

Why Our Brains Need Nature and People Now More Than Ever

Nov 2, 2017, 0910-1010 AM
Smiths Falls Memorial Community Centre

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Presenter Disclosure

Presenter	Michael Cheng, Staff Psychiatrist, CHEO
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Conflict of interest	N/A
Mitigating potential biases	There will be no mention of use of any pharmaceuticals marketed by Lundbeck/Otsuka during this presentation
Other	N/A

Schedule

9:10-9:55 AM	Talk (45-min)
9:55-10:10 AM	Questions Discussion (15-min)

Learning Objectives

- By the end of this session, participants will be:
 1. Able to list the elements of mental wellness
 2. Able to list ways in which modern society has disrupted our connection with nature.
 3. Inspired to advocate for change in society so that we can reconnect with nature in our homes, workplaces, schools, institutions and communities...

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



But modern society faces many problems...

- Demands for mental health services are on the rise
 - Suicide rates up 300% in female teens since 1960's (StatsCan, 2010)
 - Explosion of students with mental health needs in our schools, colleges, universities
 - Explosion of adults with mental health needs, with disability now the #1 source of disability claims
 - Depression is 2nd leading cause of disease worldwide



But modern society faces many problems...

- Global warming, extreme weather events, are all signs that something is seriously wrong...



What's going on?

- Despite all the great technological achievements and wealth in modern society, something is out of balance...

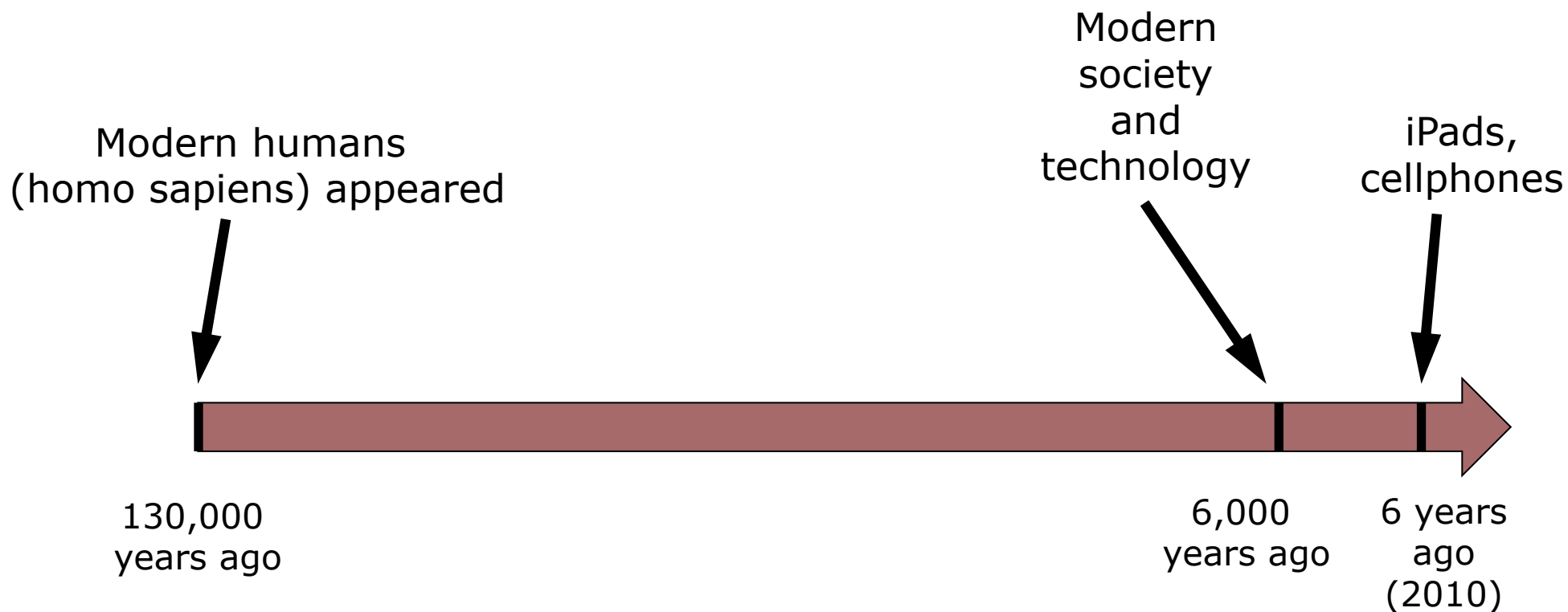


History 101



Our history as humans...

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



In the past...

We lived closely with nature

We walked to places

We spent a lot of time in nature

We interacted with people face-to-face

We had a wide circle of family and friends

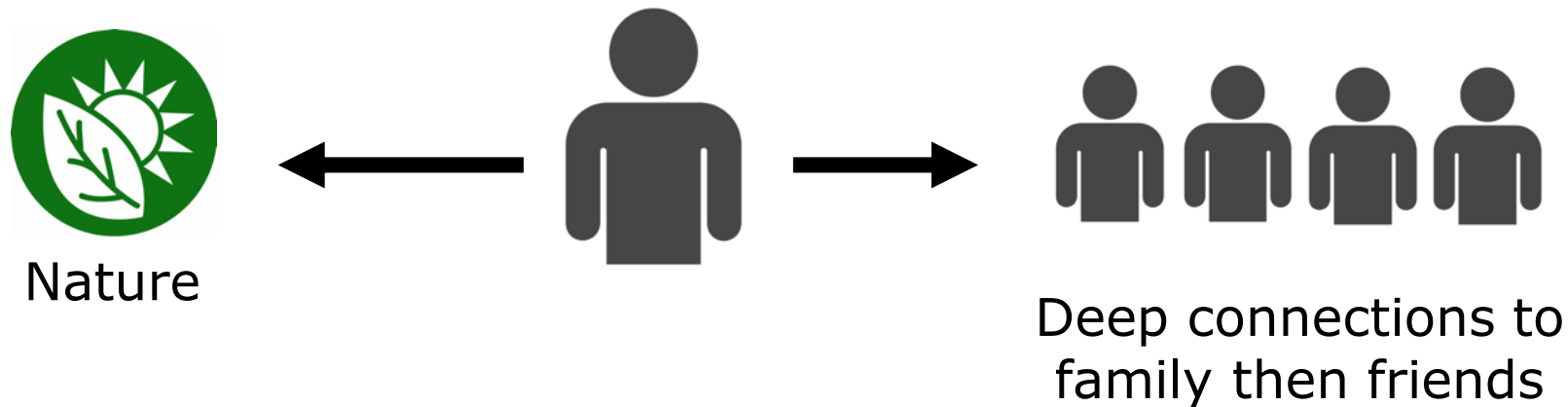
In the evening, families would spend time together

In the 70's, one income earner could support a family

Children were closely connected to family and had face-to-face friends



As a result, human beings are hard-wired to require...



Nowadays...



We live in cities

We drive everywhere

We spent our time indoors on screens, with more time on screens than face-to-face time

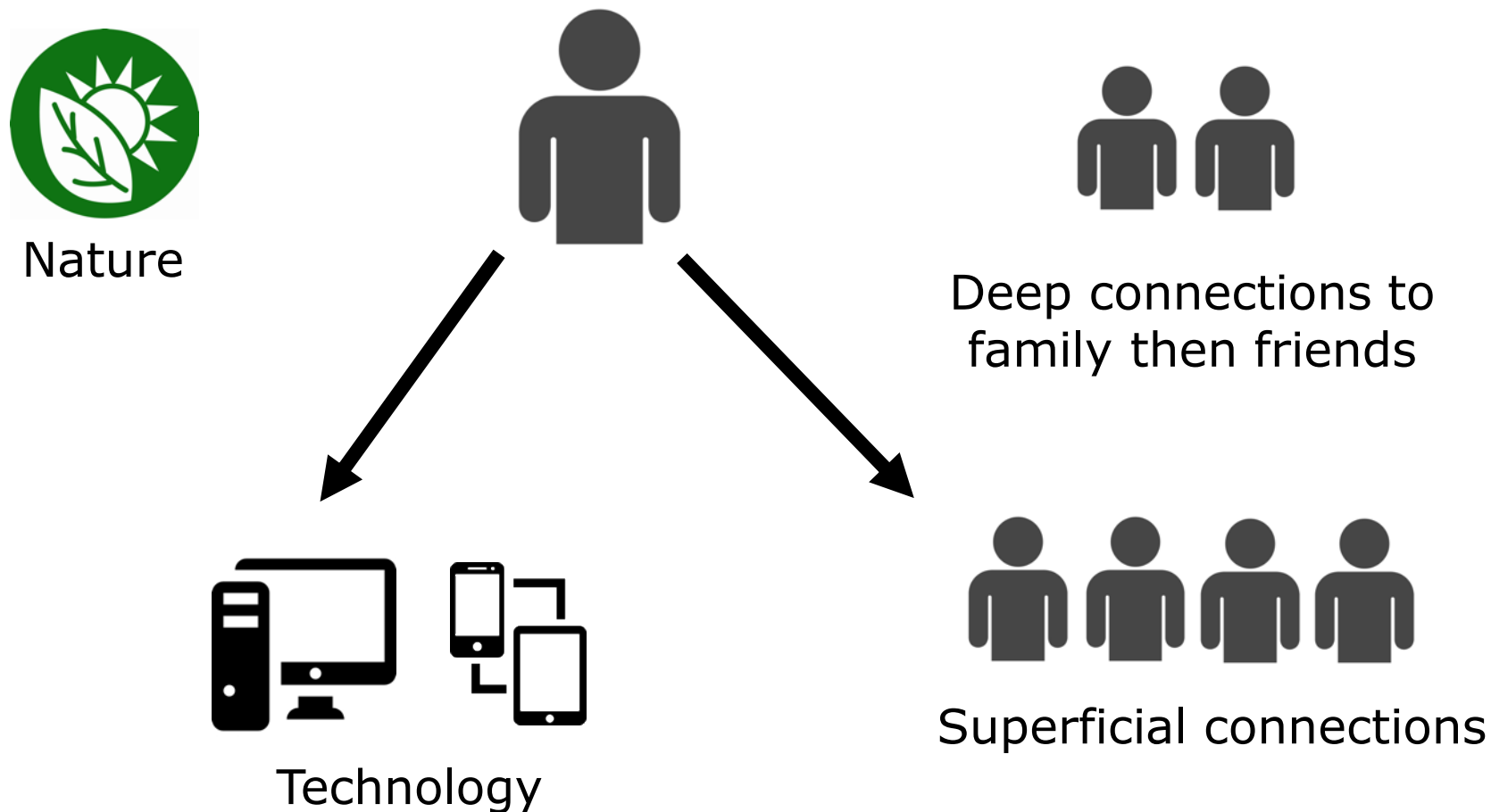
We have smaller families / circles of (true) friends; the “village” is gone

In the evening, families are often doing separate activities

In 2015, two income earners are required to support a family, so families have less time together

Children at younger ages are increasingly more disconnected from parents, and overconnected to technology

As a result, many of us are disconnected...



Nature and Human Connection are necessary, but not necessarily sufficient...

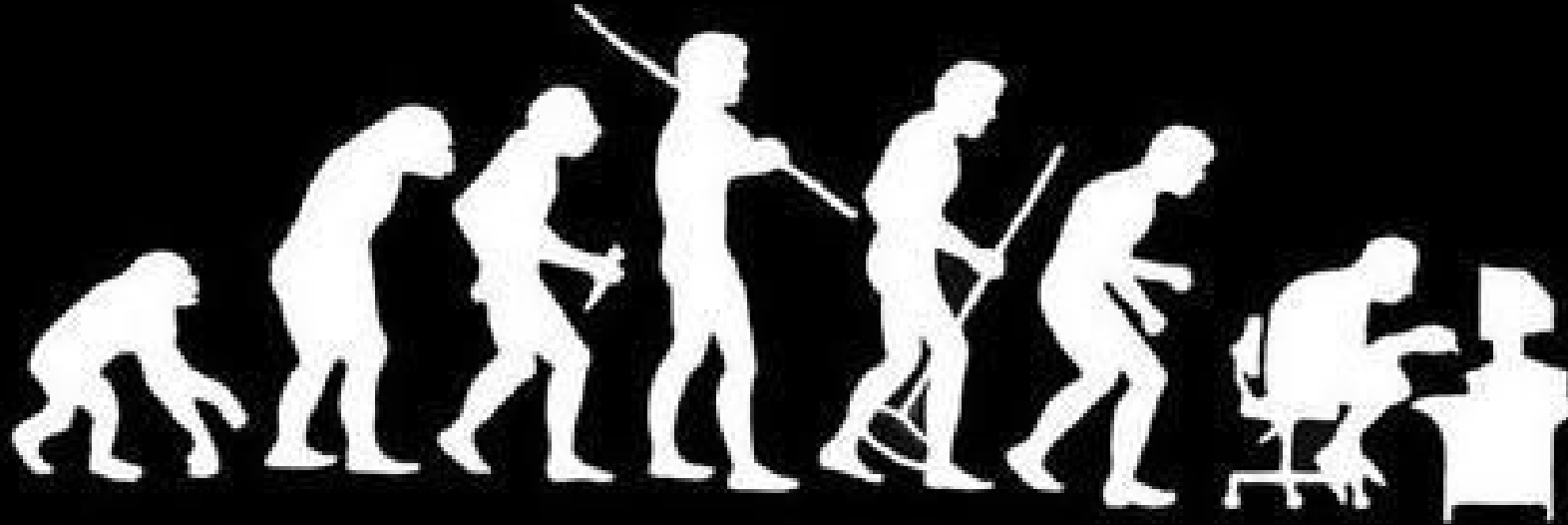
- Nature is important...
- Human connection is important...
- But its not necessarily enough for everyone...
- What else do we need?

What Do People Need for Wellness?

- **Belonging and connectedness** within one's family, community and culture
- **Purpose in daily life**, e.g. education, employment, care giving, cultural activities
- **Sense of meaning** in one's life
- **Hope** for the future

First Nations Mental Wellness Continuum
Framework, 2014





**Somehow, somewhere, something
went terribly wrong...**

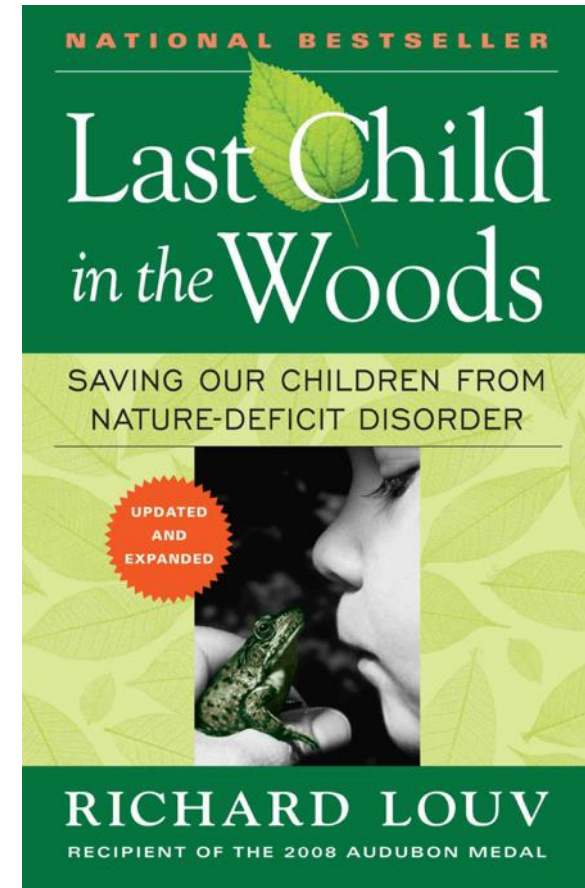
Lack of Nature is Bad: The Evidence



“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



Living in cities increases one's risk of mental health problems...

- In cities (compared to rural living)
 - Anxiety disorders up 21%
 - Mood disorders up by 39%
 - Note: other studies have ruled out this being explained by those with mental illness being more likely to move to cities
- Schizophrenia
 - Schizophrenia incidence 2X higher in cities than in rural (Susser, 2004)
 - Dose response: More urban = More schizophrenia

Adli, 2014



Why are cities so bad for us?

- Many possible factors
 - “Loneliness in crowds”:
 - Cities are crowded **plus**
 - Paradoxically, people are less connected to one another in cities
 - Infectious diseases (such as prenatal infections)
 - Environmental toxins in cities
 - Sensory overload from living in cities
 - E.g. Aircraft noise shown to hinder learning
 - Disconnect from nature

Adli, 2014



Nature is Good: The Evidence



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 is good

- Even short doses of nature (including pictures) are calming, i.e. less stress hormones such as cortisol, lower respiratory rate, heart rate, sweating) (Kuo et al, 2001)
- Reduces aggression (Kuo et al., 2001)
- Improves social relations (Burdette and Whitaker, 2005)
- Wilderness course (2-weeks) has psychological/lifestyle benefits (Greenway, 1995)



Nature is good...

- Nature reduces symptoms of attention disorders such as ADHD (Kuo, 2004)
- Nature improves cognitive abilities
 - 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)



Exercise is good; 'green' exercise in nature is even better

- Exercise is an effective intervention for mood
 - Particularly for people who have low to moderate levels of major depressive disorders
 - Benefits comparable to medication and established psychotherapies (e.g. CBT)
- Green exercise (i.e. exercise outdoors) is better than exercise indoors
- Group nature walks improve mental health (Warber, 2014)

Dr. Jasper Smits, on www.mindingourbodies.ca



Nature:
No subs

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**



2015 Position Statement on Active Outdoor Play

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.

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

Nature 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/>

By the way, this is **not** a natural play space



More Theories and Reasons on Why Nature is Important

Biophilia Theory

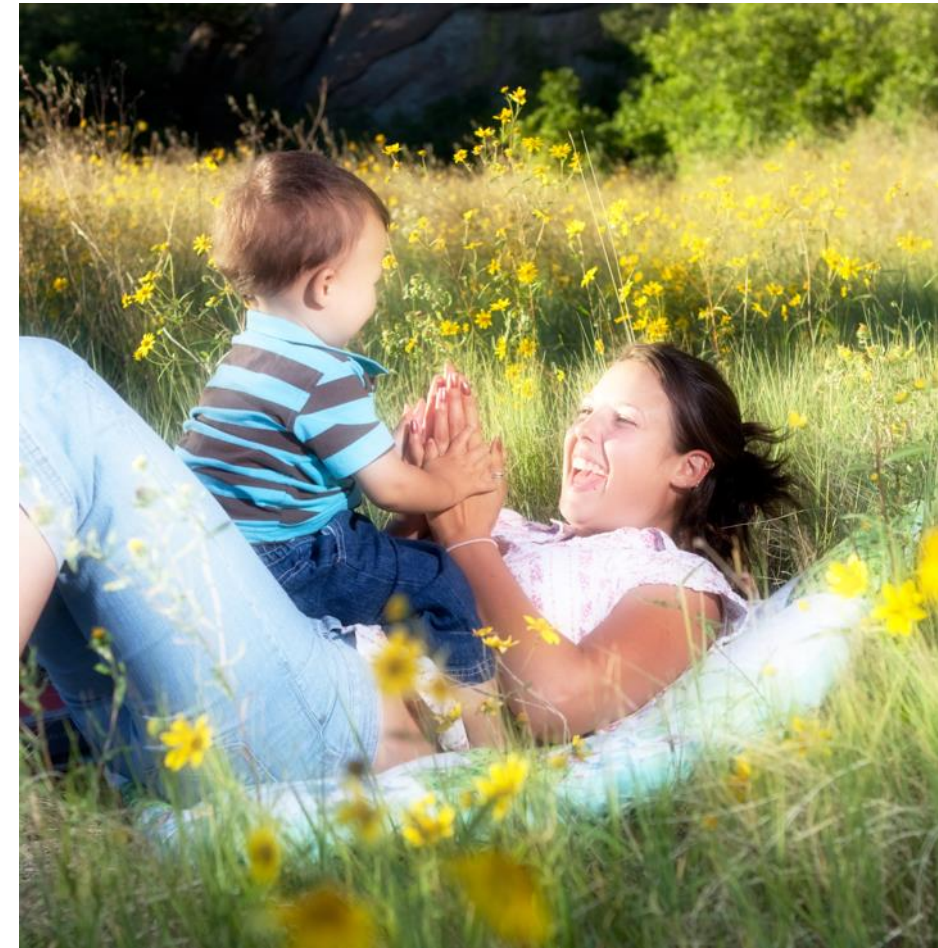
- We are from nature
- Humans are hard-wired genetically to be connected to nature
- Humans suffer when deprived of nature
- Nature is our mother, i.e. “mother nature”



Attention Restoration Theory (ART)

- Brain relaxes in nature, entering a state of contemplative attention that is restorative or refreshing which permits **creative thought**
- Urban settings / television / video games (with rapid visual changes) may give us adrenaline, but are not calming
- Nature leads to improved mood and attention, whereas screens do not (Kubey, Sci Am, 2000)
- Walking in an arboretum improves executive skills (e.g. short-term memory) whereas walking on a city street does not

Strayer, 2012



Q. When do you find you are most creative?

- a) While in a relaxed state? E.g. sitting quietly, walking in nature?
- b) While in a stimulated state? (E.g. playing a first person shooter video game, watching a movie/TV show?)

Q. When do you find you are most creative?

- a) While in a relaxed state? E.g. sitting quietly, walking in nature?
- b) While in a stimulated state? (E.g. playing a first person shooter video game, watching a movie/TV show?)

Studies confirm that children/youth that use screens excessively lack creativity (Martin, 2011)

Nature provides 'pink' noise

- Nature sounds have
 - Lower, more consistent frequencies
 - Better at regulating brain wave synchronization
- Examples:
 - Sound of water, e.g. rain, river, water flowing, ocean waves
 - Allows you to still be able to hear your thoughts and think

Zhang, 2015



Pink noise is not the same as white noise

- White noise is simply combining different frequencies
- It is not soothing in the same way that nature sounds are



Nature also provides...

Sunlight	Sunlight provides Vitamin D Sunlight appears to prevent myopia (when you spend more than 10-hrs/week outside)
Movement	We tend to move when we are outside, and not in front of a screen Recommendations are at least 1-hr / day of physical activity for children/youth
Fresh air	Fresh air is better than indoor air
Animals, trees	We need attachments and connections with the natural world
Microbes	Microbes found outside (e.g. Mycobacterium vaccae and many others) may be important for our health (Matthews, 2013)

And now, perhaps the most important reason of all...

- Exposure to nature is important to ensure that our children/youth become adults who care about the environment and Spaceship Earth...



Nature:
Accept no
substitutions!

R_x

Nature:
No subs

How have we as a society
become disconnected?

When I was a kid...

- I do think previous generations had an easier time with
 - Getting into nature
 - Spending face to face time with others



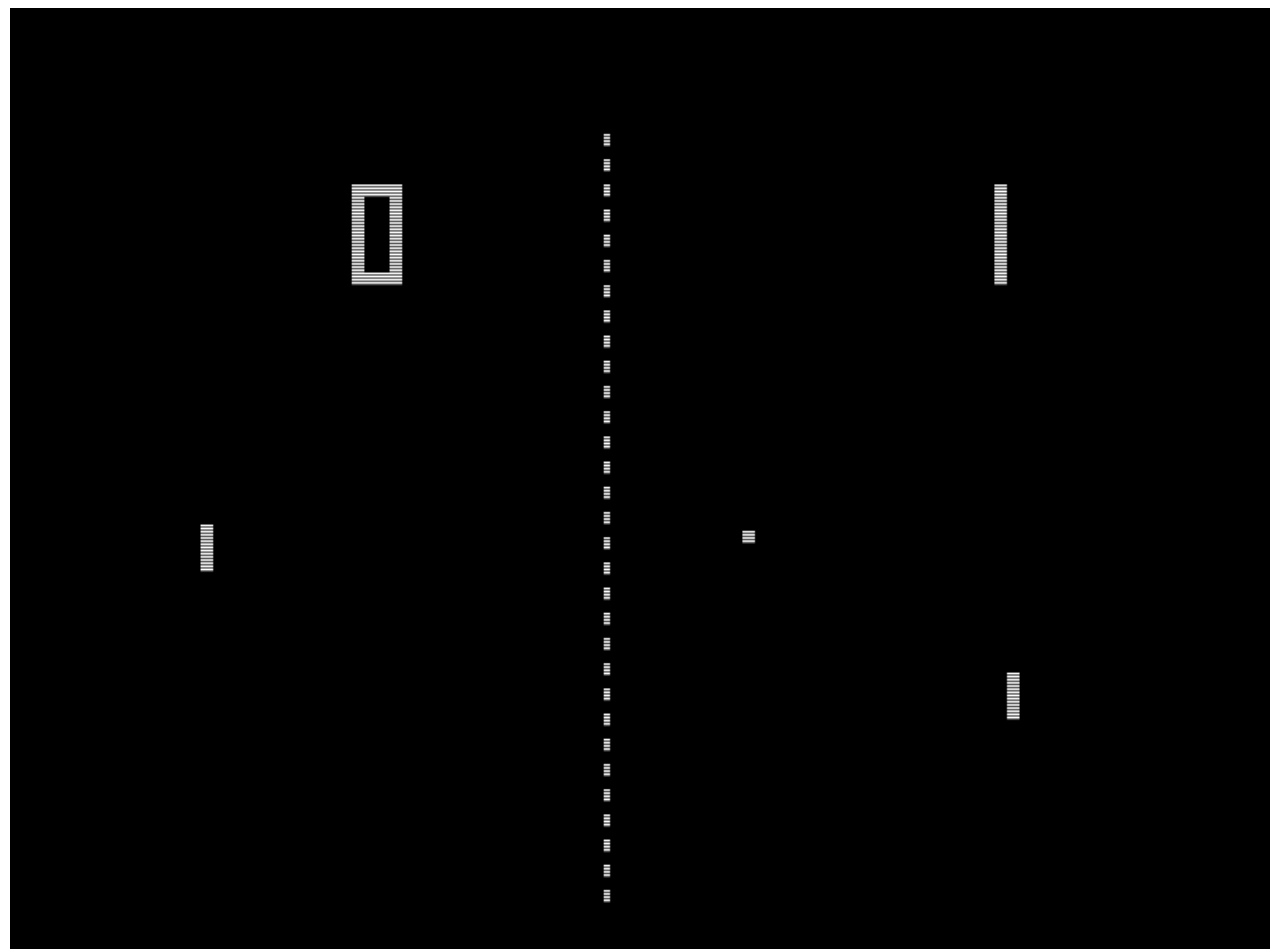
When I was a kid...

- We had some great 1970's shows...
- But classic 1970's TV was never as addictive as modern day TV...



When I was a kid...

- Who could possibly get addicted to playing Pong?





Survey Data

- Only 10% of U.S. teens spends time outside every day (National Geographic, Jan 2016)
- U.S. adults spent more time inside their vehicles than they do outside every day
 - Less than 5% of time every day is spent outside

Survey Data

- U.S. children/teens (age 8-18) spend more time in front of an electronic screen than with family/friends
- Most have no household rules on their use
 - 7 hr/day
 - Television, cell phones, hand-held games, Internet games, Facebook and video games
 - 2-hrs/day
 - Violent video games

Generation M2: Media in the Lives of
8- to 18-year olds, Kaiser Family Foundation

- **54% of kids** preferred to spend time with the TV compared to parents

AC Nielsen report

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

Such as
hunting and
violence...



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

Such as reproductive activities...

Our addiction to this is a whole other talk...



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

Too much adrenaline / dopamine...

- Unfortunately, it is actually not calming nor refreshing, and can trigger the body's alarm and fight/flight/freeze responses at a sub-cortical, polyvagal level
- Especially in those with HPA axis disruptions already, including anxiety, seizure disorders, sensory processing issues, psychosis...
- Multi-tasking just makes this worse...



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)

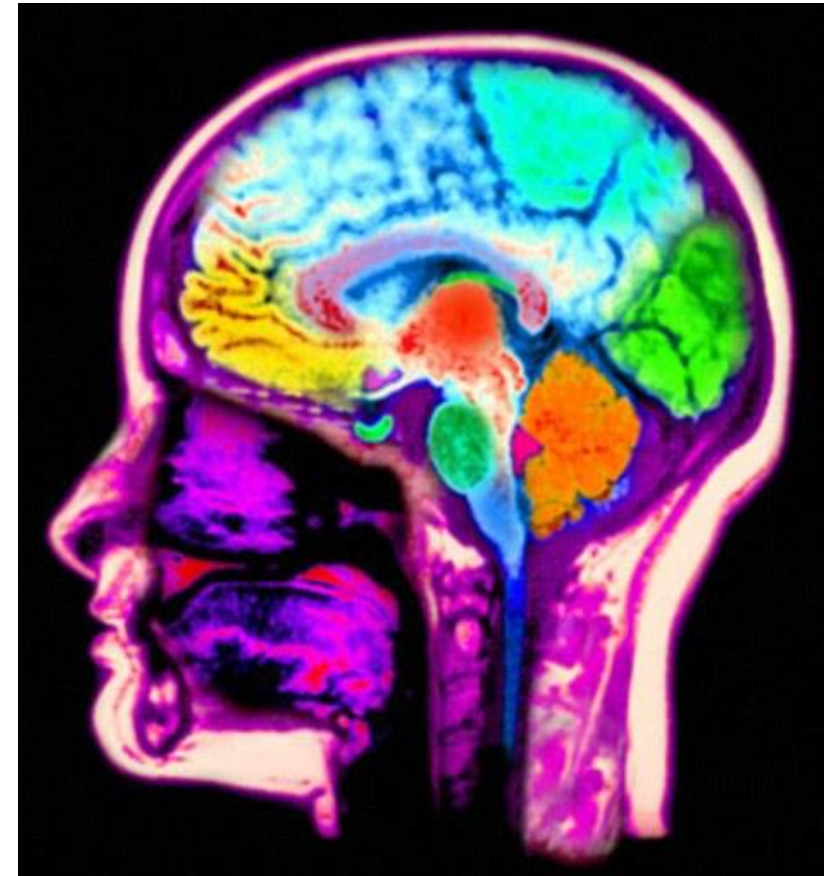
Dunckley, 2014



Video game brain resembles drug addiction brain

- Children who play (online) video games > 20-hrs/week begin to have brain changes that resemble drug addiction
 - Increased glucose metabolism in the right orbitofrontal gyrus, left caudata, and right insula after play.
 - Decreased metabolism was seen ... while at rest.
- Similar to drug addicts; gaming may be addictive to the genetically vulnerable

Burke, 2010



Making things addictive is not limited to the tech industry...

- The modern food industry has also figured out how to create foods that give us easy dopamine as well...



In Summary...

	Low dopamine reward	High dopamine reward
Low effort required	Quiet, non-electronic activities such as: • Sitting outside • Reading a book 	Addictions: • Sex, drugs and violence • Recreational screens (e.g. video games) • Junk foods 
Moderate to high effort required	Social contact Physical activity, e.g. walking, biking Learning in a classroom 	"Extreme, adrenaline sports": • Downhill skiing, martial arts "Adrenaline professions": • Police officers, firefighters, paramedics, fighter pilots ... 

What do the tech leaders
say about nature?

Silicon Valley execs send their kids to... a school with **no** computers

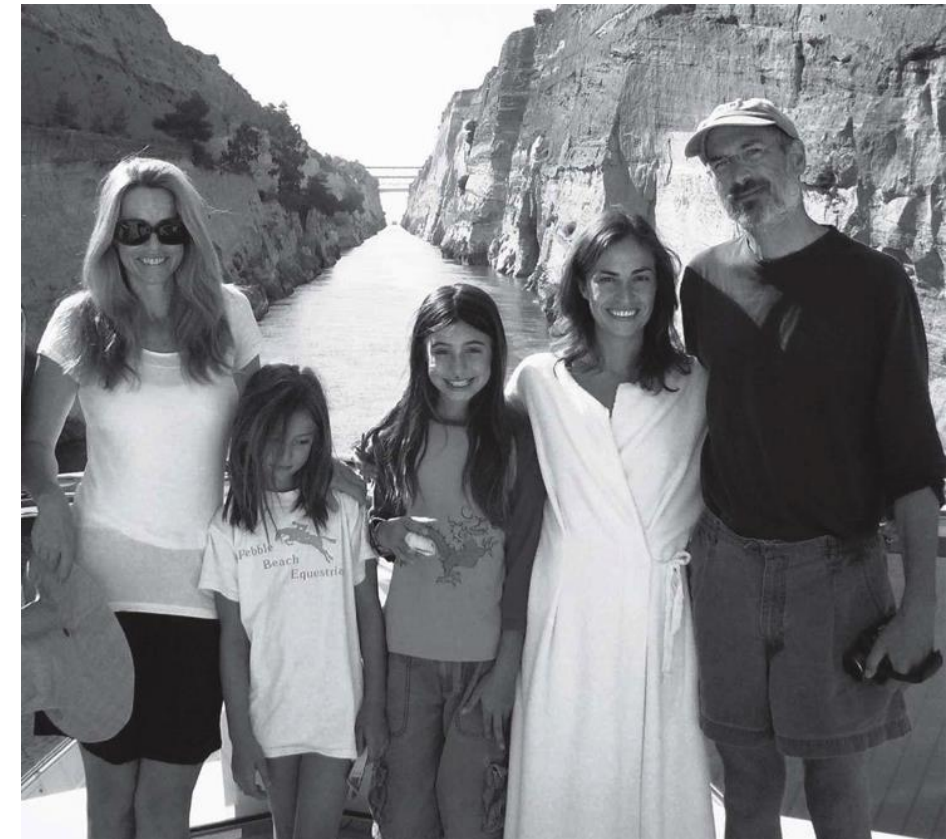
- Many top executives from Google, Apple, Yahoo, Hewlett-Packard, send their kids to the Waldorf School of the Peninsula
- No computers in the classrooms
- Younger pupils educated with pencils, pen and paper, painting and knitting
- Students report frustration with parents /relatives that are wrapped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

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.”



http://www.nytimes.com/2014/09/11/fashion/steve-jobs-apple-was-a-low-tech-parent.html?_r=1

Promoting nature (and preventing tech addiction)

Children naturally seek out nature...



Consider nature-based school to wire your kids brain for nature....

- 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



Principles from various sources

- 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
 - American Academy of Paediatrics, 2013
 - E.g. don't give a toddler a device to soothe, but instead, pick up the child and co-regulate yourself



Principles

- If a child is complaining of boredom...
 - Involve them with chores, or
 - Let them be bored so that they can then experience creativity
- Limit electronic toys
- Use natural toys, e.g. wood



Principles

- Find alternatives to screen time
 - Encourage non-electronic activities such as reading, sports, crafts, nature, etc.
- If technology is used, use it to create rather than consume
 - Use tech to create (e.g. writing a story, making a movie, etc.)
 - Discourage technology that is just about 'consuming', e.g. playing a violent video game, binge watching TV...



Building a wall of ice bricks,
Trille des bois, French public board

Recommendations for age 0-2

- No technology
 - No TV
 - No handheld devices
 - No video games
 - Exceptions: Telephone / video to communicate with parent
- This includes background exposure
 - Background TV shown harmful for language development
- “Don't leave your devices (e.g. iPad) around... if children see all the pretty colours, they will want to use it too” (Dr. Richard Graham, UK, 2014)

Canadian Paediatric Society (CPS) Screen Guidelines



Recommendations for age 2-4

- Less than 1-hr a day of screen time
- Less is better!

CPS Screen Guidelines



Image: Boggett Photography

Recommendations for age 3-5

- Some technology
 - Some non-violent TV
 - 1-hr daily max
 - No handheld devices
 - No video games
 - Lack of evidence that video games (even educational video games) improve child development
 - “Positive studies” show improvements in isolated measures such as eye-hand coordination but not in development overall



Recommendations for age 6-9

- Some technology
 - Weekdays:
 - No gadgets at all
 - No screen time
 - No video games
 - No screen time in bedroom
 - * Exception is computer use for schoolwork
 - Weekends
 - Up to 2-hrs screen time (i.e. non-violent TV) under parental supervision
 - No screen time in bedroom at all

Dr. Kimberly Young



Image: Boggett Photography

Recommendations for aged 9-12

- Up to 2-hrs screen time / day
- No use outside of parental supervision, and no access to online games such as multiplayer games
- Permitted technology: Internet under supervision.
- No screen time in bedroom at all
- May use computers for **homework only, i.e. to create content rather than to consume**

Dr. Kimberly Young

Recommendations for aged 12-18

- Youth must have
 - Responsibilities such as school, and home chores
 - Spontaneous, outdoor play (as recommended by Participaction)
 - Healthy activities such as friends, peers in the real world
- If there is recreational screentime, it should have limits, as per Canadian Pediatric Society (CPS)
 - Screen time rules
 - Cellphone rules and contracts
 - Social media rules

Dr. Kimberly Young

Recommendations for aged 12-18

- Video Gaming Rules (CAMH, from Soul Crush Story) include:
 - Set priorities (i.e. homework before gaming)
 - Turn off computer/smart phones by certain time each night
 - Take part in “offline” activities such as sports, face-to-face time with friends
 - Have limits on your video gaming
 - At nighttime, keep tech devices in a “depot” away from your bedtime
 - Program home wi-fi to be only on during certain hours
 - Try to limit triggers, e.g. tell your friends not to talk about game playing
 - Don’t eat in front of your computer/device
 - Have regular tech-free days or longer periods (e.g. “Media fast”)
 - Play games that are less addictive, such as those with a definite end.

VIDEO GAMING: HOW TO MAKE HEALTHY CHOICES



How to Get More Nature

How much nature time do children/youth need?

- At least 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)



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)

Suggestions for Individuals

- Walk or bike to work
- After work, go for a walk, ideally in an area more natural than man-made
- Get out to the country as much as you can on weekends or holidays
- Join a local nature or walking group.
- Take up an outside hobby, e.g. walking, biking, bird watching, golf, etc.

CentreforConfidence.co.uk



Suggestions for Individuals

- Grow a garden outside.
- Get house plants.
- Have nature pictures on the wall.
- Arrange chairs/tables near the window
- Shop at the local grocer, rather than drive to the outlet mall
- Don't vote for politicians that allow developers to build suburbs kilometers from nearest grocery store
- Get a dog

CentreforConfidence.co.uk



Suggestions for Parents and Families

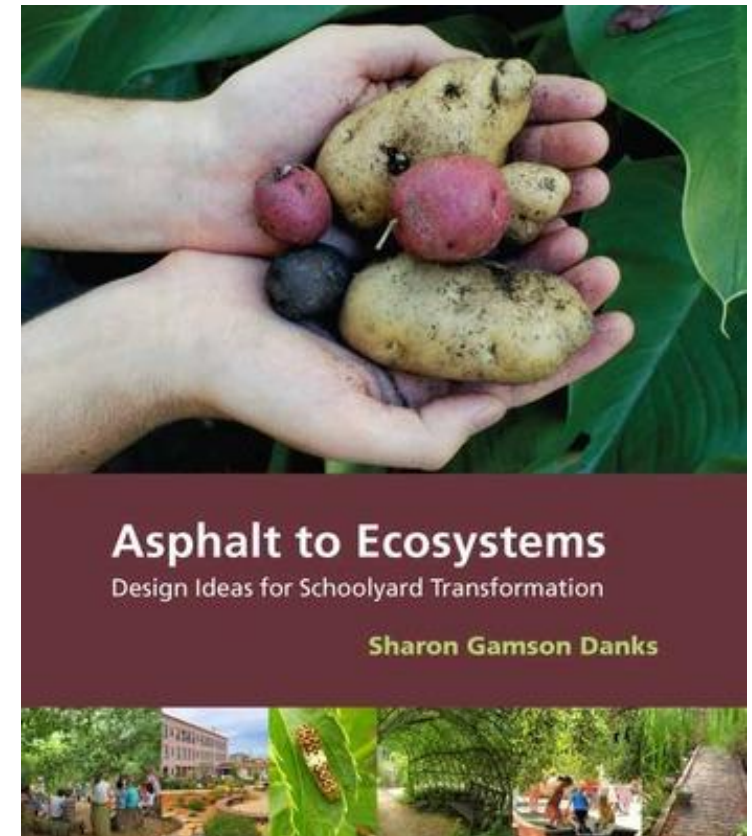
- Give your kids 'Vitamin G)reen'
- School days
 - Walk with your kids to school
 - Doing classwork or homework in a place with a green view
 - Have family walks in the evening
- Weekends
 - Have family outings in wild places
 - Play outside
- Spend 1:1 time outside with your kids
- Create or join a family nature clubs
- Make your backyard a nature play space

Children & Nature Network
(www.childrenandnature.org)



Suggestions for Educators

- Advocate for more green in schools as well as outdoor green spaces
- Natural, 'green' play areas as opposed to artificial play areas
 - E.g. Grass rather than concrete / asphalt
- 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
- Encourage 'forest schools', 'outdoor education', etc...



Suggestions for Educators

- Ensure students have at least 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
- Limit technology
 - Don't allow cell phones to be used within the classroom
 - Don't use screen time as a reward for students doing their school work
- Consider incorporating elements of Waldorf philosophy into your curriculum



VIDEO CLIP: Kindergarten in the Wild (1:27 min.)

<https://www.youtube.com/watch?v=31eBV6ZTNDQ>



Suggestions for Employees

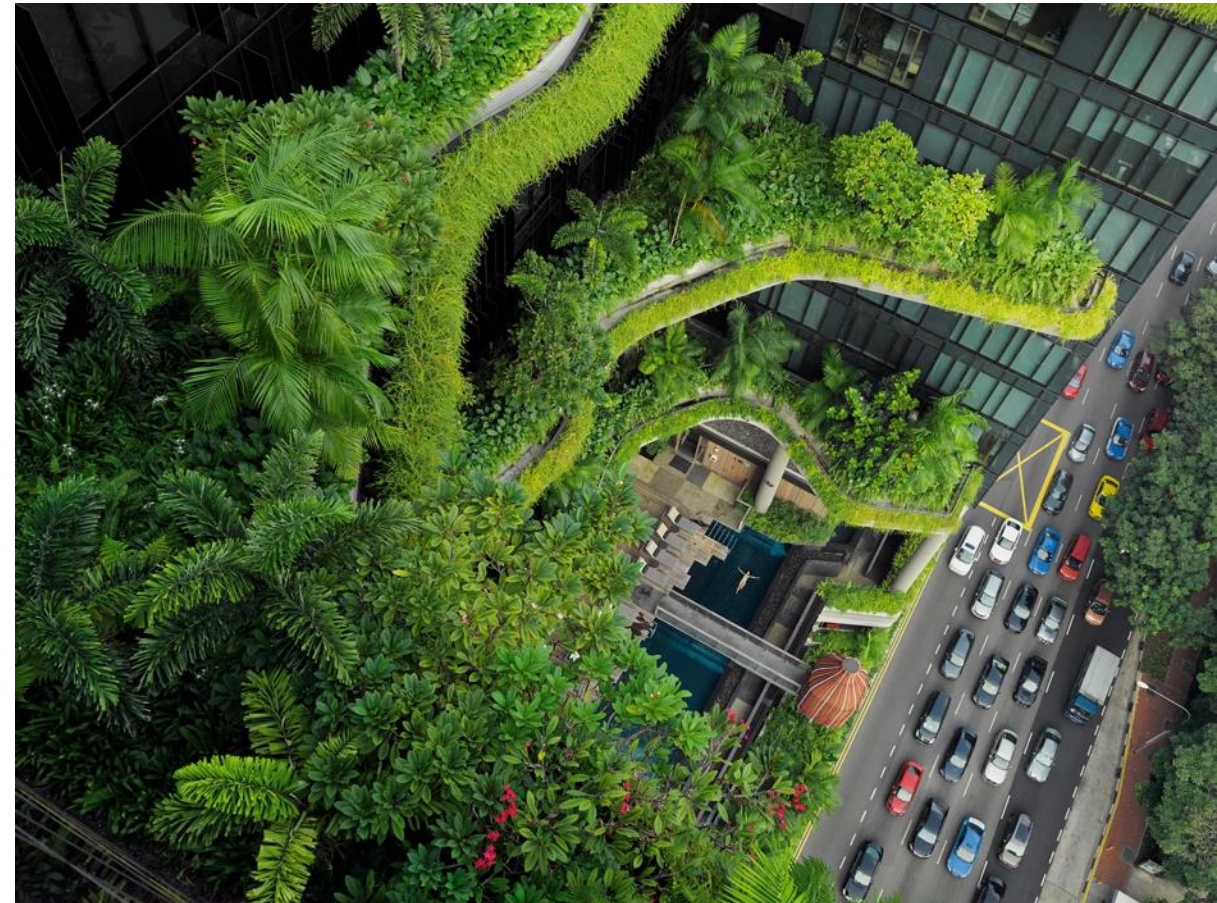
- Walk or bike to work
- Put up pictures of nature at work
- Get a plant for your cubicle / office
- Get outside with co-workers at lunch hour
- Set up a 'nature committee' to look at ways to have a greener work place



Google's Dublin Campus

Suggestions for Architects

- Design using natural elements
- Incorporate plants into your designs
- German “light rules”
 - Office workers must have exposure to natural lighting
 - Offices without windows are not permitted!



Singapore Hotel with Green Elements

Suggestions for Managers/Policy Makers

- Review how much exposure to nature your employees/clients have to natural environments
- Brainstorm how this might be improved organization.
- Set up a committee to look at how contact with the natural world can be improved.
- Improve the landscaping around buildings.
- Encourage indoor plants
- Decorate with nature scenes, water features
- Have retreats in a green environment.
- Have walking meetings



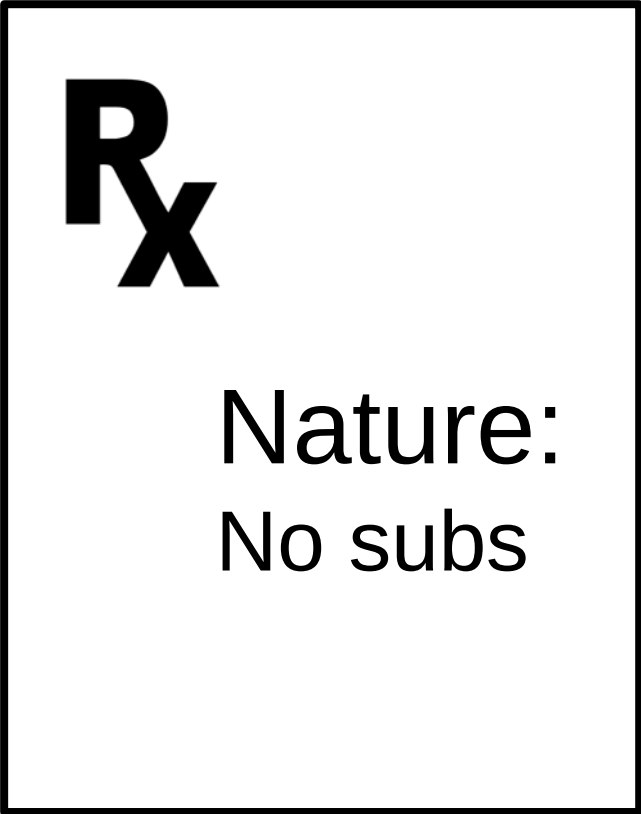
Suggestions for Urban Planners

- Reverse the trend of having cities divided into separate zones for living and working, with commuting between them
- Communities must be walkable or bikable so people get out of cars
- Design communities 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
- Stop getting rid of play structures
- Build nature play spaces in communities



Suggestions for Health Care Professionals

- Consider diagnosing “Nature Deficit Disorder” to build awareness
- For stress-related conditions such as depression, anxiety, physical illnesses, prescribe nature
- Promote or start nature programs such as
 - CMHA Walking Groups
 - Youth Net Take a Hike



R_x

Nature:
No subs

Suggestions for Public Health

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

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

Still struggling on how to get more nature?

- Ask your
 - Grandparents
 - Mennonite/Amish friends
 - Orthodox Jewish friends!



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

Advocacy

Advocacy on Technology

- Concerns about overuse of technology and recreational screen time are similar to the concerns about tobacco use a generation or two ago
- It is an uphill battle against billion dollar companies...

COLORADO

Colorado group wants to ban sale of cellphones to kids under 13 years old

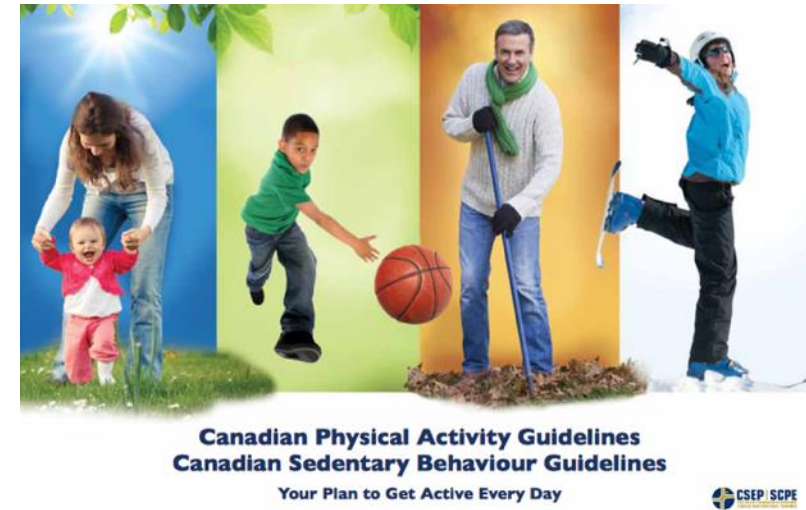
Published June 19, 2017 • Fox News



A Colorado group is looking to curb the sales of cellphones to children under 13 years old and officials in the state have cleared the language for a proposed ballot measure. (AP)

Advocacy on Nature

- There does not appear to be any single lobby group
- Nonetheless, organizations setting guidelines include:
 - Canadian Paediatric Society (CPS) Screen Guidelines
 - Canadian Physical Activity Guidelines
 - Halo Position Statement on Active Outdoor Play
- Advocacy groups exist for nature
 - Back2Nature Network, Children & Nature Network (USA)



In Summary

Learning Objectives

- By the end of this session, participants will be:
 1. Able to list the elements of mental wellness
 2. Able to list ways in which modern society has disrupted our connection with nature.
 3. Inspired to advocate for change in society so that we can reconnect with nature in our homes, workplaces, schools, institutions and communities...

I am a child psychiatrist, and I prescribe nature...



Special thanks to Nature-Rx.org!

For More Information

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.

Visit <http://www.haloresearch.ca/outdoorplay>
and support this statement!

For More Information

- Canadian organization working to collaborate across all sectors to support outdoor play
- American version of the Child and Nature Alliance
- Connects children/families to safe, built and natural environments that support accessible outdoor physical activity where they learn, play and live.



For More Information

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



- Innovative community naturalization projects across Canada, on school grounds, public lands, etc; how to green school grounds along with consultants, as well as outdoor play with consultants across country



eMentalHealth.ca Handouts

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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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](#)

Mindfulness 101: The Basics

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Summary: Life is not easy. It can often be hectic and stressful. At times, thoughts and feelings can seem like a storm raging in the ocean. Yet no matter how rough the ocean is on the surface, deep below, things are calm and clear. Mindfulness helps us to find this calm, even when we feel overwhelmed. Practicing mindfulness means being more aware of emotions, thoughts and body sensations. This awareness helps to keep our focus on the present moment, rather than worrying about the past or the future.

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What is mindfulness?

Mindfulness means paying attention to what's happening right now. When you practice mindfulness, you turn your attention to your thoughts, emotions and body sensations in the present moment. While doing this, you do your best to accept what you're experiencing, without labelling it as 'good', 'bad' or anything else. This can help you feel calmer and cope better with stress and frustration.

Focusing on the present helps us to:

- Feel less depressed – as we often do when we worry about the past
- Feel less anxious – as we often do when we worry about the future

*"Right here, right now
This is the only time we truly live."*

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[Mindfulness Therapies](#)

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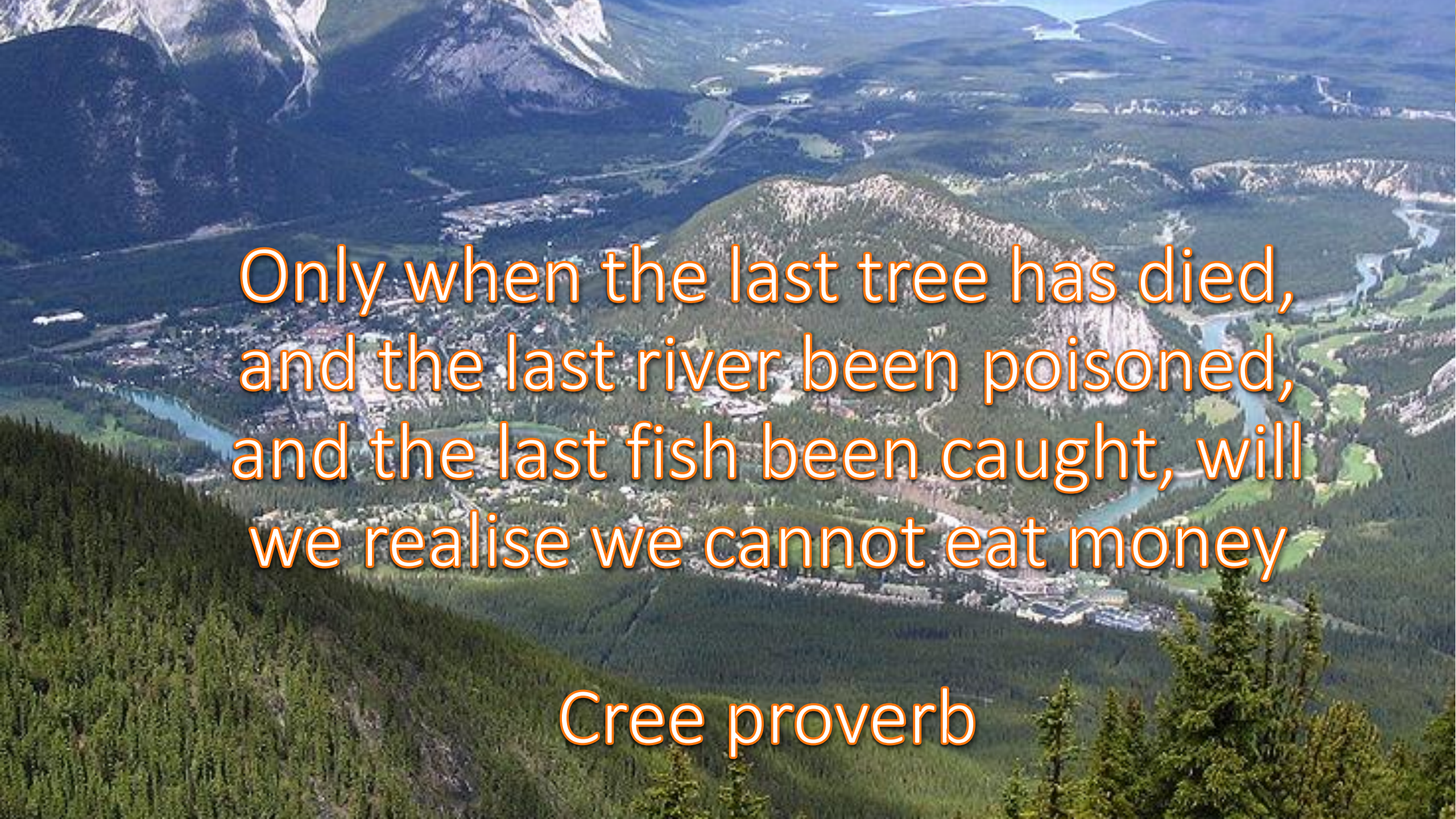
[How can I be more mindful?](#)

Q. Where do you think this left arm fracture happened?



A. **Inside!** This is what happens when your active daughter doesn't get enough **outdoor** play!



An aerial photograph of a mountain valley. In the foreground, there is a dense forest of evergreen trees. In the middle ground, a river winds through a valley, and a small town or village is visible. In the background, there are large, rugged mountains with some snow patches. The text is overlaid on the image in a stylized font.

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

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?



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