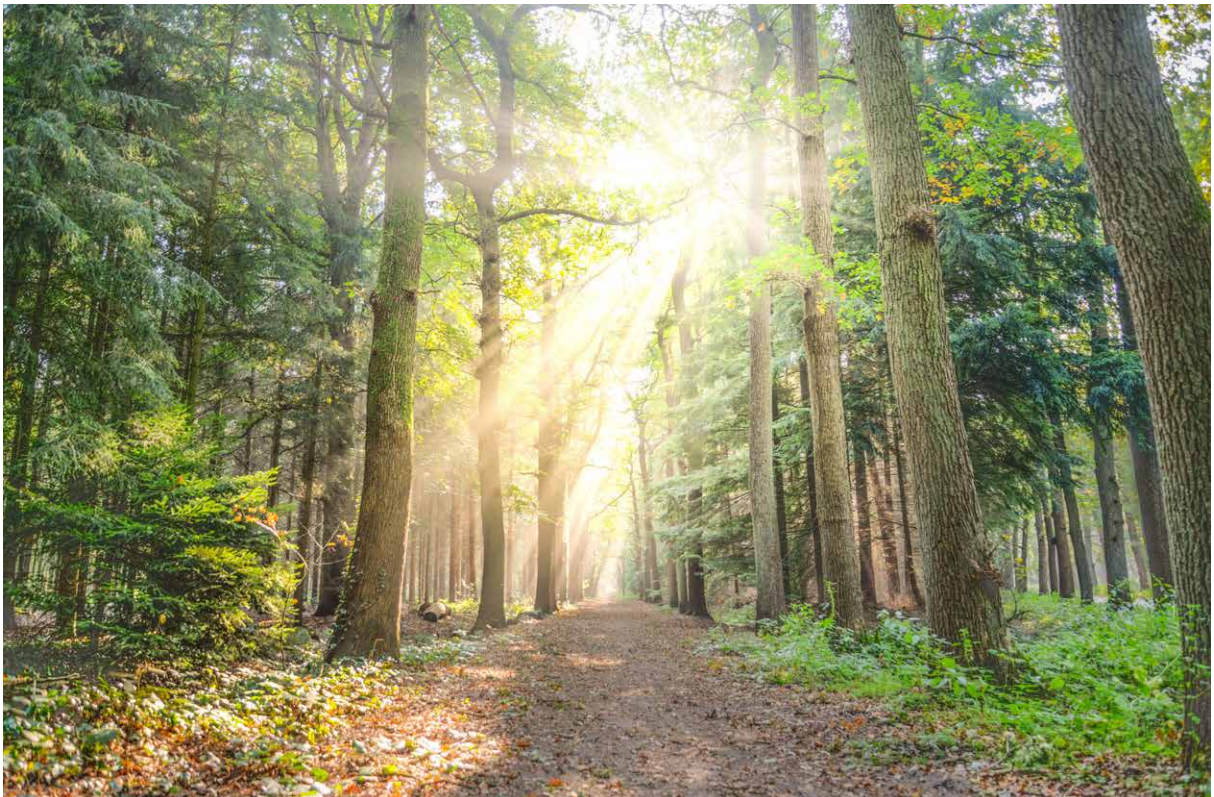


## Prescribing Vitamin N

We've all seen the studies – spending time in nature improves health. But how exactly do you prescribe nature? *The Pulse* sat down with Dr. Cyndi Gilbert, ND, author of the new book *Forest Bathing: Discovering Health and Happiness Through the Japanese Practice of Shinrin Yoku (The Start Here Guide)* to get her thoughts on how NDs can include this vital prescription in naturopathic clinical practice.



**What is green prescribing? Why do you think this topic has garnered so much interest lately?**

Green prescribing is the medical practice of providing a written prescription to a patient for the purposes of improving health and well-being through exposure to nature, including multisensorial interaction with nature. Green prescriptions may include any kind of nature exposure from spending time in public parks to walking in green spaces to gardening. The practice has been gaining in popularity as more and more research is published on the detrimental health effects of too much time indoors for both adults and children.<sup>1,2,3</sup> Conversely, the evidence continues

to grow in support for the benefits of spending time in nature. Forest bathing, a practice developed and coined by Japanese researchers, has grown in popularity in North America and Europe. Naturopathic Doctors, Medical Doctors, and public health agencies have all worked towards implementing nature-based interventions to harness the healing power of nature.<sup>4,5</sup>

**When do you consider a green prescription for a patient?**

Every visit! Research shows that proximity and regular exposure to nature reduces the risk of developing a diverse range of health conditions,<sup>6</sup> from depression<sup>7</sup> and anxiety<sup>8</sup> to hypertension<sup>9</sup> to

all-cause mortality.<sup>1</sup> Nature exposure is a basic social determinant of health, independent of other factors such as diet, exercise, and socio-economic status. Therefore, I encourage Naturopathic Doctors to ask about nature exposure in their initial intakes and consider green prescriptions part of basic naturopathic care.

#### Are there any patients for whom green prescriptions are not appropriate?

Everyone can benefit from a green prescription, although like all recommendations, they should be tailored to the individual patient. Accessibility to natural spaces can be challenging for certain patients, including older adults with mobility issues or cognitive impairments, people living with disabilities, and others who may not have access to certain kinds of nature through public transportation. People with seasonal allergies may find it challenging to introduce nature exposure at certain times of the year. Green prescriptions should take into account the complete psychosocial and physical health history of each patient in order to individualize the prescription.

Additionally, patient education around safety when heading into nature can be vitally important and should be included as part of an informed consent discussion.

Patients who are unfamiliar with visiting green spaces may benefit from information on appropriate clothing, basic first aid, and general safety. Risks associated with spending time outdoors in green spaces should also be discussed, including bug bites and sun exposure. Ticks that carry Lyme disease are present throughout Southern Ontario as well as some Northern Ontario communities. If you are going to suggest to your patients that they spend more time outside, you should also inform them of how to prevent transmission, how to safely remove a tick, what symptoms to look out for, and how to proceed should they develop symptoms. Like all naturopathic recommendations, informed consent is the key.

#### What are the advantages to patients?

Green prescriptions have loads of advantages for patients. It's

hard to imagine many other therapies that are completely free, readily available, and virtually without side effects that can transform mental health, brain health, heart health, stress resiliency, immune function, and more. Interacting with nature is one of the most effective and easiest health hacks that patients can incorporate into their lives and self-care routines. Plus, nature exposure can be coupled with exercise, mindfulness, hydrotherapy, or botanical medicine to maximize the benefits.<sup>10</sup>

#### What are the advantages to NDs?

Simplicity and ease. There is no overhead associated with green prescribing and very little research is required in order to write your first prescription. Potential adverse effects can be minimized and there are no drug interactions to consider. Incorporating green prescriptions is simple and can provide a bridge to other health-promoting activities and lifestyle changes such as diet, exercise, socializing, and mindfulness practices. Particularly for clinicians working with pediatric and adolescent populations, green prescriptions can be part of a comprehensive plan to ensure that children and youth get the recommended amounts of physical activity per day.<sup>11</sup> Lastly, green prescriptions can provide opportunities for clinicians to hold

group sessions, to work with multiple people at a time.

#### How can NDs incorporate green prescriptions into clinical practice?

Make green prescribing easy for yourself as the clinician and easy for your patients. Use quick, universal prescriptions to ensure patients are spending time outside doing something that they enjoy doing.

Consider how green prescriptions can fit into your existing clinical framework – talk to patients about the importance of nature exposure and encourage them to spend time outside. Pair green prescribing with social prescribing or exercise or meditation. For example, ask your patients with depression who would benefit from more social support to go for a walk with a friend in the park once a week. Encourage patients who

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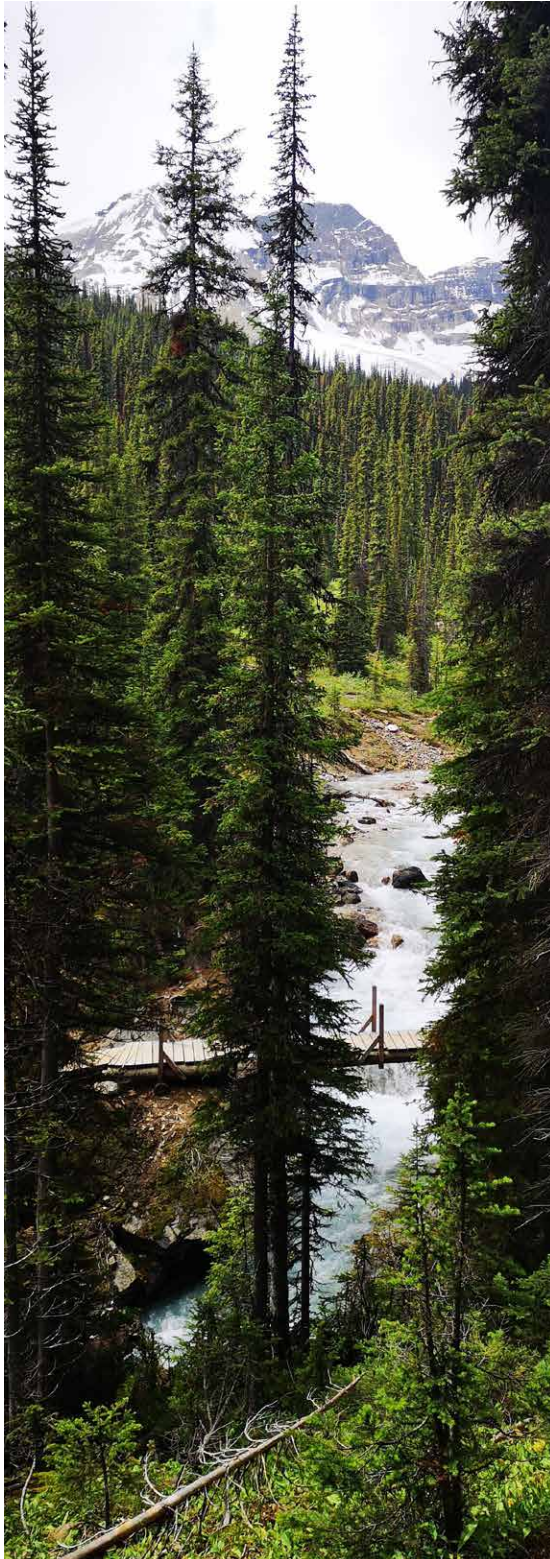


Photo credit: Dr. Cynith Gilbert, ND

take public transit to work to get off a few stops early and walk through a park. Choose gardening as the green activity of choice for older adults working on cognitive health promotion as well as patients living with cognitive decline or dementia. At a minimum, ask every patient about their weekly nature exposure time and encourage them to spend time outside.

There are other ways to incorporate green prescriptions into clinical practice. Two of the things I've offered in my own practice are outdoor seated or walking appointments and individualized forest bathing sessions. While walking appointments may be more common with psychotherapists,<sup>12</sup> they can also be adopted in some naturopathic appointments. Although ensuring patient privacy and confidentiality can present a unique challenge when not indoors, a comprehensive informed consent discussion with reasonable steps for safeguarding patient privacy can address any concerns patients and/or clinicians may have. For more details, see the Personal Health Information Protection Act (PHIPA) and the office of the Information and Privacy Commissioner of Ontario (IPCO).

#### Is there a minimum therapeutic dose to nature exposure?

Several studies from the UK have looked into the minimum therapeutic dose for nature exposure for overall health promotion. In one study of over 1,000 adults, the dose response analysis showed that spending time in a private garden for only 10 minutes per day or once weekly was associated with improvements in depressive symptoms compared to no time in a garden. Spending 30 minutes a week in a garden was associated with greater perception of social cohesion. In terms of optimal therapeutic doses, this study found that visiting a garden 4-5 times a week or 5-7 hours weekly was associated with a 17% decrease in rates of depression on the DASS (Depression Anxiety & Stress Scale).<sup>13</sup> Some health outcomes, like the perception of stress, may change within 1 or 2 visits to natural environments while others such as active engagement in green exercise may only become apparent over longer time frames and through consistent exposure to green spaces.<sup>14</sup>

More recently, a large-scale study found 120 minutes a week to be the optimal therapeutic dose of green. With information from just under 20,000 people, researchers noted that the likelihood that people reported good health and high well-being was significantly greater when they spent 120 minutes or more per week in green space than participants who spent zero time in nature. Those positive effects peaked at 200-300 minutes per week and were consistent across age groups and in sub-groups with different health issues.<sup>15</sup>

The important thing for clinicians to note is that in most studies investigating dose-response relationships, how the time in nature is spent over the course of the week doesn't matter. People can spend 2 hours once weekly or 20 minutes six times weekly and the health benefits appear to be the same.

**Where do you like to forest bathe in Ontario? How about in urban settings?**

Some of my favourite spots to forest bathe in Ontario are in the provincial parks and regional conservation areas. From my home in downtown Toronto, I love to make day trips to the Niagara Escarpment and the Bruce Trail sections that are closest to Hamilton, Milton and Guelph. I also love taking longer weekend getaways to the French River, Killarney, or Algonquin Provincial Park. In the heart of Toronto, my favourite spots are High Park, Etienne Brule Park, and Taylor Creek. I have held forest bathing appointments in Trinity Bellwoods Park and Christie Pits but any patch of grass with some trees on it will do. If you only have 10 minutes, visit the park closest to your home or work and hang out under a tree canopy.

**Green Prescribing Clinical Pearls**


Goal	Action
Incorporate green prescribing into your existing clinical framework	<ul style="list-style-type: none"> <li>• Ask patients about nature exposure in your initial intake and subsequent sessions</li> <li>• Talk to patients about the importance of nature exposure and encourage them to spend time outside</li> </ul>
Individualize the green prescription to address patient-specific barriers	<ul style="list-style-type: none"> <li>• Mobility issues</li> <li>• Cognitive impairments</li> <li>• People with disabilities</li> <li>• Proximity to natural spaces</li> <li>• Seasonal allergies</li> </ul>
Educate patients about safety as part of an informed consent discussion	<ul style="list-style-type: none"> <li>• Appropriate clothing</li> <li>• Basic first aid</li> <li>• General safety</li> <li>• How to recognize and remove ticks</li> <li>• Key Lyme disease symptoms and what to do if symptoms develop</li> </ul>
Pair green prescribing with social prescribing, exercise and mindfulness	<ul style="list-style-type: none"> <li>• Walk in the park with a friend</li> <li>• Get off a few stops early on daily transit trips to walk through a park</li> <li>• Do some gardening</li> </ul>
Incorporate green prescribing into your session format	<ul style="list-style-type: none"> <li>• Outdoor, seated sessions</li> <li>• Walking sessions</li> <li>• Forest bathing sessions</li> <li>• Outdoor, group sessions</li> </ul>

**REFERENCES**

OAND Members can access the reference list and clinic resources by logging into oand.org and going to OAND Community/Pulse




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