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## Forest Therapy for Anxiety

Fiteh Yelekal

*Department of Family Medicine, Reading Hospital-Tower Health, West Reading, PA*

Nipa Doshi

*Department of Family Medicine, Reading Hospital-Tower Health, West Reading, PA*

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Fiteh Yelekal<sup>1</sup>, Nipa Doshi<sup>1</sup>

<sup>1</sup> Department of Family Medicine, Reading Hospital-Tower Health, West Reading, PA

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**W**e live in a complicated world that can leave us feeling anxious and stressed from time to time. Lately, these feelings seem more pervasive, persistent, and they are affecting our health and well-being. Isolation and fear related to COVID 19, local and world events have created unease. According to the World Health Organization there has been a 25% increase in anxiety and depression since the COVID 19 pandemic.<sup>1</sup> In a survey of 1,119 health care workers in 2020 by Mental Health America, feelings of anxiety were reported to be as high as 86% since COVID.<sup>2</sup> These statistics are striking. The burgeoning need for mental health services cannot be met by our current health care system. We need ways to allay anxiety and stress that are readily available, approachable, and cost effective. Nature can provide such an option. Forest therapy offers a non-pharmacologic means to manage the stresses of our lives and to improve our health.

Forest therapy has its origins in Japan. Known as shinrin-yoku in Japanese, which translates to forest bathing in English, it is widely practiced and studied in Japan. The concept was introduced in 1982 by the Ministry of Agriculture, Forestry and Fisheries in Japan to address the stresses associated with urban life and technology.<sup>3</sup> It is the process of engaging the senses while immersing oneself in nature. In Japan, the encounter may be led by a trained therapist who guides participants through mindfulness activities. The experience may be self-directed and there are virtual options that are currently being studied.<sup>4</sup> There are few formal, forest therapy or training programs currently available in the United States.

Through touch, smell, sight, sound and taste the parasympathetic nervous system is accessed and activated according to forest therapy researchers.<sup>3,5-7</sup> Various aspects of forest therapy have been studied including its effect on psychology and physiology. In two recent systematic reviews and meta-analyses of a heterogenous group of studies including randomized, controlled trials, participants reported a significant improvement in anxiety after forest therapy.<sup>5,8</sup> Many noted having more “vigor.” Physiologic measures of stress improved including lower heart rates, blood pressure and stress hormone levels in multiple age groups that included healthy subjects and patients with comorbid illnesses.<sup>3,6,7</sup> Heart rate variability, a marker of well-being increased.<sup>6,7</sup> While the optimal duration has yet to be determined, in a study of females walking through the forest, 15 minutes provided a mood benefit.<sup>6</sup> Forest therapy is associated with other health benefits. Natural killer cells increase boosting the immune system, blood sugar decreases and cardiovascular health improves with forest therapy.<sup>3</sup> Research supports the symbiotic relationship between humans and the natural world in modulating our physiology. The new discipline of Forest Medicine aims to continue to study this link between nature and health.

By cultivating a relationship with nature, we can harness its restorative powers and appreciate its value to our well-being. Potential projects for the future include creating formal and informal programs for individuals and communities to explore, experience and study the benefits of nature in a structured manner. Forest therapy can be a part of a primary care provider’s prescription for treating anxiety and fostering health.

Correspondence to Nipa Doshi at  
[Nipa.Doshi@towerhealth.org](mailto:Nipa.Doshi@towerhealth.org)

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