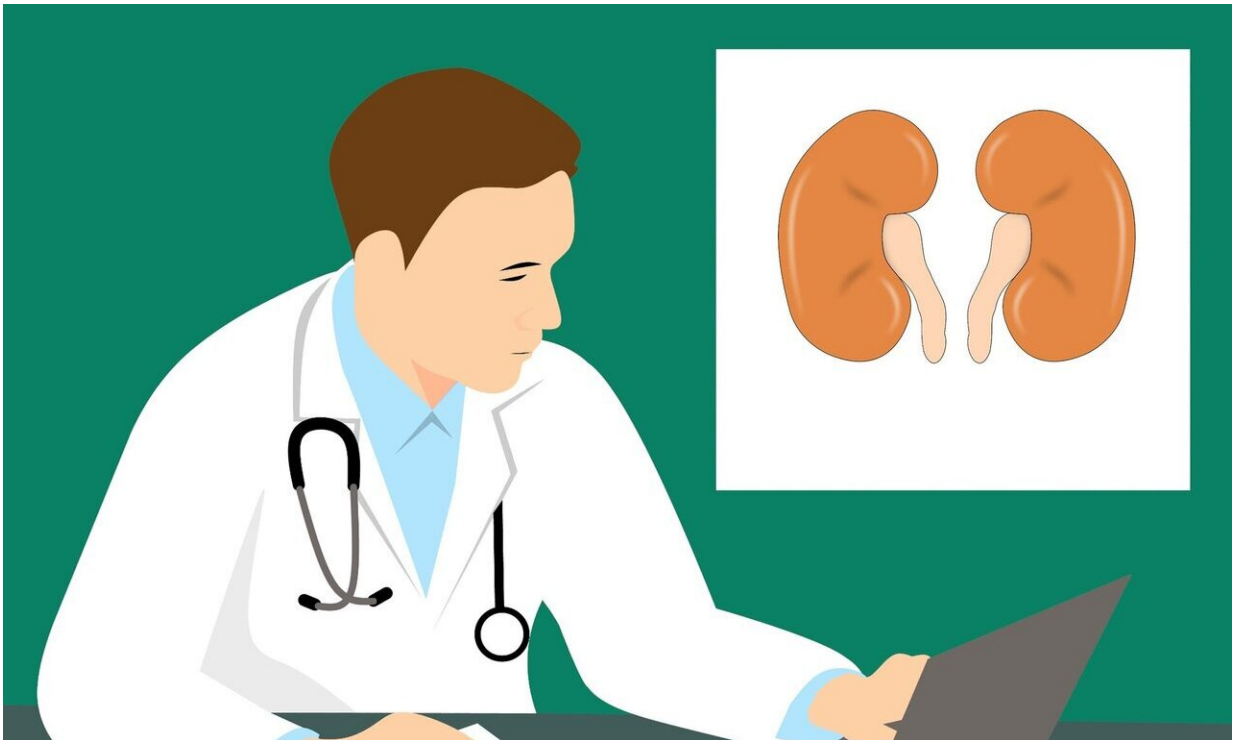


# Weight fluctuations may predict poor outcomes in adults with kidney disease

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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, Ph.D., Sehoon Park, MD, and Kyungdo Han, Ph.D. 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.

**More information:** "The Prognostic Significance of Body Mass Index and Metabolic Parameter Variabilities in Predialysis Chronic Kidney Disease: A Nationwide Observational Cohort Study," *Journal of the American Society of Nephrology*, 2021.

Provided by American Society of Nephrology

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