

2026 Heart Disease & Stroke Statistics Update Fact Sheet Congenital Cardiovascular Defects in the United States

Congenital cardiovascular defects (CCDs; also known as Congenital Heart Disease) are structural problems in the heart or blood vessels present at birth and are one of the most common birth defects worldwide. CCDs range in severity from minor abnormalities that spontaneously resolve or are hemodynamically insignificant to complex malformations, including absent, hypoplastic, or atretic portions of the heart. There is significant variability in the presentation of CCDs, resulting in heterogeneous morbidity, mortality, and health care costs across the life span. Some types of CCDs are associated with diminished quality of life, on par with what is seen in other chronic pediatric health conditions, as well as deficits in cognitive functioning and neurodevelopmental outcomes.

The National Birth Defects Prevention Network showed the average birth prevalence of 29 selected major birth defects from 39 population-based birth defects surveillance programs in the United States from 2010 to 2014. These data indicated the following prevalence: atrioventricular septal defect (0.54 per 1000 births), coarctation of the aorta (0.56 per 1000 births), truncus arteriosus (0.067 per 1000 births), double-outlet right ventricle (0.17 per 1000 births), hypoplastic left heart syndrome (HLHS; 0.26 per 1000 births), other single ventricle (0.079 per 1000 births), interrupted aortic arch (0.062 per 1000 births), pulmonary valve atresia/stenosis (0.97 per 1000 births), tetralogy of Fallot (TOF; 0.46 per 1000 births), total anomalous pulmonary venous connection (0.14 per 1000 births), and transposition of the great arteries (TGA; 0.38 per 1000 births).

Prevalence

- In high-income countries in North America, including the United States, the birth prevalence of CCDs was estimated to be 12.3 per 1000 according to 1990 to 2017 data.
- In 2017, the all-age prevalence of CCDs in the United States was estimated at 466 566 individuals, with 279 320 (60%) of these <20 years of age.

Mortality

- US mortality related to CCDs in 2023 was 3059 for all ages.
- In 2023, the age-adjusted US death rate attributable to CCDs was 1.0 deaths per 100 000 people.
- In 2023, CCDs in the United States were the most common causes of infant death resulting from birth defects; 22.7% of infants who died in 2023 of a birth defect had a heart defect.

Risk Factors

- There is robust evidence indicating an increased risk of coronary heart disease associated with maternal risk factors of obesity, diabetes, smoking, and age ≥ 35 years.
- Maternal exposure to first-trimester anesthesia (between 3 and 8 weeks after conception) may be associated with 1.50 times greater risk of CCDs at birth.
- There is an association between assisted reproductive technology use and severe CCDs in offspring.

Unless otherwise noted, statistics in this Fact Sheet pertain to the United States. Please refer to the complete Statistics Update for references and additional information for reported statistics.

- Maternal binge drinking in the 3 months before pregnancy is associated with an increased risk of CCDs, and the combination of binge drinking and smoking may be particularly dangerous.
- Maternal medications associated with CCDs include antihypertensive agents (ACE inhibitors, antiadrenergic agents, β -blockers, calcium channel blockers, diuretics) during the first trimester. Additional medications associated with greater odds of CCDs, if taken by females during the first trimester of pregnancy, include any antibacterial agents, sulfonamides, nitrofurantoin, quinolones, urinary antiseptic, erythromycin, insulin, fertility drugs, clomiphene, chorionic gonadotropin, nonsteroidal anti-inflammatory drugs, benzodiazepines, lithium, anticonvulsants, selective serotonin reuptake inhibitors (eg, paroxetine), and tricyclic antidepressants.
- Folate deficiency has been a well-documented risk for CCDs, however a more recent systematic review did not identify a relationship between folate deficiency and CCDs.
- Maternal infections, including rubella, hepatitis B virus, coxsackievirus B, and human cytomegalovirus, have been associated with CCDs.
- Paternal exposures that increase risk for congenital heart defects include paternal anesthesia, sympathomimetic medication, pesticides, and solvents.

Hospitalizations & Costs

- According to 2003 to 2016 data from the Kids' Inpatient Database, among patients <18 years of age, admissions for children with CCDs increased by 31.8%, whereas overall pediatric admissions decreased during the same period by 13.4%.
 - Median charges have increased from \$35 577 to \$61 696. However, mortality decreased from 3.2% to 2.7%.

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[Heart and Stroke Association Statistics | American Heart Association.](#)

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The American Heart Association requests that the full document be cited as follows:

Palaniappan LP, Allen NB, Almarzooq ZI, Anderson CAM, Arora P, Avery CL, Baker-Smith CM, Bansal N, Currie ME, Earlie RS, Fan W, Fetterman JL, Barone Gibbs B, Heard DG, Hiremath S, Hong H, Hyacinth HI, Ibeh C, Jiang T, Johansen MC, Kazi DS, Ko D, Kwan TW, Leppert MH, Li Y, Magnani JW, Martin KA, Martin SS, Michos ED, Mussolino ME, Ogungbe O, Parikh NI, Perez MV, Perman SM, Sarraju A, Shah NS, Springer MV, St-Onge M-P, Thacker EL, Tierney S, Urbut SM, Van Spall HGC, Voeks JH, Whelton SP, Wong SS, Zhao J, Khan SS; on behalf of the American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Committee. 2026 Heart disease and stroke statistics: a report of US and global data from the American Heart Association. *Circulation*. Published online January 21, 2026.

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