

# Via Medical Advisory Committee

## Statement on ECG Interpretation

There has been a dramatic drop in the ECG findings in young athletes requiring specialized medical evaluation prior to participating in sports (false positive rate, FP). These FP ECG findings are acknowledged to be possibly due to the physiological effects of exercise training though there are also clinical studies that support their benign nature in non-athletes. This drop followed the 2011 publication in *Circulation* “Stanford Criteria for ECG Screening of Young Athletes” which led to the currently utilized “International Criteria for ECG screening of young athletes.”

The major FP findings are all the QRS voltage criteria and scores included in the classification of ECG-LVH. The QRS voltage criteria must be isolated and not include ST depression, T wave inversion and/or left atria abnormalities to be FP’s.

The next most common benign finding is Early Repolarization or the ST elevation that can mimic acute ischemia or pericarditis.

The finding of ST elevation accompanied by T wave inversion in the anterior leads (V123) is a more controversial FP finding in athletes of African descent since it can also be seen in cardiomyopathies.

On the other hand, the ECG finding of WPW has been found to be an important marker of risk for sudden cardiac death in young athletes.

### Cited Papers:

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