

Green Exercise: How It Benefits Your Client

by [Shirley Archer, JD, MA](#) on Feb 21, 2018

Inner IDEA

Mounting scientific evidence shows that being active in nature boosts mind, body and spirit.



Running through the forest. Cycling through your neighborhood park. Walking alongside a river. To most people, “green exercise”—intentionally being physically active in natural environments—feels good, and growing research evidence confirms its benefits (Calogiuri, Patil & Aamodt 2016). Here’s a look at what the latest findings tell us about why you may want to incorporate green exercise into your training programs—and even suggest specific nature-based practices for stress reduction and general well-being.

Defining Green Exercise

Green exercise is any form of physical activity that takes place in urban green spaces like city parks and campuses maintained by people or in natural green spaces with minimal human upkeep.

While the definition encompasses any physical activity in these environments, most studies done so far have examined walking, running and cycling (though some have included gardening, fishing, horseback riding and more). Study subjects have typically been nonexercisers, but some research has included regular exercisers and competitive athletes (Lawton et al. 2017).

What the Research Says

Study findings on green exercise speak loudly: The advantages of exercising in healthy, natural environments go beyond the benefits of exercising in synthetic indoor locations. Green exercise delivers physical, mental and even spiritual rewards and has positive effects on health, well-being and athletic performance. Being active in nature has many advantages compared with doing the same activity inside or on city streets:

- more stress relief
- clearer thinking
- improved attention and concentration
- enhanced mood and more happiness
- less anxiety
- greater self-confidence
- more vitality
- more feelings of being refreshed
- reduced pain sensations
- less fatigue for the same amount of physical work
- improved quantity and quality of nighttime sleep
- enhanced mindfulness or present-moment awareness
- (Bowler et al. 2010; Lawton et al. 2017)

For sports performance, studies have identified the following advantages when athletes train and compete in green spaces:

- enhanced performance
- increased satisfaction
- less perceived effort when running outdoors compared with running on a treadmill
- less tension, confusion, anger and depression
- more feelings of being refreshed, restored and revitalized
- better mood

- better “optic flow”—a cue for assessing fatigue and exertion—resulting in athletes working harder than they physiologically perceive themselves to be working
- (Donnelly et al. 2016; Rogerson 2017)

In one study, researchers examined performances by 128 track-and-field athletes in four locations rated for greenness. Data analysis showed that greenness predicted performance: A majority of athletes achieved their best performances at the greenest sites (DeWolfe, Waliczek & Zajicek 2011). These athletes self-selected for study inclusion, so results cannot be generalized. More research is needed on the role of landscaping and environment on track-and-field performance.

Mike Rogerson, PhD, a researcher at the Centre for Sports and Exercise Science at the University of Essex in Colchester, England, and author of several green-exercise studies, suggests that “combining environmental manipulations with physiology and performance data may afford new possibilities for coaches to better design training sessions and programs for optimal physiological and psychological impact” (Rogerson 2017).

Underlying Mechanisms

Researchers theorize about why green exercise offers so many health benefits—including boosting the body’s self-healing through the immune system, giving the brain essential rest from technostress and overstimulation, and affecting our psychology and physiology through our innate affinity for the color green—but exact reasons are still to be determined. The theory that exposure to nature is in itself beneficial to people is bolstered by studies that show that viewing videos of nature scenes, having indoor foliage or flowers, seeing nature through a hospital room window, or simply having green classroom walls boosts mental and physical well-being and performance (Hansen, Jones & Tocchini 2017; van den Berg et al. 2016).

For example, when 14 indoor cyclists were exposed to a tinted red, green or achromatic gray video of a rural cycling course, University of Essex researchers found that participants had the least mood disturbance and lowest rating of perceived exertion while they were watching the natural green video. Study authors noted that their findings pointed to potential cognitive mechanisms underlying the benefits of green exercise (Akers et al. 2012).

Other positive aspects of green exercise include sensory stimulation, which awakens present-moment awareness; physical challenge and the self-confidence gained from achievement; a sense of play; and feelings of

connection with nature and with the family, friends and pets with whom we're sharing the outdoor time.

Research Limitations

Any effort to study effects of physical activity in green spaces must account for other potential influences on research outcomes. Some argue that green-exercise benefits are simply due to physical activity, but researchers have conducted analyses that still find advantages after controlling for activity level and type (Bowler et al. 2010). Other researchers suggest that, like music, nature is a way to positively distract participants as they exercise. Some studies show that the notion of nature needs clear definition in research contexts, because activity in wild settings has less positive results than exercising in tended forest environments (Lawton et al. 2017). Other studies have found that a person's sense of connectedness to nature or his or her past experiences with natural environments, rather than mere exposure to them, are keys to experiencing benefits from green exercise (Lawton et al. 2017). More research is required.

Ready to Take It Outdoors?

As fitness professionals, we know that modern living has stripped natural physical activity from daily life, requiring us to integrate doses of exercise to maintain health, but are we considering how modern living has also eliminated most outdoor activity? Americans and Canadians spend an average of 87% of their day in buildings and 6% in cars, leaving just 7% for outdoor time, and that includes walking to stores, so even less time is available for being active in nature (Klepeis et al. 2001). This limits not only green exercise but also access to clean air and sunlight—affecting circadian rhythms that regulate sleep, appetite, mood and energy levels.

Based on significant scientific evidence, the World Health Organization now recognizes the link between urban green spaces and more community-based physical activity, with resulting improvements in health and well-being (WHO 2016). European member states of the United Nations have made a commitment “to provide each child by 2020 with access to healthy and safe environments and settings of daily life in which they can walk and cycle to kindergartens and schools, and to green spaces in which to play and undertake physical activity.”

With an understanding of current green-exercise research, we're reminded that being active in nature is restorative to brain, body and spirit.

“Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul,” said environmentalist John Muir.

Perhaps it’s time to take some barefoot walks in the grass.

Forces of Nature

Positive research findings regarding the health benefits of being in nature have motivated organizations and medical centers to offer ecotherapy, nature therapy or “forest bathing” as complementary care for people with certain mental health issues, cancer and some chronic diseases (Shin, Shin & Yeoun 2012; Nakau et al. 2013).

- **Ecotherapy or nature therapy.** In the United Kingdom, the concept of ecotherapy goes beyond physical activity to include any outdoor activity that improves mental and physical well-being—including, but not limited to, intentional work with animals, wilderness protection, and arts and crafts. The charitable organization Mind defines ecotherapy as a program “where a trained therapist leads you through different activities to develop a balanced relationship with nature that benefits your well-being” (Mind 2015). Nature therapy is defined as “a set of practices aimed at achieving ‘preventive medical effects’ through exposure to natural stimuli that render a state of physiological relaxation and boost the weakened immune functions to prevent diseases” (Hansen, Jones & Tocchini 2017).
- **Shinrin-Yoku or forest bathing.** Forest bathing, considered preventive medicine in Japan, is a traditional Japanese practice that involves walking mindfully in a forest. Japan’s Forestry Agency has designated multiple national trails as forest therapy trails, a policy that is influencing other countries to follow. Forest bathing is not for exercise; it is primarily for stress reduction and focuses on mindfully encountering nature with all five senses (Hansen, Jones & Tocchini 2017).
- **A Nature Therapy Guide Shares Her Insights**
Clare Kelley of Washington, D.C., blends her experience as a yoga and Pilates instructor with her role as a certified forest and nature therapy guide. “Both backgrounds go together well and help people understand how the environment and movement play a role in improved quality of life. If I start participants with gentle, intuitive movements that feel good in their own body, they’re more likely to interact with the forest and become playful. On one of my walks, after we did light movement, one participant bee-lined for a tree and gave it a giant hug! Another went to the top of the hill and rolled down, like she used to as a little

girl. There's a natural playfulness that the combination of the two areas brings out in us.

"I bring this [enjoyment of the sensory experience] back to the fitness classroom. We start to develop a friendlier relationship to our body and to the world around us. I find [this emphasis] guides students toward feeling less pressure to be perfect and having more room to play and remember what their bodies are here for—to enjoy the time we have, right here, right now."

Resources

Organizations exist throughout the world to support nature activity for health and well-being. Check out the following to learn more:

Association of Nature & Forest Therapy,
natureandforesttherapy.org/ **International Society of Nature and Forest Medicine,** infom.org/index Shinrin Yoku Los Angeles,
shinrinyokula.com/ **Wilderness Guides Council,**
wildernessguidescouncil.org/

[Fitness Journal, Volume 15, Issue 3](#)