language delays	No screens for infants No screen use in front of infants No “background” TV (this negatively affects language use and acquisition, attention, cognitive development, and executive function; and reduces parent-child quality time; and may even distract from play)	Provide secure enough attachment Provide enough attunement; Notice when infant is fussy or tired and stop playing; time for a nap Talk to and play with your baby Engage with your baby and spend time holding them, rocking them, soothing them Read to and sing to your baby Answer when your baby makes sounds (to help language development) Take care of <i>yourself</i>; ask for help and support when you need it

TODDLER / PRE-K (→ Ages 1-3) **SCREENS AS PACIFIER**

Key Developmental Milestones	Primary Impacts of Problematic Screen Use	Clinical Recommendations STOP Protocol (refrain from...)	Clinical Recommendations START Protocol (replace with...)
Can hold sustained eye contact Copies other children while playing; Copies adults and older children (eg. copies you doing chores / sweeping) Wants increasing independence (comes with motor / exploratory skills) Looks at a few pages of a book with you; Scribbles Plays with basic toys (eg. pushing a car) Notices when other are hurt / upset (eg. pauses when you cry) Looks at your face to see how you react to new situations Can kick a ball; walk + run independently Executive Functioning Skills: Attentional control, basic working memory - object permanence, inhibition (waiting)	May delay learning of higher-order thinking skills and executive functions (required for later schooling), such as task persistence, impulse control, emotion regulation, creative and flexible thinking May prevent or decrease opportunities for responsive parent-child interactions; Distracts from unstructured, social (not digital) play Diminishes satiety cues (eating during screen time) May disrupt sleep cycle (shorter sleep duration) due to arousing content; suppression of melatonin from blue light Issues with object permanence; babies may think what they see is real; cannot translate it to 3D experience Affects vision - myopia ("shortsightedness")	No screens (iPads, smartphones) for entertainment Toddlers can remember brief sequences they see on screens by 18 months old Toddlers can begin to understand content on screens by the end of their second year No screen use in front of toddlers; limit parental and caregiver screen use as much as possible No screens or phones during mealtimes and family outings No "background" TV (negatively affects language use and acquisition, attention, cognitive development, and executive function; and reduces parent-child quality time, distracts from play)	TV: only well-designed, age-appropriate programs with educational goals (Sesame Street, PBS, etc.) - less than one hour per day, interactive with parents while watching Seek additional resources if you are resorting to screens as a soother or babysitter, or if you are unable to soothe your child ("terrible twos") Read to your child daily; schedule in reading time (before school or bedtime) Encourage child to explore and play; children should be physically active Encourage pretend and imaginative play with physical objects Encourage curiosity and recognition of common objects by taking trips to parks, on buses, walks in neighbourhood Use brief time-outs and offer replacements for preferred behaviours Teach child acceptable ways to show s/he is upset (rather than tantrums) Teach child songs, cultural stories & rhymes

KINDERGARTEN (→ Ages 3-5) **SCREENS AS PRESENT PARENT**

Key Developmental Milestones	Primary Impacts of Problematic Screen Use	Clinical Recommendations STOP Protocol (refrain from...)	Clinical Recommendations START Protocol (replace with...)
Strengthened motor skills - crawling, walking, jumping, running, riding a tricycle Can say approx. 50 words; can string two or more words together Names things in a book when asked what it is (eg. "where is the dog?" and child points to dog) Engages in pretend play (eg. I am a superhero) Notices other children and joins them to play; Will focus more on children and adults outside of the family; basic conversation skills Calms down within 10 minutes of being left (eg. at daycare); Tries to calm others when they are hurt / upset (eg. hugging a crying friend) Executive functioning skills: Inhibition, basic cognitive flexibility, working memory, basic planning, imagination, basic decision making	Exacerbates existing social-emotional delays in "difficult" toddlers (they are more likely to be given a screen to calm them down); increases self-regulation problems Poor executive functioning (impulse control, self-regulation, mental flexibility) "Theory of mind" deficits (ability to understand others' thoughts and feelings) "Media multitasking" (orienting response to novel stimuli, attention is drawn to quickly changing features of digital media) - leads to decrease in comprehension Possible long-term effects on attention span and information processing and ability to read facial expressions Increases in aggressive behaviour (if watching violent media content)	No screen use (iPads, phones) No screen use in front of toddlers No screens or phone during mealtimes and family outings No TV for distraction / entertainment / etc. (only educational programming, 1 hour max per day) Stop using screens as a soother / babysitter / reward No "background" TV (negatively affects language use and acquisition, attention, cognitive development, and executive function; and reduces parent-child quality time, distracts from play)	One hour of educational TV per weekday; turn closed-captioning on to encourage language development Limit TV to child-focused educational programming (Sesame Street, PBS, etc.); watch with your child and interact with them Encourage child to play with other children (learning the value of sharing and friendship) Encourage mobility and activity outdoors Encourage safe independence and sociability in real-life relationships Let child help with simple chores Speak to child in full sentences using "grown up" words; encourage them to use correct words and phrases Read with child; visit bookstores and libraries to facilitate an interest in reading Be clear and consistent with discipline; explain what your expectations are

ELEMENTARY & PRIMARY (GRADE 1-5) (→ Ages 6-10) **SCREENS AS PLAYTIME**

Key Developmental Milestones	Primary Impacts of Problematic Screen Use	Clinical Recommendations STOP Protocol (refrain from...)	Clinical Recommendations START Protocol (replace with...)
Learns ways to express thoughts & feelings (other than tantrums) Follows rules and takes turns when playing with other children Can tell a story s/he made up with at least two events (eg. a cat was stuck in the tree and a firefighter saved him) Pays attention for at least 5-10 minutes when engages in an activity, not including screen time More interest in team work and friendships; Less focus on self, more on others; Wants to be liked Starts to think about the future; Understands more about their place in the world; Shows more independence from family Executive functioning skills: Improved inhibition, improved working memory, enhanced cognitive flexibility, setting and tracking goals, organization	Effects sleep schedule (blue light suppresses melatonin, watching screens leads to later bedtimes, content may cause distress) Increased risk of poor posture - "tech neck" and musculoskeletal problems Risk of exposure to sexualized images, "cybergrooming", inappropriate messages, etc. Impedes development of impulse control, increases impulsivity and inattention ("PFC atrophy") Distracts from real-life growth of friendships, team work, and independence Decreased ability to read facial expressions, and develop empathetic responses Susceptible to peer pressure, unrestrained by understanding of consequences, social reputation, and sense of self	No TVs or screens in child's bedroom Screen use a maximum of 1 hour per day (supervised by adult) No screens one hour before bedtime No screens or phone during mealtimes and family outings	Model appropriate and healthy screen use to your child; turn off screens when they are not in use Be present and engaged when screens are used and, whenever possible, co-view with your child Begin explaining what screens are; safe internet use; safe computer use; what to share/not share; impossibility of anonymity Talk to child about respect; Encourage empathy and helping others who are in need Encourage patience, turn-taking, delayed gratification (eg. finish this task before you go out and play); Encourage outdoor play with other children Ensure 1+ hours of physical activity each day; 9-12 hours of sleep per day Help your child develop a sense of responsibility (chores, etc.); help child set small, achievable goals Sign children up for teams, school clubs, activities, camps, and play groups.

MIDDLE SCHOOL (GRADES 6-8) (→ Ages 11-12) **SCREENS AS PEERS**

Key Developmental Milestones	Primary Impacts of Problematic Screen Use	Clinical Recommendations STOP Protocol (refrain from...)	Clinical Recommendations START Protocol (replace with...)
Developing more complex, stronger friendships and relationships with peers Friendships (particularly same-sex) become extremely important for emotional development Peer pressure is felt more intensely; sensitivity to social norms and “appropriate” behaviour Becoming more aware of their bodies and of puberty Prone to black-and-white thinking (things are either right / wrong, great / terrible, etc.) Tend to think about themselves (egocentric), but can also begin to see others’ points of view more clearly; Increased independence from the family Increased attention span and increasing academic expectations / challenges	Screen as “superpeer”; initiating exposure to: alcohol / tobacco / drugs, risky sexual behaviours, harmful behaviours, self-injury, disordered eating (and this is seen as normative / desirable) Exposure to gender and racial stereotypes; internalized “social norms” used as a basis for self-evaluation (negative) Self-conscious of their bodies, feel like they are being judged by their peers (“compare & despair”) Risk of exposure to sexualized images, “cybergrooming”, inappropriate messages, etc; distorted sexual scripts Impedes development of impulse control, increases impulsivity and inattention Prone to black-and-white thinking (things are either right/wrong, great/terrible, etc.); not able to understand online content with nuance	Internet-free phones (don’t support Wifi, no data - calls and texts only, no selfie camera) No phone or TV in bedroom, especially past 10pm No screens or phone during mealtimes and family outings No more than 2 hours of sedentary recreational screen time per day or “passive screen use” (this does not include schoolwork) Passive use of social media leads to increase in depression symptoms; reduce passive screen use to less than 4 hours per day In today’s social landscape, data shows little to no use of internet or excessive use of internet, leads to increase in depression symptoms– find a “happy medium”. Data shows 46% of teens say they use the internet ‘almost constantly’ without significant mental health effects	Model appropriate and healthy screen use to your child; turn off screens when they are not in use; Be present and engaged when screens are used Limit social media use on platforms that include counts of likes, comments or incentivize excessive use Limit chat functions, especially the ability to receive messages from strangers Screen use should be for the purposes of building creativity and connecting with known family and friends (green zone use) In Grade 8, trial >1 hours of screen time Explain safe internet and screen use; difference between real relationships and what you see online Educate child about appropriate online behaviours and cyberbullying behaviours; ask child to seek adult support if they are being cyberbullied Discuss “cybergrooming” with your child and how to develop safe friendships online Teach kids to be “smart phone ready”;

Developing relationships and an understanding of rupture / repair (conflict resolution) Executive functioning skills: Advanced cognitive flexibility, strategic planning, time management, self-reflection, setting and tracking goals, problem identification and solving	50% of 12 year olds regularly see online porn; 44% of boys say it gives them “ideas about the kind of sex they want to try” Increased risk to development of child’s spine / neck disability; “tech neck” and musculoskeletal problems Exposure to self-harm and disordered eating; contagion effects; distorted coping mechanisms Child may become more self-focused rather than other-focused Decreased ability to read facial expressions and show empathy Desensitization to suffering, contributing to empathy delays Effects sleep schedule (blue light suppresses melatonin, leading to later bedtimes)		norms for phones in home (modelling behaviour too) Consider GPS watch instead of Smartphone Set rules for home screen use (when kids are home alone after school) Set “tech turn-off” time (60 minutes before bedtime); recommendation: 10pm 9-12 hours of sleep per day (including naps) Talk to child about school, friendships, peers Talk about respecting others and what to do when they feel others or themselves are not being respected Help child develop their own sense of right and wrong, moral sense of self (esp. peer pressure, dares, smoking, taking risks, etc.) Help child develop a sense of responsibility (chores, allowance, etc.) Make clear rules and stick to them, and explain reasons for these rules; Set behavioural expectations for when adults are not around Regularly talk about changes to emotions and body during puberty; Ongoing, safe discussions re: relationships, sex, gender, boundaries, bodies, etc.
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HIGHSCHOOL (GRADES 9-12) (→ Ages 13-16) **SCREENS AS PLEASURE**

Key Developmental Milestones	Primary Impacts of Problematic Screen Use	Clinical Recommendations STOP Protocol (refrain from...)	Clinical Recommendations START Protocol (replace with...)
Experiencing puberty (therefore, concerns about body size, shape, weight); ED risk increase Increased interest in sexual and romantic relationships; masturbation Experimenting with sexual interactions, intimacy, consent, boundaries / limits Deeper capacity for caring / sharing and developing more intimate relationships Hormonal changes, therefore more feelings of sadness and depression / suicidality Independence and autonomy - developing a sense of self (apart from friends) Privacy (turning to peers rather than parents) More able to think abstractly and consider “the big picture”, but can lack the ability to apply it in the	Screen as “superpeer” - initiating exposure to: alcohol / tobacco / drugs, risky sexual behaviours, harmful behaviours, self-injury, disordered eating (and this is seen as normative / desirable) Increased viewing of TV content lowers self-esteem for girls and black boys (increases self-esteem for white boys) Exposure to gender and racial stereotypes; internalized “social norms” used as a basis for self-evaluation (negative) Exposure to distorted sexual scripts; re-norming of appropriate sexual behaviour / acts; age-inappropriate sexual experimentation Effects sleep schedule (blue light suppresses endogenous melatonin, watching screens leads to later bedtimes, disturbing content may cause distress)	No phone or TV in bedroom Set “media turn-off” time (60 minutes before bedtime) No more than 2 hours of sedentary recreational screen time per day (not including schoolwork) Passive use of social media leads to increase in depression symptoms; delay social media entry to 16 years old where possible Little to no use of internet, or high use of internet, leads to increase in depression symptoms (“happy medium”) (46% of teens say they use the internet ‘almost constantly’)	Model appropriate screen / tech use to your child; turn off screens when they are not in use Ask child to complete Youth Toolkit prior to owning their first smartphone Consider delaying Smartphone until age 14 and social media to age 16 Be “smart phone ready” if smartphone is desired; go app by app (training wheels) before they can go all out (Tiktok and IG 16+) Limit social media use on platforms that include counts of likes or encourage excessive use Encourage teens to make good decisions about what they post online (chat rooms, texts, etc.) Limit chat functions, especially the ability to receive messages from strangers Screen use should be for the purposes of building creativity and connecting with known family and friends

moment (i.e. marijuana is legal now, so it can't be that bad for me) Strong emotions can drive their decisions and make them impulsive Establishing executive functioning skills re: school work - planning, prioritizing, honouring deadlines, balancing workload, delineating tasks and goals Mentalization (trying to understand their own emotional state and that of others) Executive functioning skills: Critical thinking, time management, task initiation, task monitoring and planning, goal selection, strong decision-making, collaboration, flexibility, basic financial responsibility (spending and saving)	Strong emotions can drive their decisions and make them impulsive Lack of ability to communicate effectively / develop argument / logically think through big issues Deactivation of prefrontal cortex; makes us more inattentive and decreases ability to plan ahead May disrupt the organic development of the mind-body connection (chronic use may lead to dissociation-like symptoms, where a teen may struggle to be mindful and stay in the present) Impacts posture and spinal development -- "tech neck" and musculoskeletal problems Creates a dopamine feedback loop, priming the pump for pleasure-seeking behaviours		Discuss what "sexting" is with your child; alert them to the ethical, legal, and reputational concerns it raises Discuss "cybergrooming" with your child and how to develop safe friendships online (age 13-17 most at risk of internet-initiated sex crimes, abuse, trafficking, etc.) Have discussions about media and privacy concerns, and risks of posting private information online, impossibility of anonymity Help child anticipate puberty-related changes to their body, and understand their emerging sexuality Discuss risky behaviours (sexual, online, drug-related, etc.) and possible consequences (STIs, lack of privacy, addiction, etc.) Encourage independent goals that they are working on themselves Talk with your child about their emotions, feelings of sadness, thoughts of suicide Encourage your teen to pursue offline artistic / musical / creative pursuits to develop a unique sense of self Encourage activities that build work / planning skills / being a "self starter" Discuss sleep hygiene; encourage 8-10 hrs
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POST-SECONDARY (WORK, COLLEGE, UNIVERSITY) (→ Ages 17-25)
SCREENS AS PLAY, PEERS, and PLEASURE

Key Developmental Milestones	Primary Impacts of Problematic Screen Use	Clinical Recommendations STOP Protocol (refrain from...)	Clinical Recommendations START Protocol (replace with...)
Have generally completed physical development Have developed some impulse control and may be better able to gauge risks / rewards accurately Stronger sense of individuality Stronger sense of their own values More future-focused and may make decisions accordingly Friendships and romantic relationships become more stable Brain's frontal lobe matures in 20s - coordinating complex decision making, impulse control, considering multiple options at once and considering consequences Executive functioning skills: assimilate and synthesize complex and contradictory	Exposure to gender and racial stereotypes; internalized "social norms" used as a basis for self-evaluation (negative) May distort the development of the personal value system (social media focus on beauty, wealth, superficiality, "likes", etc.) Exposure to distorted sexual scripts; re-norming of appropriate sexual behaviour / acts Viewing pornography may increase anxiety around body image, distort concepts of sexual pleasure and consent, instill misogynistic stereotypes Effects sleep schedule (blue light suppresses endogenous melatonin, watching screens leads to later bedtimes, content may cause distress) Increased risk of myopia ("shortsightedness") and "tech neck"	No phone or TV in bedroom Set "tech turn-off" time (60 minutes before bedtime) No more than 2 hours of sedentary recreational screen time per day (not including school or work) Avoid all gambling apps (young men are most high risk for addiction) Major depression is most often diagnosed in the 20s and 30s	Understand boundaries of "personal" and "professional" persona - in person and online; choose profile photos and avatars thoughtfully Set all online profiles to "private" so they cannot be found by potential employers or supervisors (and remember, nothing online is every truly private or deleted) Become a responsible Digital Citizen Be accurate about the facts you post If you are angry, dysregulated, or in a negative headspace, delay posting until you are calm and clear-headed; reach out to a trusted friend or family member to talk first Respect the purpose of the community in which you are posting; be a valuable member of the community - contribute helpful information Limit use of dating apps to <30 minutes per day Track your screen time (in phone settings)

situations and arguments; further development of critical thinking, decision-making, inhibition, collaboration, flexibility; established self-care practices, emotional literacy; project planning and implementation; long-term academic and professional planning / goal setting; understanding and following professional norms / expectations;	Possibility of addictive behaviours and lack of impulse control (gaming, pornography, gambling, social media scrolling / posting, shopping, etc.) and change the brain's dopamine tolerance May consider themselves "adults" before they truly are, rather than gradual progress into adulthood Creation of an online persona or an "avatar" of oneself may impede the development of in-person friendships, relationships Confusion re: personal and professional boundaries Possible reputational harm due to lack of discretion online		Set "Focus" (9am to 5pm) and "Sleep" (9pm to 7am) modes to limit distractions and increase concentration and sleep quality Understand addiction and know when to seek help (sex, gambling, porn, gaming, online shopping, posting / scrolling, etc.) Understand the signs and symptoms of depression; seek help from trusted friends / family members and professionals Seek Informational Resources: • Addiction • Problematic Screen Use • Depression • Problem Gambling Prioritize in-person relationships (that you can meet up with, call on the phone, or FaceTime with) over online relationships If choosing to watch pornography, consciously choose themes, scenarios, or production considerations (women-owned, ethical, etc.) that align with your values Exercise regularly and maintain good sleep hygiene
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ADULTING (EARLY CAREER) (→ Ages 26+) **SCREENS AS PARTNER**

Key Developmental Milestones	Primary Impacts of Problematic Screen Use	Clinical Recommendations STOP Protocol (refrain from...)	Clinical Recommendations START Protocol (replace with...)
Development of agency, identity, and commitment to community Achieving autonomy from caregivers (independent person with a life of one's own) Adoption of new roles and statuses; leaving familiar roles Ability to physically care for oneself and seek out professional support (doctor, dentist, therapist, etc.) Established identity (likes /dislikes, values, preferences, morals, beliefs) Emotional regulation Executive functioning tasks which enable effective action and goal achievement Ethical behaviour	Technology can: - wear out the pleasure centre of our brains (dopamine), therefore making other pleasurable experiences (meeting friends, holding hands, reading a book) feel much less pleasurable - reduce physical activity and create a sedentary lifestyle - affect our memory consolidation "Gamification" of dating Pornography, dating apps, and chat apps can provide sexual gratification without the healthy challenges of an in-person relationship Possibility of addictive behaviours and lack of impulse control (gaming, pornography, gambling, social media scrolling / posting, shopping, etc.) and change the brain's dopamine tolerance	No phones or TV in bedroom Set "tech turn-off" time (60 minutes before bedtime) No more than 2 hours of sedentary recreational screen time per day (not including school or work) Abstain from gambling apps (young men are most high risk for addiction) <i>Note:</i> Major depression and many other mental health conditions are often diagnosed in the 20s and 30s, so it might be advantageous to take breaks from screens to reduce chronic stress exposure	Complete a 30-day dopamine detox from your digital drug of choice (social media, gaming, gambling, porn, dating apps, etc.) Learn how to regulate emotions; proactive maintenance of mental, emotional, and social wellbeing Learn how to compromise, regulate emotions, and engage in effective problem solving for healthy relational development Develop shared intimacy (close, long-term relationships) Become part of a group or community by choice; civic engagement Develop an appropriate differentiation between personal and professional lives Develop an appropriate differentiation between our real, shared world versus the "online world" Establish a personal residence and the ability to manage one's household Establish financial literacy and responsibility (saving, spending, banking, taxes, bills, etc.)

This guide is based on the following resources:

- [Ages and Stages Questionnaires - "7 Areas of Social-Emotional Development: What They Are and How to Support Them"](#)
- [American Academy of Child & Adolescent Psychiatry - "Screen Time and Children" \(2020\)](#)
- [American Academy of Pediatrics - "Media and Young Minds" \(2016\)](#)
- [American Academy of Pediatrics - "Children and Adolescents and Digital Media" \(2016\)](#)
- [Canadian Pediatric Society - Digital Health Task Force - "Promoting health and development in a digital world"](#)
- [Centers for Disease Control and Prevention \(USA\) - "Positive Parenting Tips"](#)
- [Centers for Disease Control and Prevention \(USA\) - "Milestones"](#)
- ["The dimensions of successful young adult development"](#)
- [The Impact of Screens on Infants, Toddlers, and Preschoolers: A Collaborative Review](#)
- [Social Media and Mental Health: A Collaborative Review](#)
- [Delay Smartphones UK](#)

Additional resources:

- [Expert Advice on Screens and Social Media for Parents](#)
- [American Academy of Pediatrics - "Family Media Plan Tool"](#)
- [American Academy of Pediatrics - "Children and Adolescents and Digital Media" \(2016\)](#)
- [American Academy of Pediatrics - "Media and Young Minds" \(2016\)](#)
- [American Academy of Pediatrics Parenting Website](#)
- [Center for Humane Technology - "Youth Toolkit: Everyone who uses social media deserves to know how it works"](#)
- [Common Sense Media](#)
- [The Fake News Game](#)
- [Spot The Troll Game](#)