

Urban gardeners may be unaware of how best to manage contaminants in soil

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Consuming foods grown in urban gardens may offer a variety of health benefits, but a lack of knowledge about the soil used for planting, could pose a health threat for both consumers and gardeners. In a new study from the Johns Hopkins Center for a Livable Future (CLF), researchers identified a range of factors and challenges related to the perceived risk of soil contamination among urban community gardeners and found a need for clear and concise information on how best to prevent and manage soil contamination. The results are featured online in *PLOS ONE*.

"While the benefits are far-reaching, gardening in urban settings can also create opportunities for exposure to [contaminants](#) such as heavy metals, petroleum products, and asbestos, which may be present in urban soils," said Kieve Nachman, PhD, senior author of the study and director of the Food Production and Public Health Program with CLF. "Our study suggests gardeners generally recognize the importance of knowing a garden site's prior uses, but they may lack the information and expertise to determine accurately the prior use of their garden site and potential contaminants in the soil. They may also have misperceptions or gaps in knowledge, about how best to minimize their risk of exposure to contaminants that may be in urban soil."

According to CLF researchers, urban soils are often close to pollution sources, such as industrial areas and heavily trafficked roads and as a result, many [soil contaminants](#) have been found at higher concentrations in urban centers.

To characterize urban community gardeners' knowledge and perceptions of soil contamination risks and reducing exposure, researchers conducted surveys among urban community gardeners and semi-structured interviews with key informants in the gardening community in Baltimore, Md. Informants included individuals whose job function or organizational affiliation makes them knowledgeable about Baltimore City community gardening and soil contamination.

"People may come into contact with these contaminants if they work or play in contaminated soil, or eat food that was grown in it. In some cases, exposure to [soil](#) contaminants can increase disease risks, especially for young children," said Brent Kim, MHS, lead author of the paper and a program officer with CLF. "Given the health, social, environmental and economic benefits associated with participating in and supporting urban green spaces, it is critical to protect the viability of urban community gardens while also ensuring a safe gardening environment."

More information: For more information, including resources for urban farmers and gardeners, please visit:

www.jhsph.edu/clf/urbansoilsafety/

Provided by Johns Hopkins University Bloomberg School of Public Health

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