



Sports Screening

ARE WE SCARING OR SAVING?

By Narendra Singh, MD

The school season has started and with that 7.6 million students across the United States will participate in a school sport! It's also the time we get asked repeatedly for medical clearance in order for a student to participate. Unfortunately, it's also the time we hear about a student athlete dying suddenly on the field. Inevitably with such tragedies comes the cries for routine sports pre participation screening. These deaths are potentially preventable if the cardiac condition is identified early. Many smaller countries have attempted nationwide screening with mixed results. An Italian study did show that screening could identify high risk individuals and reduce the sudden death rate, but subsequent studies have not been able to reproduce these results.

The most common screening tool outside of a proper history and physical is the electrocardiogram (ECG). The problem is that although it's a simple test, mass screening would be very expensive to implement across all school and colleges. EKG's often create false alarms leading to unnecessary worry and a slew of other more expensive and invasive tests. For these reasons our national societies have recommended against routine screening.

So, who should be screened? It all comes down to obtaining a good history and physical exam.

1. Is there a family history of sudden death or heritable cardiac conditions?
2. Is there already a personal history of any type of cardiac condition?
3. Is the individual having symptoms that could be heart related- lightheadedness, dizziness, near fainting with exertion, chest pain, unusual shortness of breath or any palpitations
4. Are there any unusual findings on the physical exam – low blood pressure, fast heart rate, unusual heart sounds or murmurs, crackles in the lungs, swelling in the feet, discoloration of the skin
5. Are they on meds that can affect the heart – blood thinners, stimulants, QT prolonging drugs

In such situation's referral to a cardiologist with an interest in sports medicine is appropriate. Testing will often include an EKG, an echocardiogram (ultrasound of the heart), a Holter monitor (24hr continuous monitoring of the heart at home) and an exercise treadmill test. Based on these tests a more definitive assessment can be made about the safety and intensity of playing sports.

In general, the goal is to avoid creating a generation of cardiac cripples. Preventing a student from playing sports can affect health, self-esteem and often a chance to go to college. Unless you have conditions like ... polymorphic VT, long QT syndrome, hypertrophic cardiomyopathy with

obstruction, arrhythmogenic right ventricular dysplasia or severe structural congenital heart disease...the goal is to keep the student active in sports with the proper precautions.

Some common sense advise for all student athletes includes.

1. Hydrate well with fluids that include electrolytes
2. Avoid stimulants that can aggravate arrhythmias such as caffeine, energy drinks, decongestants
3. Abstain from alcohol, smoking, snorting or vaping substances
4. Get plenty of rest prior to the big game or workouts.
5. Know where the nearest automatic external defibrillator (AED) is located at the facility

With that we look forward to another exciting season of school and college sports! ■

NARENDRA SINGH, MD,

FRCP(C), FACC, FAHA

Clinical Assistant Professor, Medical College of Georgia at Augusta University,
Director, Clinical Research-Atlanta Heart Specialists,

1400 Northside Forsyth Drive, Suite 200
Cumming, GA, 30041

678-679-6800 Cell 404-384-7227

www.heartdrsingh.com