In 2005, Richard Louv’s book “Last Child in the Woods” was published and the term Nature Deficit Disorder (NDD) was coined. As Mr. Louv himself admits, nature-deficit disorder is not a formal diagnosis, but a way to describe the psychological, physical and cognitive costs of human alienation from nature, particularly for children in their vulnerable developing years.

But it isn’t just about children not being in the woods. In 1991, Dr. Bill Thomas became the medical director of an upstate New York nursing home. It was a depressing place. So he decided to break the law and transform it. He introduced new residents: two dogs, four cats, several hens and rabbits, and 100 parakeets. He also introduced hundreds of plants, a vegetable and flower garden, and a day-care site for staffers’ kids. Residents livened up, medication costs went down and so did the death rate. His Eden alternative model, which celebrates the nursing home as a garden and not as a hospital like depository for old people, spread all over the world.

Of course, those who love being outdoors know this is a no-brain-er. Nature, including contact with animals, is a powerful healer: it relaxes, re-energizes, inspires and challenges you. But is there any science behind it?

Yes there is! Lots. Here are some of the studies, you can cite.

**How does the mental health of people who moved from a gray urban area to a green one compare with people who go from green to gray?**
Mental health data from a UK study showed that the people who moved to greener areas were happier during all three years that their health was tracked after relocating. "Moving to greener urban areas was associated with sustained mental health improvements, suggesting that environmental policies to increase urban green space may have sustainable public health benefits," the researchers conclude.


Is increased vitality associated with the outdoors simply the feel-good spillover from physical activity and people-mixing often present in these situations or is there a separate nature effect?

To tease out the effects of nature alone, the authors conducted five separate experiments, involving 537 US college students in actual and imagined contexts. Across all methodologies, individuals consistently felt more energetic when they spent time in natural settings or imagined themselves in such situations. The findings were particularly robust, being outside in nature for just 20 minutes in a day was enough to significantly boost vitality levels.


Does nature help you connect?

A study at the University of Illinois suggests that residents in Chicago public housing who had trees and green space around their building reported knowing more people, having stronger feelings of unity with neighbors, being more concerned with helping and supporting each other, and having stronger feelings of belonging than tenants in buildings without trees. In addition to this greater sense of community, they had a reduced risk of street crime, lower levels of violence and aggression between domestic partners, and a better capacity to cope with life’s demands, especially the stresses of living in poverty.

This experience of connection may be explained by studies that used fMRI to measure brain activity. When participants viewed nature scenes, the parts of the brain associated with empathy and love lit up, but when they viewed urban scenes, the parts of the brain associated with fear and anxiety were activated. It appears as though nature inspires feelings that connect us to each other and our environment.


And there is much more. Here are some “fast facts” compiled by the University of Washington, based on 58 studies.

1) The experience of nature helps to restore the mind from the mental fatigue of work or studies, contributing to improved work performance and satisfaction (articles 5, 9, 11, 13).
2) Urban nature, when provided as parks and walkways and incorporated into building design, provides calming and inspiring environments and encourages learning, inquisitiveness, and alertness (54, 57).

3) Green spaces provide necessary places and opportunities for physical activity. Exercise improves cognitive function, learning, and memory (40, 41, 42).

4) Outdoor activities can help alleviate symptoms of Alzheimer, dementia, stress, and depression, (25, 28) and improve cognitive function in those recently diagnosed with breast cancer (29, 30).

5) Contact with nature helps children to develop cognitive, emotional, and behavioral connections to their nearby social and biophysical environments. Nature experiences are important for encouraging imagination and creativity, cognitive and intellectual development, and social relationships (18, 19, 58).

6) Symptoms of ADD in children can be reduced through activity in green settings, thus “green time” can act as an effective supplement to traditional medicinal and behavioral treatments (22, 23, 24).

References and much more here [http://depts.washington.edu/hhwb/Thm_Mental.html](http://depts.washington.edu/hhwb/Thm_Mental.html)

The January 2016 issue of National Geographic, which celebrates 100 years of the National Park System, also has an article called the [This is Your Brain on Nature](http://ngm.nationalgeographic.com/2016/01/call-to-wild-text).

Available here: [http://ngm.nationalgeographic.com/2016/01/call-to-wild-text](http://ngm.nationalgeographic.com/2016/01/call-to-wild-text), which addresses the importance of having nature on your brain.

And if you want it all this together in a book, Richard Louv published the “The Nature Principle”, which addresses how important it is to live in nature for everybody.


Simply put it all proves what Walt Whitman already told us “Now I see the secret of the making of the best persons: It is to grow in the open air and to eat and sleep with the earth.”

Know anymore studies? Let us know!