
Heart Health Screening Guidelines for Young People



The American Heart Association (AHA) and the American College of Cardiology (ACC) issued a joint statement recommending a new heart health screening process for young people aged 12 to 25 years and clarifying any misconceptions about sudden heart-related deaths.

Healthcare professionals are advised to familiarise themselves with 14 key points on a newly released checklist for uncommon but deadly congenital and genetic heart disease in this age group.

Sudden death amongst young people may be rare but it is always a tragedy, and the infrequency of these events does not mitigate their impact on families and the community, according to Barry J. Maron, MD, chair of the writing panel for the statement published simultaneously in *Circulation*, a journal of AHA, and the *Journal of the American College of Cardiology*.

There is a misconception that athletes are at a higher risk for sudden cardiac arrest, but the public should be aware that any young person is just as susceptible to such a life-threatening event. "(The) media coverage of sudden cardiac arrests in athletes may have created the exaggerated impression that these tragic events are far more common than they actually are, or that they are limited to athletes," said Dr. Maron, director of the Hypertrophic Cardiomyopathy Center at the Minneapolis Heart Institute Foundation.

There are rare cases of seemingly healthy young individuals dying while playing sports and these have led to electrocardiogram (ECG) requirements to monitor an athlete's heart. However, the AHA-ACC statement says ECG screening does not really help discover underlying heart problems in young healthy people in the United States because of false negatives and false positives. Assessing paediatric ECGs can be particularly difficult, because the ECG changes with growth and development, and the expertise required is not widely available.

Still, the joint statement notes that broader dissemination of automatic external defibrillators (AEDs) in public gathering places, such as schools and sports arenas, can be useful in saving young lives on the athletic field or elsewhere, when cardiac arrest does happen.

"Those who do not sign up for sports are just as likely to have the genetic heart diseases that raise the risk for sudden death," Dr. Maron said. In the US, only about one percent of college students and 30 percent of high school students take part in competitive sports, so "there are more deaths in non-athletes participating in recreational sports and normal daily activities," Dr. Maron noted.

There have been two more points added to the heart health checklist since it was first released in 2007. With the 14-element screening checklist, health professionals should be able to thoroughly spot any red flags. If a young person says yes to any of the 14 points on the list, they will be required to undergo further testing and an ECG test just to cover all bases. The 14-step screening process includes the following:

Personal history

- Chest pain/discomfort related to exertion
- Unexplained fainting or near-fainting
- Excessive and unexplained fatigue or palpitations, associated with exercise
- Prior recognition of a heart murmur
- High blood pressure
- Prior restriction from participation in sports
- Prior testing for the heart, ordered by a physician

Family history

- One or more relatives who died of heart disease (sudden/unexpected or otherwise) before age 50
- Close relative under age 50 with disability from heart disease
- Specific knowledge of certain cardiac conditions in family members: hypertrophic or dilated cardiomyopathy in which the heart cavity or wall becomes enlarged, long QT syndrome which affects the heart's electrical rhythm, Marfan syndrome in which the walls of the heart's major arteries are weakened, or clinically important arrhythmias or heart rhythms

Physical examination

- Heart murmur

- Femoral pulses to exclude narrowing of the aorta
- Physical appearance of Marfan syndrome
- Brachial artery blood pressure (taken in a sitting position)

Source: MedicalDaily.com

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