

# Physical Health Benefits

*A selection of facts and resources supported by research*

2024

## Overview

Trees, green spaces, and nature are essential elements of urban infrastructure and contribute to the physical well-being of the community. They alleviate stress, stabilize blood pressure and address anxiety and depression in addition to many other benefits. These benefits are brought forth by a range of inputs such as improved air quality, increased physical activity, enhanced immune function, stress reduction.

### Live Longer

- People with more access to quality green spaces seem to **live longer** (Twohig-Bennett et al., 2018).
- People residing close to parks and community gardens are, on average, 2.5 years **biologically younger** than those who do not have that access (Elton, 2023).
- A Harvard School of Public Health study found that women living in areas with higher levels of green vegetation had a **12% lower rate of death** compared to those with less green vegetation. They experienced 13% lower cancer mortality, 35% lower respiratory disease-related mortality, and 41% lower rate for kidney disease mortality (Frates, 2017).
- Formal **nature prescriptions** by physicians and other healthcare and social service providers to patients result in positive lifestyle or health-behavior changes. Park Rx America is a program promoting nature prescriptions (Beil, 2023).

### Obesity/Diabetes/Cardiovascular Disease

- More urban green **reduces the risk of chronic health conditions** including heart disease, cancer, and diabetes. Being physically active can reduce the risk of cancer and heart disease by almost 50 percent (Twohig-Bennett et al., 2018).
- Adults who spend more time in parks may be 35 percent more likely to **meet physical activity guidelines** and significantly lower their risk of obesity (Faka et al., 2019).
- The availability of parks, trails, and nature can positively affect attitudes toward being active and encourage physical activity. People will **exercise for longer** in natural environments (Urban Forestry Toolkit, n.d.).
- An Oregon study showed that on average, 11.7 new trees in each neighborhood resulted in **15.6 fewer non-accidental deaths** and five fewer cardiovascular deaths each year (Donovan et al., 2022).

### Immunity and Pain

- Adults who take short day trips to the woods boost their **levels of immunoproteins** and natural killer white blood cells (Anderson, 2021).
- Passive nature experiences and views result in **faster surgical recovery**, healing, and higher pain thresholds (Wolf et al., 2015).

## Birth Weight

- The quantity of natural space around pregnant women’s homes may result in **higher birth rates** (Urban Forestry Toolkit, n.d.).

## Cancer

- Nature exposure improves **physical and psychological recovery** in cancer survivors (Blaschke, 2017).
- Nature may increase cancer patients’ tumor-killing cell activity and their **quality of life and spiritual wellbeing** (Nakau, 2013).
- One gardening program found that 90% of survivors reported **better strength, agility, and endurance** (Blair et al., 2013).

## Stress

- Being out in fresh air can cause a response in your brain that releases **endorphins**. (St. Luke’s Health, 2022).
- **Adults who exercise outdoors** feel more energized, happier, and less stressed than those who exercise indoors (Coon et al., 2011).
- **A two-hour “dose” of nature** a week significantly boosts health and wellbeing. Japanese “forest bathing” shows that various psychophysiological benefits can be gained from merely sitting passively in natural versus urban settings. (Carrington, 2019).

## Youth

- The urban environment presents significant health challenges for children, such as discouraging physical exercise and increasing exposure to air pollution, excessive noise, and higher temperatures. **Reducing exposures to these negative environmental factors** can have great benefits on a child’s well-being and lower their risk of developing chronic diseases later in life (Islam, 2020).
- Research shows that children of all ages tend to **engage in more physical activity** when they have access to nearby green spaces. Even street trees can increase the likelihood of children walking and cycling outdoors. (UNICEF, n.d).
- Young children who play in nature compared to a traditional playground appear to develop superior motor skills, balance, and coordination (Fjortoft et al., 2004).
- There are indications that children who attend outdoor daycares with lots of greenery and varied topography **sleep longer at night and enjoy better overall health** (Soderstrom, 2013).
- Nearsightedness has reached epidemic proportions, especially in East Asia. Research is beginning to show that children who spend time in sunlight – such as in green schoolyards - are significantly less likely to develop **nearsightedness** (UNICEF, n.d.).

## Elderly

- Patients with access to a “wander garden” had about 30 percent fewer falls and a significant reduction in medications used. Wander gardens” are confined outdoor spaces that enable activity without restraint but prevent departure (Detweiler et al., 2012).
- Time spent in parks and gardens can **improve quality of life and function of dementia patients** by reducing negative behaviors up to 19 percent, and improving sleep patterns (Wolf et al., 2015).

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