

Title: Recommendations from the American Heart Association for the pre-participation screening of young athletes for cardiovascular risk factors for sudden death during training and competition

Author: Meghann M. Duffy

Date: 6/17/2009

Key words: Pre-participation screening, athletic screening, athletic eligibility, sports physical, sudden death in athletes, risk factors for sudden death in young athletes, American heart association sports screening guidelines

Abstract:

The American Heart Association recommends that all young athletes be screened for heart conditions that are risk factors for sudden death. The screen includes questions about family history of heart disease, personal history of heart problems, and a physical examination.

This document was created by a medical student enrolled in the Primary Care Clerkship at the University of Minnesota Medical School as part of the course project. The aim of the project is to present information on a medical topic in the format of a patient education handout. It does not necessarily reflect the views of the University of Minnesota Medical School physicians and faculty. These materials are provided for informational purposes only and are in no way intended to take the place of the advice and recommendations of your personal health care provider. The information provided may no longer be up to date since it has not been reviewed since the date of creation. The information provided should not be used to diagnose a health problem or disease, or as a means of determining treatment. In the event of a medical emergency, immediately contact a doctor or call 911.

# Sports Physical Season is Here!

## Why is a sports physical required to participate in sports?

High Schools and Colleges/Universities across the United States mandate that athletes undergo a physical examination before being eligible for participating in athletics. This may seem like an inconvenience, but it is a way to screen for various conditions that may cause harm to the athlete during training or competitions. It is important to find these conditions as many of them have treatments.

## What types of conditions are being screened?\*

Many conditions are being screened including heart conditions, which is one of the most concerning. This is because there are some **RARE** heart conditions that can put an athlete at risk for sudden death, which may be picked up by screening questions and physical examination.

## Screening for heart conditions

The box below has the recommended questions from the American Heart Association that screen for heart conditions that put an athlete at risk for sudden death. If your state does not have a special sports qualifying physical clearance form, makes sure you discuss the following questions your doctor about heart health before participating in sports. If you answer yes to any of these questions it does not necessarily mean you will be unable to participate in sports, but your doctor will perform a thorough physical exam and may want to do some further tests.

- Have you ever passed out or nearly passed out DURING exercise?
- Have you ever passed out or nearly passed out AFTER exercise?
- Have you ever had discomfort, pain, tightness, or pressure in your chest during exercise?
- Does your heart race or skip beats during exercise?
- Has a doctor ever told you that you have? High blood pressure, A heart murmur, High cholesterol, A heart infection, or Rheumatic fever
- Has a doctor ever ordered a test for your heart? (for example, ECG, echocardiogram, stress test)
- Has anyone in your family died suddenly and unexpectedly for no apparent reason?
- Does anyone in your family have a heart problem?
- Has any family member or relative died of heart problems or of sudden death before age 50?
- Has anyone in your family less than 50 years old had unexplained drowning while swimming or an unexplained car accident?
- Does anyone in your family have Marfan syndrome? hypertrophic or dilated cardiomyopathy? long-QT syndrome? Arrhythmias?

Adapted from the 2009-2010 MSHSL Sports Qualifying Physical Examination Clearance Form found at <http://www.mshsl.org/mshsl/publications/code/forms/PhysicalExam.pdf> and the 12-element AHA recommendations for preparticipation cardiovascular screening of competitive athletes

\*Please see your primary care provider for a complete screening for all conditions