

Shinrin-yoku 森林浴

the philosophy of forest bathing

Former Communications Officer Robert Enderby explores the wonderful health benefits of forests

Shinrin-yoku is a Japanese philosophy that literally means 'forest bathing' or forest therapy. It's all about immersing yourself in the aroma of the forest. Just being in nature.

The Japanese think nature is very important. They live on a crowded island, mostly in cities with fast paced modern jobs. They've become concerned that they're missing out on the many benefits of nature.

As a result they've developed the idea of shinrin-yoku to encourage each other to visit wild places. This has also inspired some ground-breaking science looking at the influence of forest environments on human health.

NK cells are associated with immune system health and cancer prevention

Lead by the Nippon Medical School and the Center for Environment, Health and Field Sciences in Japan's Chiba University, scientists conducted a study from 2004 to 2012 into the health benefits of forests. They found that exposure to forests boosts the activity of natural killer (NK) cells. These NK cells are a key part of our body's natural defences. They are associated with immune system health and cancer prevention.

In a 2009 study subjects showed significant increases in NK cell activity in the week after a forest visit, and positive effects lasted a month following each weekend in the woods. This was due to essential oils, generally called phytoncides, found in wood, plants, and some fruit and vegetables, which trees emit to protect themselves from germs and insects. They found that forest air doesn't just feel good; by breathing in phytoncides from trees it can actually improve immune system health!

Breathing forest air increased NK cell activity boosting the immune system

On top of this they measured salivary cortisol (which increases with stress), blood pressure, pulse rate and heart rate variability during a day in the city and compared those to the same biometrics taken during a day with a 30-minute forest visit. The study found: "forest environments promote lower concentrations of cortisol, lower pulse rate, lower blood pressure, greater parasympathetic nerve activity, and lower sympathetic nerve activity than do city environments." Our parasympathetic nerve system regulates our rest and digest system, while the sympathetic nerve system regulates our fight or flight responses.

Essentially, forest environments helped people relax and reduce their stress levels. A further study showed that people felt less hostility and depression in forest environments than in urban environments. They also showed greater liveliness and the study recommended forest environments as a therapy for chronic stress.

Many of us have intuitively felt that forests made us feel better but it's great to have some good science backing that up. The Japanese government is so impressed that it's included shinrin-yoku as part of its programme of preventative medicine.

Forest environments reduced subjects stress levels

We know that forest environments are wonderful places for wildlife and rank as one of the best habitats for biodiversity. With these new insights into their health benefits the importance of forest environments can only be enhanced.

Springtime is the perfect time for some forest bathing. Buds are sprouting, leaves are growing and woodland flowers like bluebells, primrose, lesser celandine and wood anemone are starting to bloom. The forest air is awash in the vitality of new life!

References

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Image opposite: small-leaved lime tree saplings in Goslings Corner Wood nature reserve, part of the Lincolnshire Limewoods.

