

Serious heart defects increase heart failure risk in early adulthood

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Babies born with serious heart defects are surviving to adulthood in

greater numbers, but new research shows they face another hurdle when they get there: heart failure.

The study found children born with the most critical [heart](#) problems were 30 times more likely to develop or die from [heart failure](#) or need a transplant in young adulthood than those born with less severe heart problems.

"We knew that every patient regardless of the severity of their [congenital heart disease](#) had a higher risk of having heart failure, but we were surprised by the magnitude," said researcher Dr. Lydia K. Wright, an advanced fellow in Pediatric Heart Failure and Transplant at Emory University's School of Medicine in Atlanta. She presented the [preliminary research](#) last week at the American Heart Association's Scientific Sessions in Philadelphia.

About 40,000 children are born each year in the U.S. with a [congenital heart defect](#), also referred to as congenital heart disease. Congenital means the problem is present at birth. Heart defects, from the more minor that don't need treatment to the more severe that require surgery shortly after birth, can affect the valves or walls inside the heart or the arteries and veins near it.

Heart failure occurs when the heart muscle is unable to pump enough blood to meet the body's needs for blood and oxygen.

The study used data collected by the Pediatric Cardiac Care Consortium on 35,611 children who survived their first congenital heart surgery. The children were followed for up to 33 years. During that time, 715 of them developed heart failure. Those who had a single or systemic right ventricle defect—which affects how the heart pumps blood—had the highest risk of developing heart failure.

"This study confirms what we suspected—that people born with congenital heart disease have a significant incidence of heart failure at a substantially earlier age than the people who develop heart failure due to acquired heart disease," said Dr. Ari Cedars, an associate professor at UT Southwestern Medical Center in Dallas.

Cedars, who was not involved with the research, said the findings also confirm smaller studies that suggest adults who were born with single or systemic right ventricle heart disease have the highest risk for heart failure.

For Wright, the research was a way to help answer her young patients' questions.

"Teens ask me if they will need a heart transplant in the future," she said. "I wanted to have concrete data to help accurately counsel them on what their life will look like later."

Cedars said the study underscores the need for doctors to change how they talk to patients about congenital heart defects.

"At some point in history, people thought that if a child survives until adulthood it is a victory," he said. "But we need to be taking a longer view and be preparing patients and their families for the fact that, depending on their anatomy, there is a very real probability they will need a heart transplant or advanced heart failure therapy at some point in middle age—and that this isn't a failure. It's just another part of living with congenital heart [disease](#)."

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