



# PRESS RELEASE

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## WEIGHT FLUCTUATIONS MAY PREDICT POOR OUTCOMES IN ADULTS WITH KIDNEY DISEASE

### Highlight

- In individuals with kidney disease, those with high body mass index variability faced higher risks of needing kidney replacement therapy, experiencing a heart attack, experiencing a stroke, and dying prematurely.

**Washington, DC (August 12, 2021)** — A recent study has linked weight fluctuations—or body mass index variability—to higher risks of cardiovascular-related problems and early death in adults with chronic kidney disease (CKD). The findings appear in an upcoming issue of *JASN*.

Body mass index variability is associated with higher risks of developing heart conditions in the general population. Because cardiovascular disease is the leading cause of death in individuals with CKD, a team led by Dong Ki Kim, MD, PhD, Sehoon Park, MD, and Kyungdo Han, PhD examined whether BMI variability may affect the prognosis of patients with kidney dysfunction.

The study included 84,636 patients with CKD who were listed in a national health screening database in South Korea. During a median follow-up of 4 years, 6% of individuals died, 4% needed kidney replacement therapy such as dialysis, 2% suffered a heart attack, and 3% suffered a stroke.

Compared with individuals with the lowest body mass index variability, those with the highest body mass index variability faced a 66% higher risk of dying, a 20% higher risk of needing kidney replacement therapy, a 19% higher risk of experiencing a heart attack, and a 19% higher risk of experiencing a stroke.

“This study showed that people who had kidney function impairment with recent fluctuating body mass index had a higher risk of cardiovascular disease or death, regardless of their current body mass index,” said Dr. Kim, of Seoul National University Hospital. “This result suggests that people with kidney function impairment should pay attention to their fluctuating weight status, and those with fluctuating weight may benefit

from receiving appropriate screening and risk factor management to prevent cardiovascular disease or progression of their kidney dysfunction.”

The results were similar in the subgroups divided according to positive/negative trends in BMI during the exposure assessment period. In addition, variabilities in certain metabolic syndrome components were also significantly associated with the prognosis of predialysis CKD patients. Furthermore, those with a higher number of metabolic syndrome components with high variability had a worse prognosis.

Study co-authors include Semin Cho, MD, Soojin Lee, MD, Yaerim Kim, MD, PhD, Sanghyun Park, Yong Chul Kim, MD, PhD, Seung Seok Han, MD, PhD, Hajeong Lee, MD, PhD, Jung Pyo Lee, MD, PhD, Kwon Wook Joo, MD, PhD, Chun Soo Lim, MD, PhD, and Yon Su Kim, MD, PhD.

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The article, titled “The Prognostic Significance of Body Mass Index and Metabolic Parameter Variabilities in Predialysis Chronic Kidney Disease: A Nationwide Observational Cohort Study,” will appear online at <http://jasn.asnjournals.org/> on August 12, 2021.

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