American Heart Association.

# 2025 Heart Disease & Stroke Statistics Update Fact Sheet
# Children & Cardiovascular Diseases*

## Out-of-Hospital Cardiac Arrest (OHCA)

- In 2023, 15.9% of children 1 to 18 years of age with an OHCA treated by emergency medical services survived to hospital discharge.
- Sports-related sudden cardiac arrest accounted for 39% of sudden cardiac arrests among those ≤18 years of age in Portland, OR between 2002 and 2015.
- In 2023, the location of emergency medical services-treated OHCA was home for 91.7% of infants less than 1 year of age and 83.0% of children 1 to 18 years of age.

## Congenital Cardiovascular Defects (ICD/10 codes Q20-Q28) (ICD/9 codes 745-747)

- In high-income North America, including the United States, the birth prevalence of congenital cardiovascular defects (CCD) is estimated to be 12.3 per 1000 according to 1990 to 2017 data.
- In 2022, congenital cardiovascular defects were the most common cause of infant death resulting from birth defects; 23.0% of infants who died of a birth defect had a heart defect.
- Trends in overall age-adjusted death rates attributable to CCDs showed a decline from 1999 to 2017 with a relative plateau between 2017 and 2022.

## Stroke in Children

- Reported incidence of stroke was higher in newborns than in older children (1/3500 live births/y versus 1–2/100 000 live births/y).
- In an analysis of data from the IPSS from 2003 to 2014 (N=3253 children with ischemic stroke), 903 (28%) had cardiac disease as the primary etiology for stroke, including 231 (7%) with isolated patent foramen ovale. Of the n=672 patients with cardiac disease not due to patent foramen ovale, 177 (26%) were peri-procedural with index stroke occurring within 72hrs of cardiac surgery (n=92), cardiac catheterization (n=63), or supported with mechanical device (n=24).
- Among 355 children with stroke followed up prospectively as part of a multicenter study with a median follow-up of 2 years, the cumulative stroke recurrence rate was 6.8% at 1 month and 12% at 1 year.

## High Blood Pressure

- In 2015 to 2016, 13.3% of children and adolescents 8 to 17 years of age had elevated blood pressure and 4.9% had hypertension. Rates of elevated blood pressure were higher among youth 13 to 17 years of age compared with those 8 to 12 years of age (15.6% and 10.8% respectively).
- In 2015 to 2016 among youth 8 to 17 years of age, high blood pressure was more common among males (5.9%) than females (3.8%) and among Mexican American youth (9.0%) compared with non-Hispanic (NH) Black youth (4.7%), and NH White youth (2.7%). Having elevated blood pressure was more common among males (16.9%) than females (9.8%). In addition, Mexican American youth (16.9%) and NH Black youth (16.4%) were more likely to have elevated blood pressure than NH White youth (10.7%).

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- In 2015 to 2016, the prevalence of hypertension was 11.6% among US youth with obesity (body mass index ≥120% of 95th percentile of sex-specific body mass index for age or body mass index ≥35 kg/m2) compared with 2.7% among youth with normal weight/underweight. The prevalence of elevated blood pressure among youth with obesity versus youth with normal weight/underweight was 16.2% compared with 8.7%.

## Smoking

In 2023:

- 12.6% of high school students used any tobacco products and 6.6% of middle school students used any tobacco products in the past 30 days; 1.9% of high school students and 1.1% of middle school students smoked cigarettes in the past 30 days.
- 1.5% of high school students and 0.7% of middle school students used smokeless tobacco in the past 30 days.
- 1.8% of high school students and 1.1% of middle school students used cigars in the past 30 days.
- In 2023, 10.0% of high school students and 4.6% of middle school students used e-cigarettes in the past 30 days.
- In 2023, NH White adolescents (1.6%) and NH multiracial youth (1.6%) were less likely than Hispanic youth (2.1%) to report cigarette use in the past 30 days. For cigars, in 2022, the highest prevalence was in NH Black youth (2.3%) and Hispanic youth (2.2%) compared with NH White (1.0%) youth.

## High Blood Cholesterol

- According to 2017 to 2020 data, among children 6 to 11 years of age, the mean total blood cholesterol level was 157.4 mg/dL; 157.5 mg/dL for males and 157.2 mg/dL for females.
- According to 2017 to 2020 data, among adolescents 12 to 19 years of age, the mean total blood cholesterol level was 154.8 mg/dL; 150.1 mg/dL for males and 159.7 mg/dL for females.
- Among youth 6 to 19 years of age, the prevalence of elevated total cholesterol levels (total cholesterol ≥200 mg/dL) in 2009 to 2016 was 7.1%. Among youth 6 to 19 years of age, the prevalence of ideal TC levels (TC <170 mg/dL) in 2015 to 2016 was 71.4%.

## Physical Activity (PA)

- Using parental report, in 2022, the nationwide prevalence of youth who were active for ≥60 minutes every day of the week was higher for youth 6 to 11 years of age (25.2%) compared with youth 12 to 17 years of age (12.9%).
- In 2021, the nationwide prevalence of high school students who engaged in ≥60 minutes of physical activity on all 7 days of the week was 23.9%. The percentage was higher in males (31.7%) than females (15.7%).
- Nationwide in 2022, 37.9% of youth 12 to 17 years of age spent ≥4 h/d on an average school day in front of a television, computer, smartphone, or other electronic device watching programs, playing games, accessing the internet, or using social media, not counting time spent doing schoolwork.

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## Overweight and Obesity

- According to NHANES data from 2017 until March 2020 (before the COVID-19 pandemic), among US children and adolescents 2 to 19 years of age, the prevalence of obesity was 19.7% overall, 20.9% for males, and 18.5% for females. Obesity prevalence increased with age, being 12.7% for those 2 to 5 years of age, 20.7% for those 6 to 11 years of age, and 22.2% for those 12 to 19 years of age.
- According to NHANES data from 2017 to March 2020, the prevalence of obesity among children and adolescents 2 to 19 years of age was 17.6% and 15.4% for NH White, 18.8% and 30.8% for NH Black, 13.1% and 5.2% for NH Asian, and 29.3% and 23.0% for Hispanic males and females, respectively.

## Diabetes (ICD-9 250; ICD-10 E10 to E14)

- In 2021, 352 000 children and adolescents <20 years of age, or 35 per 10 000 US youths, had diagnosed diabetes. This includes 304 000 with type 1 diabetes.
- Among US adolescents 12 to 18 years of age in 2005 to 2016, the prevalence of prediabetes was 18.0%. Adolescent males were more likely to have prediabetes than females (22.5% versus 13.4%).

## Healthy Diet

Based on 2015 to 2016 data, the average dietary consumption by US children and teenagers of selected foods and nutrients related to cardiometabolic health is detailed below.

- Whole Grains— consumption was low; 0.95 serving per day in youth.
- Fruit— consumption was low (0.68 serving per day) and decreased with age. NH Asian youth and other races, including multiracial youth, had the highest intake of whole fruit, followed by NH White youth, other Hispanic youth, Mexican American youth, and NH Black youth.
- Non-starchy vegetable—consumption was low with an estimated average intake of 0.57 serving per day. The consumption pattern increased with age.
- Fish and shellfish— consumption was low with an estimated average intake of 0.06 serving per day. The consumption pattern increased with age.
- Sugar-sweetened beverages— consumption was 1.0 serving per day and consumption patterns increased with age.
- Consumption of sweets and bakery desserts contributed to an average of 6.07% of calories among US youth.
- Sodium— consumption was 3.33 g/d and the consumption pattern increased with age.
- Saturated fat — consumption was 12.1% of calories in US youth.
- Nuts and seeds— consumption was low with an estimated average intake of 0.40 serving per day
- Processed meats — consumption was 0.27 serving per day with higher intake among males than females.
- Consumption of dietary fiber was 15.6 g/d.

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Fact sheets, infographics, and current/past Statistics Update publications can be downloaded from: Heart and Stroke Association Statistics | American Heart Association.

Many statistics in this fact sheet come from unpublished tabulations compiled for the Statistics Update document and can be cited using the document citation listed below. The data sources used for the tabulations are listed in the full document. Additionally, some statistics come from published studies. If you are citing any of the statistics in this fact sheet, please review the full Heart Disease and Stroke Statistics document to determine data sources and original citations.

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

Martin SS, Aday AW, Allen NB, Almarzooq ZI, Anderson CAM, Arora P, Avery CL, Baker-Smith CM, Bansal N, Beaton AZ, Commodore-Mensah Y, Currie ME, Elkind MSV, Fan W, Generoso G, Gibbs BB, Heard DG, Hiremath S, Johansen MC, Kazi DS, Ko D, Leppert MH, Magnani JW, Michos ED, Mussolino ME, Parikh NI, Perman SM, Rezk-Hanna M, Roth GA, Shah NS, Springer MV, St-Onge M-P, Thacker EL, Urbut SM, Van Spall HGC, Voeks JH, Whelton SP, Wong ND, Wong SS, Yaffe K, Palaniappan LP; on behalf of the American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Committee. 2025 Heart disease and stroke statistics: a report of US and global data from the American Heart Association. *Circulation*. Published online January 27, 2025.

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