



Health Benefits of Woodlands

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1



Webinar Objectives

- What's the problem?
- 3 solutions and supporting science
- Ideas for techniques you can try
- Places to experience woodlands
- Resources to learn more



2



What's the Health Connection?

- Time in nature = increased physical and mental wellbeing

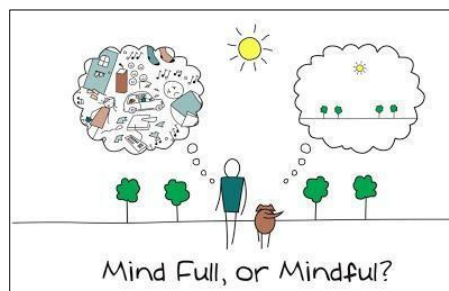


3



What's the disconnect?

- Humans living apart from the land for the first time in our history
- Source of our stress has changed
- Way we recover has not!



4



Three Solutions and How They Work

- Negative ions
- Tree air
- Time in nature



5



Negative ions: what

- Molecules floating in air that have been charged with electricity - anions
- Moving water (Lenard effect)
- Plants and soil



6



Negative ions: where are they

- Forests
- Waterfalls
- Large bodies of moving water
- Mountains
- Seashores
- Hot springs
- Home environment?



7



Negative ions: how

- Reduce stress and depression
- Quicker recovery from physical exertion
- Promotes antimicrobial activity
- Improves cognitive performance



8



Break for questions

9



Tree air: what

- Shinrin-yoku (Japan)
- Salim yok (Korea)



10



Aerosols: phytoncides

- Help plants and trees protect themselves from insects and germs
- Tree aerosols are natural pharmaceuticals



11



Aerosols: Geosmin



- Molecule discovered in 2007
- Combines in the air to create petrichor
- Comes from soil organisms

12



Tree air: where

- **Forests and woodlands***
- Urban parks and yards



13



Tree air: how

- Reduces blood pressure and blood sugar
- Lowers cortisol
- Increases natural killer cells



Tar Hollow State Forest

14



Tree air: how long is enough?

- 20 minutes can last for 3 months!



15



Break for questions

16



Time in nature: what



• Brain networks:

- Executive
- Spatial
- Default

17



Time in nature: where



- woods***
- gardens
- parks
- water
- art

18



Time in nature: how



- Decreased stress/nervous system arousal
- Increased focus and memory
- Impulse inhibition
- Feelings of well-being
- Decreased rumination*
- Increased awe*
- More creativity

19



Time in nature: how long?

- 2+ hours every week toward a kinder, happier and more creative you!



20



Break for questions

21



Techniques You can Try: boost your health and well-being

- Walk in the woods for 90 minutes
- Create a mandala from natural materials at hand
- Nature journaling
- Just sit and breathe!



22



Techniques You Can Try: boost creativity



- Meditation

- Sit quietly and observe where your mind travels
- Stay present and focus on sounds, smells, colors of your environment
- Become aware of types of thoughts and how they can create changes in body and emotion
- Follow without judgement or reaction – stay in the moment

23



Other Things You Can Do

- Read the Lorax to a child
- www.discovertheforest.org
- Plant a garden
- Add negative ions to your living space



24



Some Places You Can Go

State Forests in Ohio

<http://forestry.ohiodnr.gov/findaforest>

Natural Areas and Preserves in Ohio

<http://naturepreserves.ohiodnr.gov/findapreserve>

Wayne National Forest

<https://www.fs.usda.gov/wayne>



Shawnee State Forest

25



Resources to Learn More



- *The Nature Fix* by Florence Williams
- *Last Child in the Woods* by Richard Louv
- *Forest Medicine* by Qing Li
- Ohio Leave No Child Inside Collaborators
 - <https://ohiolnci.org/>
- International Society of Nature and Forest Medicine
 - <https://www.infom.org/>
- The Association of Nature and Forest Therapy Guides and Programs
 - <https://www.natureandforesttherapy.org/>

26



Resources continued



- Walk with a Doc
 - <https://walkwithadoc.org/>
- Children and Nature Network
 - <https://www.childrenandnature.org/>
- National Environmental Education Foundation's Children and Nature Initiative
 - <https://www.neefusa.org>
- Park RX America
 - <https://parkrxamerica.org/>

27

**“To the body and mind which have
been cramped by noxious work
or company, nature is medicinal
and restores their tone.”**

-Ralph Waldo Emerson

28