What is Forest Bathing?

The term forest bathing first emerged through an initiative by the Forest Agency of Japan to promote exercise and improve the health of Japanese citizens (Marcus and Sachs, 2013). While it can take many forms, essentially, forest bathing involves immersing oneself in a forested or natural environment where all five senses receive input from the surrounding environment (Zheng and Yang, 2013). For some, this may involve taking a brief hike or stringing a hammock between two trees for an afternoon nap. Forest bathing has been shown to have beneficial impacts on human health, and can be easily done by most people whether they live in an urban or rural environment. The purpose of this publication is to present the benefits of forest bathing and how the practice can be incorporated into a healthy lifestyle.

What separates walking down a city street and walking through a forest? Specifically, it is the presence of phytoncides, that are emitted by trees and are breathed in from a forested environment that make the difference (Li, 2010). Phytoncides, which are often referred to as “essential oils” in commercial applications are antimicrobial organic compounds released into the air by trees to protect itself from insects and microorganisms (Parks et al., 2010). These natural fragrances have been shown to have positive impacts on the human immune system by enhancing the activity of the cells that inhibit tumor growth and suppress cells infected with viruses (Li et al., 2006; Morimoto et al., 2007). While we may not consciously be aware that our immune system is being improved, we are usually conscious that visiting a forested area does reduce our stress levels. Stress reduction, along with improving air quality, are among the reasons so many cities have developed green spaces and actively worked to increase urban tree cover (Zhu and Zhang, 2007).

Benefits of Forest Bathing

The perceived relaxing effect that forested and natural areas have on us has been found to be quantifiable in numerous studies. In both middle-aged males and females, findings suggest forest bathing reduces blood pressure and bio-indicators of stress (Chen et al., 2018; Yu et al., 2017). Similar conclusions were found in research testing that involved the elderly and young adults (Mao, et al., 2012; Guan, et al., 2017,
Increasingly more cities are incorporating green spaces into city planning to improve air quality and enhance the quality of life for urban residents. Photo credit: Patrick Rappold

Yu et al. 2017). Through the reduction of stress level indicators such as blood pressure, other aspects of human health, including cardiovascular conditions are improved (NIH, 2005).

Cardiovascular benefits have also been found from forest bathing. One study found that sitting or walking for 15-30 minute intervals in forested urban areas decreased blood pressure levels in adult females more significantly than adult females who sat or walked in non-forested urban environments for similar periods of time (Lanki et al., 2017). Elderly patients with chronic heart failure who took part in a forest bathing routine for four days were observed to have lower levels of chemical indicators of cardiovascular illnesses in their bloodwork (Mao et al., 2017). Differences in air quality values between urban and forested areas were identified as one possible variable that had an impact on participants in the Lanki et al. (2017) and Mao et al. (2017) studies. Poor air quality may inhibit the ability to fully benefit from the therapeutic benefits that forest bathing provides, so always be aware of air quality levels when venturing into the forest.

Recommendations for Incorporating Forest Bathing into a Healthy Lifestyle

Because forest bathing has the benefit of stress reduction across multiple age groups, the practice of forest bathing is a positive activity for parents to incorporate into family activities. Not only does it provide possible physical health benefits to all those experiencing it, but it also can provide a serine environment that can allow for time without day-to-day distractions that often hinder parent-child interactions. This atmosphere helps to strengthen attachments and relationships between two individuals. In areas with public lands and greenspaces, access to forested areas is usually free or only requires a nominal fee. Thus, forest bathing can provide a low-cost option for family activities.

Time spent forest bathing does not need to be extensive. Striving to make forest bathing a routine by scheduling one or two hours a week to spend time in a forest or a relaxing natural area can be effective. Incorporating some time spent walking during forest bathing expeditions will assist in adding additional physical activity into your daily routine.

Avoid feeling the need to venture outside during periods of extreme heat or cold. Uncomfortable outdoor conditions can diminish any of the soothing benefits of forest bathing. Also, consider an alternative activity when air quality levels are low. Everyone has his or her own comfort levels for different environmental conditions. The key is consistent engagement in forest bathing to maximize the benefits.

Summary

The role of forest bathing in promoting human health and longevity continues to be researched at institutions around the world (Hansen et al. 2017). This is most likely due in part to the societal desire to improve health and prevent disease without the use of prescription medicine. The practice of forest bathing involves immersion in a forested environment through either walking or sitting for an extended period of time. This simple yet rewarding practice has been found to improve human health through mechanisms that researchers strive to quantify and better understand.

Additional Resources

The U.S. National Institutes of Health’s National Library of Medicine hosts PubMed Central®, which is an online searchable database of peer reviewed scientific journals related to human health. Further information on how forested environments effect human health can be found by using “forest bathing” as a keyword search at the PubMed Central® website; https://www.ncbi.nlm.nih.gov/pmc/
Time spent in the forest with family and friends can create stronger relationships and improve overall health. Photo credit: Patrick Rappold

References


