

# FOREST IMMERSION EXPERIENCE: Mother Nature Promotes Introspection and Healing

by LYNN KEEGAN PhD, RN, AHN-BC, FAAN; and TONI GILBERT, RN (ret), MA, HNC

Today I reflect back to many years ago and recall a rather otherworldly experience that seems like a blur of gray buildings and many faces, a memory of when I was in one of those crowded environments, fast-paced and demanding. It was during one of those whirlwind seasons when an unexpected invitation came to me, the way such invitations often do, and just when needed most.

Welcoming words from friends jumped through my laptop screen beckoning me to a forest refuge. This invitation was to join my holistic nursing colleagues in nature. There is a memory of past forest immersions that drew me and continue to live within me now. Each year, before the terrifying fire of 2020 ravaged entire forests throughout the Pacific Northwest, the Oregon Holistic Nurses Association held annual retreats at Breitenbush Hot Springs nestled deep in the high forest of the Cascades. The healing effects of the forest permeated my senses stirring the relaxation response. That forest experience happened just following the height of the fall equinox, a time when the entire physical world gives pause.

My awareness was riveted by the visual resonance of tall fir trees, the gold and reds of the turning maples, and the smell of fall's distinct aromas. I was in tune with the still silence and the whole gestalt of the breadth and depth of the landscape. I innately knew that these elements worked together to bring me home to a healing space. All of us in our individual ways can seek and find those so necessary healing spaces.

Lynn Keegan

We know that it is difficult to focus on a calm, healing environment within the walls of an acute care hospital or clinical environment. Being in/with mother nature, on the other hand, can enhance healing. Studies document that forest immersion, known as *forest bathing*, has many health benefits including lowering blood pressure, enhancing parasympathetic nervous activity, and even altering the levels of rushing stress hormones. Immersion in the forest enables our senses, activating a biological response to our natural surroundings. This comforting environment allows us to experience a heightened sense of awareness and connection to our inner guide. For many, it awakens a primal urge to exist within a natural state of being, to come home to a healing space of unity and wholeness.

How does nature affect us so profoundly? Research demonstrates the healing effects of the forest. Japanese scientific studies dominate the literature on this topic ranging from decades past to current publications. These descriptive data validate what we know intuitively to be true – that

being with intention in a forest sanctuary is healing. A founding study (Lee et al., 2011), gathered evidence supporting the efficacy of what they term forest bathing as a natural therapy by investigating its physiological benefits using biological indicators in outdoor settings. Investigators made comparisons within a small group of Japanese male young adults to examine psychological and physiological responses to exposure to real forest and urban environments. Subjects participated in a three-day, two-night field experiment. Physiological responses as well as self-reported psychological responses to forest and urban environmental stimuli were measured. The results of each indicator were compared, and forest immersion was found to be beneficial.

A couple of earlier Japanese studies examined the physiological effects of *Shinrin-yoku* (taking in the atmosphere of the forest) (Park et al., 2010; Sugiyama, 2007). They examined blood pressure, pulse rate, heart rate variability (HRV), salivary cortisol concentration, and immunoglobulin A in saliva. The findings in the forest population compared to the city were: 1) blood pressure and pulse rate were significantly lower; 2) salivary cortisol concentration (an indicator of stress) was significantly lower in the forest area.

These physiological responses suggest that sympathetic nervous activity was suppressed and parasympathetic nervous activity was enhanced in the forest area, and *Shinrin-yoku* reduced stress levels. In addition, the subjective evaluation revealed that feelings of being comfortable, calm, and refreshed were significantly higher in the forest area as compared to the urban area (Tsunetsugu et al., 2007).

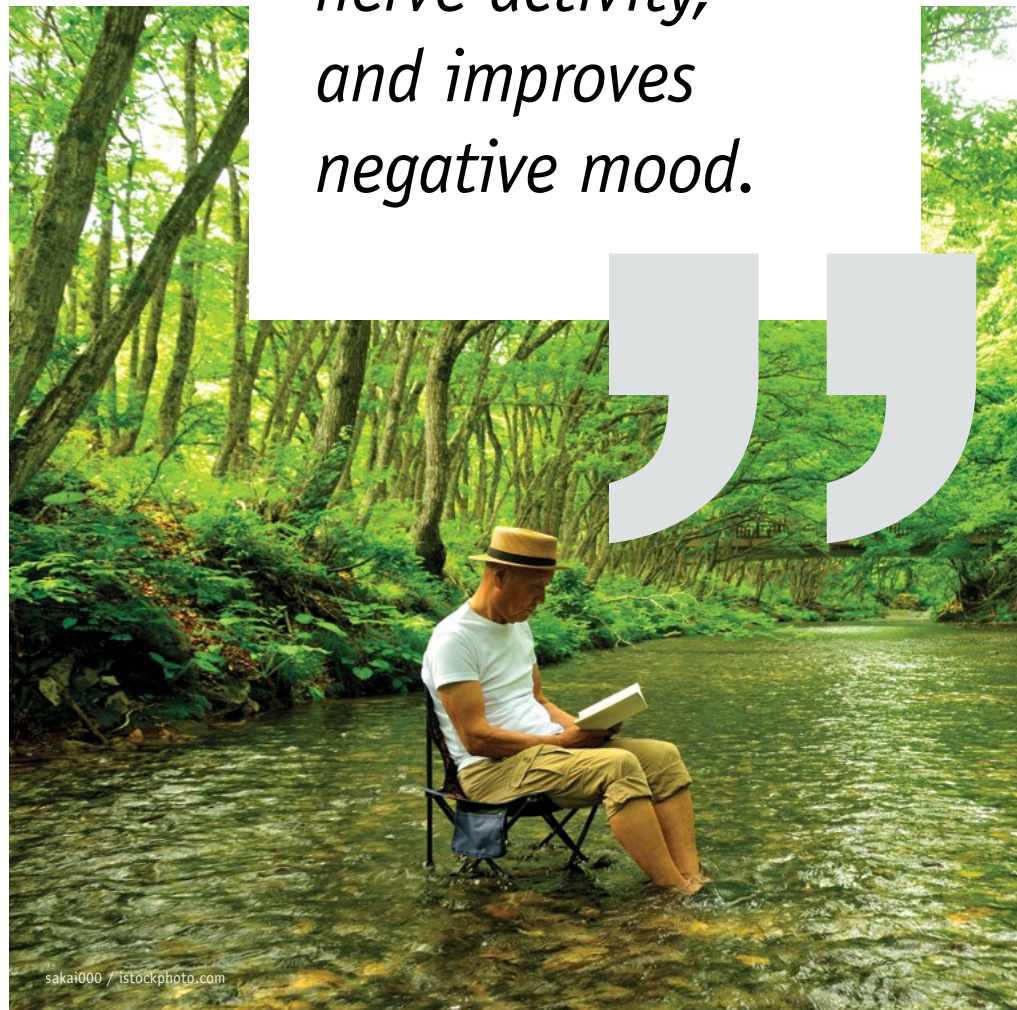
Aromatic substances (essential oils) contained in plants often exert psychological effects ranging from sedative to excitatory actions. From antiquity to the present, essential oils derived from aromatic trees and herbs have been used for their various medicinal effects. These olfactory sensory effects contribute to the healing essence of the forest (Sugiyama, 2007).

We know that forest bathing effects can be measured. Additional studies show it significantly increases parasympathetic nervous activity and suppresses the sympathetic stress response. Salivary cortisol level (a biomarker of stress) and pulse rate decreased markedly in the forest setting compared with the urban setting. Forest bathing significantly increased scores of positive feelings and significantly decreased negative feelings compared

with the urban stimuli.

Forest bathing has positive effects on physical and mental health, indicating potential application for effective health promotion (Lee et al., 2011; Ross & Reo, 2022). One meta-analysis documented the positive effects of forest bathing to include psychological health, including reduction of anxiety and depression, and improved mood and quality of life. Physiological outcomes duplicated from earlier studies confirmed positive effects on blood pressure and heart rate (Chiew et al., 2023).

*Forest bathing effectively lowers cortisol levels, reduces sympathetic nerve activity, and improves negative mood.*



Around half (55%) of the human population live in fast-paced urban settings where many people find it challenging to manage their stress and respond to crises with a positive mindset. This results in prolonged distress where anxiety and fatigue can lead to physical and mental health concerns. Two researchers extrapolated from literal forests to simulate a similar environment. They devised a simulated forest immersion therapy technique using virtual reality and atomized phytoncides, volatile organic compounds found in forested areas designed to effect positive change for their patients in a hotel/sleep-based, phytoncide humidification area with  $\alpha$ -pinene,  $\beta$ -pinene, and *d*-limonene and found that immune system improvements were found: natural killer T-cell numbers and activity increased, as did perforin and granulysin (Ross & Reo, 2022).

Forest bathing interventions improve mental and physical health, reduce blood pressure, improve sleep quality and boost immunity, as well as alleviate depression, anxiety, and stress (Chen, Meng, & Leo, 2025). Forest environment, tree species, exposure duration, season, composition and concentration of volatile organic compounds have a measurable impact. Forest bathing effectively lowers cortisol levels, reduces sympathetic nerve activity, and improves negative mood, which could serve

as a non-pharmacological treatment or prevention in mental health for the general population (Chen, Meng, & Leo, 2025).

### AWAKENING OUR SENSES

What do retreats in the forest, such as detailed in the opening, have to do with creating healing environments? At a material level, the beauty of the forest is integrated with other facets of the forest experience that change our biochemistry. Mentally, our way of thinking slows down to a pace where a deeper part can enjoy being one with all of Nature. Metaphorically, and at a deep sensual level, we take the time to stop and smell the forest, just like we would stop and smell a rose.

Immersion in the forest awakens our senses to the natural world around us, sounds and sights that our ancestors lived daily. Could one of the answers to that deep feeling of homecoming lay embedded in our DNA? Do we still resonate with our Earth Mother because so many generations of our ancestors lived close to nature? Perhaps, but one thing is certain: In this setting it becomes easier to notice the little things in nature, things we generally take for granted or are otherwise too busy to see. For example, did you know that morning dew clings to blades of grass all day even in October even when the sun shines all day? In a relaxed forest setting, we have time to



*Immersion in the forest enables our senses, activating a biological response to our natural surroundings.*

urbazon / istockphoto.com

appreciate the pearly diamonds glistening from the tiny drops as we stroll casually by. We can gaze in wonder as sunbeams filter through tree branches in an explosion of dramatic light rays that playfully mingle with the landscape below.

A number of individual factors contribute to elevating our senses within the forest setting, such as freedom from technology and escape from artificial light. These are but a few of the material conditions that affect our time spent in the forest and enable us to experience healing. And, on a deeper level, we can question the archetypal energies that surround and permeate this angelic elevation of Mother Earth? Toni Gilbert, a previous co-author of mine, is known for her expertise with the archetypes and tells us that we live in a multi-dimensional world waiting to be acknowledged and experienced. She says that the mountains are a good place to make contact with the rich life that lies within, while being supported by the divine energies of the forest.

The bounty of benefits gleaned from a forest immersion experience reminds us that every culture experiences unique healing. Spending time with the natural world of rhythms, patterns, visual sensuousness, and silence brings us home to a place where cares evaporate and are replaced with a sense of oneness with all of Nature. Consider the ways and places that you too can experience healing forest therapy.

Finally, as I reflect on the past while living in the present, I consider where I am and ask, as true forests are shrinking, what other natural environments might awaken the healing and relaxation response? This winter I reside in the Coachella Valley on the edge of the Mojave Desert at the base of San Jacinto Mountain close to our Mexican neighbor's border. It is a desert. This too is a healing place. The plethora of beautiful cacti, the drifting sand, and sometimes fierce winds along with desert butterflies, birds and warm sand and oasis tropical flora offer other healing opportunities. Consider ways you can find or create your healing place wherever you are.

## REFERENCES

- Chen H., Meng Z. & Luo J. (2025) Is forest bathing a panacea for mental health problems? A narrative review. *Frontiers in Public Health*, 20(13), 1454992. DOI: 10.3389/fpubh.2025.1454992
- Chiew, J. P., Yong, S. G., Jungup, L., Sum N. P., Jenna, Q. Y., & Wai-San, W. T. (2023) The effects of forest bathing on psychological well-being: A systematic review and meta-analysis. *International Journal of Mental Health*, 32(4) 1038-1054. DOI: 10.1111/inm.13131.
- Lee, J., Park, B. J., Tsunetsugu, Y., Ohira, T., Kagawa, T., & Miyazaki, Y. (2011). Effect of forest bathing on physiological and psychological responses in young Japanese male subjects. *Public Health*, 125(2), 93-100. <https://doi.org/10.1016/j.puhe.2010.09.005>
- Park, B. J., Tsunetsugu, Y., Kasetani, T., Kagawa, T., & Miyazaki, Y. (2010). The physiological effects of Shinrin-yoku (taking in the forest atmosphere or forest bathing): Evidence from field experiments in 24 forests across Japan. *Environmental Health and Preventative Medicine*, 15(1), 18-26. <https://doi.org/10.1007/s12199-009-0086-9>
- Ross, M. R. & Reo, J. F. (2022) Simulated Forest Immersion Therapy: Methods Development *International Journal of Environmental Research in Public Health*, 19(9), 5373. DOI: 10.3390/

ijerph19095373

- Sugiyama, S. (2007). Aromatic trees and herbs that connect Heaven and earth. *Yakushigaku Zasshi*, 42(2), 122-30. <https://europepmc.org/article/med/18548886>
- Tsunetsugu, Y., Park, B. J., Ishii, H., Hirano, H., Kagawa, T., & Miyazaki, Y. (2007). Physiological effects of Shinrin-yoku (taking in the atmosphere of the forest) in an old-growth broadleaf forest in Yamagata Prefecture, Japan. *Journal of Physiological Anthropology*, 26(2), 135-42. DOI: 10.2114/jpa2.26.135



**Lynn Keegan** is one of the founders and Past President of the (AHNA). She authored or co-authored over 23 books, scores of professional articles, and delivered presentations and keynote addresses in numerous countries throughout the world. She received the Distinguished Alumnus Award from Cornell University, New York Hospital School of Nursing, The Holistic Nurse of the Year by the AHNA, and their Lifetime Achievement Award. She is an eight-time recipient of the prestigious American Journal of Nursing Book of the Year Award. Lynn is primarily known for her contributions to the development and advancement of holistic nursing and in more recent years her work on evolving end of life care.



**Toni Gilbert, RN (ret), MA, HNC** is a transpersonal counselor with a background in holistic nursing. As a professional with a formal education in nursing, art, psychology, and transpersonal studies, she offers clients an array of healing arts techniques to enhance wellness and prevent illness. She is the author of *Messages from the Archetypes: Using Tarot for Healing and Spiritual Growth* and *Gaining Archetypal Vision: A Guidebook for Using Archetypes in Personal Growth and Healing*. Toni's newest book is "Transpersonal Counseling: A Multidimensional Approach to Personal Development, Spirituality, and Healing".



# AHNA Beginnings

*Beginnings* magazine is a benefit of AHNA membership.

We hope you have enjoyed this article from *Beginnings*. This article is provided for personal and educational use only. Any other use requires prior permission of the American Holistic Nurses Association. For permission, contact [communications@ahna.org](mailto:communications@ahna.org).

## Why Join AHNA Today?

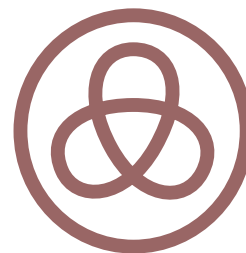
AHNA helps nurses transform healthcare while supporting each other. Nurture yourself and advance your profession with the support, resources, education, and community that only AHNA provides. Together we can build a more united voice.

By becoming a member of AHNA, you have access to resources that exist nowhere else — as well as to a supportive community of nurses who speak your language and know how you feel.

### Don't Burn Out – Discover Self-Care!

Other professions and professional organizations do not talk about caring and self-care as an integral part of their theoretical foundation. At AHNA, you'll find a supportive group of nurses who empower each other to be what we wish for our clients: healthy.

Join now at  
[www.ahna.org](http://www.ahna.org)



AMERICAN  
*Holistic  
Nurses*  
ASSOCIATION

(785) 234-1712 • [www.ahna.org](http://www.ahna.org) • [info@ahna.org](mailto:info@ahna.org)

