



Forest Bathing

by Marilyn Loser

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I had never heard the term 'forest bathing' until I stood in the old growth forest in MacMillan Park on Vancouver Island in British Columbia, Canada last month. A member of our tour group brought up the concept and I immediately connected with the idea. When I'm in a forest I feel I soak up the atmosphere, much like soaking up the sun when sun bathing. I always feel better after spending time in a healthy forest.

Forest bathing is very popular in Japan. In fact, the Forest Agency of the Japanese government premiered its shinrin-yoku plan in 1982. In Japanese shinrin means forest and one meaning of yoku is "bathing, showering or basking in." More broadly, it is defined as "taking in, in all of our senses, the forest atmosphere," according to the book "Your Brain on Nature" by Eva Selhub and Alan Logan. They report that the program was established to encourage the populace to get out into nature, to literally bathe the mind and body in greenspace, and take advantage of public owned forest networks as a means of promoting health. Some 64 percent of Japan is occupied by forest, so there is ample opportunity to escape the megacities that dot its landscape says Selhub.

Forest bathing is not unheard of in the United States. In fact, California has at least one certified forest bathing guide! Who knew?

Is there more to this than a general, overall good feeling? I searched the web to see if I could find any scientific research. According to an article at the Quartz website (qz.com) the practice is scientifically proven to improve your health. One study they report on was conducted from 2004 to 2012 by Qing Li, a professor at Nippon Medical School in Tokyo. Researchers "measured the activity of human natural killer (NK) cells in the immune system before and after exposure to the woods. These cells provide rapid responses to viral-infected cells and respond to tumor formation, and are associated with immune system health and cancer prevention. Li's subjects showed significant increases in NK cell activity in the week after a forest visit, and positive effects lasted a month following each weekend in the woods."

Several studies suggest this is due to various essential oils, generally called phytoncides, found in wood, plants, and some fruit and vegetables, which trees emit to protect themselves from germs and insects. According to Wikipedia, phytoncides literally means "exterminated by the plant" and was coined in 1928 by Dr. Boris P. Tokin, a Russian biochemist from Leningrad University. Apparently these chemicals that are harmful to insects, and perhaps other plants, can be beneficial to human beings.

Other research from Japan's Chiba University involving 24 forests showed a lowering of cortisol levels, blood pressure, and pulse rate in subjects spending time in forests. You may ask, would just hanging out in a city have similar advantages? Howard Frumkin of the University of Washington School of Public

Health has set up a research agenda to study this very idea. It asks the question, “How do we measure a ‘dose’ of nature?” A few other articles alluded to Japanese studies that compared such things as cerebral blood flow after 20 minutes of shinrin-yoku compared to 20 minutes in an urban setting. Researchers found the altered blood flow indicated more of a state of relaxation after spending time in a forest than in an urban setting.

I started wondering, “How much forest do you need to reap benefits from forest bathing?” Many of the forests in British Columbia and Washington that I drove through recently are extensive and have huge trees that are fairly close together. Selhum and Logan report, “Research has certainly shown that the emotions of pleasure and happiness are elevated with an increase in tree density within specific settings, even in urban settings. The bigger and denser the trees, the higher the scenic beauty scores—up to a point. If trees are too tightly packed—if a trail is too narrow or obscured—the scene becomes foreboding and fear will be increased.”

Do the less dense forests of Ponderosa pine, fir, and spruce in southern Colorado produce fewer effects? Will wandering around Cole Park in Alamosa or puttering in my own yard under an Austrian pine and cottonwood offer measurable benefits? I don’t have an answer. However, from now on, I will consider some of the time I spend amongst trees to be forest bathing!

“If a man walks in the woods for love of them half of each day, he is in danger of being regarded as a loafer. But if he spends his days as a speculator, shearing off those woods and making the earth bald before her time, he is deemed an industrious and enterprising citizen.” Henry David Thoreau