

# Women living in more walkable neighborhoods found to have lower rates of obesity-related cancers

October 4 2023

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Residing in a more walkable neighborhood protects against the risk of overall obesity-related cancers in women, specifically postmenopausal

breast cancer, but also ovarian cancer, endometrial cancer, and multiple myeloma, according to a new study by Columbia University Mailman School of Public Health and NYU Grossman School of Medicine.

Obesity has been linked to increased risk for 13 types of [cancer](#) in [women](#), and [physical activity](#), independent of [body size](#), lowers risk for some of these cancers. Neighborhood [walkability](#) is a set of urban design features that promotes pedestrian activity, supports overall physical activity and is associated with lower body mass index. However, until now long-term studies of neighborhood walkability and risk for obesity-related cancer were limited. The findings are published in the journal *Environmental Health Perspectives*.

Women who resided in neighborhoods with higher walkability levels, as measured by average destination accessibility and population density over approximately 24 years of follow-up, had lower risk of obesity-related cancers, particularly postmenopausal breast cancer. However, moderate protective associations were also found for endometrial cancer, [ovarian cancer](#), and multiple myeloma. Women in who had lived in areas with the highest levels of neighborhood walkability (the top 25% of walkability) had a 26% lower risk of obesity-related cancers compared to those who lived in neighborhoods in the lowest 25th percentile of walkability.

"These results contribute to the growing evidence of how urban design affects the health and well-being in aging populations," said Andrew Rundle, DrPH, professor of epidemiology at Columbia Mailman School.

Individual-level interventions to increase physical activity and reduce obesity are costly and often have only short-term effects, according to Rundle and colleagues. "However, [urban design](#) can create a context that promotes walking, increases overall physical activity, and reduce car-dependency, which could lead to subsequent improvements in preventing

diseases attributed to unhealthy weight," Rundle observed.

"We further observed that the association between high neighborhood walkability and lower risk of overall obesity-related cancers was stronger for women living in neighborhoods with higher levels of poverty," said Sandra India-Aldana, Ph.D., Icahn School of Medicine at Mount Sinai, and lead author. "These findings suggest that neighborhood social and economic environments are also relevant to risk of developing obesity-related cancers."

The researchers studied 14,274 women between the ages of 34 and 65 and recruited at a mammography screening center in NYC between 1985 and 1991 and followed them over nearly three decades. The team measured neighborhood walkability in the participants' residential Census tract throughout follow-up and assessed the association between neighborhood walkability and risk of overall and site-specific obesity-related cancers including postmenopausal breast cancer, ovarian cancer, endometrial cancer, and multiple myeloma.

Of the total number of women studied, 18% had a first obesity-related cancer by the end of 2016. The most common cancer was postmenopausal breast cancer at 53%, followed by colorectal cancer at 14%, and [endometrial cancer](#) at 12%.

"Our study is unique in that the long-term follow-up allowed us to study effects of walkability with potential long latency periods of cancer and we were able to measure neighborhood walkability as the participants moved residences around the country during follow-up," said co-author Yu Chen Ph.D., NYU Grossman School of Medicine.

Other co-authors are Tess Clendenen, Yelena Afanasyeva, Karen Koenig, and Anne Zeleniuch-Jacquotte, NYU Grossman School of Medicine; Mengling Liu and Lorna Thorpe, NYU Grossman School of

Medicine and NYU Langone Health; James W. Quinn, Columbia Mailman School of Public Health; and Kathryn Neckerman, Columbia University Population Research Center.

**More information:** Sandra India-Aldana et al, Long-Term Exposure to Walkable Residential Neighborhoods and Risk of Obesity-Related Cancer in the New York University Women's Health Study (NYUWHS), *Environmental Health Perspectives* (2023). DOI: 10.1289/EHP11538 , [dx.doi.org/10.1289/EHP11538](https://doi.org/10.1289/EHP11538)

Provided by Columbia University's Mailman School of Public Health

Citation: Women living in more walkable neighborhoods found to have lower rates of obesity-related cancers (2023, October 4) retrieved 9 May 2024 from <https://medicalxpress.com/news/2023-10-women-walkable-neighborhoods-obesity-related-cancers.html>

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