

# Heat waves brought by climate change could prove deadly for kidney patients

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(HealthDay)—New research uncovers yet another population that will be vulnerable to the heat waves that climate change is delivering with increasing frequency: people with kidney disease.

Extremely [hot days](#) can increase advanced kidney disease patients' risk of hospitalization and death, and climate change means they'll face more such days, the study authors said.

"Climate change is not just about future scenarios and distant communities. It is here and now, and it is adversely impacting our community's health in more ways than we realize," said study co-author Amir Sapkota. He is a professor of applied environmental health at the University of Maryland's School of Public Health.

In the study, the researchers compared the records of more than 7,000 patients at kidney disease clinics in Boston, New York City and Philadelphia, with extreme heat events in those cities from 2001 to 2012.

Rates of hospitalization and death during the hottest days were consistently higher for black and white patients, but the findings were less clear for Hispanic and Asian patients, the findings showed.

Patients with other health conditions—such as [congestive heart failure](#), [chronic obstructive pulmonary disease](#) and diabetes—were also at increased risk on the hottest days, the researchers found.

The reasons for this increased risk are unclear, but the investigators noted that one of the body's responses to heat—lowered [blood pressure](#)—can be a problem for advanced [kidney disease](#) patients.

"Hot weather can pose other challenges as well to patients who have to strictly manage fluid intake," said study first author Richard Remigio, a third-year doctoral student at Maryland. "If it's a hot day, we can quench our thirst, but unfortunately they don't have that luxury," he noted.

"We need to ramp up our ability to cope with these increases in extreme heat events. This is our canary in the coal mine," Remigio said in a university news release.

The findings were published online Aug. 9 in *JAMA Network Open*.

According to Sapkota, "Ongoing [climate change](#) is increasing the frequency of extreme heat events. Our results show that these events are particularly harmful to the most vulnerable individuals in our communities."

Community-specific adaptation strategies are needed to protect public health, the researchers concluded.

**More information:** The U.S. National Institute of Diabetes and Digestive and Kidney Diseases has more on [kidney disease](#).

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