

Nature and Mental Health: Getting Our Brains Back on Nature

May 10, 2018, 0920-1005 hrs

5th Annual Eastern Ontario Active Transportation Summit

Brockville Memorial Centre

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Children's Hospital of Eastern Ontario | University of Ottawa

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Before cell phones
and social media



this is how we figured out
where our friends were.

Presenter Disclosure (within past 2-years)

Relationships with commercial interests	None
Disclosure of commercial support	None
Conflict of interest	N/A
Mitigating potential biases	N/A
Other	N/A

Disclaimer

- I am not an expert in Active Transportation
- I am an expert in mental health



Schedule

0920-0955	Talk (35-min.)
0955-1005	Questions (10-min.)

Learning Objectives

- By the end of this session, participants will be able to:
 1. List examples of why nature is important for mental and physical health, and how modern society has disrupted our connection with nature.
 2. List ways in how we can reconnect our patients, families, neighborhoods and communities back to nature...
 3. Appreciate how this will make our communities **stronger in every metric, whether it be health or economic...**

First, the Good

- In modern society, life is no longer “poor, nasty, brutish and short”
- Modern technology has benefitted our lives in many ways
- Today’s generation of “Digital Natives” understand the technology and will continue to innovate in ways that we cannot even predict



The Bad: Increased Physical / Mental Health Problems

- Increased demands for mental health services in our children, youth and adults
- In adults, mental health problems are now the #1 source of disability claims
- Depression is the 2nd leading cause of disease worldwide



The Bad: Our Planet is Suffering...

- Something is out of balance in our relationship with nature...

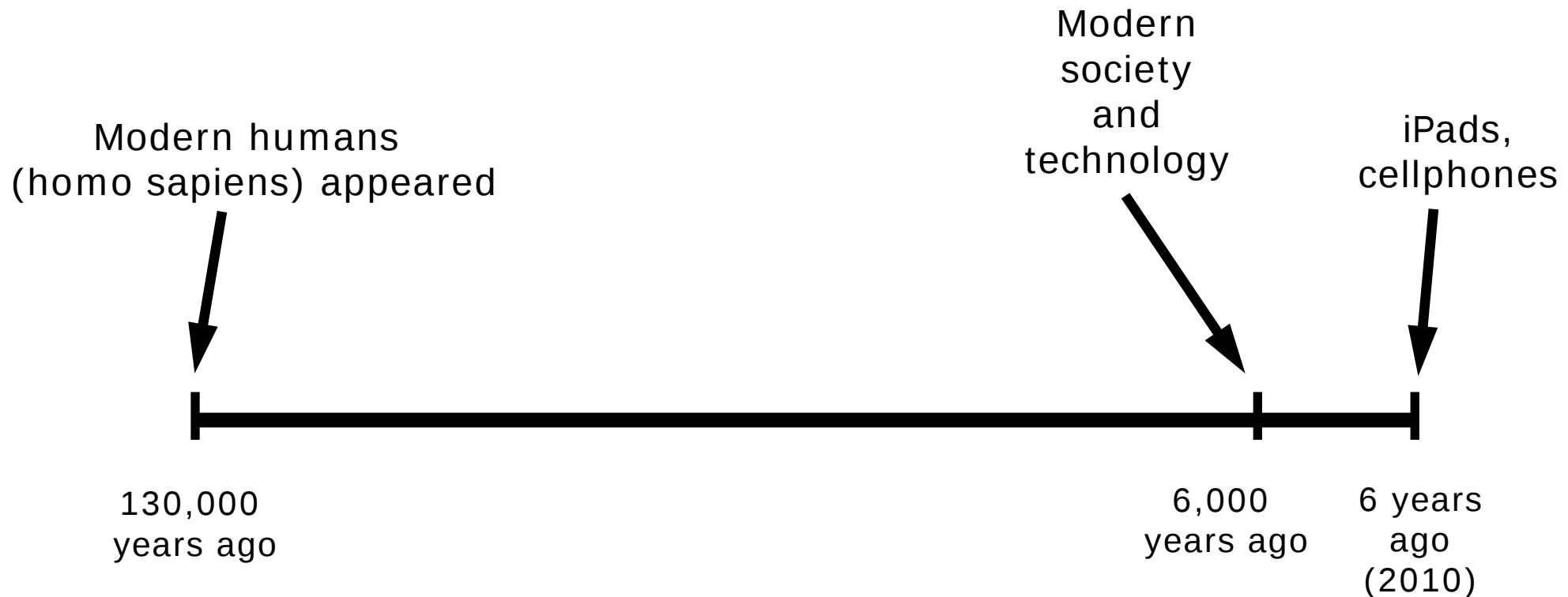


A Quick History Lesson



Our Timeline

- **“Modern humans” have had electronic technology such as screens for less than 0.005% of our existence**



For most of human history...

People lived closely with nature, and used active transportation (i.e. walking everywhere) without even calling it active transportation

We spent time with other people face to face

There was a village, with a wide circle of family and friends that depended on each other to survive

In the evening, families would spent time together

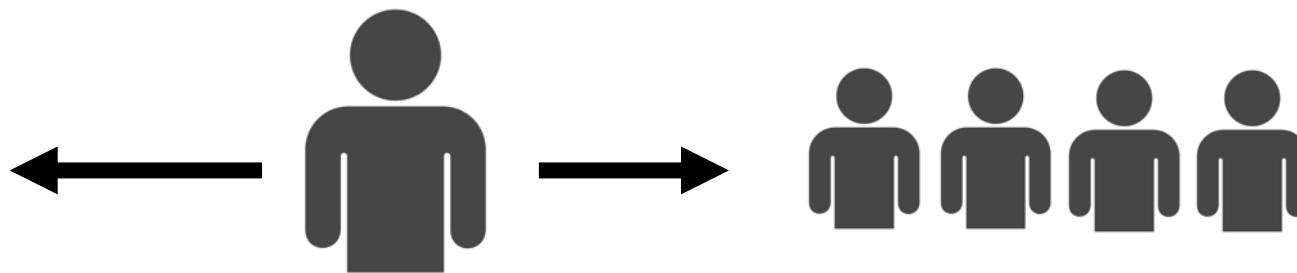
Children played outside for hours, and parents had to nag their kids to come back inside when it was dark...



Thus, we humans are hard-wired to require...



Nature



... and other connections
to people and activities
that provide a sense of
belonging, purpose, hope
and meaning

Nowadays...

We live in cities and drive everywhere

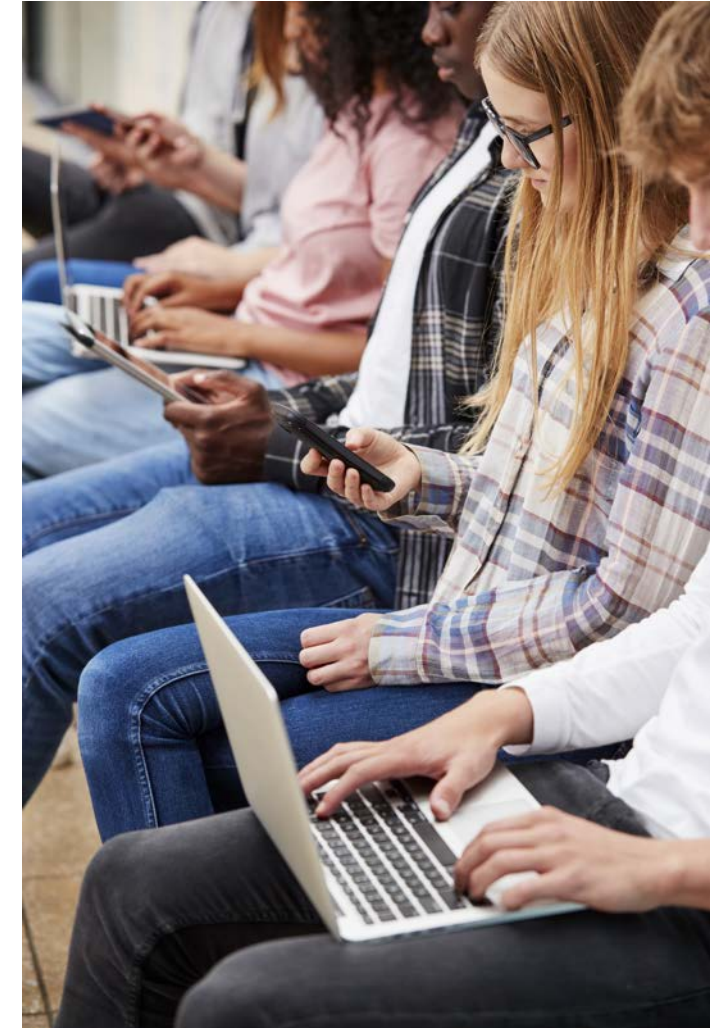
Two income earners are required to support a family, so families have less time together

Even when at home, families are often disconnected from one another doing their own separate activities

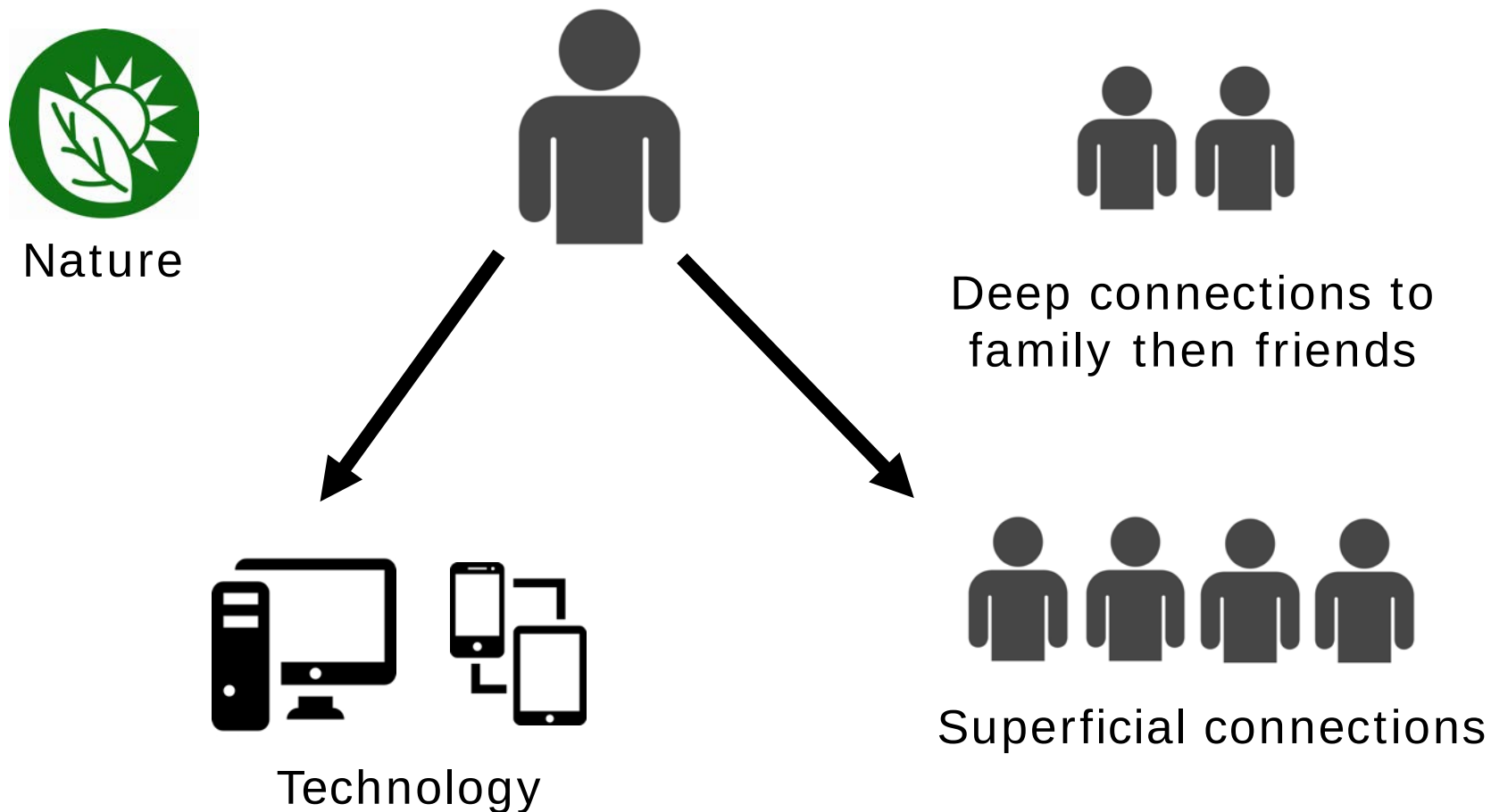
The average teen spends 4-7 minutes in unstructured play outdoors, vs. 7.5 hrs a day in front of a recreational screen

The average teen is sleep deprived, sleeping 7 hrs /night as opposed to the 9 ¼ hrs that they require (National Sleep Foundation)

We don't spend time outside anymore...



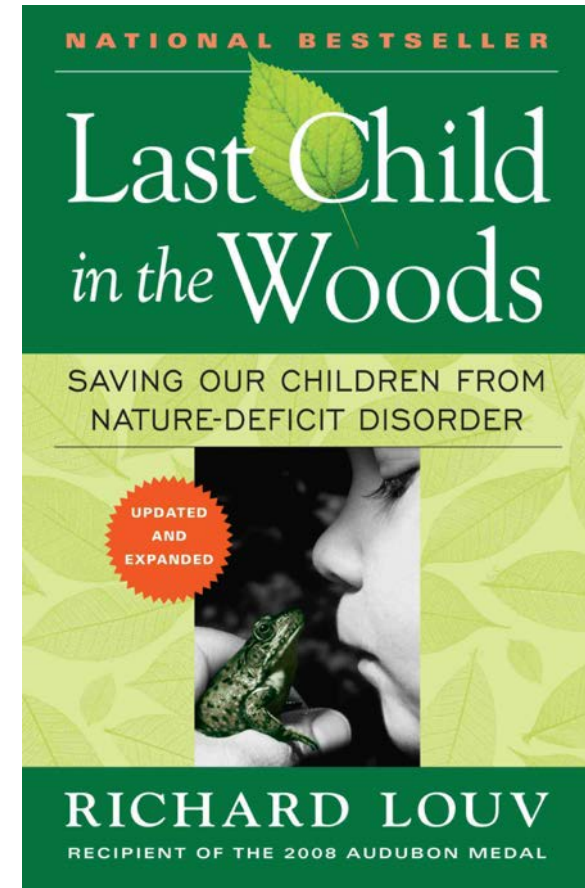
Modern Society has Disconnected Us



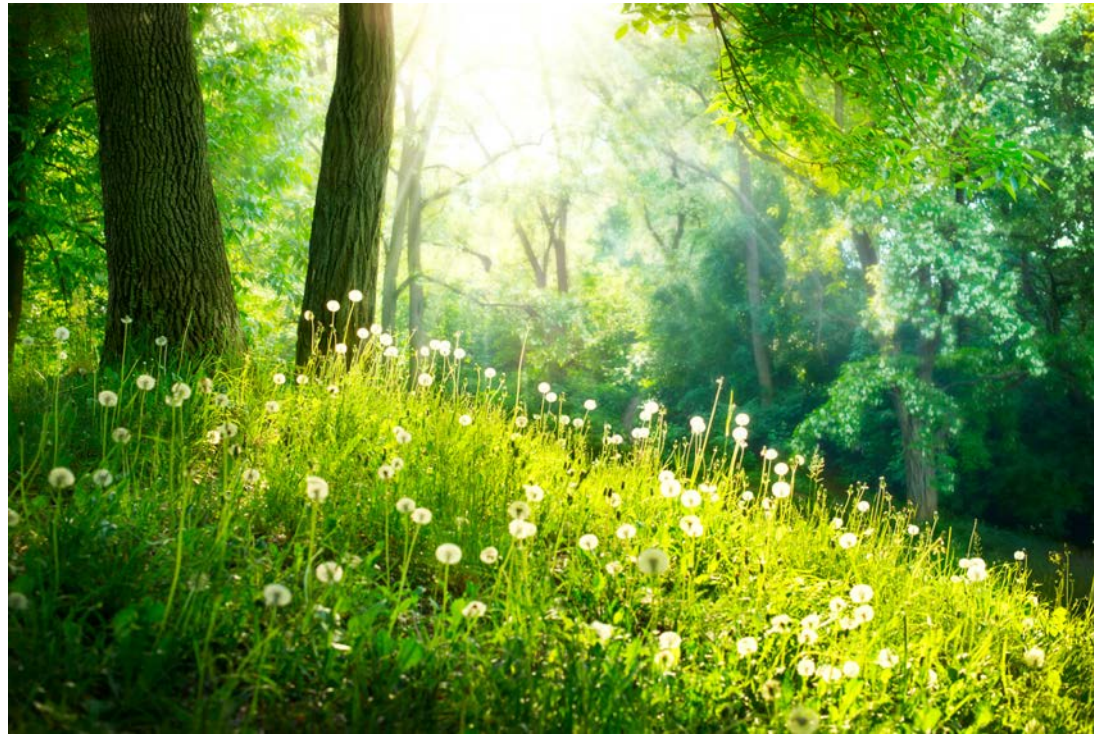
“Nature Deficit Disorder”

- We have a deficit of nature
- “Not meant to be a medical disorder, but meant to describe human costs” of being disconnected from nature
- “Time in **nature** is...
 - Not leisure time...
 - Is an **essential investment** in our (children’s) health.”

Louv, 2005



Nature is Essential for Health and Well-Being: Scientific Evidence



Nature improves physical/mental health

- People that make long visits to green spaces have
 - Lower rates of depression, high blood pressure
 - Greater social cohesion
 - More tendency to be physically active
- How long should visits be?
 - Benefits are seen with 30-min. or more per week
 - Reducing population prevalence of depression by 7%
 - Reducing population prevalence of high blood pressure by 9%

Shanahan D, 2016



Nature improves eyesight

- Children with short-sightedness/myopia
 - Spent ~ 3.7 fewer hours/week outdoors than those with normal/long-sighted vision
 - Each additional hour spent outside/week reduces risk of myopia by 2%
- How nature might protect against short-sightedness
 - ? Exposure to natural light
 - ? Time spent looking at distant objects

Sherwin, 2014



Proximity to urban parks improves mental health

- Proximity to **safe** urban parks reduces mental health problems (e.g. depression/anxiety), physical health problems (e.g. obesity)
- Netherlands study (Maas, 2009)
 - Living within ½ mi of green space had lower incidence of 15 diseases (including depression, anxiety)
- Los Angeles study
 - Living within 400 m of a **safe** park have the better health compared to residents that are 800m, 1.6 km and 3.2 km away
- Results replicated by researchers looking at other areas such as health, income, education, employment



Nature Improves Cognition

- Nature reduces symptoms of attention disorders such as ADHD (Kuo, 2004)
- Walking in park **anytime** of the year improves attention/memory, with 20% improvement after an hour (Kaplan, 2009)
- Students on an exam do better if they can view a natural scene out a window rather than an artificial environment (Tennessen, 1995)
- Climbing a tree improves cognitive skills including working memory by 50% (Alloway, 2015)



Nature at Work Helps Employees and the Workplace

- Natural elements and sunlight is correlated to
 - Positive mood
 - Job satisfaction
 - Organizational commitment
- Lack of natural elements and sunlight is correlated to
 - Depressed mood
 - Anxiety
 - Poor organizational commitment
 - Job dissatisfaction
- Conclusion
 - Investing in nature in the workplace is a good business decision!

An M et al, PLOS One, 2016



Why is it so hard to get off
our devices and outdoors?

Our brains are wired for survival, and thus seek out things which give dopamine and adrenaline...

We used to get this from hunting and reproduction (i.e. sex and violence...)



Before screens, how did kids get their dopamine and adrenaline?

- By going outside, spending face time with their friends...

(which through forming close relationships also gives oxytocin)



Modern electronic screens “hack” our brains by giving us easy dopamine...

- Today's tech / video games are designed to be addictive and immersive
- They give our hunter gatherer brains a jolt of adrenaline / dopamine **with little effort (“easy dopamine”)** which leaves us wanting more...
- Our brains are wired for survival and thus it is natural our brains want to get the **most** dopamine with the **least** effort...



Image:
Adobe
Stock

Nowadays, what do kids say if they aren't able to use their screens?

- Child:
 - "I'm bored..."
 - "There's nothing to do..."
- Parent:
 - "Just go outside like I used to do when young!"
- **The problem**
 - **When you have gotten used to easy dopamine/adrenaline, getting outside is hard because outside, you have to expend calories, effort and sweat to earn your dopamine / adrenaline**



Another problem with easy dopamine/adrenaline...

- Too much screens leads to too much dopamine/adrenaline which is
 - Not calming nor refreshing
 - Can trigger the body's alarm and fight/flight/freeze responses at a sub-cortical, polyvagal level
 - Especially in those anxiety, sensory processing issues, psychosis...



Technology overuse → Body's alarm triggered

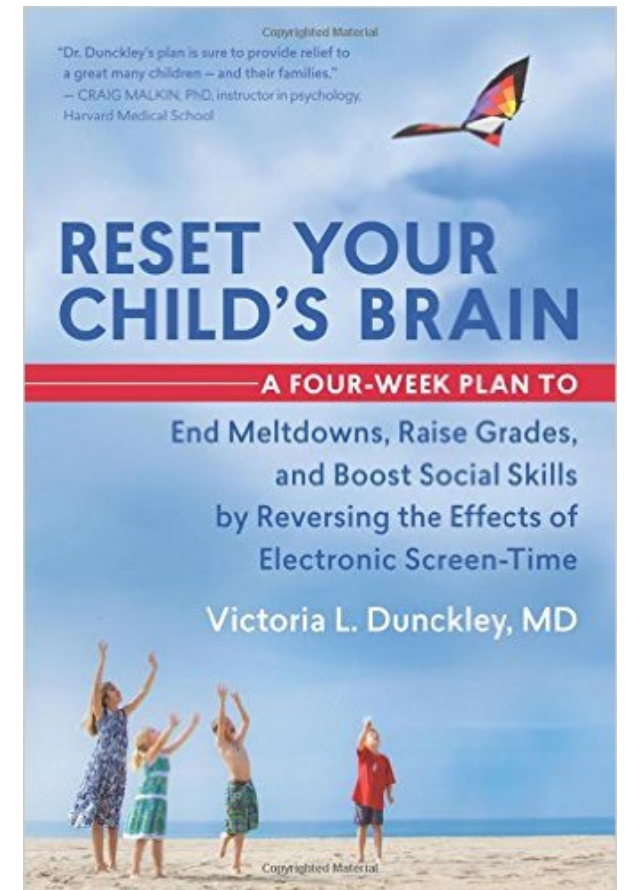
- With excess screen use over time, the body is under chronic alarm, i.e. stress
 - Blood flow shifts from frontal (developed brain) to the more primitive parts of the brain
 - Leads to problems with regulation, attention, creativity, social behaviour
 - Body makes cortisol, a stress hormone
 - High cortisol impairs memory (from hippocampus), disturbs sleep, disturbs concentration, causes weight gain
- “Electronic Screen Syndrome (ESS)”
 - Signs of an overloaded brain can mimic any psychiatric disorder (e.g. inattention, mood problems)

Dunckley, 2014



Screen Detox May be Necessary

- One of the big barriers to increased nature time, is that it takes effort to get into nature
- Unfortunately, for the child/youth/adult who is spending several hours a day on screens, they have gotten used to 'easy dopamine/adrenaline' without having to work on it
- Special strategies to help them detox from technology may be required



Recommendations for Getting More Nature

How much nature time do we need?

- At least 30-min./week (Shanahan, 2016)
- At last 5-hrs/month for mental health
 - Dr. Liisa Tyrväinen and colleagues at the Natural Resources Institute Finland
- At least 10-hrs /week for eye health
 - Myopia studies (such as Sydney Myopia Study) suggest that children/youth need at least 10-hrs outdoors a week, in order to prevent myopia (Rose et al., 2014)
- At least 1-hr physical activity daily (ideally outside) (Position Statement on Active Outdoor Play, 2015)



How much nature time do we need?

- Periodically, spend a period of at least 3-days in nature to ‘detox’ your brain from technology
 - After 3-days of wilderness backpacking, Outward Bound participants did 50% on creative problem-solving tasks (Dr. Strayer)
- Other than that, there are no firm recommendations on how much nature we need for mental health
 - Louv’s 1:1 ratio
 - For every 1-hour of screen time, children/adults need at least 1-hr of restorative nature time to compensate (Louv, 2005)
 - Rosen’s 1:5 ratio
 - For every 1-minute of technology, a child should be spending 5-minutes doing non-tech things (Rosen, 2014)

Nature:
Accept no
substitutions!

R_x

Nature

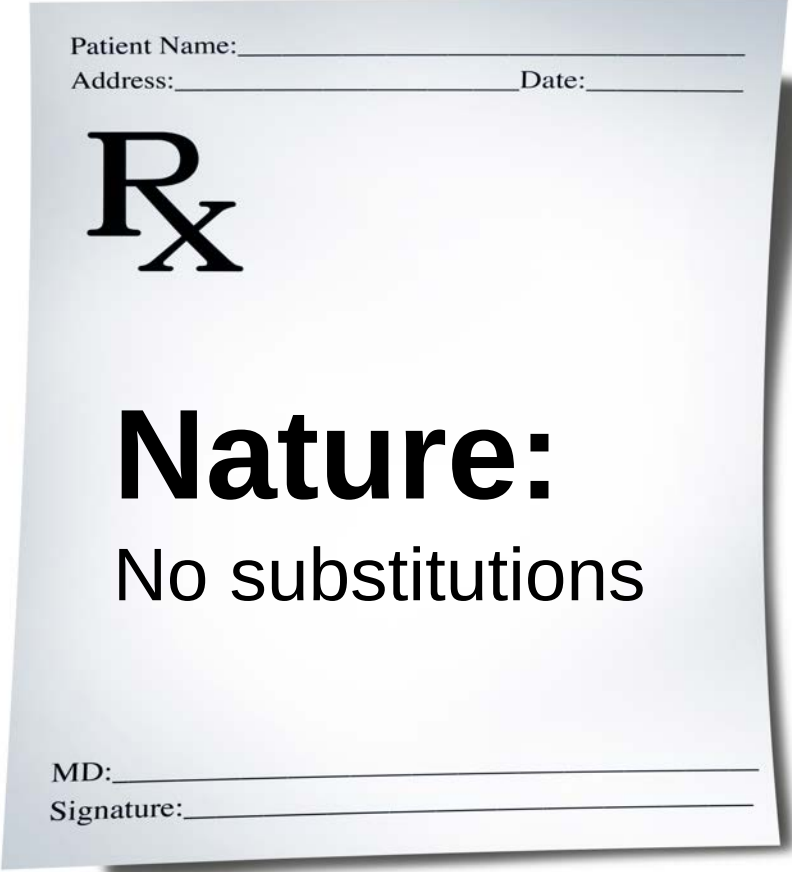
1 1/2 hr daily

No subs

Suggestions for Health Care Providers

Diagnose Nature Deficit Disorder to build awareness

- Prescribe nature for stress-related conditions such as depression, anxiety, physical illnesses
- Offer nature interventions at your organization



Patient Name: _____
Address: _____ Date: _____

R_x

Nature:
No substitutions

MD: _____
Signature: _____

Prescribe Ecotherapy

- Ecotherapy
 - Treatment programmes to improve mental / physical wellbeing through outdoor activities in nature.
- Terms that are still evolving
 - Green exercise, green care, green therapy, horticultural therapy
- Formal ecotherapy programs more developed in other countries, e.g. England

Ecotherapy Interventions include:

Programme	Description
Adventure therapy	Fairly strenuous physical activities in a group plus psychological intervention, e.g. rafting, rock climbing to build confidence and trust
Animal assisted interventions (AAI)	Being in places such a farm in order to have contact with animals, e.g. feeding, petting animals; less structured than animal assisted therapy (AAT)
Animal assisted therapy (AAT)	Formal therapy using guided contact with animals, in order to bond with the animal
Care Farming	Looking after farm animals, growing groups, helping to manage woodland
Ecotherapy program	Trained ecotherapist leads participants through different activities to develop a relationship with nature to help their well being

Ecotherapy Interventions include:

Programme	Description
Green exercise therapy	Physical activity in green space, e.g. walking, running and cycling, run by a trained leader
Nature arts and crafts	Doing artistic activities outside in the natural environment, using natural materials such as wood, grass and clay
Horticultural therapy	Gardening or growing food outside, guided by a tutor
Wilderness therapy	Spending time in wild with a group, doing physical and group-building activities

Examples of Nature-Based Interventions

Forest Therapy in Eastern Ontario

- Forest Therapy Program
 - Offers guided walks in the forest by a trained guide accredited by the Association of Nature and Forest Therapy Guides and Programs
 - Usually up to 1-3 hrs (or shorter)
 - **Slow pace**, with focus on mindfulness, with less than 1 km travelled during the walk
- Examples
 - Cataraqui Regional Conservation Authority
 - www.crca.ca/foresttherapy



Photo credit: Amos Clifford,
<https://crca.ca/education/foresttherapy/>

Mood Walks for Mental Health

- Initiative that promotes physical activity or “green exercise” for physical and mental health
- Led by the Canadian Mental Health Association (CMHA) with Hike Ontario, Conservation Ontario and others



Mood Walk Program at Rough Valley Centenary (RVC), Scarborough

- Program of Rouge Valley's outpatient mental health services for youth aged 13-23
- Ten guided hikes:
 - Half through Morningside Park, right behind RVC; half through the Rouge National Urban Park in Toronto.
- Staff include
 - Social worker
 - Guides from Parks Canada, so participants learn more about the natural environment around them, while being in a safe place in which to socialize."

<http://hospitalnews.com/empowering-youth-walk-towards-wellness/>



Mood Walk Program at Rough Valley Centenary (RVC), Scarborough

I felt super safe...
I didn't feel like I was just a patient.
I wasn't thinking about my mental health or
my issues, or anything else in my life.
The things we started to talk about in
nature helped us to heal.
We leave our negativity in the forest.

<http://hospitalnews.com/empowering-youth-walk-towards-wellness/>



YouthNet Programs for Youth

- YouthNet is a mental health promotion program at Children's Hospital of Eastern Ontario (CHEO)
- Nature programs include
 - Winter Wellness
 - Physical activities in the winter, such as snowboarding
 - Rooted
 - Runs in the summer
 - Youth grow a vegetable garden and explore nature trails, farms and lakes around Ottawa/Gatineau



Suggestions for Individuals

Do-it-yourself Ecotherapy: Bring Nature into Your Environment

- Collect natural materials (leaves, flowers, etc.) for decorating
- Grow plants on your windowsills.
- Take photos of nature and set as your phone / computer backgrounds.
- Do activities in front of a window so that you can see the sky (for example ironing clothes, chopping vegetables, brushing your teeth, drying dishes or daily exercises).
- Download sounds of nature sounds such as birdsong or waves.



https://www.mind.org.uk/information-support/drugs-and-treatments/ecotherapy/doing-it-by-yourself/#.WtC5D2YZM_U

Do-it-yourself Ecotherapy: Horticulture at Home and Nearby

- Create a growing space at home such as a garden, window box or potted plants
- Offer to help a neighbour with their garden
- If you have flower beds, try planting vegetables amongst the flowers
- Apply for a 'community garden' allotment
- Join a local community food growing project
- Go fruit picking in the countryside, or find out about urban food foraging and get some tasty food for free.

https://www.mind.org.uk/information-support/drugs-and-treatments/ecotherapy/doing-it-by-yourself/#.WtC5D2YZM_U



Do-it-yourself Ecotherapy: Animals

- Go for walks in nature or near nature; join a hiking / walking Group
- Visit your local community or city farm
- Go bird watching by yourself or with others.
- Offer to be a pet sitter in your local neighbourhood, volunteer to be a dog walker for a local dog shelter, or offer to sit your friends' pets
- Consider getting your own dog / cat / bird

https://www.mind.org.uk/information-support/drugs-and-treatments/ecotherapy/doing-it-by-yourself/#.WtC5D2YZM_U



Do-it-yourself Ecotherapy: Get in Nature or Near Nature

- Walk or bike to work
- Build a ten minute walk into your daily routine
- Eat outdoors at your place, or have an outdoor picnic
- Sit, read or relax outside
- If you exercise indoors, do it outside instead
- Instead of driving for a short distance, walk, run or cycle instead
- Invite a friend to go for regular walks together

https://www.mind.org.uk/information-support/drugs-and-treatments/ecotherapy/doing-it-by-yourself/#.WtC5D2YZM_U



Do-it-yourself Ecotherapy: Get in Nature or Near Nature

- Harm reduction
 - If using electronics, try to use them outside instead of just inside



Suggestions for Parents (and Families)

Allow your kids to do what they do normally...
go outside, get muddy and eat dirt...



Outdoor play is important for health...

- Children that have unstructured play are happier, and have long-term social, emotional, cognitive and physical benefits (Sandseter & Kennair, 2011)
- Play is a fundamental right (Office of UN High Commissioner for Human Rights, 1990)
- The best type of play is
 - Less supervised
 - Less structured
 - More adventurous
 - Has challenges and risk
 - **Outdoors**

Tremblay et al.: Position Statement
on Active Outdoor Play,
Int. J. Environ Res Public Health, 2015

POSITION STATEMENT ON ACTIVE OUTDOOR PLAY

Position



Access to active play in nature and outdoors—with its risks—is essential for healthy child development. We recommend increasing children's opportunities for self-directed play outdoors in all settings—at home, at school, in child care, the community and nature.



This is **not** a natural play space



This is a Natural Play Space...

- Better than standard metal and plastic structures
- Incorporates natural landscape and vegetation to bring nature to children's daily outdoor play
- Examples of Nature Play Space "Equipment"
 - Boulders to climb
 - Streams to dam
 - Ponds to catch critters in
 - Logs to practice a balancing act
 - A multi-sensory garden to explore



Image from <http://www.kidsafensw.org/>

Do what Silicon Valley execs do... Send your kids to a school with **no** computers

- Many top executives from Google, Apple, Yahoo, Hewlett-Packard, send their kids to the Waldorf School of the Peninsula
- No computers in the classrooms
- Younger pupils educated with pencils, pen and paper, painting and knitting
- Students report frustration with parents /relatives that are wrapped up in phones and other devices



<http://www.nytimes.com/2011/10/23/technology/at-waldorf-school-in-silicon-valley-technology-can-wait.html?pagewanted=all>

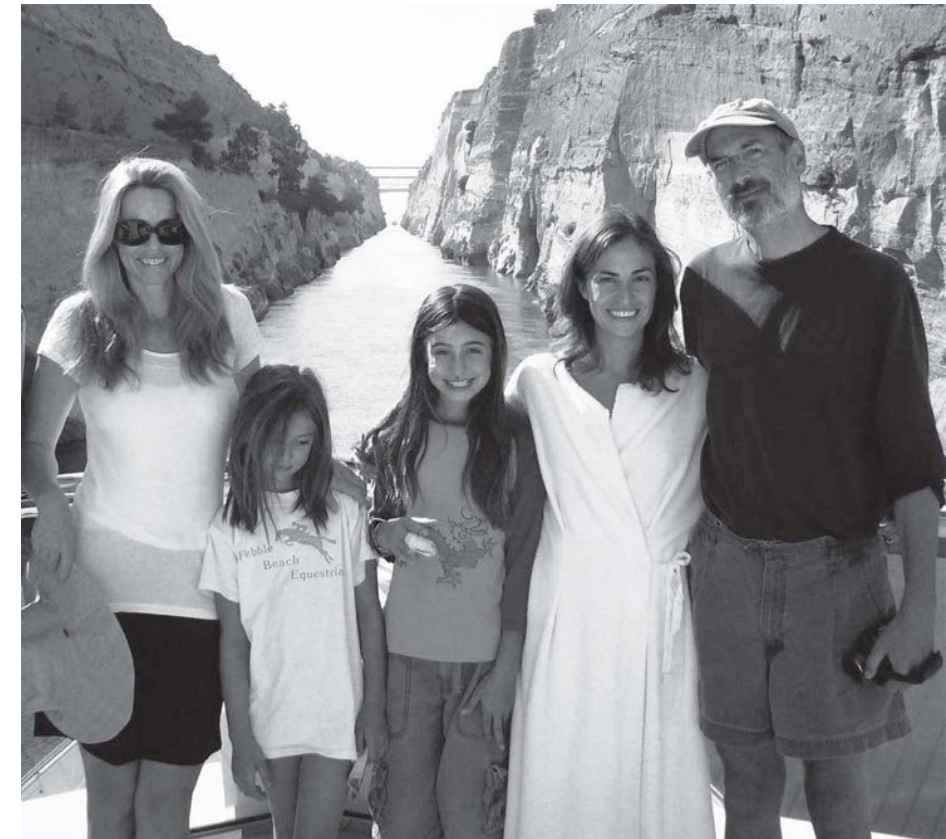
Nature-based education

- Nature-based education movement
 - Though new in North America, concepts of nature education are mainstream in many European countries (e.g. Waldorf movement from Germany; nature schools in Scandinavia)
- Examples in Ottawa:
 - Trille des bois (Waldorf), French public board, Ottawa
 - Nouveau Ecole (Finnish model), French Catholic board
 - Forest School (private school) in Gatineau and West of Ottawa



Steve Jobs, Apple CEO, was a low tech parent!

- Steve Jobs did not allow his youngest children (aged 12, 15) to have iPads when it came out in 2010
- Reporter: “Your kids must love the iPad...”
- Steve Jobs: “They haven’t used it... We limit how much technology our kids use at home... At the dinner table, we talk about books and history.”



Suggestions for Parents (and Families)

- As a parent, be a role model for your kids
- Have rules/limits about technology
 - Max < 1-2 hrs/day
 - No screens in bedroom
- Limit technology and have "tech free zones" during times when people should be connecting with each other
 - E.g. meals (not even TV), in the car
 - Have "device bowl"
- Don't use technology to meet a child's (attachment) needs that can be met in non-electronic ways
 - E.g. don't give a toddler a device to soothe, but instead, pick up the child and co-regulate yourself

American Academy of Paediatrics, 2013



Suggestions for Parents (and Families)

- Give your kids 'Vitamin G)reen'
- School days
 - Walk with your kids to school
 - Doing classwork or homework in a place with a green view
 - Have family walks in the evening
- Weekends
 - Have family outings in wild places
 - Play outside
- Spend 1:1 time outside with your kids
- Create or join a family nature clubs
- Make your backyard a nature play space
- Put your kids in **outdoor** (not indoor) activities

Children & Nature Network
(www.childrenandnature.org)



Suggestions for Parents (and Families)

- Sign them up for **outdoor** activities



Girl Guides
of Canada
Guides
du Canada



Suggestions for Public Health

- Contact with nature is a powerful, cost-effective public health intervention
- Collaboration is required by multiple levels in government, and stakeholders in health, social services, urban planning and environmental management

Maller et al., Health Promotion International, 21(1), Mar 2006.



Suggestions for Educators

Suggestions for Educators

- Advocate for more green in schools
- Advocate for outdoor green spaces, as opposed to artificial plastic or asphalt play areas
- Never punish a child by removing their contact with recess / nature
 - If a child is having behavioural, emotional or other difficulties, they need recess / nature more than ever
- Incorporate 'forest school', 'outdoor education', 'nature school', 'Waldorf' philosophy into the curriculum
- How much nature?
 - Ideally 1-2 hrs outside each school day (goal is 10 hrs/week, the threshold for preventing myopia in children)
- Favor natural materials in schools such as wood, stone, rather than plastic



Suggestions for Leaders in Education

Policy papers from the Back to Nature Network!



Policy Paper, Series 1, No. 1

**Bringing Nature into Education:
Policy Options for Increasing the Potential for
Learning in Nature in Ontario**

Suggestions for Employees, Managers, Business Leaders

Nature is a “Win-Win-Win ROI”

- Position statements, white papers by government, business support the same conclusion – that we need to invest in our “green infrastructure”
- “Nature: The Best Investment Opportunity Ever”

<https://www.forbes.com/sites/marktercek/2017/10/11/the-best-investment-opportunity-ever-investing-in-nature-101/#2e3f4b7e3f1f>



An Analysis of Finance and Policy Actions to
Enable Tree Planting for Public Health

Suggestions for Architects

- Design using natural elements so that employees automatically are exposed to nature...
- Courtyards / plants
- Natural lighting
 - German “light rules” stipulate that those inside buildings (e.g. offices, schools) must have exposure to natural lighting
 - “Light inspectors” ensure compliance!
- Ironically, many tech companies are pioneers in nature in the workplace...



Marlborough Primary School features cascading terraces with *grass and trees*, all in the middle of London, UK

Suggestions for Employees / Managers

- Walk or bike to work
- Put up pictures of nature at work
- Get a plant for your cubicle / office
- Have walking meetings
- Set up a 'nature committee' to look at ways to have a greener work place



Google's Dublin Campus

Suggestions for Policy Makers



Policy Paper, Series 1, No. 2

**Building Healthy, Sustainable Communities:
Policy Options for Enhancing Access to Nearby
Nature for Ontario Citizens**



Policy Paper, Series 1, No. 3

**Improving Health by Reconnecting Children
with the Outdoors:
Policy Options for Increasing Access to Nature
and the Outdoors**

Policy papers from the Back to Nature Network!

Suggestions for Municipalities: Active Transportation

Active Transportation, i.e. How our grandparents got around

- Human-powered transportation, such as
 - Walking, wheelchair
 - Cycling
 - Skateboarding
 - Public transportation (considered active due to increased physical activity in comparison to using one's own vehicle)



"Just about the handiest thing ever," says ANN SHERIDAN, famous WARNER BROS. Star. "I enjoy riding my Schwinn-Built lightweight because it offers such a pleasant way to keep in trim by providing healthful outdoor exercise. You can do errands conveniently, too, on your smooth pedaling, beautifully finished Schwinn-Built bicycle."

THE SCHWINN MODEL CNLS . . . CONTINENTAL

The only really fine lightweight bicycle made in America today. Its opalescent blue finish, flashing stainless steel guards, three-speed

rear hub, and its quality construction throughout make it the undisputed queen of all ladies' lightweights.

*Schwinn-Built
Bicycles*

Design Cities for Active Transportation

- Design communities to be walkable or bikable so people get out of cars
- Design communities with single zone where people can live, work and play
 - Have shops and grocers within walking distance
 - Young teenagers are 2.5 times more likely to walk if there is a recreation destination within 1-kilometre of their home
 - (Not separate zones for living and working that involve commuting)
- View nature as an investment in your green infrastructure that enriches your community



Benefits of Active Transportation

- Physical inactivity is a leading cause of premature mortality in the industrialized world
- People are more physically active when they
 - Walk
 - Take public transport
 - Bicycle
- Active transport is a high yield public health intervention to improve health outcomes including reducing mortality in the industrialized world

Mansfield T, Frontiers in Public Health, May 2016



Biking in Amsterdam
<https://cupofjo.com/2012/04/motherhood-mondays-biking-in-amsterdam/>

Benefits of Active Transportation: Biking to School

- Active school travel (AST) associated with
 - More positive emotions versus passive travelers.
 - Parents of active travelers reported stronger connections to dimensions of well-being.
 - Improved parental perception of child's well-being
 - Positive emotions (parent and child) were also significantly related to well-being on the trip to school

Ramanathan J et al., J. School Health, 2014



Benefits of Active Transportation: Walking to School

- Mindfulness
 - Children enjoy the world walking as opposed to rushing in a vehicle
- Improved focus/concentration
 - Studies show treadmill / physical exercise before class improves concentration
- Stronger social connections
 - Walking with your children helps improve your relationship between them
- Improved connection with nature



Benefits of Active Transportation: Walking to School

- Walking school buses are associated with
 - Increased active school travel (AST), i.e. increased proportions of children walking to school
 - Increased activity levels in children (as measured by accelerometers)

Smith L et al.: J. School Health , 2015



Walking School Bus in New Zealand

Benefits of Active Transportation: Businesses Benefit!

- Numerous studies show that in bike and pedestrian friendly communities
 - Majority of customers arrive by cycling or walking, and spend more than those who drive
 - Building bike infrastructure yields greater ROI than car infrastructure
- Why?
 - Cyclists have more unplanned shopping
 - Tourists prefer bike/walking friendly areas
 - People on bikes spend more money



<https://momentummag.com/how-bicycles-bring-business/>

Canadian Nature Advocacy Organizations

- Connecting children and families with nature, based in Burlington, ON
- Children's Charter
 - Every child should have the opportunity to
 - Follow a trail
 - Explore a park
 - Harvest something to eat
 - Swim in a lake
 - Paddle a canoe
 - Play in the snow
 - Build an outdoor fort
 - Visit a farm
 - Etc....



<http://www.back2nature.ca>

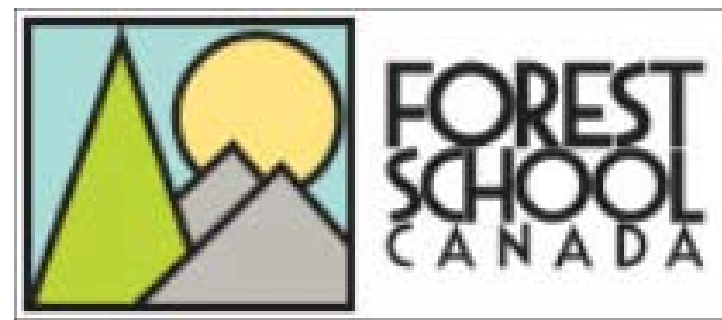
- Fosters the development of healthy kids, communities and outdoor environments, based in Ottawa, ON
- Programs
 - Collaborative projects with communities
 - Don't know how to get started? KidActive brings together community stakeholders to make a nature project/program succeed
 - School programs
 - Work with educators, schools, school boards, private schools and child care centres to:
 - Increase outdoor learning opportunities in the curriculum,
 - Increase natural play and learning spaces (NPLS) in the school environment / community



- Canadian organization working to collaborate across all sectors to support outdoor play
- Nature Canada works to protect, conserve and advocate for nature in Canada.



- Connecting children to nature through the Forest School model in early, primary and secondary years



- Community naturalization projects across Canada with help of consultants
- Greening public lands;
- How to green school grounds;
- Outdoor play



Still struggling on how to get more nature?

- Ask your friends and neighbours who are:
 - Indigenous and FNIM
 - Grandparents
 - Mennonite/Amish
 - Jewish Orthodox
 - And anyone else from a traditional society



Special thanks to Kathi
<https://www.flickr.com/photos/klomeli/14034945413/>

In Summary

Summary

Design your community so that it is easy to

- Spend time outside, ideally in nature (such as on trails through linear park corridors)
- Help kids develop physical literacy in kids, so that they can walk and bike to get to places such as school
- Be physically active which helps physical/mental health
- Create a community with more social capital (i.e. increased social cohesion, and resilience) when the streets are more alive with people walking and cycling rather than isolated in their metal cages

Just remember when you were a kid and remember how important nature was to you...



Learning Objectives

- By the end of this session, participants will be able to:
 1. List examples of why nature is important for mental and physical health, and how modern society has disrupted our connection with nature.
 2. List ways in how we can reconnect our patients, families, neighborhoods and communities back to nature...
 3. Appreciate how this will make our communities **stronger in every metric, whether it be health or economic...**

Nature and Why It's Essential For Kids' Brains: Information for Parents and Caregivers


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Summary: Despite all the advances made in modern society, many of today's children and youth seem to struggle with physical and mental health problems. The good news is that there is a single intervention that can help our children's physical, mental and spiritual health all at the same time: spontaneous, unstructured outdoor play. There are many things we can do to help get our kids outside so that they can do what kids used to do — and be happier and healthier for it.

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Introduction

All parents want to raise happy, healthy children, but in spite of our best efforts, many children and youth struggle with physical and mental health problems in today's world.

The good news is that there is an easy way to help our children's and teens' physical, mental and spiritual health...

...Spontaneous, unstructured outdoor play!

Spontaneous, unstructured outdoor play is letting kids be kids outdoors, creating on their own without adult interference. It means letting kids:

- Be outdoors with fresh air, sunlight and the sounds of nature.



Unplug (from technology) and Connect: Keeping Families Strong in a Wired World

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Unplug (from Technology) and Connect: Keeping Families Strong in a Wired World

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Summary: Are you having trouble getting your kids off of their devices? Could devices be getting in the way of relationships in your family? Read more to learn about ways your family can unplug and connect....

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Introduction

Our brains are wired to require strong relationships, attachments and face-to-face social contact with fellow human beings for happiness and well-being. Good relationships and healthy bonds to others keep us resilient and allow us to bounce back from setbacks. Unfortunately, our technologies and devices are so addictive, that many people are more connected to their devices than each other. The very devices that were meant to make life easier for us are now threatening to disconnect us from one another and thus, damage our physical and emotional health...

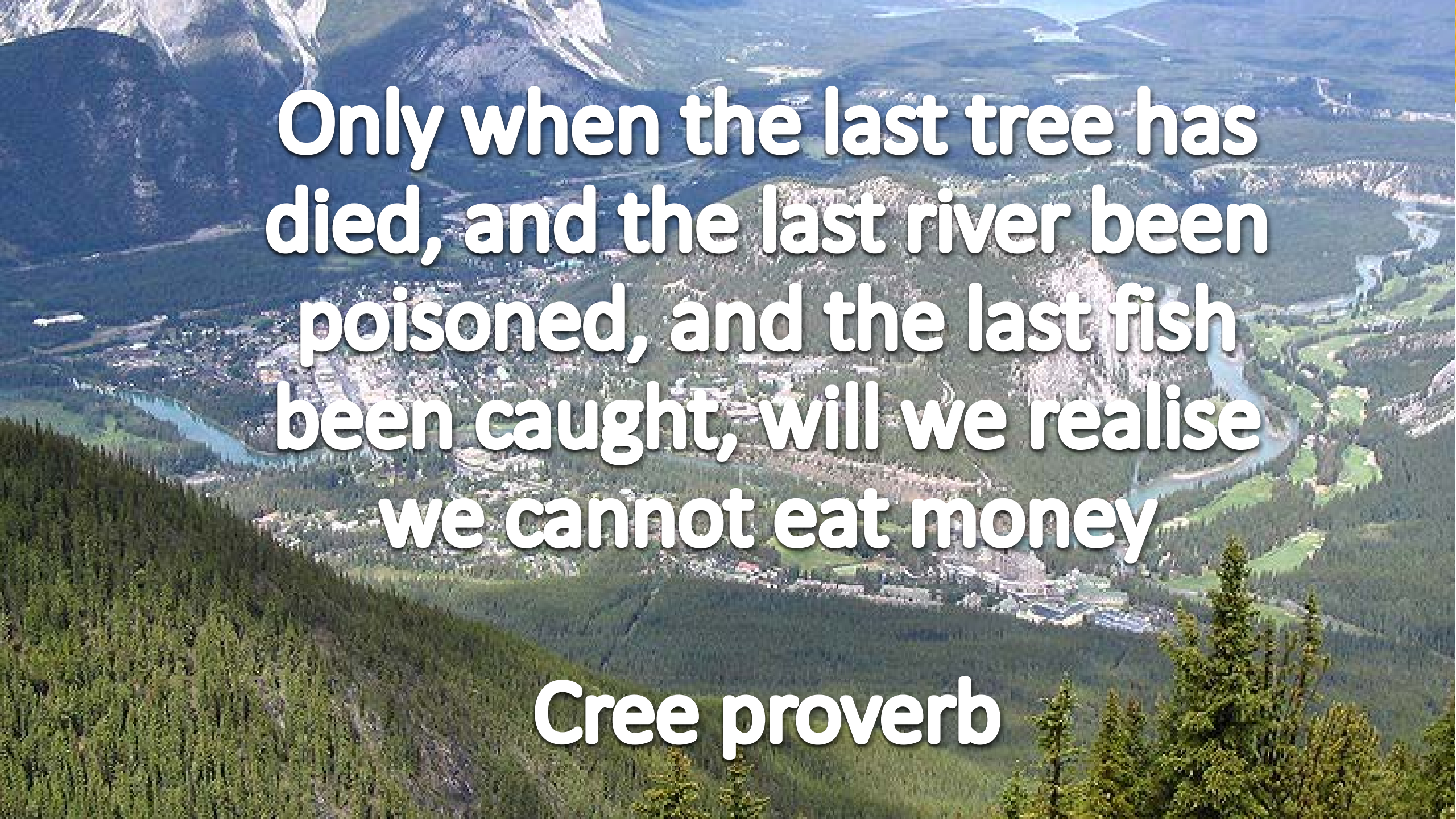
Children and youth now use technologies that did not exist just when their parents were kids. These devices have added greatly to our quality of life. At the same time, they can get in the way of physical activity or true social and emotional ties with others. When this happens, it can have a negative impact on relationships, mental and physical health.

Using technology more and more may cause us to connect less and less with each other. We may also connect less with our children. Mental health professionals are becoming concerned, because they are

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Technology Issues, including Internet, Cellphone, Social Media Addiction

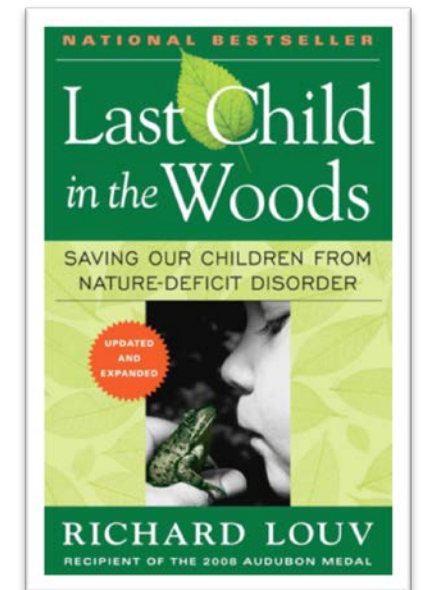
The background of the image is a high-angle, aerial photograph of a mountainous landscape. In the foreground, there are dense evergreen forests covering the slopes. A river winds its way through the valley, reflecting the sky. In the middle ground, a small town or village is visible, nestled in a valley. The background features more rugged mountains and a clear sky. The text is overlaid on this scenic view.

Only when the last tree has
died, and the last river been
poisoned, and the last fish
been caught, will we realise
we cannot eat money

Cree proverb

References

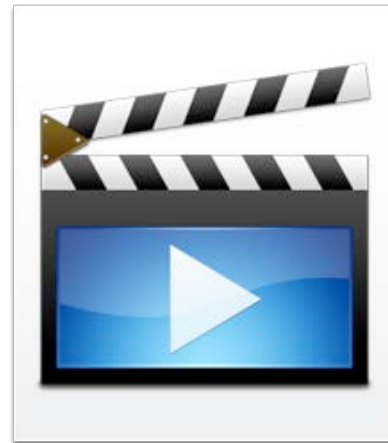
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<http://ngm.nationalgeographic.com/2016/01/call-to-wild-text>
- Richard Louv, Last Child in the Woods
- Martin K, 2011 Electronic Overload: The Impact of Excessive Screen Use on Child and Adolescent Health and Wellbeing. Department of Sport and Recreation, Perth, Western Australia



VIDEO CLIP:

Nature Valley: 3 Generations
“What is Your Favorite Activity?” (2:40-min)

<https://www.youtube.com/watch?v=KVT7U-20iIs>



Thank you for
your
attention!

Any
questions?

