

Tree-lined streets improve your health

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Most of us naturally believe that being close to nature is good for our well being. But can the benefits be proven and quantified? A new study, published in *Scientific Reports* last week, has attempted to evaluate just how much the trees that line our city streets could improve the population's health.

The study, led by psychologist Omid Kardan of the University of Chicago, focused on the large urban population of Toronto in Canada. Researchers related the domains of [green space](#) and [health](#) by combining high-resolution satellite imagery and individual tree data with 31 000 questionnaire-based self-reports of general health perception, cardio-metabolic conditions (such as heart disease or diabetes) and mental illnesses from the Ontario Health Study.

The researchers defined green space as tree canopy only and not urban grass or bushes. This was based on the assumption that trees are the most consistent green components in an area and potentially the most important component for having beneficial effects.

Results from multiple regressions and 'multivariate canonical correlation analyses' suggest that people who live in neighbourhoods with a higher density of trees on their streets report significantly higher health perception and significantly fewer cardio-metabolic conditions. The researchers controlled the results for demographic factors, such as income, age and education.

More specifically, the study found that having ten more trees in a city

block, on average, improves health perception in ways comparable to an increase in annual personal income of approximately EUR 9 000 (\$10 000) or being seven years younger. The authors add, 'We also find that having 11 more trees in a city block, on average, decreases cardio-metabolic conditions in ways comparable to an increase in annual personal income of \$20,000 [EUR 18 000] and moving to a neighborhood with \$20,000 [EUR 18 000] higher median income or being 1.4 years younger.'

[The Washington Post reports](#) on another interesting finding: street trees seemed to have a more beneficial effect than private or backyard trees. This, the authors note, may be explained by the fact that they are more accessible to all residents in a given neighbourhood.

[Ifscience.com](#) reports that while the results of the study found a correlation between trees and health, it cannot show cause and effect: 'Researchers were unable to pinpoint why trees seemed to improve health, but suggest it might have something to do with an improvement in air quality, relieving stress, or promoting physical activity.' The website also points out that the study was limited by the data it used because although researchers controlled for a number of factors, someone's perception of their own health is subjective.

Researchers now hope to test their findings in a 'more comprehensive manner that obviates the mentioned limitations'. For the now, according to ifl.com, they recommend that every block of buildings plants 10 more [trees](#).

More information: "Neighborhood greenspace and health in a large urban center." *Scientific Reports* 5, Article number: 11610 [DOI: 10.1038/srep11610](#)

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