

## **American Heart Association 14-Element Screening (Maron BJ *Circulation* 2014)**

**Medical history** (Parental verification recommended for high school and middle school athletes)

### **Personal History**

1. Exertional chest pain/discomfort
2. Exertional syncope or near-syncope
3. Excessive exertional and unexplained fatigue/fatigue associated with exercise
4. Prior recognition of a heart murmur
5. Elevated systemic blood pressure
6. Prior restriction from participation in sports
7. Prior testing for the heart ordered by a physician

### **Family history**

8. Premature death-sudden and unexpected before age 50 yr due to heart disease, in one or more relatives
9. Disability from heart disease in a close relative < 50 yo
10. 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 exam**

11. Heart Murmur-exam supine and standing or with valsalva, specifically to identify murmurs of dynamic L ventricular outflow tract obstruction
12. Femoral pulses to exclude aortic stenosis
13. Physical stigmata of Marfan syndrome
14. Brachial artery blood pressure (sitting, preferably taken in both arms)

- ❖ Positive/abnormal screen warrants further evaluation and 12-lead EKG
- ❖ AHA does NOT currently recommend routine 12-lead ECG