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# Athletic Preparticipation Screening Guidelines

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**The American Heart Association has published guidelines for pre participation sports physicals. The HCMA encourages each State to use these guidelines when updating there requirements for participation in high schools and college level programs. In addition the HCMA believes the same questions should be asked of those children participating in recreational level athletics and "club" teams. Hypertrophic cardiomyopathy is a condition that is generally not compatable with competitive athletics and therefore those with HCM should not participate in most athletic programs. HCM is the leading cause of sudden cardiac arrest in young athletes. See attached document at the lower right hand portion of your screen to download the complete document.**

## **American Heart Pre-participation Guidelines:**

The American Heart Association Guidelines indicate the following information should be obtained about each student athlete prior to participation. In addition the HCMA suggests that children and young adults who have been adopted or are in any way unsure about their family history be viewed as potentially at risk and follow up with a comprehensive cardiac evaluation as noted below.

### **Medical history\***

#### **Personal history**

1. Exertional chest pain/discomfort
2. Unexplained syncope/near-syncope
3. Excessive exertional and unexplained dyspnea(shortness of breath)/fatigue, associated with exercise
4. Prior recognition of a heart murmur
5. Elevated systemic blood pressure

#### **Family history**

6. Premature death (sudden and unexpected, or otherwise) before age 50 years due to heart disease, in 1 relative
7. Disability from heart disease in a close relative <50 years of age
8. Specific knowledge of certain cardiac conditions in family members: hypertrophic or dilated cardiomyopathy, long-QT syndrome or other ion channelopathies, Marfan syndrome, or clinically important arrhythmias

#### **Physical examination**

9. Heart murmur
10. Femoral pulses to exclude aortic coarctation

11. Physical stigmata of Marfan syndrome

12. Brachial artery blood pressure (sitting position)

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*\*Parental verification is recommended for high school and middle school athletes.*

*Judged not to be neurocardiogenic (vasovagal); of particular concern when related to exertion.*

*Auscultation should be performed in both supine and standing positions (or with Valsalva maneuver), specifically to identify murmurs of dynamic left ventricular outflow tract obstruction.*

*Preferably taken in both arms.*

At the discretion of the examiner, a positive response or finding in any 1 or more of the 12 items may be judged sufficient to trigger a referral for cardiovascular evaluation. Parental verification of the responses is regarded as essential for high school (and middle school) students.

**\*\*Cardiovascular screening should include ECG, echocardiogram, possible stress test, possible cardiac MRI and follow up plan as needed. In the opinion of the HCMA, these tests should be conducted by a cardiac professional, not a general practitioner or pediatrician.**

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