SELINSGROVE AREA HIGH SCHOOL

SEALS Health News

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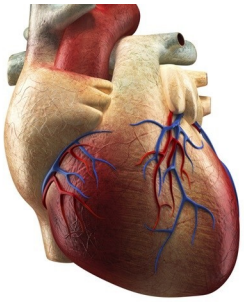
Sudden Cardiac Arrest

AWARENESS MONTH

Sudden Cardiac Arrest is the leading cause of death in the United States, taking the lives of more than 350,000 people each year. Anyone can experience Sudden Cardiac Arrest (SCA), including infants, children, teens, young adults and people in their 30s and 40s who have no sign of heart disease, as well as more mature adults.

There is a critical need to raise awareness of sudden cardiac arrest and educate people about prevention strategies and how to take immediate action in the case of a cardiac emergency.

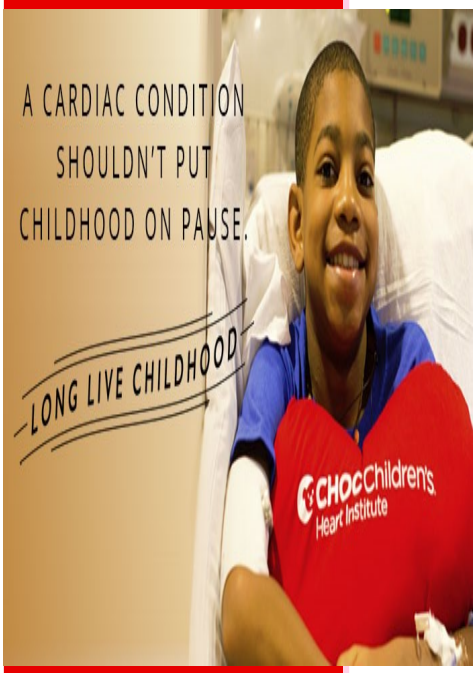
SCA is not a heart attack. A heart attack is caused by impeded blood flow through the heart. SCA is caused by a structural or electrical problem, often from an undetected heart condition, and in other instances, from an infection or a severe blow to the chest. In 95% of cases, the SCA victim is lost.



To survive SCA, the victim must receive life-saving defibrillation from an automated external defibrillator (AED) within the first four to six minutes. Every minute that passes without a shock from an AED decreases the chance of survival by 10%. Administering hands-only cardiopulmonary resuscitation (CPR) can be a bridge to life until an AED arrives.

Vital Facts!!

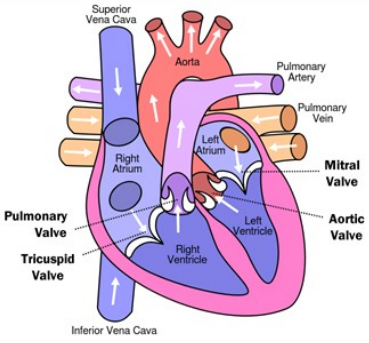
Pediatric cardiomyopathy is a complex and variable disease, which affects the entire family when a child is diagnosed.



Different forms of the disease. Cardiomyopathy is a chronic disease of the heart muscle that can present in four forms and may in severe cases lead to heart failure and/or sudden death. Dilated and hypertrophic cardiomyopathy are the most common forms with restrictive and arrhythmogenic right ventricular cardiomyopathy occurring less frequently in children. Diagnosis is confirmed through an EKG and echocardiogram by a pediatric cardiologist.

Can affect any child. Cardiomyopathy predominately affects adults but in rare instances does affect infants and children. Cardiomyopathy can occur in any child regardless of age, race, gender or socioeconomic background. Recent studies show that children are about 10 times more likely to develop cardiomyopathy during the first year of life than ages 2 to 18 combined.

Affects approximately 30,000 children in the U.S. if all forms are considered. This is comparable to the number of people affected with cystic fibrosis in the U.S. According to the Pediatric Cardiomyopathy Registry, one in every 100,000 children are diagnosed with symptoms each year.



Multiple causes for the disease. Cardiomyopathy in children can be either acquired (i.e. viral infection or cancer chemotherapy) or inherited through one parent (dominant transmission) or both parents (recessive transmission). In rare cases, cardiomyopathy can be a symptom of a larger metabolic, mitochondrial or multi-system disorder (i.e. fatty acid oxidation disorder, Noonans, Barth syndrome). However, more than than 75% of patient cases do not have a known cause.

Extremely variable manifestation. Characterized by its highly variable course and uncertain outcome, pediatric cardiomyopathy is a difficult heart disease to treat in a standardized manner. Some children may be asymptomatic (i.e no symptoms) or stabilize over time, whereas others may have a more severe and progressive form. Even children from the same affected family may exhibit different symptoms at different stages in life. Prognosis is still unclear for many cases. Cardiomyopathy in children is a very heterogeneous disease with many considerations. Depending on the root cause of the disease and the stage at which the child is diagnosed, the outcome may vary considerably. For those children who acquire cardiomyopathy through a viral infection, research shows that 33% will recover completely, 33% will stabilize with the condition and 33% will get worst. With more research in this area, physicians will have better guidelines for improving outcomes for children with cardiomyopathy.

Minimal lifestyle restrictions. Fortunately, many children with cardiomyopathy can lead a relatively normal life with few lifestyle restrictions. A diagnosis will most likely mean more frequent doctor visits for monitoring of the condition and daily cardiac medication. Depending on the cause, type and stage of the disease, other modifications may involve diet, restriction from competitive, contact sports and minor school accommodations.

American College of Cardiology

The mission of the College and its more than 52,000 members is to transform cardiovascular care and to improve heart health.

American Heart Association

The nation's oldest and largest voluntary organization dedicated to fighting heart disease and stroke, we fund innovative research, fight for stronger public health policies, and provide critical tools and information to save and improve lives.

Children's Cardiomyopathy Foundation

CCF actively works with federal agencies, medical societies, voluntary health organizations, and hospitals nationwide to increase awareness, accelerate research, and advance education on pediatric cardiomyopathy, a chronic diseaseof the heart muscle.

Heart Rhythm Society

The Heart Rhythm Society is the international leader in science, education and advocacy for cardiac arrhythmia professionals and patients, and the primary information resource on heart rhythm disorders.

Hypertrophic Cardiomyopathy Association

We are committed to providing support, education, advocacy and advancing research, understanding and care of those with hypertrophic cardiomyopathy (HCM).

Mended Hearts

Our mission is dedicated to inspiring hope and improving the quality of life for heart patients and their families through ongoing peer-to-peer support.

Parent Heart Watch

We are the national voice solely dedicated to sudden cardiac arrest prevention in youth. Take the Prevention Promise and use our free 5 to Stay Alive toolkit to educate yourself and your community about how to save a young life.

Sudden Arrhythmia Death Syndromes Foundation

Our mission is to save the lives and support the families of children and adults who are genetically predisposed to sudden cardiac death due to heart rhythm abnormalities.

Sudden Cardiac Arrest Foundation

Our vision is to increase awareness about SCA and influence changes that will reduce mortality through the increased use of bystander CPR and AEDs.

Selinsgrove Area High School

Warning Signs

- **Family history of unexpected, unexplained sudden death under age 40.**
- **Fainting or seizure during exercise, excitement or startle.**
- **Consistent or unusual chest pain &/or shortness of breath during exercise.**

500 N. Broad St
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Information brought to you by:

CDC	SADS
AHA	HCMA
CCF	SCAF

Cardiomyopathy:

One Child

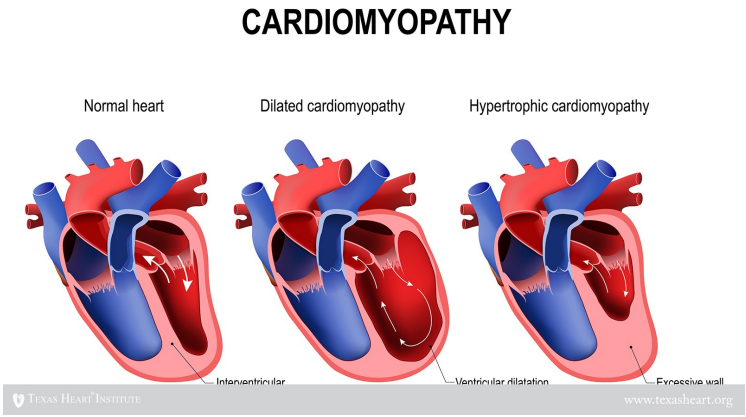
out of 100,000 is diagnosed with cardiomyopathy.

67 percent

of cases have no known cause.

Research holds the key to understanding the disease and finding more effective treatments.

Search for a cure continues. Unlike other congenital heart conditions, there is no surgical treatment or cure that can repair the damaged heart or the stop the progression of the disease. The first treatment option is medication to improve the heart's functioning, and an implantable defibrillator may be recommended for arrhythmia (irregular heart rhythm). For children in heart failure, a heart transplant may need to be considered. More than 80% of children receive a donor organ in time, and the survival rate after transplantation is approximately 70%.



Federal research spending is disproportionate to the severity of the disease. In relation to other serious diseases, research on pediatric cardiomyopathy continues to be extremely under-funded even though the years of potential life lost in a child with heart disease is 2-7 times that of an adult. While the mortality rate for pediatric cardiomyopathy is higher than childhood cancer, and each year the number of children in the U.S. diagnosed with cardiomyopathy is 3 times that of pediatric AIDS, Federal research spending on pediatric cardiomyopathy is only a fraction (less than 3%) of what these other well known diseases receive.