



FOREST THERAPY

Background:

In recent years there has been considerable and increasing attention paid to using the forest environment as a place for recreation and health promotion. This trend comes from Japan, where it is called shinrin-yoku, a term that means “taking in the forest atmosphere through all of our senses” or, more simply, “forest bathing”.

Alpine forests represent a distinguishing element of the Alpine region. Forests are an important area for recreational activities and play a key role in tourism as they are a defining feature of the landscape, while numerous hiking trails and similar run through Alpine forests. Given the emerging global trend of forest therapy and the wide occurrence of forests in the Alpine area, one might think that forests and their postulated health effects make a good base for the development of Alpine health tourism products. However, a closer look to the scientific literature on forest therapy reveals several gaps and shortcomings, especially regarding the research methodology and transferability of results.

Medizinische Evidenz:

The lack of high-quality studies means that there is no convincing evidence for the benefits of forest therapy. Besides the lack of methodological quality, there are further limitations on the transferability of study results to Alpine forests:

- Research suggests that many of the health effects measured can be attributed to phytoncides, a generalized term for natural chemicals released by plants into the environment. It is theorized that these chemicals could influence stress physiology and immunology through inhalation. Most forest therapy studies were conducted in tropical primeval forests (mostly Japanese, Korean and Chinese) with a high degree of biodiversity. These forests are totally different from typical Alpine forests: almost all Alpine forests are semi-natural as defined by Forest Europe, with a significant presence of large trees and deadwood. There are almost no truly primary forests and plantations. Thus their phytoncide composition is also totally different and the effects measured cannot be transferred to Alpine forests.
- In most studies, the control group lived in Asian megacities like Tokyo with high air and noise pollution. The health benefits measured could therefore also be attributed to the absence of such factors. Furthermore, these cities are not comparable to typical European/Alpine cities.

To date only the following three randomized controlled clinical trials have been conducted in Europe.

Studies of medical evidence:

- Indication: higher stress levels (Dolling et al., 2017): evidence level Ib
- Indication: exhaustion (Sonntag-Öström et al., 2015): evidence level Ib
- Indication: exhaustion (Stigsdotter et al., 2017): evidence level IIa

Conclusion:

Strong evidence for the benefits of the forest environment in terms of health and well-being has yet to be confirmed. The findings of previous research support the premise that exposure to forest environments may provide health benefits. The evidence is however insufficient owing to methodological design flaws. Future investigation is necessary to validate any forest specific health effects, especially for Alpine forests.

Health tourism potential:

Considering the wide occurrence of forests in the Alpine region and the emerging trend towards nature-based recreation, forests may be considered an important resource with a high health tourism potential. However, based on current data, no scientifically grounded statement can be made about the specific health effects of Alpine forests. Therefore, there is a strong need for future research with high-quality studies.

