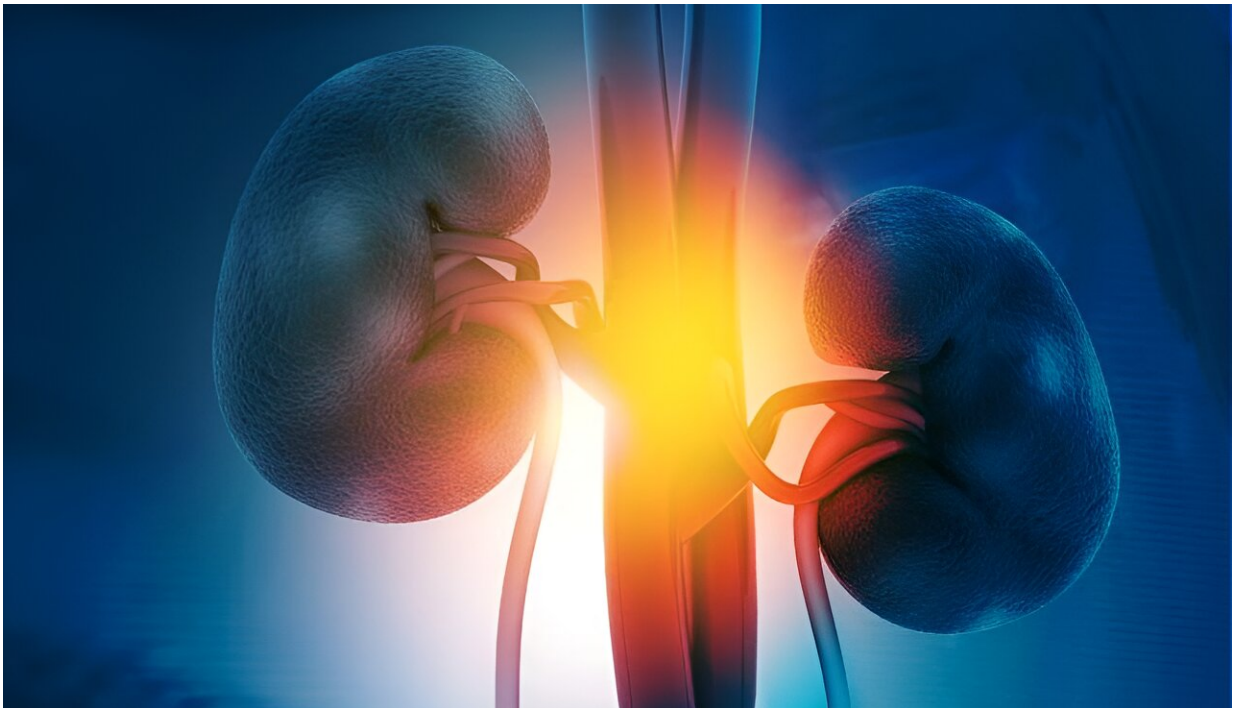


# Systemic inflammation increases risk for chronic kidney disease

March 22 2024, by Lori Solomon

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Systemic inflammation is associated with an elevated risk for chronic kidney disease, according to a study published online Feb. 20 in *Frontiers in Immunology*.

Xiaoxin Liu, from Tongji Medical College at the Huazhong University

of Science and Technology in Wuhan, China, and colleagues investigated the relationship between the systemic immune-inflammation index (SII) and [chronic kidney disease](#). The analysis included 10,787 adults participating in the 2007 to 2018 National Health and Nutrition Examination Survey.

The researchers found that when adjusting for confounders, a higher SII increased the risk for incident chronic kidney disease (odds ratio, 1.36). The restricted cubic spline curve showed a positive, nonlinear correlation between SII per 1,000 and chronic kidney disease incidence. There was a stronger correlation observed for men (odds ratio, 2.628) versus women (odds ratio, 1.733).

"Our findings suggest that higher SII values are associated with the incidence of chronic kidney disease, and this influence is more noticeable in the male population," the authors write. "Numerous pathophysiologic alterations are responsible for the development of chronic kidney disease, and immunological dysfunction and elevated inflammation may be key players in this process."

**More information:** Xiaoxin Liu et al, Systemic immune-inflammation Index is associated with chronic kidney disease in the U.S. population: insights from NHANES 2007–2018, *Frontiers in Immunology* (2024). [DOI: 10.3389/fimmu.2024.1331610](https://doi.org/10.3389/fimmu.2024.1331610)

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