

# Research in Forest Therapy

- ▶ INFTA Forest Therapy Insights

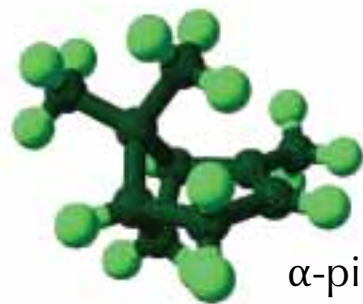
- ▶ presented by

Prof. Dr. Dieter Kotte

Secretary & International Strategic Advisor

International Nature and Forest Therapy Alliance (INFTA)

Melbourne/Australia & Hamburg/Germany

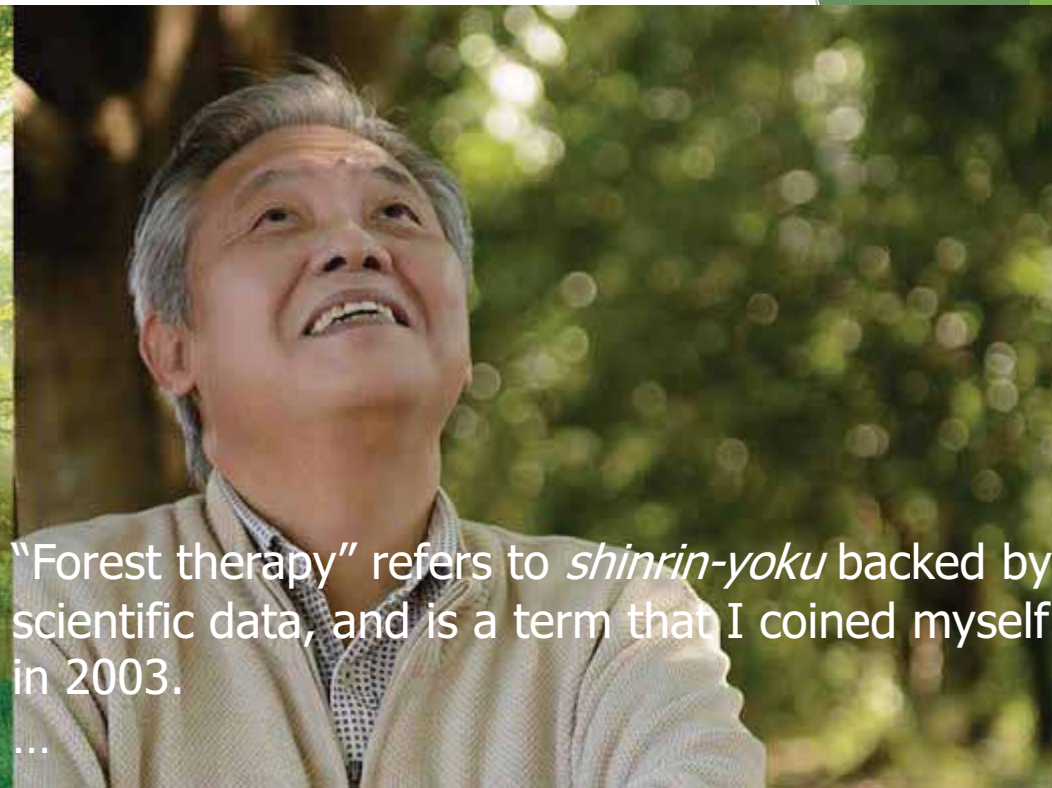
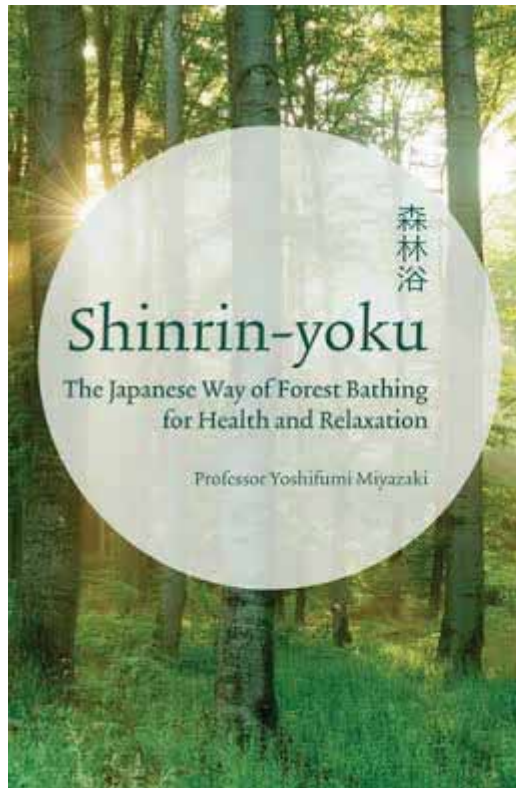


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“Forest therapy” refers to *shinrin-yoku* backed by scientific data, and is a term that I coined myself in 2003.

....

Prof. Dr. Yoshifumi Miyazaki  
Grand Fellow  
Chiba University, Japan

INFTA Advisory Board Member

Since we’re in a condition of stress due to our separation from nature, we need the forest, a typical example of the natural environment. By ameliorating our stress, we can recover our immune strength and develop bodies more resistant to illness. At the end of the day this will lead to a reduction in medical costs.

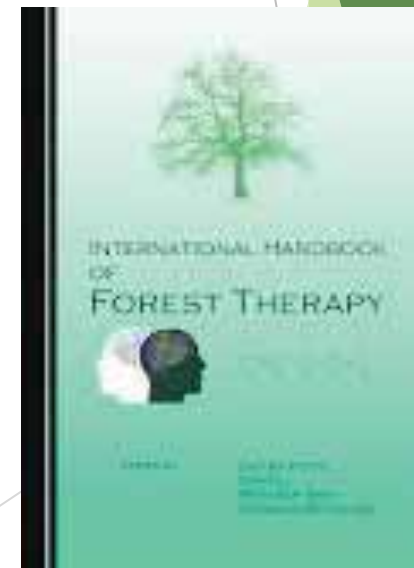


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# Definition of Forest Therapy

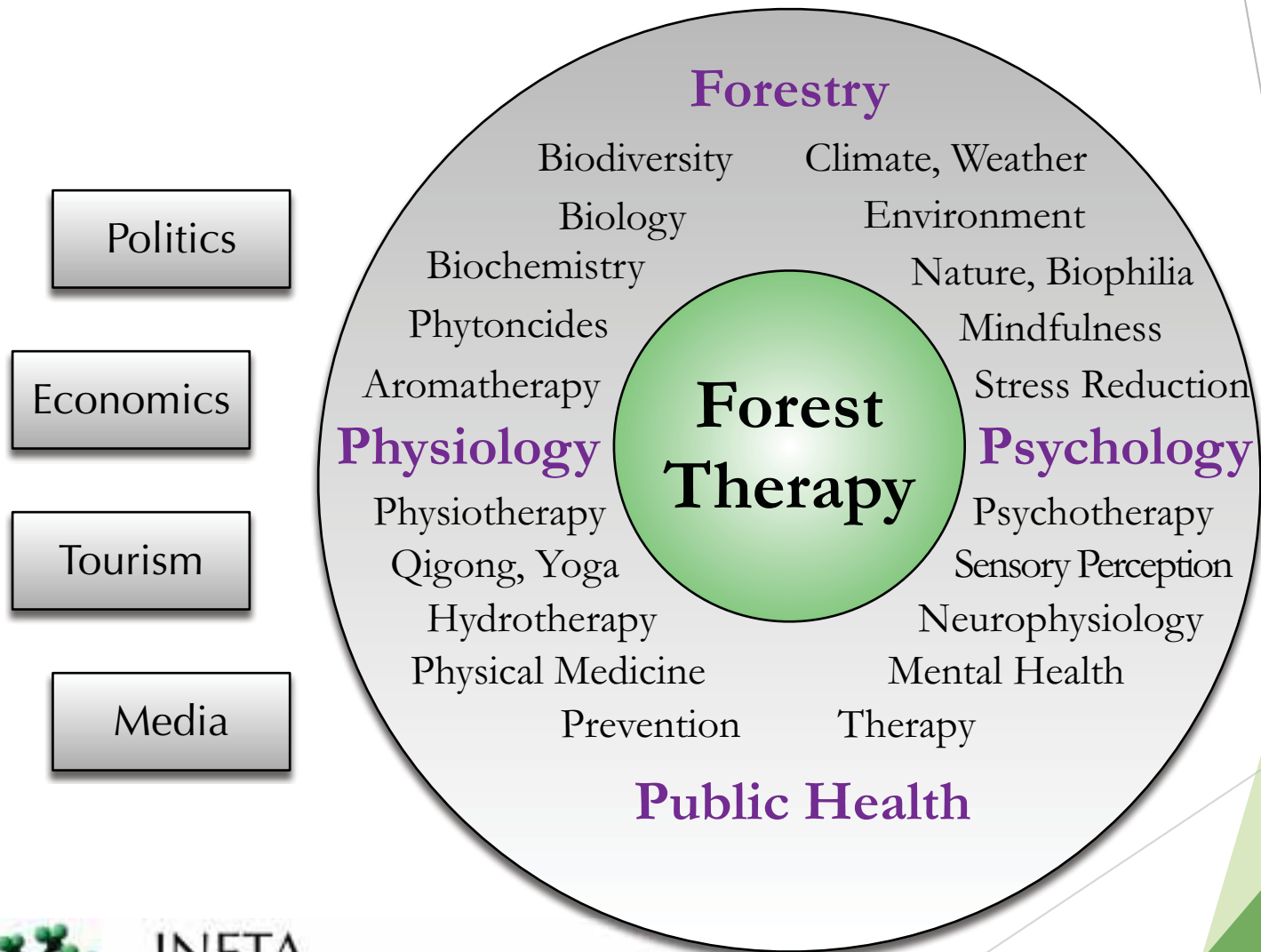
- ▶ **Forest Therapy** *is an evidence-based Public health practice. Guided Forest Therapy walks combine a specific blend of complementary physical and mental exercises in suitable forest surroundings leading to a lower heart beat, blood pressure and stress levels while, at the same time, the immune system, breathing and the overall physical and mental fitness and wellbeing are strengthened.*
- ▶ International Handbook of Forest Therapy  
(Kotte, Li, Shin & Michalsen [eds.] 2019)



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# Theoretical Framework

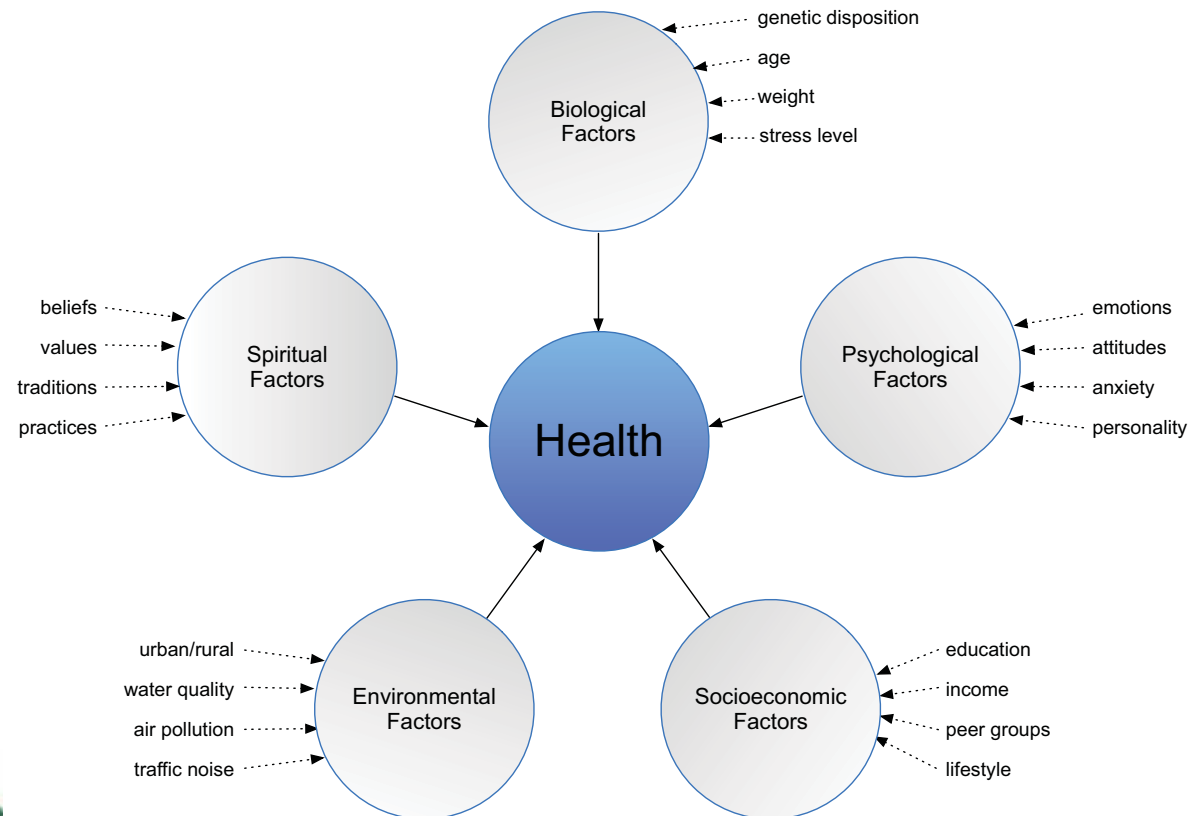


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# Forest Therapy in Public Health

## ► key groups of factors impacting on human health





# Health Benefits (I)

## ► **Direct health benefits** of Forest Therapy:

- improved blood pressure (systolic and diastolic)
- lower and more regular pulse rate
- reduced stress hormone (cortisol) level
- reduced anxiety
- surge in the activity of cancer- and tumor-fighting blood cells (*'natural killer'* cells)
- active exposure to anti-bacterial, anti-fungal, anti-inflammatory, anti-microbial and anti-viral substances emitted by trees and plants (*phytoncides*)
- increased happiness and positive mood (release of *neurotransmitters*)
- enhanced energy level
- better concentration



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# Health Benefits (II)

▶ **Indirect health benefits** of Forest Therapy:

- increased overall fitness levels
- improved immune system with accelerated recovery from surgery or illness
- weight loss and reduced risk of obesity
- reduced risk of heart and lung diseases
- less likelihood of feeling stressed in typical day-to-day situations
- higher self-confidence and motivation with less mood-swings
- decrease in anxiety and reduced risk of getting depressed
- improved executive function in adults and children with ADHD
- better and more regular sleep
- better mental health



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# Research in motion (I)

- ▶ Deakin University, Victoria/Australia
- ▶ certification and accreditation of world's first on-campus Forest Therapy trail; overall length ca. 800m with possible extension to about 1.5 kms at Waurin Ponds Campus, Geelong; surroundings: native trees, bushes with embedded redesigned freshwater ponds; official opening around March 2024
- ▶ first accompanying research projects scheduled for Year 1 students in early 2024 (two Master thesis projects, one PhD study); all projects will measure and evaluate the suitability and effectiveness of campus-based FT



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# Research in motion (II)

- ▶ University of Melbourne, Victoria/Australia
- ▶ INFTA submitted a proposal to the Victorian Department of Health for the *Diverse Communities Mental Health and Wellbeing Grants Program 2023-25*
- ▶ FT sessions will be conducted for 300 international students at the Royal Botanic Gardens Melbourne. FT is meant to demonstrate how the access for international students to mental health and wellbeing can be improved readily and sustainably by offering regular standardized FT sessions. FT sessions will help to reduce common mental health issues among international students, like stress and anxiety, enhance their mood positively, provide additional opportunities for social contacts and strengthen students' nature-connectedness.



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# Research in motion (III)

- ▶ RMIT, Victoria/Australia
- ▶ INFTA's President, Susan Joachim, is on the Australian *RECETAS (Re-imagining Environments for Connection and Engagement)* Advisory Board
- ▶ an FTG scholarship has been awarded to the RMIT Project Leader, Dr. Nerkez Opacin
- ▶ RECETAS is part of an NHMRC/EU Commission-funded project exploring the benefits of prescribing nature-based social activities to reduce loneliness and improve mental health; the project aims to better understand the effects of green space and biodiversity on loneliness and mental well-being and help create a framework for Nature-Based Social Prescribing (NBSP)



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# Research in motion (IV)

- ▶ [Klinik Wartenberg, Bavaria/Germany](#)
- ▶ INFTA trained and accredited several Forest Therapy Guides for the clinic in 2023
- ▶ INFTA certified and accredited the Forest Therapy trail located right on the premises of the clinic
- ▶ research project funded by the Bavarian State Ministry of Health and Age Care will assess the effectiveness of Forest Therapy as an adjunct therapeutic intervention to improve the recovery of geriatric patients after an operation/hospitalization
- ▶ results are expected in 2025



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# Forest Therapy Session (I)



## Forest Therapy Session 3-hrs (standard)

Activity	Time in min
Meet & Greet	20
Tuning the Senses	20
Group Sharing/Reflection	5
Quiet Aware Walking	15
Group Sharing/Reflection	5
Meet a Tree	15
Group Sharing/Reflection	5
Sensory/Creative Activity	10
Sensory/Creative Activity	10
Sensory/Creative Activity	10
Group Sharing/Reflection	15
Sit Spot	20
Tea Ceremony	30
<b>Total</b>	<b>180</b>

## Forest Therapy Session 2-hrs (customized)

Activity	Time in min
Meet & Greet	10
Tuning the Senses	15
Group Sharing/Reflection	5
Quiet Aware Walking	15
Meet a Tree	10
Group Sharing/Reflection	5
Sensory/Creative Activity	10
Sensory/Creative Activity	10
Group Sharing/Reflection	5
Sit Spot	15
Tea Ceremony	20
<b>Total</b>	<b>120</b>





# Forest Therapy Session (II)

- ▶ **Forest Therapy sessions** usually comprise 2-3 hours of slow, quiet aware walking, sitting and pausing on easeful trails which are accessible to all levels of fitness and suited for all age groups
- ▶ **Forest Therapy trails** typically cover no more than 1-2 kilometres in length
- ▶ The **INFTA-Forest Therapy Guiding Sequence** determines a structured Forest Therapy session. This standard design employs complementary physical and mental activities which are research-based and achieve to calm and de-stress clients effectively and measurably.



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# Implications for FTGs

- ▶ Forest Therapy sessions are an evidence-based combination of mental and physical activities (**INFTA Forest Therapy Guiding Sequence**)
- ▶ Forest Therapy session >120 min
- ▶ Forest Therapy session once a month
- ▶ select natural environment and appropriate Forest Therapy trail
- ▶ conduct Forest Therapy session in suitable weather conditions



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## Forest Therapy Prescription

Name:

Date:

**Daily Dosage:** practice for 15 – 20 minutes

How

Start a "Sit Spot" practice in your garden or nearby park. Find a comfortable place where you can blend in with your surroundings. Be quiet and observant, noticing the trees, birds, sounds and fragrances. Bring your awareness to your own breath, gently close your eyes and allow your senses to take in what nature is offering you in the moment. Give yourself permission to be with nature every day!

**Weekly Dosage:** regular walks for 30 minutes

How

Step outdoors alone or with a friend. Keep your smartphone at home and allow yourself to stop and notice nature through the changing seasons. Notice what happens within you.

**Monthly Dosage:** session with a Forest Therapy Guide

How

Locate an INFTA-Certified Forest Therapy Guide and book in a Forest Therapy session. A certified guide can teach you skills to enhance your experience and well-being.

**Benefits**

- 1 stronger immune system
- 1 lower blood pressure
- 1 decreased cortisol level
- 1 improved mood
- 1 better sleep
- 1 increased vigour, focus and energy



"Adopt the pace of nature, her secret is patience"

To find out more about Forest Therapy visit [inmynature.life](http://inmynature.life) or



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# INFTA's Global Network



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# Thank you.



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