

FORESTS AS THERAPY:

The health benefits of walking in the woods

by Sandra Strieby

My favorite forest walks engage all of my senses with light and color, bird song and the splash of running water, warm sun and cool breezes, aromas of flowers and resins, the tart flavor of a larch needle or the sweetness of a serviceberry. In spite of all the stimuli, though, my overall experience is of deep peace, relaxation and wholeness. I invariably feel better after a walk in the woods.

Over the past several decades, science has begun to confirm what friends of the Woods Reader probably know intuitively – spending time in the woods is good for us, mentally and physically.

For many years, researchers in various parts of the world have been studying the health benefits of spending time in the woods, and they've built a body of knowledge that has caught the attention of people around the world.

Forests and other green spaces have been part of the health-care equation in Japan since the 1980s, and in recent years some North American health authorities

have begun to tout walking in the forest as a way to reduce stress and improve mood.

Scientists have been able to measure one factor that supports human health – chemicals called phytoncides, which trees produce to protect themselves from attack. Research has shown that inhaling phytoncides improves immune function and reduces anxiety and depression.

Almost a hundred years ago, a Russian biochemist, Dr. Boris P. Tokin, coined the term “phytoncides” for a class of chemicals produced by plants as a form of protection from microbes, insects and other predators. European scientists became interested in the health-giving properties of phytoncides in the mid-twentieth century, and over the last several decades researchers in several parts of the world have studied the effects of the compounds on human health.

Scientists have focused on a group of chemicals called terpenes – volatile organic compounds that have been shown to lower stress chemicals and blood pressure, and increase the activity of natural killer cells (which can support immune function by acting on microbes and tumors). Although high concentrations of volatile organic compounds in enclosed spaces are considered a health hazard, inhaling the terpenes in forest air has actually proven beneficial.

A recent study correlates what social scientists term “sense of coherence” with time spent in forests and other green spaces.

Different trees emit different types of terpenes. One of the most recognizable is pinol, which gives pine forests their distinctive aroma. Terpene production varies depending on the season, the temperature and the age of the trees, as well.

Walking in the woods also helps people to be present – a proven psychological-health booster – as all the sensory stimuli call the forest visitor into the moment. In 1982 the Japanese government coined the term Shinrin-Yoku, which translates as “forest bathing,” to describe the practice of walking in forests and green spaces with therapeutic intent. No water is involved – the term simply refers to immersing oneself in the woods and soaking in the environment. Japanese doctors may prescribe forest bathing, and American practitioners have begun to take notice of its health effects, as well. In both Canada and the US, trained guides lead walks during which they coach participants

to pay attention to their surroundings as a means to tune in to present time and release anxiety.

If spending time in the woods leaves you feeling more resilient and resourceful, you're not alone. A recent study correlates what social scientists term “sense of coherence” with time spent in forests and other green spaces. Sense of coherence, or SOC, has been studied since the term was coined in 1979, and has become an accepted marker of mental

health and well-being. SOC is an evaluation of our ability to understand, manage and find meaning in our experiences. People with high SOC tend to be better able to cope with stress. That's of interest to economists as well as health professionals, since reduced stress and better overall health enhance worker productivity, which helps strengthen the economy.

Researchers have not yet determined the cause of the increased sense of coherence that people experience in the woods. But the growing body of evidence suggests that the effects of the forest environment on body chemistry and state of mind may be at least partly responsible.

One reason health researchers are so interested in the positive effects of walking in the woods is that it's a simple, effective way to reduce stress and counter depression. The American Psychological Association's 2020 report *Stress in America™* includes the stark statement that "We are facing a national mental health crisis that could yield serious health and social consequences for years to come." The report goes on to detail the profoundly troubling consequences of stress on personal satisfaction, productivity and happiness. While the COVID-19 pandemic dramatically affected the outcomes of the APA's 2020 evaluation, stress has affected people around the world for a long time, and APA studies show it has grown since the early years of this century. Clearly, anything that can help reverse that trend will be a benefit to individuals and the world.

I enjoy every walk in the woods for its own

More reading:

American Psychological Association (2020). *Stress in America™ 2020: A National Mental Health Crisis*.

Ikeda, T., et al. "Association between forest and greenspace walking and stress-coping skills among workers of Tsukuba Science City, Japan: A cross-sectional study." *Public Health in Practice*, V. 2, 2021, 100074.

Association of Nature and Forest Therapy Guides and Programs: <https://www.natureandforesttherapy.org/>

Global Institute of Forest Therapy: <https://www.giftoftheforest.com/>

sake. I don't think about terpenes and phytoncides, or my vital signs or sense of coherence. I simply enjoy my time in the natural world – reveling in the sights and sounds, the feel of the forest floor beneath my feet, the changes in temperature as I move from sun to shade, the aromas of decaying wood and warm pine bark, and delighting in the flash of color when a pileated woodpecker flies by or the subtler joy of watching thatch ants at work. It pleases me, though, to know that I'm refreshing more than my spirit when I breathe the forest air – I'm also doing my body good, and restoring balance to my psyche.

And, if I ever need an excuse to spend time outdoors, I know it's right there in the air around me. ✧