



# PRESS RELEASE

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## AIR POLLUTION LINKED TO HIGHER RATES OF KIDNEY DISEASE

### Highlights

- Exposure to higher amounts of fine particulate air pollution was associated with a greater likelihood of having chronic kidney disease.
- This link was stronger in urban areas, males, younger adults, and adults without comorbid diseases.

**Washington, DC (December 17, 2020)** — New research indicates that people may face a higher risk of developing kidney disease if they live in areas with elevated air pollution. The findings appear in an upcoming issue of *JASN*.

Exposure to tiny particles of air pollution—called fine particulate matter—is known to increase people’s risk for developing cardiopulmonary diseases, but its effects on kidney health are unclear.

To investigate, a team lead by Luxia Zhang, MD, MPH and Shaowei Wu, MD, PhD (Peking University) analyzed survey data from 47,204 adults in China and estimated 2-year air pollution levels at each participant’s residential address from satellite-based information.

Approximately 10.8% of participants had chronic kidney disease. Each 10  $\mu\text{g}/\text{m}^3$  increase in the concentration of fine particulate matter at a participant’s address was associated with a 1.3-times higher odds of having the disease. This link was significantly stronger in urban areas, males, younger participants, and participants without comorbid diseases.

“Although ambient air quality has improved substantially during the past 5 years in China, the national annual particulate matter level in China exceeds the World Health Organization’s guideline,” said Dr. Zhang.

The authors noted that the findings provide evidence to policy makers and public health officials for the need for stricter air quality control measures to help protect individuals’ kidney health.

Study co-authors include Guoxing Li, PhD, Jing Huang, PhD, Jinwei Wang, PhD, Ming-Hui Zhao, MD, PhD, Yang Liu, PhD, and Xinbiao Guo, PhD.

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The article, titled “Long-Term Exposure to Ambient PM<sub>2.5</sub> and Increased Risk of CKD Prevalence in China,” will appear online at <http://jasn.asnjournals.org/> on December 17, 2020, doi: 10.1681/ASN.2020040517.

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