

## Being outside can improve memory, fight depression, and lower blood pressure — here are 12 science-backed reasons to spend more time outdoors



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Spending time outside will improve your physical and mental health. Shutterstock

- **Spending time in forests, hiking in mountains, and just being outside can lead to significant health benefits.**
- **Studies have shown that walking in the woods can improve blood pressure, boost mental health, and decrease cancer risk.**
- **So go spend some time "forest-bathing" to improve your health.**

Many people spend workdays indoors under fluorescent lights and in front of computers, then return home to bask in the glow of television screens.

But research suggests it's important to make time to get outdoors as well, since doing so is beneficial — maybe essential — for human health. Psychologists and health researchers are finding more and more science-backed reasons we should go outside and enjoy the natural world.

In her book, "[The Nature Fix: Why Nature Makes Us Happier, Healthier, and More Creative](#)," journalist Florence Williams writes that she started investigating the health benefits of nature after moving from the mountainous terrain of Boulder, Colorado, to what she describes as "the anti-Arcadia that is the nation's capital": Washington, DC.

"I felt disoriented, overwhelmed, depressed," she wrote. "My mind had trouble focusing. I couldn't finish thoughts. I couldn't make decisions and I wasn't keen to get out of bed."

We don't all need to move to beautiful places like Boulder — there are good reasons for many of us to live in bigger cities.

But humans do need to spend time in natural environments if they want to improve their physical and mental health. That could mean taking advantage of hiking trails near your home, playing in the snow, swimming in the ocean, or just spending time every week in a local park.

**Here are 12 reasons why it's so important.**

# Walking in nature could improve your short-term memory.

Several studies show that nature walks have memory-promoting effects that other walks don't.

In one study, University of Michigan students were given a brief memory test, then divided into two groups. One group took a walk around an arboretum, and the other took a walk down a city street. When the participants returned and did the test again, those who had walked among trees did almost 20% percent better than they had first time. The people who had taken in city sights instead did not consistently improve.



[Flickr / Carlos Andrés Reyes](#)

A similar study on depressed individuals found that walks in nature boosted working memory much more than walks in urban environments.

## Being outdoors has a demonstrated de-stressing effect.

Something about being outside changes the physical expression of stress in the body.

One study found that students sent into the forest for two nights had lower levels of cortisol — a hormone often used as a marker for stress — than those who spent that time in a city.

In another study, researchers found a decrease in both the heart rates and levels of cortisol of participants who spent time in the forest compared to those in the city.

"Stressful states can be relieved by forest therapy," the researchers concluded.

Among office workers, even a view of nature out a window is associated with lower stress and higher job satisfaction.



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## Spending time outside reduces inflammation.

When inflammation goes into overdrive, it's associated with a wide range of ills, including autoimmune disorders, inflammatory bowel disease, depression, and cancer. Spending time in nature may be one way to help keep that in check.

In one study, [students who spent time in the forest](#) had lower levels of inflammation than those who spent time in the city. In another, [elderly patients](#) who had been sent on a weeklong trip into the forest showed reduced signs of inflammation. There were some indications that the woodsy jaunt had a positive effect on those patients' hypertension levels as well.



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## Enjoying the outdoors helps eliminate fatigue.

You know that feeling when your brain seems to be sputtering to a halt? Researchers call that "mental fatigue."

One thing that can help get your mind back into gear is [exposing it to restorative environments](#), which, research has found, generally means the great outdoors. One [study found](#) that people's mental energy bounced back even when they just looked at pictures of nature. (Pictures of city scenes had no such effect.) Studies have also found that natural beauty can [elicit feelings of awe](#), which is one of the surest ways to experience a mental boost.



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## Outdoor experiences may help fight depression and anxiety.

Anxiety, depression, and other mental health issues may all be eased by some time in nature — especially when that's combined with exercise.

One study found that [walks in the forest](#) were associated with decreased levels of anxiety and bad moods, and [another found](#) that outdoor walks could be "useful clinically as a supplement to existing treatments" for major depressive disorder.

"Every green environment improved both self-esteem and mood," found [an analysis of 10 earlier studies](#) about so-called "green exercise." That review also indicated that "the mentally ill had one of the greatest self-esteem improvements."



Unsplash / Joshua Earle

The presence of water made the positive effects even stronger, the findings suggested.

## Being outside may protect your vision.

At least in children, a fairly large [body of research](#) has found that outdoor activity may have a protective effect on the eyes and reduce the risk of developing nearsightedness (myopia).

"Increasing time spent outdoors may be a simple strategy by which to reduce the risk of developing myopia and its progression in children and adolescents," a 2012 review of the research conclude



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In Taiwan, researchers studied two nearby schools where myopia was equally common. They told one school to encourage outdoor activity during recess and monitored the other as a control. After one year, the rate of myopia in the control school was 17.65%; in the "play outside" school, it was just 8.41%.

## Spending time outside lowers blood pressure.

With all these other salutary effects, it's no surprise that outdoor time — which usually involves walking — lowers blood pressure too.

That effect has been demonstrated by a number of studies. One [intensive study](#) of 280 participants in Japan found that along with decreasing stress hormone concentrations by more than 15%, a walk in the forest lowered participants' average pulse by almost 4% and blood pressure by just over 2%.



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## It could improve your ability to focus.

We know the natural environment is "restorative" — that even applies to your waning attention.

In [one study](#), researchers worked to deplete participants' ability to focus. Then some people took a walk in nature, others took a walk through the city, and the rest just relaxed. When everyone returned, the nature group scored the best on a proofreading task.

The attention-improving effect of nature is so strong it might even help kids with ADHD: they've been [found to concentrate better](#) after just 20 minutes in a park.



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"'Doses of nature' might serve as a safe, inexpensive, widely accessible new tool ... for managing ADHD symptoms," researchers wrote.

## You may perform better on creative tasks after being outside.

"Imagine a therapy that had no known side effects, was readily available, and could improve your cognitive functioning at zero cost." That's the dramatic [opening to a 2008 paper describing the promise](#) of so-called "nature therapy" — or, as a non-academic might call it, time spent outside.

[Another study found](#) that people immersed in nature for four days boosted their performance on a creative problem-solving test by 50%.



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## Outdoor sessions may even help prevent cancer.

Research on this connection is still in its earliest phases, but [preliminary studies](#) have suggested that spending time in nature — in forests, in particular — may stimulate the production of anti-cancer proteins.

Boosts in the levels of these proteins that people get from being in the woods may [may last up to seven days](#) after the trip.

Studies in Japan, where "shinrin-yoku" or "forest-bathing" is considered a form of preventative medicine, have also found that [areas with greater forest coverage have lower mortality rates](#) from a wide variety of cancers.



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While there are too many confounding factors to come to a definitive conclusion about what this might mean, it's [a promising area for future research](#).

## Forests also might boost your immune system.

The cellular activity associated with a forest's possible anti-cancer effects is also indicative of a general boost to the immune system (the body's natural ability to fight off less serious ills like colds, flus, and other infections).

A 2010 [review of research](#) related to this effect noted that "all of these findings strongly suggest that forest environments have beneficial effects on human immune function." But the researchers acknowledged that more research on the relationship is still needed.



Julie Denesha / Stringer / Getty Images

With all this, it's not surprising that outdoor time is associated with a lower overall risk of early death.

Nearby green space seems to be especially important for residents of urban environments, [according to a Dutch study](#) of 250,782 people, which found a strong positive connection between green space and health.

A follow-up [study by the same research team](#) found that a wide variety of diseases were less prevalent among people who lived in close proximity to green space. Other studies have made a direct link between time spent in forests and other measures of overall health.



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A [recent study](#) published in Environmental Health Perspectives found a similar connection: greater exposure to greenness was associated with a 12% lower mortality rate. The biggest improvements were related to reduced risk of death from cancer, lung disease, and kidney disease.

*Lauren Friedman contributed to an earlier version of this post.*