

# Scholars find that irregularly shaped parks reduce mortality risk

November 27 2019, by Richard Nira

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Credit: CC0 Public Domain

Some community parks are square, a reflection of the city block where they're located—but irregularly shaped parks reduce the mortality risk of residents who live near them, concluded a study by Huaqing Wang, a

Ph.D. Urban and Regional Sciences student and Lou Tassinary, professor of visualization.

"Nearly all studies investigating the effects of natural environments on [human health](#) are focused on the amount of a community's [green space](#)," said the scholars in a paper describing their project. "We found that the shape or form of green space has an important role in this association."

Their paper was published in the Nov. 2019 issue of *The Lancet Planetary Health*.

In the study, Wang and Tassinary performed statistical analyses of Philadelphia land cover data to assess links between landscape spatial metrics and health outcomes.

They found that residents in census tracts with more connected, aggregated, and complex-shaped greenspaces had a lower [mortality](#) risk.

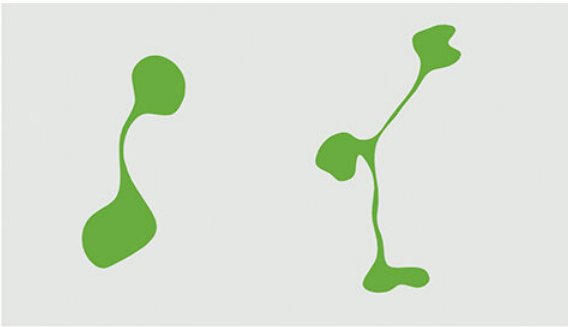
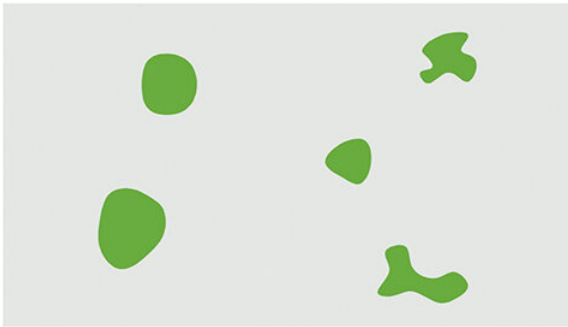
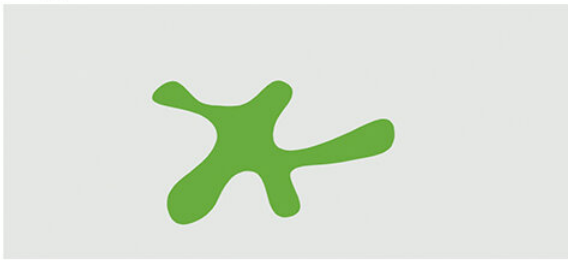
"Our results suggest that linking existing parks with greenways or adding new, connected parks might be fiscally accessible strategies for promoting health," said Wang and Tassinary.

"We showed that the complexity of the [park](#) shape was positively associated with a lower risk of mortality," they said in the paper. "This association might be attributable to the increased number of access points provided by complex-shaped green spaces."

Low value



High value



irregularly shaped parks reduce mortality risk. Credit: Texas A&M University

Irregularly shaped parks are either designed that way or shaped by the parcel they're established in, said Wang. Lower mortality risk wasn't associated with any particular form, but the data supports the idea that the more complex the park shape, the better, she said.

The relationship between park [shape](#) and mortality is important to city designers and planners who seek to create healthier living environments, they said in the paper.

"Our findings bring us closer to understanding the mechanisms underlying the protective effects of green space on mortality," they said.

**More information:** Huaqing Wang et al, Effects of greenspace morphology on mortality at the neighbourhood level: a cross-sectional

ecological study, *The Lancet Planetary Health* (2019). [DOI: 10.1016/S2542-5196\(19\)30217-7](https://doi.org/10.1016/S2542-5196(19)30217-7)

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