

Chronic kidney disease may be linked to sudden cardiac arrest in Hispanic/Latino adults

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Chronic kidney disease may increase risk and predict sudden cardiac arrest among Hispanic/Latino adults, according to new research published today in the *Journal of the American Heart Association*.

In a study comparing Hispanic/Latino adults who had a sudden [cardiac arrest](#) to a group of Hispanic/Latino adults who did not, 51% of the [sudden cardiac arrest](#) cases had a prior diagnosis of chronic kidney disease with 20% of those cases experiencing end-stage kidney disease requiring dialysis.

"We were surprised by the high proportion of Hispanic/Latino people with chronic kidney disease and especially the high number on dialysis," said Kyndaron Reinier, Ph.D., lead study author and associate director for epidemiology in the Center for Cardiac Arrest Prevention at the Smidt Heart Institute, Cedars-Sinai Health System, Los Angeles.

In this study, researchers compared a group of 295 Hispanic/Latino people with sudden cardiac arrest to a matched control group of 590 Hispanic/Latino adults who did not have a sudden cardiac arrest to analyze how common it was for each group to have certain medical conditions. Compared to the [control group](#) who had not had cardiac arrest, the Hispanic/Latino adults who had experienced sudden cardiac arrest had seven variables associated with sudden cardiac arrest:

- 7.3 times higher odds in those with chronic kidney disease;
- 4.5 times higher odds in heavy drinkers;
- 4 times higher odds in those with atrial fibrillation;
- 3 times higher odds in [stroke survivors](#);
- 3 times higher odds in those with [coronary heart disease](#);
- 2.5 times higher odds in those with heart failure; and
- 1.5 times higher odds in those with type 2 diabetes.

"The death rate for sudden cardiac arrest is more than 90%, making prediction and prevention of this condition a top priority," Reinier said. "Early detection and management of [chronic kidney disease](#) may reduce sudden cardiac arrest risk among Hispanic/Latino individuals."

Study details and background:

- Participants who had sudden cardiac arrest were drawn from the Prediction of Sudden Death in Multi-Ethnic Communities (PRESTO) study, which follows people who have an out-of-hospital sudden cardiac arrest in Ventura County, California. The comparison group were drawn from participants of the San Diego site of the Hispanic Community Health Survey/Study of Latinos (HCHS/SOL) study, a large and ongoing U.S. study investigating questions related to health in Hispanic/Latino people.
- The analysis included sudden cardiac arrest fatalities and survivors ages 18 to 85 years old at the time of the cardiac event, who were of Hispanic/Latino ethnicity, between February 2015 and January 2021.
- The study did not include people living in residential facilities, such as nursing homes or rehabilitation care centers for individuals needing daily, personal or medical assistance.

"We hope other researchers try to replicate our findings in different populations," said Sumeet S. Chugh, M.D., director of the Center for Cardiac Arrest Prevention at the Smidt Heart Institute and co-author of the study. "We would like to compare risk predictors for sudden cardiac arrest in all individuals to determine whether ethnicity-specific prevention or treatment measures are needed."

Among the study's limitations are that there may be some unmeasured differences between the case and control groups that the study could not account for. The study also included Hispanic/Latino individuals living in Southern California who were of mostly Mexican heritage, therefore, results may not apply to Hispanic/Latino people living in other regions of the U.S. or to all Hispanic/Latino people.

Sudden cardiac arrest is the abrupt loss of heart function in a person who may or may not have been diagnosed with heart disease. It can come on suddenly or in the wake of other symptoms. Cardiac arrest is often fatal if appropriate steps aren't taken immediately. Annually, about 436,000 Americans die from a cardiac arrest, according to the American Heart Association.

More information: Risk Factors for Sudden Cardiac Arrest Among Hispanic or Latino Adults in Southern California: Ventura PRESTO and HCHS/SOL, *Journal of the American Heart Association* (2023). [DOI: 10.1161/JAHA.123.030062](https://doi.org/10.1161/JAHA.123.030062)

Provided by American Heart Association

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