



## **Importance of a Pediatric Cardiac Risk Assessment**

*As a pediatric primary care provider, you can help parents understand they are the most important contributors of information relating to the heart health history of their child and extended family. And by reviewing the pediatric cardiac risk assessment with parent(s) and child you can identify warning signs that may put kids at risk for sudden cardiac arrest or death.*

*To streamline the administrative process of conducting this part of a well-child check-up or pre-participation physical examination, the attached form notes ICD-10 codes you can use for billing purposes.*

### **Family History**

Given sudden cardiac arrest (SCA) is often confused with a heart attack or goes undiagnosed entirely, some families are unaware that a loved one who died from a heart condition under the age of 50, or who had an unexplained car accident or drowning, may actually have had a sudden cardiac arrest. It's important to ask if any blood relatives have died under these types of circumstances. Furthermore, ask if any living family members have been treated for a heart condition – even if it was remedied. Some heart conditions are inherited so it's critical to document this family history.

### **Potential Warning Signs & Symptoms of a Heart Condition**

Many parents and youth are often unaware of the potential signs of an undiagnosed heart condition.

- racing heart, palpitations or irregular heartbeat
- dizziness or lightheadedness
- fainting or seizure, especially during or right after exercise
- fainting repeatedly or with excitement or startle
- chest pain or discomfort during or after exercise
- excessive, unexpected fatigue during or after exercise
- excessive shortness of breath during exercise

We've all experienced these symptoms at one time or another. The key is knowing when these symptoms are repetitive, excessive or unusually timed, for example, a racing heart when at rest may be abnormal, but could be normal during activity. And remember: fainting is the #1 sign of a potential heart condition, so it's always advised to refer the child to a pediatric cardiologist for further evaluation if fainting occurs.

### **Form Should be Completed WITH Children Not FOR Them**

Many heart conditions go undiagnosed because the child hasn't ever talked about a problem. Go over each warning sign with the child and ask if they've ever experienced that feeling both at rest or when they're active.

The reality is that we live in a very competitive world, and kids are encouraged daily to rise to the challenge. Young people often don't tell adults if they experience symptoms or don't know that it is an abnormal symptom, and parents often urge their kids to play hard. Kids may be frightened, embarrassed or simply unaware that what they are feeling indicates a potentially fatal condition. Athletes (and often their parents) don't want to jeopardize their playing time, so they may also avoid telling parents or coaches in hope that the symptoms will "just go away" on their own. Or, they may think they're just out of shape and need to train harder. The goal is not to exclude kids from sports but to play safely. Kids shouldn't die doing what they love.

External factors may also increase a child's risk factor. For example, "recreational" drugs or substances, such as cocaine, inhalants, diet pills, performance supplements or energy drinks are not heart friendly. Ask the child for an honest account of their use of these substances.

### **What to Do with a Completed Pediatric Cardiac Assessment Form**

Most importantly, if parents answered "Yes" or "Unsure" to any questions, it's important to review the areas of risk identified and discuss getting a cardiac screening or formal cardiac evaluation with a pediatric cardiologist. When ordered by a medical provider, insurance often covers cardiac testing. electrocardiogram (EKG or ECG) can be less than \$100, and there are often clinics or community organizations that provide them for no or low cost. Check the Parent Heart Watch website for heart screening programs by state.

If no risk factors are identified, this form should still become part of the child's medical record. Because some conditions can develop as young hearts grow, it's important to do repeated assessments of the child's risk factors.

### **What is a Heart Screening?**

A heart screening typically begins with a cardiologist's review of the child's heart history, then an ECG and could later include an echocardiogram (ECHO), and in some cases stress testing and additional cardiac imaging, such as CT scans or cardiovascular magnetic resonance imaging (cMRI). These tests are quick, painless and noninvasive.

Parent Heart Watch supports interpreting screening data according to the International Criteria for ECG Interpretation appropriately aged youth.

### **If Child Is Cleared**

This is good news! But to be on the safe side, it's important to remember that conditions can change as young hearts grow. That's why international guidelines recommend a screening every two (2) years before age 25—or sooner if child begins to exhibit any warning signs or symptoms.

Remember that knowledge of heart disease is always evolving, so the definition of normal and abnormal can also change over time.

### **If Child Is Diagnosed With A Heart Condition**

The recommended treatment plans could include taking medication, making lifestyle modifications to reduce risk (which sometimes means refraining from competitive sports), surgery to correct the issue, or implantable devices that monitor the heart's rhythm.

It's important that parents share their child's treatment plan with school administration, school nurses, coaches or any other leaders of youth programs their child participates in. As a youth caregiver, they must be aware so they can help monitor the child's condition and take appropriate action in case of a cardiac emergency.

Parent Heart Watch is the only national voice solely dedicated to protecting youth from sudden cardiac arrest and preventable sudden cardiac death. Please visit [www.ParentHeartWatch.org](http://www.ParentHeartWatch.org) for a variety of resources that can assist you and the parents of your patients.



Complete this form periodically during well child visits including neonatal, preschool, before and during middle school, before and during high school, before college and every few years through adulthood. If you answer **YES** or **UNSURE** to any questions, contact your health provider.

Name: \_\_\_\_\_

Age & Date: \_\_\_\_\_

INDIVIDUAL HISTORY		(Office Use Only)
Has this person fainted or passed out DURING exercise, emotion or startle?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	R55
Has this person fainted or passed out AFTER exercise?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	R55
Has this person had extreme fatigue associated with exercise (different from peers)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	F53.83
Has this person ever had unusual or extreme shortness of breath during exercise?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	R06.02
Has this person ever had discomfort, pain or pressure in chest during exercise?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	R07.9
Has this person ever complained of a racing heart or “skipping beats”?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	R00.0
Has a doctor ever told this person they have: <input type="checkbox"/> high blood pressure <input type="checkbox"/> high cholesterol <input type="checkbox"/> heart murmur <input type="checkbox"/> heart infection		Z86.79 I10; E78.0; R01.1; I33.0; I51.4
Has a doctor ever ordered a test for this person’s heart?		
Has this person ever been diagnosed with an unexplained seizure disorder? If yes, when?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	R56.9
Has this person ever been diagnosed with an unexplained seizure disorder or exercise-induced asthma?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	J45.990
Has this person ever been diagnosed with any form of heart/cardiovascular disease? If yes, when and what was the diagnosis?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z86.79
Is this person adopted, or was an egg or sperm donor used for conception?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z86.79

FAMILY HISTORY (think of parents, siblings, grandparents, aunts/uncles, cousins)		
Are there any family members who had a sudden, unexpected or unexplained death before age 50? (including SIDS, car accident, drowning, passing away in sleep)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z82.41; Z84.82
Are there any family members who died suddenly of “heart problems” before age 50?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z84.49; Z84.81
Are there any family members who have had unexplained fainting or seizures?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z82.49
Are there any family members who are disabled due to “heart problems” under the age of 50?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	
Are there any relatives with these conditions:		
Hypertrophic cardiomyopathy (HCM)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	I42.2
Dilated cardiomyopathy (DCM)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	I42.0
Arrhythmogenic right ventricular cardiomyopathy (ARVC)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z84.81
Long QT syndrome (LQTS)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z84.81
Short QT syndrome	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	I45.81 or Z84.81
Brugada syndrome	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	I49.8 or Z84.81
Catecholaminergic ventricular tachycardia	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	I47.2 or Z84.81
Coronary artery atherosclerotic disease (heart attack, age 50 or younger)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	P29.81; I46.9; Z82.49
Aortic rupture or Marfan syndrome	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	I71.8; Q87.40; Z82.79
Ehlers-Danlos syndrome	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Q79.6
Primary pulmonary hypertension	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	I27.0
FH of deafness	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z82.2
Pacemaker or implanted cardiac defibrillator (if yes, who and at what age was it implanted?)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z95.0; Z82.49
Has anyone in the family had genetic testing for heart disease? Which one? Was a gene mutation found?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure	Z84.81; Z82.49
Explain more about any “yes” answers:		

FOR OFFICE USE Physical Exam from Physician should include:		
Evaluation for heart murmur in both supine and standing position and during valsalva	<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	R01.1; Z03.89
Femoral pulse	<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	R03.0
Brachial artery blood pressure—taken in both arms	<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	110
Evaluation for Marfan syndrome stigmata	<input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	Q87.40

CPT Codes for ECG: Global 93000 • Technical Component 93005 • Professional Component 93010