

# Science for Environment Policy

## How does living near to green space affect death risk?

**Living near to green spaces may reduce likelihood of death due to any cause**, and especially due to cardiovascular disease, according to a new study. The review is the first to systematically evaluate the evidence linking green spaces to risk of death.

**The scientific literature has proposed several reasons to explain why living near to green spaces might improve health.** Firstly, it suggests there may be some intrinsic wellbeing enhancements gained by simply observing natural environments. Secondly, being in green spaces may reduce exposure to air and noise pollution and extreme temperatures that have a detrimental effect on health — and may also increase access to biodiversity, which can influence immune response. Thirdly, access to green spaces provides opportunities for physical activity and social interaction, which have benefits for physical and mental wellbeing.

The authors set out to find and systematically evaluate data on the effects of living near to green spaces. Specifically, they wanted to understand whether increasing residential greenness reduced the risk of dying from diseases such as cardiovascular disease. They looked for studies providing information on the risk of death from any cause, related to green spaces including parks and forests. They only included studies that measured green spaces objectively using satellite imagery, maps or assessments by trained auditors, and gave each study a quality score based on its methods. In addition, they looked for evidence on the benefits of living near to 'blue spaces', such as lakes, rivers and beaches, but did not find any studies that explored the link between blue spaces and mortality.

Through online searches, they identified 706 potentially relevant studies. After further screening, 12 were selected for inclusion in the final review. All except one were carried out in Europe or North America, with the remaining study coming from New Zealand. The studies varied widely, and used different methods. For example, some collected data from a few thousand individuals and others from many million. While several studies reported exposure in terms of green space percentages within census area units, these units differed in population and geographical size between countries due to the way each reports its census data. Some assessed the association between green spaces and mortality from all causes, while others looked at deaths due to specific illnesses, most often cardiovascular disease.

The authors conclude that although the currently available evidence is limited, it generally supports the theory that living in areas with more surrounding greenness reduces the risk of death, mainly from cardiovascular disease. Four of the 12 studies found a statistically significant association between green spaces and a reduced risk of death from all causes, while two found an increased risk of death in greener areas.

Of eight studies that looked at the link between green spaces and cardiovascular disease deaths, five found a significant reduction in such deaths associated with increasing residential surrounding greenness. This reduction was generally less than 5%. There was not enough information on other causes of death to make conclusions about the effects of green spaces on other diseases.

The results may be of interest to healthcare professionals and policymakers aiming to improve public health in urban areas. A current recommendation<sup>1</sup> suggests that homes be situated no further than 300 metres away from the nearest green space, but the researchers say that more research evaluating relevant distances is required to understand whether following such a recommendation is of benefit. They also suggest that future studies would be more useful if they used life expectancy effects or quality-of-life measures to assess the benefits of exposure to green spaces.



**4 February 2016  
Issue 445**  
**[Subscribe](#) to free  
weekly News Alert**

**Source:** Gascon, M., Triguero-Mas, M., Martínez, D., Dadvand, P., Rojas-Rueda, D., Plasència, A. & Nieuwenhuijsen, M. (2015). Residential green spaces and mortality: a systematic review.

*Environment International*, in press, 60–67.

DOI:10.1016/j.envint.2015.10.013

**Contact:**  
[mgascon@creal.cat](mailto:mgascon@creal.cat)

**Read more about:**  
[Environment and health](#), [Green infrastructure](#), [Urban environment](#)

The contents and views included in *Science for Environment Policy* are based on independent, peer-reviewed research and do not necessarily reflect the position of the European Commission.

**To cite this article/service:** "[Science for Environment Policy](#)".

European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.

1. From Expert group on the urban environment, 2001. Towards a Local Sustainability Profile: European Common Indicators [Internet]. Office for Official Publications of the European Communities, Luxembourg (Available from: [http://bookshop.europa.eu/en/towards-a-local-sustainability-profile-pbKH2900909/downloads/KH-29-00-909-EN-1C/KH2900909ENC\\_001.pdf;pgid=y8dIS7GUWmDSR0EAIMUUsWb0000uVVT30Tj;sid=3OmCsz801-CJZ2TnmYc7q7Z2zqEmssv2jo=?FileName=KH2900909ENC\\_001.pdf&SKU=KH2900909ENC\\_PDF&CatalogueNumber=KH-29-00-909-EN-C](http://bookshop.europa.eu/en/towards-a-local-sustainability-profile-pbKH2900909/downloads/KH-29-00-909-EN-1C/KH2900909ENC_001.pdf;pgid=y8dIS7GUWmDSR0EAIMUUsWb0000uVVT30Tj;sid=3OmCsz801-CJZ2TnmYc7q7Z2zqEmssv2jo=?FileName=KH2900909ENC_001.pdf&SKU=KH2900909ENC_PDF&CatalogueNumber=KH-29-00-909-EN-C))