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4 Critical Factors for Optimizing Development and Learning

Move Touch Connect Nature

Sustainable

Optimal Attends
Development & Learns

Strong/ Coordinated Regulated Focused

Vestibular/ Proprioceptive Tactile/Attachment Parasympathetic

Move Touch Connect Nature

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Movement

Give a child a device and they sit; take it away and they move.

Movement Benefits

- Cardiovascular
 - Obesity/diabetes
- Stroke/heart attack
- Builds strong core
- Motor coordination
 - Right/left
 - Upper/lower
 - Eye/hand for <u>printing</u>
- Eye/eye for <u>reading</u>
- · Spatial for math

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Attention/learningMental health Ratey 2008

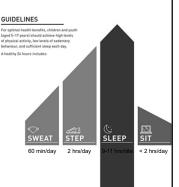
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Canada Movement Guidelines

- < 13% of children meet the *Canadian Movement Guidelines*.
- Effects of sedentary lifestyle costs Canada \$70 billion per/year in healthcare costs.

Canadian Society for Exercise Physiology 2018, National Institute of Health 2018



Touch

Device use deprives children of touch.

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Touch Benefits

- Touch is a biological necessity.
- Without early touch, infants die (orphanages).
- Adequate touch produces secure, gentle, relaxed infants and toddlers.
- Inadequate touch results in fearful, anxious and agitated infants and toddlers.

Hopper 1957, Montagu 1978



Connection
The origin of child mental wellness

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Attachment Benefits

- Attachment is a biological need without which we die.
- Failure of attachment is #1 causal factor for mental illness.
- Attachment is the foundation for all relational behavior.

Montagu 1978, Insel 2001, Waddell 2007, Houtrow 2014, Crittenden 2015



Detachment Disorder

- 1 in 5 parents report they "do not know how" to play with their children.
- 1 in 3 parents report that playing with their child is "boring".
- Child injury rates have risen 12% in past five years citing screen overuse by parents.

Guardian News 2010 , Center for Disease Control 2012



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Nature

When did nature become unsafe?

Nature Benefits

Nature exposure increases physical activity and sunlight, reducing risk and progression of:

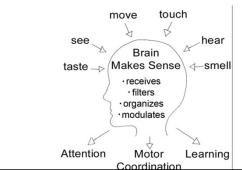
- Myopia: decreases 2% for every 1 hr. outside.
- · Obesity: more movement.
- · Sleep disorders: improved sleep sustenance.
- Depression/anxiety: improved mood.
- · Problematic behavior: reduced.
- · Cognitive impairment: improved attention.
- · Cardiovascular: reduced stroke, heart attack.

Children's Health in the Digital Age - Dresp-Langley 2020; Ngurah Edi Putra, 2020, Hale 2018

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Sensory Processing/Integration



Sensory Imbalance



Today's screen-centric child has...

- too much visual and auditory stimulation;
- too little touch, movement and connection;
- SENSORY IMBALANCE
- high energy states – OR –
- low energy states

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Zone-O-Meter for Self-Regulation



Balanced Technology Management **Interventions**

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Parents

Researchers

Therapists

Key Team Players in Managing Screens

- Parents and Extended Family a child's "pack".
 - Parents role model functional relationships and best practices for screen use; huge impact on child behaviour.

Also role model screen use.; choose appropriate learning tool (pencil, paper, book, screen) to optimize learning.

Therapists

Support and guide child and family toward mental and emotional wellness; key players in identification of screen overuse.

Physicians and Clinicians

Diagnose and treat problems related to screen overuse, yet may not recognize screens as a causal factor.

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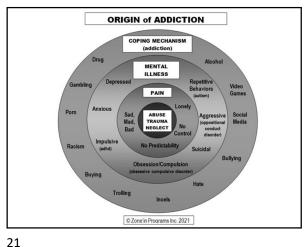
Physicians

Governmen

It's not the child with the problem; the systems surrounding the child need to change.

Teachers

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Generational Healing Model

Technology Production Corporations



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Balanced Technology Management Homes

Start with a Family Meeting

- Discuss screen usage (duration and content).
- Discuss sleep duration and device in bedroom.
- Review expert guidelines.
- Decide on 2 family screen rules.
- Determine 5 family activities screen free.
- Create screen free zones.
- Survey interest for family 'screen unplug'.



Balance Screen Use with Healthy Activity

- 1. Do one healthy activity FIRST, then screens (chores, homework, play, instruction period).
- 2. Read one book/day (book, bath, bed) as a family.
- 3. Eat one 'no screen' meal/day with family.
- 4. Have one 'no screen' game night/week with family.
- 5. Play one game outside/day.
- 6. Do one 'no screen' outing/week with family.
- 7. Have one 'no screen' holiday/year with family.
- 8. No screens in bedrooms, bathrooms, restaurants, cars, social areas.

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Create Tech Free Zones Cell phone, text, TV, & tablet rules School Home

Red Zone - students

- no wireless devices allowed on school grounds
- · wired devices limited to 0.5 hour/day
- · NO unsupervised internet access

Yellow Zone - teachers

• calls only; no emails or texts in classroom, lunch room, recess

Green Zone - teachers

· calls, texts and emails okay when alone e.g. after school

Red Zone - everyone

- NO TECH at dinners, in car, in bed, or when children are present
- NO TECH play time one hour prior to bed

Yellow Zone - everyone

· calls only; no emails or texts half day Saturdays, holidays.

Green Zone - everyone

· calls, texts and emails okay when alone

Improve Quality of Content

- Prosocial content prosocial behavior
- Fast paced content ⇒ adhd, impulsivity



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Media Content

Mindless-less mind

- · Fast paced, violent
- · Most video games
- TV sitcoms
- Cartoons
- · You Tube
- Social media · Snap Chat
- · Tick Toc
- · Instagram
- Texting

· Slow paced, prosocial

Mindful-more mind

- News
- Most sports
- Nature
- Documentaries
- · Educational shows

lp! I'm dying!

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Screens, Sleep & Movement Follow Expert Guidelines

Age	Average Screen Use	Rx for SCREENS	Rx for SLEEP	Rx for MOVEMENT
0-2 years	2.5 hrs/day	No screens	14 hrs/day & nite	3 hrs/day; no restraints > 1 hr
3-5 years	4.5 hrs/day	1 hr/day	12 hrs/nite	3 hrs/day; no restraints > 1 hr
6-12 years	7.5 hrs/day	2 hrs/day	11 hrs/nite	3 hrs/day; 1 hr vigorous
13-18 years	9.0 hrs/day	3 hrs/day	10 hrs/nite	2 hrs./day; 1 hr vigorous

Canadian Pediatric Society 2019, Canadian Sleep Foundation 2017, Canadian Society for Exercise Physiology 2018, National Institute of Health 2018

Best Age for a Phone? Attain Independence First!

- ✓ Get up on own on time.
- Make own breakfast and lunch.
- Do own laundry.
- ✓ Cook one dinner a week.
- ✓ Clean room.

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- √ 1 small chore per day, 2 big chores per week.
- ✓ Maintain good hygiene.
- Functional social skills.

Downside of Tracker and Blocker Apps

- False sense of security.
- Kids can just buy burner phones or reset router.
- Kids can google "hack App..." or "get around App...".
- Authoritative, controlling and punitive.
- Tracker/Blocker apps are saying "We don't trust you".
- If a child is in trouble, make joint decision what to do.

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Balanced Technology Management **Schools**

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In/Out Schools

- Half day inside and half day outside to meet Covid restrictions.
- · Outdoor class benefits:
 - Teachers able to teach twice as long without interruption.
 - Teachers redirect student attention half as often.
 - Significantly improved indoor attention after outdoor class.
 - Significantly improved behavior. Kaplan 1995, Kuo 2017, Ngurah Edi Putra 2020

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Recess is a Regulation Tool Playgrounds Should be Developmental Challenging

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Vestibular Stimulation Builds strong core, wakes them up! Why can't we stand all day??? Kidsfit Kinesthetic Classroom

Proprioceptive Stimulation
Dumps energy, calms them down!

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Train Grade 6/7 - Screenbusters Program

- Train peer models to do weekly Tech Talks.
- Children color "Zombie Kid" while learning about 5 key tech impact areas.
- Lots of discussion, questions, debate.
- End with 24 hour Survivor Unplugged Challenge.



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Gym Obstacle Courses

Crash-N-Bump - Heiltsuk First Nation

- EI and school-based initiative in First Nations communities.
- Enhancing sensory, motor, and attachment development.
- 8 stations: earth, mountain, river, ocean, lake, sun, earth, and store.
- One full day per week of rough-n-tumble play!



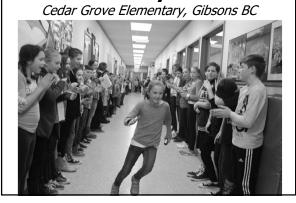
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Balanced Technology Management Clinicians, Therapists, Physicians



Convert Classrooms to Gyms

Hall Relay Races



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Disclaimer

The following interventions and strategies are based on author's experience and are not substantiated with research.

We are all pioneers in discovering what strategies work best.

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Screen for Screens

- Parents underestimate by 70% their child's (and their own) screen usage.
- Instead, ask child to name 5 activities they do OTHER THAN screens.
- Ensure you know exactly what you are treating with mandatory screening for screens.

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The Learning Habit 2017

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Count the 10 Red Flags

- ✓ Developmental delay speech, motor, cognition
- ✓ Sleep deprivation/disorders can't get to/stay asleep
- ✓ Social phobias no friends, dislikes outings
- ✓ Behavior problems controlling, defiant , aggressive
- ✓ Self-regulation issues can't wait turn, tantrums
- ✓ Disinterest in activities other than screens
- ✓ Eating disorders anorexia, bulimia, obesity
- ✓ Mental illness depression, anxiety, obsession
- ✓ Attention deficit distracted, learning difficulties
- ✓ School performance low grades, wants to drop out

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Intervention Trajectory

The vention majectory						
Level	1	2	3	4		
Symptoms and Severity	2-3 red flags	4-5 red flags	6-8 red flags	9-10 red flags		
Interventions	Education	Education	Education	Education		
	Websites	Family therapy	Outdoor	Long term,		
	Books	Parent coaching	retreats	inpatient		
	Webinars	Family 1 wk	1 mo detox	treatment		
	Family 24-hr	1/mo. detox	camps	3-6 mo.		
	1/wk detox	- OR-	Family 2-3 mo. detox	Hospitalization		
		Family 1 mo. detox	Short stay residential			

Sleep, eat, speak, play should always be screen free! Rowan C, 2021

Individualized Interventions Severe Symptom Severe Strategy Aggression, violent, rude Stop violent media Attention deficit, asocial Stop fast paced media (cartoons, video games) Depression, anxiety, Stop social media obsessions Screen addiction; harming Stop all screens self or others Preparation: ensure adequate alternate activities in place to replace time spent with screens X 1 week. Procedure: at least 2-3 week elimination trial for activity reset; proceed

as child's behavior indicates. Consult a therapist/counsellor.

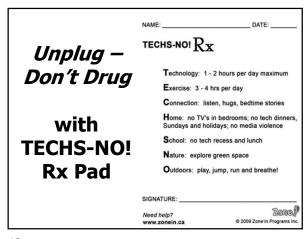
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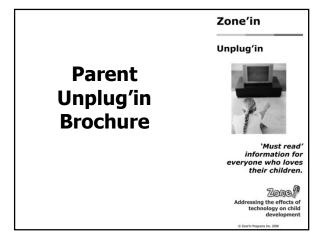
Little Ditties

- Energy in = energy out.
- SCREEN FREE
 - 1 hour/day dinner prep/eat/clean up
 - 1 day/week Sat. chores/sports/outing
 - · 1 week/year family holiday
- Sleep, eat, speak, play SCREEN FREE!
- Lock it up out of sight, out of mind.
- · Being bored is the origin of creativity.
- Think of screen time in dosages...like Rx meds.

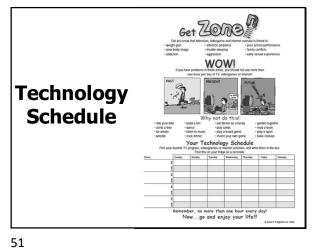
Tools

Tech Tool Kit





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Family Tech Contract Write in family names. Each family mer indicate their commitment. **Technology Contract**

TechDen or Lock Box

- App sets duration and time of day limits.
- Tech is stored in lock box which charges devices.
- Rewards are given for prompt return of device to tech lock box.



Light Phone Phone calls and texts

- No internet e.g. no social media, video games or porn.
- No cyberbullying.

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- Watch for burner phones.
- Peace of mind... peace of life.



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Tech Talk Webinars

Tech Talks for Families

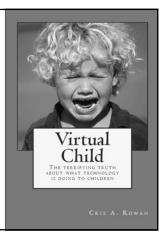
- 10 sessions/10 hours/10 weeks/\$100.
- Comes with Tech Tool Kit.
- Part 1: increase healthy activities.
- · Part 2: tech impact info.
- Part 3: tech management strategies.

Tech Talks for Therapists

- 5 sessions/5 hours/\$100.
- University course with Cris Rowan and Dr. Chantelle Bernier.
- How to assess and treat tech overuse.
- Comes with client tools and handouts.

Virtual Child book

www.amazon.com



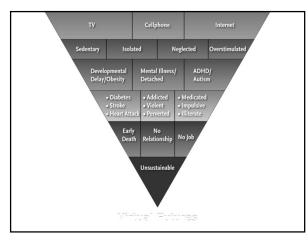
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Summary



Technology and Children

Tip of the "Techtanic" Iceberg



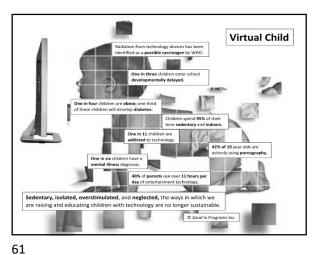
- Health and education systems haven't even begun to detect, much less understand the profound ramifications of child technology overuse.
- Secondary effects are yet to come.
- Need to proceed with caution.

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Technology Train



- Don't know where it's going, what the long term effects are, yet are moving full steam ahead.
- Children are falling off.
- Need to stop, bring the train back to the station and adequately research the long term impact of technology on the developing child.
- Proceed with caution.



Contact Information

Cris Rowan, BScOT, BScBi, SIPT

Zone'in Programs Inc. 604-885-0986 phone 604-885-0389 fax

Email: crowan@zonein.ca Websites: zonein.ca, suncoastot.com Blog: movingtolearn.ca Facebook: zoneinprograms Twitter: ZoneinPrograms