

Childhood Heart Disease Facts



Children'sSM
Healthcare of Atlanta

For Teachers and School Nurses

Heart disease in children can be **congenital** or **acquired**. Each year, more than 10,000 children in the U.S. are born with a congenital heart defect that requires surgery. These defects can range from minor to major. Advances in medical and surgical treatments have improved survival rates for even the most complex conditions.

Most surgeries are done before a child begins school. Yet, some children may need surgery after starting school. The most common heart surgeries for school-age children include:

- Repair of septal defects
- Valve replacements
- Pacemaker or internal defibrillator implants

What is a congenital heart condition?

Congenital heart conditions:

- Are present from birth
- Increase the child's risk for arrhythmias (abnormal heart rhythms) and sudden cardiac arrest.

The most common congenital heart conditions diagnosed in school-age children involve problems with the structure or electrical activity of the heart. These may include:

- Hypertrophic cardiomyopathy
- Dilated cardiomyopathy
- Long QT syndrome

Early warning signs that may warrant testing for these conditions include:

- Sudden fainting or seizure during exercise or in response to loud sounds, such as doorbells or alarms
- Unusual chest pain or fatigue during exercise
- Unusual shortness of breath during exercise
- Family history of sudden, unexpected death before age 50

If there is no known family history of these conditions, they often remain undiagnosed until a sudden cardiac arrest occurs. A child with sudden cardiac arrest may:

- Become unresponsive
- Have abnormal breathing
- Gasp for air

With sudden cardiac arrest, the victim needs CPR within one to three minutes. Use an automatic external defibrillator (AED) as soon as possible.

What is an acquired heart condition?

Acquired heart conditions:

- Can begin during childhood
- May be caused by:
 - Viral infections
 - Bacterial infections
 - Medicines

The most common acquired heart conditions include:

- Kawasaki disease
- Rheumatic fever
- Bacterial endocarditis
- Cardiomyopathy
- Myocarditis
- Wolff-Parkinson-White (WPW) syndrome
- Supraventricular tachycardia (SVT)

Many of these conditions are treated with medicine. Yet, these children still have a higher risk of sudden cardiac arrest than others do.

School-age children are also at risk for having serious lifelong cardiovascular diseases, which include:

- High blood pressure
- Artherosclerosis

These can be caused by lifestyle factors, such as:

- Having high cholesterol
- Being overweight
- Smoking
- Not being active

Here are some everyday school needs for a child with a heart condition:

1. Provide access to water and snacks. He may need:
 - To stay hydrated due to certain medicines
 - To have snacks or have special dietary needs
2. Allow frequent restroom breaks. He may need to use the restroom:
 - More often due to effects of medicines and nausea
 - Urgently, at times
3. Adjust physical activity. He may have physical restrictions due to his condition, medicines or implanted devices.
 - During the school day, he may need to:
 - Take extra time to get from class to class
 - Change his schedule or locker location to limit lengthy walks between classes
 - Use the elevator, if stairs are difficult
 - Keep textbooks in each classroom to avoid the need to carry heavy books
 - In physical education class, he may need to:
 - Take frequent rest breaks
 - Limit or avoid contact sports
 - Limit strenuous activities
 - Avoid exercise in extreme temperatures (warmer than 85 degrees or colder than 35 degrees)
4. Create an academic plan to support absences due to illness or doctor visits.
 - He may need:
 - Shortened assignments to emphasize essential learning
 - Flexible due dates on assignments
 - A system for providing makeup work due to absences
 - Extra time to complete tests
 - Other school accommodations may include:
 - Partial school days, when necessary
 - Intermittent hospital/homebound instruction
 - Class schedule flexibility to allow the student to be in class during his best time of day
5. Have an emergency action plan in the school. This may include a:
 - Team of trained first responders that can perform CPR and use an AED
 - Written plan of emergency response
 - Practice drills for this response

Visit choa.org/heart for more information on types of heart conditions and their treatments.