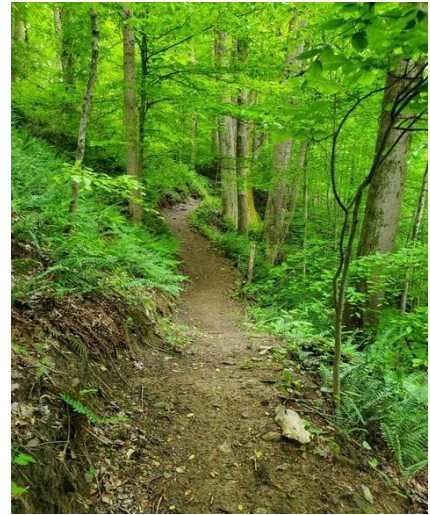


## **FOREST BATHING – No Bubble Bath Required – The Practice of *Shinrin-Yoku***

by Jill Shaw

Imagine yourself standing in a forest, being immersed in green; you are surrounded by the sounds and smells of the forest and are feeling connected to nature ... you are taking a “forest bath.” Forest bathing is regarded as a form of nature therapy that renews our millennial-long connection to the natural world. The Japanese developed the practice of “*shinrin-yoku*” (literally translated as “forest”-“bath”) in the early 1980s to counter the rise in chronic illness, heart disease, and mortality that followed a shift towards a tech-based economy and urban living. While *shinrin-yoku* was developed to address modern problems, this concept was inspired by ancient Shinto and Buddhist practices. Moreover many cultures value and celebrate the connection between humans and the natural world, and in shamanic cultures this connection is considered essential for spiritual growth and rites of passage.



Humans have an inherent connection with nature. During the six million years of evolution, our ancestors have primarily lived in natural surroundings; only a tiny proportion (0.01%) of this period has been lived in modern surroundings. However, our proximity and connection to natural environments has decreased in recent history as people spend more time indoors, green spaces shrink, and the world becomes more urbanized. By 2050, the United Nations projects that 68% of the world’s population and 89% of the US population will live in urban centers. The disconnect between our modern lifestyles and natural environments, to which our minds and bodies are adapted, is growing and contributes to stress in today’s society.

Re-establishing the connection with nature through forest bathing has beneficial effects on health and well-being. Forests stimulate the human senses: vision (scenery), olfactory (smell of wood), auditory (sound of running water or rustling leaves), tactile sensation (feel of the surfaces of trees and leaves). This sensory information is processed in the sensory areas of the brain and subsequently effects changes in the areas of the brain that control emotions and physiological functions. A number of studies have shown that people relax best while seeing greens and blues. Intrinsically, it makes sense that the colors of nature would be considered soothing given the long human habitation in natural environments. Further evidence of the soothing appeal of natural landscapes is supported by studies that show that being in green environments and viewing green landscapes (from indoors) aids in recovery from surgery and is associated with less anxiety and depression, and better stress management.

Taking a walk in the forest also allows you to breathe in airborne substances released by trees and soil. Trees, especially evergreens, release essential oils (phytoncides) into the air. These phytoncides that have distinctive scents (lemony, piney, herby, terpeniney) that act as olfactory cues and invoke your memories of forests. Exposure to phytoncides is associated with many of the health benefits ascribed to forest bathing. In addition, there is evidence that an airborne microbe released from soil, *Mycobacterium vaccae*, improves mood and boosts the immune system.

Controlled studies investigating the effects of forest bathing found *shinrin-yoku* is associated with the following physiologic effects:

- decreases in the stress hormone cortisol
- increased activity in the part of the nervous system associated with relaxation
- better sleep quality and increased time asleep in people with sleep complaints
- significant improvements in cardiovascular function (decreased heart rate, pulse rate and blood pressure)
- significant increases in the production of natural killer (NK) cells—a type of white blood cell that identifies and destroys damaged and pre-cancerous cells

It is notable that the benefits of *shinrin-yoku* described above are not due to physical activity alone (such as walking), and studies of forest bathing have generally accounted for (controlled for) such activities. Further, some elements of *shinrin-yoku*, such as breathing essential tree oils, are unique to natural environments.

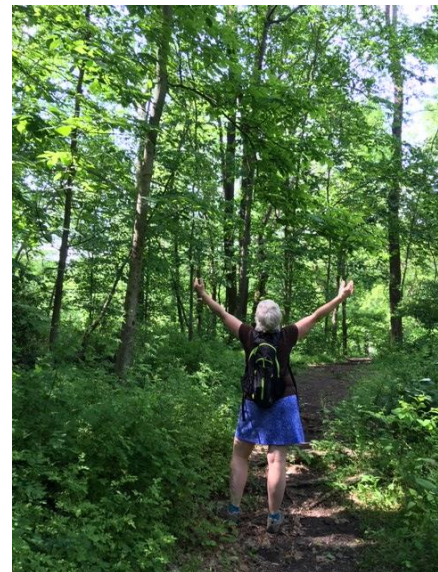
### **How to Forest Bath**

As the name implies, forest bathing is best practiced in a setting where there are trees; it can be a forest, city park, or garden. If possible, find a setting that includes elements that are most pleasurable to you; flowing water, moist, mossy smells, dense conifer forests, light-filtered deciduous woodlands, and so forth.

You can practice *shinrin-yoku* anytime of year, and in sun, rain or snow. A year-round practice will allow you to experience the seasonal changes in the sights, smells and feelings of your favorite settings. The traditional time for *shinrin-yoku* is two hours but the benefits have been observed in studies with 20- to 30-minute periods of forest bathing.

Let's go to the forest...

- Turn off all of your devices!
- Focus your thoughts toward being mindful and enjoying a sensory forest-based experience. NOTE: *Shinrin-yoku* is not intended as a “hike” through the forest—it is an intentional connection with nature.
- Start walking and notice the sensation on the bottoms of your feet. Your feet are an anchor that will help you remain attentive.
- Slowly move through the forest so you can see more detail and experience the forest more deeply.
- Take long deep breaths. Extend the exhalation of air to twice the length of the inhalation.
- Be observant and get up close to look and feel nature's small details, such as the patterns of a tree fungus, or the stamens on a flower.
- Make stops, either standing or sitting.



To fully take in your surroundings using all of your senses:

- Observe the smells and sounds.
- “Listen” with your eyes.
- Feel the sensations: dip your toes in the water, feel the forest floor beneath you, the breeze on your face, the surface of a rock, the edges of a leaf... .
- Taste the air (or water if you dare).
- Check in with how you are feeling: joyous, reflective, energized, calm?



Over time, you may want to explore additional ways to experience nature, such as walking barefoot, and incorporating activities, such as yoga, meditation, tai chi, painting/sketching, into your practice.

The Philadelphia area has several parks and gardens that offer guided *shinrin-yoku* activities:

- Mt. Cuba offers a forest healing class (with a certified forest therapy guide).
- Wild Philadelphia [<https://www.wildphiladelphia.com/>] has offered forest therapy walks (inspired by *shinrin-yoku*) to both private and public groups.
- *Shinrin-yoku* walks have also been held in Fairmount Park (Boxers’ Trail) and at the Schuylkill Center for Environmental Education [<http://www.schuylkillcenter.org/>].
- Wissahickon Valley Park and Morris Arboretum are among the abundant sources of forested areas and parks in this region that are well suited for forest bathing.

....so *no excuses*, it is time for you to take a bath!

### **Acknowledgements**

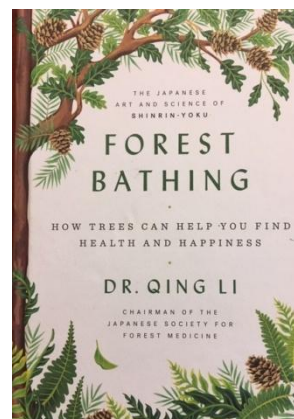
Thanks to Pam Cloud for being the model-subject in the article photos.

### **References/Resources**

If you are intrigued by the concept of forest bathing, I highly recommend the following book; it’s an excellent guide for how to practice forest bathing and also documents the associated health benefits.

It is a pleasurable read and has many inspiring photographs.

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A sampling of literature of published research studies/reviews of *shinrin-yoku*:

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