

## The Healing Power of Nature

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It is widely recognized that D.D. Palmer emphasized "the healing power of nature" (*vis medicatrix naturae*): "Heal as Nature heals, in accordance with Nature's laws."<sup>1</sup> While he was no doubt referring to the body's ability to heal itself without always requiring some form of intervention, the importance to health of being present in the restorative environment of nature should also be a consideration in health promotion and wellness. The natural world offers something that the overregulated gated community or computer game cannot provide. The prevalence today of attention deficit hyperactivity disorder (ADHD), depression, obesity, and factors related to overstimulation by the ever-present electronic environment can be directly related to an absence of time spent enjoying nature.

### Nature Deficit Disorder

Linking ADHD to a lack of exposure to nature, Louv<sup>2</sup> makes reference to *nature deficit disorder*. He reports that thoughtful exposure to nature can be a powerful form of therapy for ADHD. He notes that children, in addition to needing good nutrition and adequate sleep, may well need contact with nature.

The triad of inattentive, impulsive and hyperactive behavior has increased dramatically in recent years. Thinking beyond the widespread use of drugs that is standard treatment for ADHD, [exposure to nature can have a positive influence on concentration](#).<sup>3</sup> Children are better able to focus after a 20-minute walk in a natural setting. Taking walks in nature, compared to in urban or residential areas, have resulted in improvements in ADHD symptoms.

This form of natural therapy does not have the stigma associated with it that more traditional therapy has, is inexpensive, and does not have the potential side effects of drug therapy. Not to mention that many children are resistant [to taking ADHD drugs](#).<sup>4</sup>

### Promoting Mental and Physical Health

Approximately 20 percent of the U.S. population is affected by depression during a given year. No one is immune: It affects males and females, children, adolescents, adults and older adults of all ethnic and racial groups, and people of all educational and income levels. Older adults have the highest rate of depression, with twice as many women as men afflicted.<sup>5</sup>

A common nonpharmaceutical treatment recommended for the prevention of depression is exercise. It has been found that green exercise and running in the outdoors provides adults with a "recess" in a natural environment.<sup>2,6,7</sup> Joggers who exercise in a natural green setting with trees, foliage and landscape views feel more restored and less angry, anxious and depressed than people who exercise in a gym. It has also been noted that one of the main benefits of [spending time in nature is stress reduction](#).<sup>8,9</sup>

## Childhood Depression

Kids get depressed, too. Parents, educators and health care professionals need to understand that nature can be a safe and useful antidote for emotional stress. One of the tragedies associated with the increase in depression in children is the rate at which American children have been prescribed antidepressants. Reports have linked this increased prevalence with elevated rates of adolescent suicide.

A number of factors may have led to the escalated use of antidepressants among children. These factors include increasing rates of depression in successive age groups, a growing awareness of and screening for depression by pediatricians, and assumptions that the effectiveness experienced by adults using antidepressant medications will translate safely to children and adolescents.<sup>10</sup> The growth in such prescriptions written for children has occurred even though antidepressants were not approved for children younger than 18. Although exposure to nature may have no impact on the most severe cases of depression, we do know that nature experiences can relieve some of the everyday pressures that may lead to childhood depression.<sup>11</sup>

## Fitness and Fatness and the Absence of Nature

There has been [dramatic increase in childhood obesity](#) during the past two decades.<sup>12</sup> In the past 20 years, the prevalence of overweight among children ages 6 to 11 has more than doubled, going from 7 percent in 1980 to 18.85 percent in 2004. The [rate among adolescents](#) ages 12 to 19 has more than tripled, increasing from 5 percent to 17.1 percent.<sup>13</sup> This growing incidence is alarming given the short- and long-term consequences associated with obesity,<sup>12</sup> and can be expected to increase expenditure of economic resources in the health care sector and negatively impact the overall health and well-being of the population.<sup>14</sup> Although obesity-associated morbidities occur most frequently in adults, important consequences of excess weight as well as antecedents of adult disease occur in overweight children and adolescents.

An increase in overweight and obesity in children and adolescents leads to an increase in type 2 diabetes, high blood lipids and hypertension, as well as early maturation and orthopedic problems. Overweight children and adolescents are more likely to become overweight or obese adults. In addition, the [psychosocial problems and depression](#) noted above are common consequences of childhood overweight and obesity.<sup>15</sup>

## Interventions for Preventing Childhood Obesity

The word *nature* seldom shows up in the literature on childhood obesity. The Cochrane review that reported on studies which evaluated the outcomes of dietary and physical activity changes for the prevention of obesity in children showed only a small but positive impact on body mass index (BMI). Nearly all studies that focused on combined dietary and physical activity approaches [demonstrated some improvement](#),<sup>16</sup> but the effects of activities in a natural environment have not been adequately studied.

The complexity of childhood overweight and obesity is not addressed by simply blaming it on an increase in consumption of junk food and time spent watching TV, DVDs and other visual media. Just as important as the limitation of passive leisure time is playtime that is unstructured, imaginative and exploratory with exposure to the outdoors.<sup>2</sup> Play in a natural setting seems to offer special benefits including better motor fitness, especially in terms of balance and agility.<sup>17</sup>

The CDC recommends key strategies to prevent childhood obesity including BMI measurement in schools and offering nutritious choices in school meal programs. Physical activity guidelines include daily physical education classes and intramural programs for all grades with active play and recess activities for younger students.<sup>18</sup> What are needed are additional rigorous controlled studies to test the benefits of play in a natural setting and not just organized sports.

### Electronic Outlets and Health

Children who prefer to play indoors "because that is where the electrical outlets are"<sup>2</sup> can be deprived of sensory stimulation important to their growth and development. Kinesthetic sense (the ability to monitor movement and know where the body is in space) is replaced by the secondary vicarious, often distorted, dual sensory stimulation of vision and sound only.<sup>2</sup> A well-developed kinesthetic sense is important to health. Those with a poorly developed kinesthetic sense are subject to alienation in addition to injury.<sup>17</sup>

The hegemony of vision<sup>19</sup> seriously compromises the clinical effectiveness of physicians who don't trust palpatory skills because they can't see electronically monitored dysfunction. Sensory experiences link us to our exterior world. A rigid and limited environment seriously limits healthy growth and development of individuals or the group.<sup>20</sup>

### Climbing the Tree of Health

Louv<sup>2</sup> proposes that there is a direct relationship between one's exposure to nature and their health and well-being. Health is difficult to define because it is something you feel, not see.<sup>19</sup> You feel one with nature not just through what you see, but how you *feel*. Nature should not be overlooked as a healing balm for mitigating the emotional hardships and stress of life. It is possible that the healing effects of spending time in nature is the most overlooked field in modern medicine, even though we know that exposure to plants or nature speeds up healing time from trauma. Something to consider as you offer whole-body health to your patients.

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