

# Traumatic childhood could increase heart disease risk in adulthood

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Children who grow up in distressing or traumatic environments are more

likely to have a heart attack or stroke by the time they reach middle age, according to a new study.

While previous research has found links between adverse [childhood](#) experiences and [cardiovascular disease risk](#) factors in adulthood, the new study explored whether exposure to those difficult conditions led to actual [heart](#)-related events.

"What we found was that people who are exposed to the highest levels of childhood family environment adversity are at significantly increased risk for heart disease like [heart attack](#) and stroke," said Jacob Pierce, the study's lead author and a medical student who is studying for a master's degree in [public health](#) at Northwestern University in Illinois.

The findings will be presented Saturday at the American Heart Association's Scientific Sessions meeting in Chicago.

The study looked at a national registry of 3,606 people who were tracked over a 30-year period starting around age 25.

Researchers grouped participants into three categories based on the level of adversity they faced growing up, according to the answers they gave to questions about abuse, neglect and general household atmosphere.

"People exposed to the highest levels of childhood family environment adversity were more than 50 percent more likely to have a cardiovascular disease event during the 30-year follow-up period," Pierce said.

This was even after adjusting for factors such as education level, blood pressure, cholesterol and other risk factors. Other types of [cardiovascular disease](#), including heart failure, peripheral artery disease and carotid vascular disease, did not have a statistically significant

association.

The researchers haven't pinpointed the reason for the connection, although they have several theories.

"People exposed to these high levels are more likely to smoke, they're more likely to have high blood pressure and they're more likely to have low socioeconomic status," Pierce said. "But even when you take all of those things into account, they're still at an increased risk, so we're trying to figure out why."

That combination of mental, physical, social and behavioral factors could be interrelated, said Shakira Suglia, an associate professor of epidemiology at Emory University's Rollins School of Public Health in Atlanta.

Past research has suggested that traumatic childhoods may be associated with disruptions in brain development and higher rates of depression, anxiety and other mental health problems, she said.

These children also are more likely to start drinking alcohol earlier, use drugs or become substance abusers. Suglia was lead author of an AHA scientific statement last year about childhood and adolescent adversity and its impact on heart health.

"All those factors could be part of the pathways by which all these bad experiences in childhood have an impact on cardiovascular health," said Suglia, who was not connected with the study. Traumatic childhood environments also have been associated with poor eating habits, more sedentary lifestyle, rapid weight gain and sleep disturbances.

"It's possible that through a health behavior mechanism, you become more likely to have obesity, hypertension and diabetes in adolescence or

early adulthood and then in late adulthood, you end up having these cardiovascular events," she said.

Pierce said that until more is known about what predisposes these children to heart disease as adults, the best strategy may simply be to work on eliminating well-known [risk factors](#).

"To really tackle this entire problem, it's going to need a comprehensive intervention between public policy, social programming, as well as clinical interventions for adults at young ages," he said.

Suglia also suggested starting at the root of the problem.

"Ideally you want to promote and support children so they have safe, stable, nurturing homes. That would be the goal, right?" she said. "We have a lot of literature already showing how damaging this is for kids' [health](#) and well-being, so we don't have to wait 50 or 60 years to know why this is bad for kids."

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