Pediatric Cardiac Risk Assessment Form

Children's℠ Healthcare of Atlanta Cardiology

Please complete this form for all children (athletic participant or not) starting at the age of 6, when the American Academy of Pediatrics recommends starting preparticipation examinations (PPE). It should be completed a minimum of every 3 years, including on entry into middle school and high school. Depending on family and primary care provider concerns, more frequent or earlier screening may be appropriate.

Patient Name: _____ Age: _____

Person Completing Form: _____ Date: _____

Symptom Questions:	**Yes**	**No**	**Unsure**
Have you (patient) ever fainted, passed out, or had an unexplained seizure suddenly and without warning?			
If so, was it during exercise or in response to sudden loud noises, such as doorbells, alarm clocks, or ringing telephones?			
Have you (patient) ever had either of the following during **exercise**: 1. Exercise-related chest pain, particularly pressure-like and not occurring at rest? 2. Unusual or extreme shortness of breath during exercise, not explained by asthma?			
Family History:	**Yes**	**No**	**Unsure**
Are there any immediate family members (include patient's parents or siblings) who have died before age 50 from heart problems or had an unexpected sudden death? *Including drownings, passing away in their sleep, sudden infant death syndrome (SIDS), or unexplained automobile crashes in which the relative was driving.*			

Are there any immediate relatives (patient's parents or siblings) with the following conditions?

- ☐ Hypertrophic cardiomyopathy or hypertrophic obstructive cardiomyopathy (HCM/HOCM)
- ☐ Long QT syndrome (LQTS) or short QT syndrome
- ☐ Marfan syndrome or Loeys-Dietz syndrome
- ☐ Arrhythmogenic right ventricular cardiomyopathy (ACM)
- ☐ Catecholaminergic polymorphic ventricular tachycardia (CPVT)
- ☐ Brugada syndrome (BrS)
- ☐ Anyone younger than 50 years old with a pacemaker or implantable defibrillator?
- ☐ ***I have no known immediate family members with the above conditions.***

Please explain more about any "yes" answers here:

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PURPOSE STATEMENT FOR USE OF PEDIATRIC CARDIAC RISK ASSESSMENT FORM

Information for Providers

The Cardiovascular Risk Assessment Form was developed for the purpose of identifying patients/families at risk for sudden cardiac arrest due to the presence of underlying cardiac disorder. This form was initially developed through the collaboration of several organizations to identify warning signs and symptoms in the patient and family and possible physical findings that might alert the healthcare provider to the presence of one of these cardiac disorders.

Prior versions of this form were relatively extensive and were created based on published preparticipation (sports/athletics) guidelines. With such an approach, there may be a tendency to detect insignificant cardiac findings. In addition, there has been new literature published on cardiac risk assessment screening that more appropriately focuses on all children, regardless of athletic participation. We therefore sought to streamline the recommended screening questions to focus on those more likely to identify patients affected with cardiac disorders that may predispose them to sudden cardiac arrest. Those questions are modifications of those presented in the following recent publication:

> Erickson CC, Salerno JC, Berger S, et al. Sudden Death in the Young: Information for the Primary Care Provider. *Pediatrics*. 2021;148(1):e2021052044. doi:10.1542/peds.2021-052044

This paper includes a wealth of helpful information intended for the primary care provider. For example, there is a table (shown below) differentiating benign ("typical") chest pain from more concerning symptoms, which may help a provider to either provide reassurance or initiate referral:

Features of "Typical" Chest Pain	Features of "Atypical" Chest Pain
Sharp	Pressure in sternum or left chest
Focal "it hurts right here!"	May radiate to neck or left arm
Brief	Associated diaphoresis
Changes with position	Associated dyspnea
Right sided (could be on left)	Associated nausea
Changes with breathing	Associated syncope
Tenderness can be elicited with palpation or pressure over the area	Onset with exercise, straining, or stress (unless features of typical chest pain are present)

From Erickson et al, Sudden Death in the Young: Information for the Primary Care Provider. *Pediatrics*. 2021.

Completion of the form requires complete and correct information from families. Positive answers to any of the questions should typically prompt a referral for a comprehensive cardiac evaluation. We support using clinical judgement when discussing positive (or negative) answers and need for referral, and we would be happy to answer any questions in general about the recommendations or about specific patient concerns.

You may also be interested in other articles that provide more detail about pediatric sudden cardiac arrest, as well as preparticipation guidelines from the American Heart Association. Selected publications are listed below:

1. Maron, BJ, Friedman, RA, Kligfield, P, et al. Assessment of the 12-lead ECG as a screening test for detection of cardiovascular disease in health general populations of young people (12-25 years of age): A scientific statement from the American Heart Association and the American College of Cardiology. *Circulation*. 2014;130:1303-1334.
2. Campbell RM, Berger S, Ackerman MJ. Pediatric sudden cardiac arrest. *Pediatrics*. 2012;129(4):e1094-e1102. doi:10.1542/peds.2012-0144
3. Dalal A, Czosek RJ, Kovach J, von Alvensleben JC, Valdes S, Ethridge SP, Ackerman MJ, Auld D, Huckaby J, McCracken C, Campbell R. Clinical Presentation of Pediatric Patients at Risk for Sudden Cardiac arrest. *J Pediatr.* 2016 Oct;177:191-6.

Download the CRA Form

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