

Cardiovascular Risk Among Young People With Type 1 Diabetes

Black and Latino children with type 1 diabetes are more likely to develop conditions linked to heart disease and stroke.

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Black and Latino children with type 1 diabetes are more likely to have stiffened [arteries](#)—which can lead to heart disease and stroke—within the first 10 years of their [diabetes](#) diagnosis compared with white children, according to a new study published in the [Journal of the American Heart Association](#).

Study researchers said the higher risk for stiffened arteries in Black and Latino children may be attributed to modifiable [cardiovascular](#) and socioeconomic factors.

“That gives us hope that there are things we can try to modify, things we can try to improve,” said lead study author Katherine Sauder, PhD, associate professor and deputy director of the Life Course Epidemiology of Adiposity and Diabetes Center at the University of Colorado School of Public Health in Aurora, in an [American Heart Association article](#).

Stiff arteries cause blood to flow much faster, increasing [blood pressure](#), which can negatively affect organs such as the heart. While artery stiffness is typically common in older adults, people with type 1 diabetes can also develop it. In fact, people with type 1 diabetes are about 10 times more likely to develop cardiovascular disease compared with those who don’t have it.

What’s more, type 1 diabetes in the United States has steadily increased by about 2% each year, with Black and Latino populations seeing a faster increased rate. But few studies focus on Black and Latino individuals. Type 1 diabetes is most commonly diagnosed during childhood but can develop at any age.

For this study, researchers analyzed data for a group of 1,162 children and young adults with racially diverse backgrounds. After an average 11 years of follow-up, researchers measured arterial stiffness. They found that Black and Latino young people have higher levels of artery stiffness compared with white people. The largest gap was seen between Black and white people: Black people had 10% higher rates of artery stiffness compared with whites.

“That sounds small, but these people are in their 20s,” Sauder said. “The concern is that this gap

is going to continue growing. If we can figure out why this difference is, perhaps we can intervene now, and maybe there's a chance to reverse the differences that have built up in the first 10 years of their disease."

Although researchers also observed a gap in artery stiffness rates between Latino and white young adults with type 1 diabetes, the disparity was drastically lower when they controlled for cardiovascular and socioeconomic factors. The biggest modifiable factors were access to diabetes medications followed by excess body weight.

"If we could get Hispanic participants to have the same cardiovascular risk profile as their white peers, blood flow would slow down by 15%," Sauder said. "If we could get them to have the same economic profile, it would slow down by 27%."

For young people with type 1 diabetes, researchers emphasize the need for increased access to care, adherence to medications and consistent follow-up care to help prevent cardiovascular issues later in life.