



Health & Environmental Benefits of Natural Green Spaces in Cities

Source: Scientific Journals and Government Agencies, 2005 - 2017

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October 2017

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We are pleased to present this summary of [research from over sixty scientific journals and government agency reports](#) documenting the wide-ranging benefits of natural green spaces in cities to public health and the environment. With more than half of the world's population residing in cities,¹ it is essential that we create natural open space to make our cities healthy places in which to live.

Natural Green Spaces in Cities are a Health Resource

In a 2016 review of the benefits of natural green space in cities, The World Health Organization concluded that it is "essential that all populations have adequate access to green space, with particular priority placed on provision for disadvantaged communities."² By providing natural recreational areas and a break from urban congestion and noise, Natural Green Spaces in Cities provide invaluable services to urban communities.

Physical Health

Urban Green Spaces create **public health benefits**, particularly for youth and senior citizens.

Communities with access to Natural Green Spaces:

- Perform more physical activity^{3 4 5}
- Have lower frequencies of Type 2 diabetes and obesity^{6 7 8 9 10 11}
- Have healthier Body mass index and improved cognitive development in children^{12 13 14 15}
- Have lower risk of stroke and heat mortality for the elderly^{16 17 18}



Natural Green Spaces in Cities are a Health Resource (cont'd.)

Mental Health

Access to nature provided by natural green spaces in cities improves **mental health** in surrounding communities.

Communities with access to Natural Green Spaces:

- Display fewer symptoms of depression, anxiety, and stress ^{19 20 21}
- Experience mental restoration and stress reduction ^{22 23 24}
- Report fewer symptoms of Attention Deficit Hyperactivity Disorder in children ^{25 26 27}

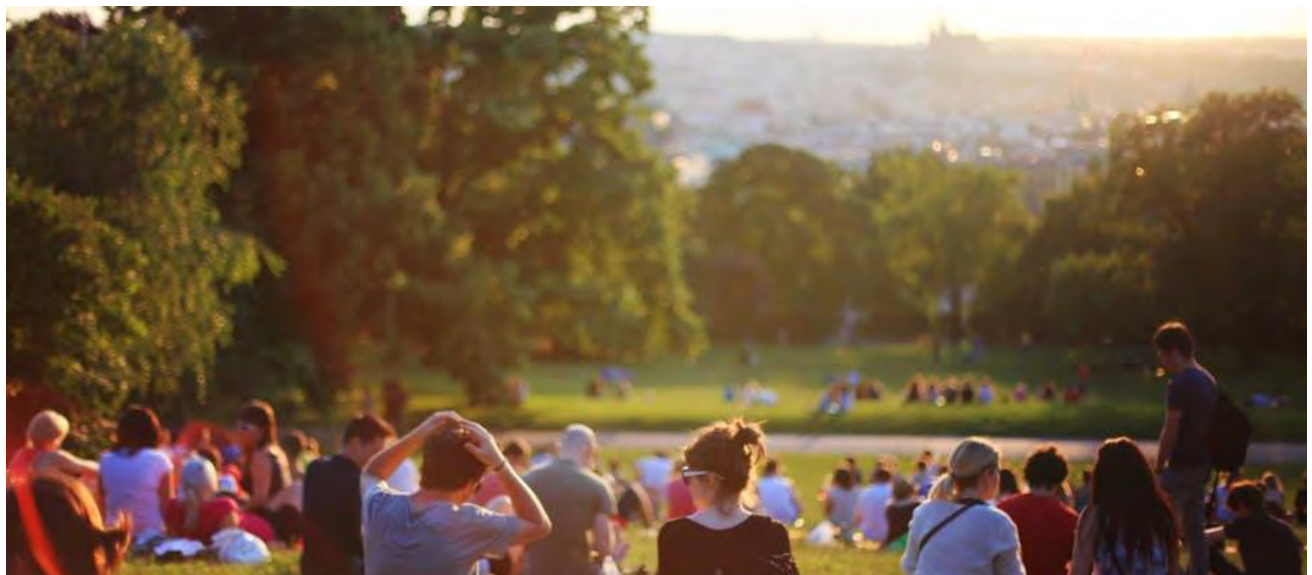


Community Health

In addition to providing mental and physical health benefits, the trees, shrubs and plants in natural green spaces improve the overall health of communities.

Natural Green Spaces in Cities:

- Buffer against urban sound pollution ^{28 29}
- Strengthen community ties by providing an arena for social contact ^{30 31}
- Contribute to an overall sense of place and belonging ^{32 33 34}



Natural Green Spaces Offset Pollution in Cities

Climate change, air and water pollution and loss of natural habitat are exacerbated by urbanization.³⁵ Reintroducing natural green spaces in cities helps to alleviate the environmental damage caused by growth.

Providing Relief from Urban Heat Island Effect

Cities with large amounts of concrete and asphalt reflect heat and create high temperatures.³⁶

Natural Green Spaces in Cities:

- Average 1.5° F cooler than pavement^{37 38 39}
- Reduce the economic and environmental costs of cooling^{40 41 42}



Improving Air Quality and Fighting Climate Change

According to the American Lung Association, California has the five most polluted cities in the United States.⁴³ Trees and plants in natural open spaces can help solve this problem.

Vegetation in Natural Green Space:

- Improves air quality by filtering airborne particulates, ozone^{44 45 46 47}
- Buffers communities from air pollution^{45 48 49}
- Helps address climate change by storing carbon dioxide as part of its natural, biological cycle.^{50 51 52}



Natural Green Spaces Offset Pollution in Cities (cont'd.)

Supporting Biodiversity

Urbanization threatens biodiversity.⁵³ Natural green spaces in cities maintain native habitat and help support many indigenous animal, bird, butterfly and plant species.



Natural Green Spaces in Cities:

- Preserves native and rare species^{54 55 56}
- Connects natural habitat areas^{57 58 59}
- Creates long-term sustainability of habitat

Capturing Stormwater and Recharging Groundwater Supplies

When rain lands on concrete and asphalt, it is funneled into aging drainage systems which wash pollutants into rivers and the ocean.⁶⁰

Natural Green Spaces in Cities:

- Intercept and store stormwater, reducing urban flooding^{61 62 63 64 65}
- Improve water quality by naturally filtering pollutants from runoff^{66 67 68}
- Help stormwater percolate through soil to recharge groundwater supplies^{69 70}



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