

# Children and Nature— Thoughts and Citations

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## Benefits of Nature

### Health and Fitness

- Physical activity in childhood has important health benefits, including contributing to positive mental and physical wellbeing, maintaining a healthy body weight, reducing the risk of a range of adult chronic diseases many of which develop from childhood. In a study of the influences on children's physical activity, factors found to be associated with more physical activity included intention to be active, a preference for physical activity, healthy diet, and time spent outdoors (emphasis added). “Interventions that provide enjoyable activities that build perceptions of competence or self-efficacy, reduce perceptions of barriers [to activity] ... and increase the time that children spend outdoors will be relatively effective.” (Sallis, J.F., Prochaska, J.J., & Taylor, W.C. (2000) A review of correlates of physical activity of children and adolescents. *Medicine & Science in Sports & Exercise*, (32) 5, 963-975.)

### Observation skills

- Howard Gardner (theory of multiple intelligences) recently added naturalist intelligence, or “nature smart”. Hallmarks include keen sensory and observational skills.

### Creativity

- Studies in Sweden, Australia, Canada, and the United States show that children engage in more creative forms of play in the natural areas.
- Loose-parts theory. “In any environment, both the degree of inventiveness and creativity and the possibility of discovery, are directly proportional to the number and kind of variables in it.” Outdoor setting has many loose parts, thus stimulates creativity. Simon Nicholson.

### Social

- When children play in a natural area, social standing became based more on language skills, creativity, and inventiveness (rather than on physical ability).
- “Green spaces support healthy child development.” Faber Taylor and Kuo.

### Attention and self-regulation.

Being close to nature helps boost a child’s attention span.

Swedish study: children in a more natural day care setting had better motor coordination and more ability to concentrate. Wells (2000):

### Problem solving.

Nature presents children with strong forces to deal with. Temperature, weather, gravity, etc.

Helps Children learn “good play” as they work together.

### Motor Skills

Climb, roll, run, burrow, slither,

Running or moving over irregular ground is different than moving over a sports field.

### Psychological

- A number of studies document that exposure to nature has beneficial effects on children's psychological or cognitive well-being in the relatively short term (Faber Taylor et al. 1998; Faber Taylor, Kuo and Sullivan 2001; Faber Taylor, Kuo and Sullivan 2002; Wells 2000; Wells and Evans 2003).

### Attitude toward environment

- Wells and Lekies found that participation with "wild" nature before age 11 is a particularly potent pathway toward shaping both environmental attitudes and behaviors in adulthood. When children become engaged with the natural world at a young age, the experience is likely to stay with them in a powerful way.
- Ewert et al (2005) found that both 'consumptive' and 'appreciative' outdoor activities during childhood predicted eco-centric as opposed to anthropocentric beliefs later as adults.
- Other studies describe children's affinity for the natural environment (Chawla 1988; Korpela 2002; Moore 1986; Sobel 1993; Sebba 1995).

Research listed above is cited in: Wells, Nancy M., and Lekies, Kristi S., (2006) "Nature and the Life Course: Pathways from Childhood Natural Experiences to Adult Environmentalism." *Children, Youth, and Environments* 16(1): 1-24. Retrieved October 15, 2006 from <http://www.colorado.edu/journals/cye/>.

A study of over 400 children diagnosed with Attention Deficit Hyperactivity Disorder found a link between the children's routine play settings and the severity of their symptoms. Children who play regularly in outdoor settings with lots of green vegetation, particularly open natural areas, have milder symptoms than those who play indoors or in 'built' outdoor environments.

### **The Problem-**

According to various studies, children in the USA today:

- Spend on average only 30 minutes of unstructured time outdoors each week (Hofferth and Sandberg, 2000)
- Children age 3 to 12 spend only 1 percent of their time outdoors, but spend 27 percent of their time watching television. (Hofferth and Sandberg, 2000)
- A 1991 study found that the radius children were allowed to roam outside their homes had decreased to a ninth of what it was in 1971. 41% of children aged 8 to 11 worry about being safe in their neighborhoods. (Brussat, Frederick and Mary Ann cited in article on "Spirituality and Health" website. No title given.)

### **Effects:**

- Spending little time outdoors may contribute to the epidemic of childhood inactivity and obesity (Luepker 1999, Sturm 2005)
- Lack of time outdoors may contribute to rates of Attention Deficit Disorder (Kuo and Faber Taylor 2004), dwindling knowledge about biodiversity (Chipeniuk 1995), and leads to less pro-environmental attitudes and reduced participation in environmentally friendly behavior as adults (Wells and Lekies, 2006)

## Factors contributing to less time outdoors

### Family and individual concerns

- Too frequent moves, unfamiliarity with a place. Once upon a time kids grew up in the same place all their life, got really familiar with the area, its nature, its weather, etc.
- Popularity of products that we enjoy indoors, many of which are pretty passive
- Fears (mostly parent fears, but kids can learn them) of abduction, poisoning, injury, animals, weather injury, etc.
- Anxiety and insecurity about 'stranger danger' (fear of child abduction, violence, sexual predators). This risk was greatly exaggerated due in part to missing-children groups that wanted to draw attention to the issue, as noted on Spirituality and Health website. Richard Louv cites David Finkelhor, co-director of the Family Research Laboratory at the University of New Hampshire, who conducted the National Incidents Study of Missing Children with the US Justice Department (1990)-- Most abductors are actually family members, and the actual figure of stranger abductions was and is two to three hundred a year.
- Fear and anxiety about uncontrolled situations.
- Bothered to get kids dressed to go out.
- Need for responsible watchers and preparation.

Examples of the tone that can creep into the discussion about kids and play, from parenting website <http://specialchildren.about.com/od/holidays/p/summersurvival.htm>

- "Summer Survival Kit" section notes: "Choosing the right camp for kids... and making sure they'll be safe is a major source of summer stress for parents. Ease the worry with these safety strategies." It then lists topics including "Prevent Camp Tragedies."
- "Surviving Idle Time:" "... unsupervised kids will undoubtedly find ways to get in trouble ..."

### Institutional

- Emphasis on 'academic' tasks, etc.
- Organized activities (sports, etc) are favored over free play, in part due to fears above.
- Use of surrogate nature-- parks, playgrounds, etc.
- Fear of injury, liability, lawsuits, etc.  
Story is a head start site written up for a safety risk because the lake was in sight, several blocks away, and the HS had no water safety plan. Same HS was written up for leaves under the picnic table, an "unsafe situation."
- Litigious culture brings out fear of responsibility for others' injury, etc.

- Range and depth of experiences. Changes by hour, day, season.
- Sensory inputs to all senses! And motor! And it's all in 3-D with surround sound!
- Social interaction
- Activity and fitness
- "Loose parts" foster creativity and problem solving
- Often have to work for learning, 'do it yourself,' and draw own conclusions.
- Child develops confidence, efficacy