



[New Handheld ECG Designed for Young Athletes](#)

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<http://www.dixiemed.com/blog/new-handheld-ecg-designed-for-young-athletes/>

One of the common reasons young athletes die from sudden cardiac arrest is because of some underlying heart problem that they did not know about. Typically, a young athlete will not know they have a problem unless they receive some kind of screening for it and many school athletic programs do not require screening because of expense related issues. The reason for this is because ECG equipment used in a Pre-Participation Exam (PPE) is not cheap and many high schools and even colleges cannot afford one. [CardeaScreen](#) is a new ECG device designed by Cardea Associates that is designed to lower the high cost related to screening. The CardeaScreen is a handheld ECG device and was recently cleared by the FDA to be used by physicians. Standard ECG machines cost anywhere from \$3,000 to \$10,000, while the CardeaScreen is being sold for a little over \$1,500.

The device is designed to wirelessly connect via Bluetooth to analysis software. The physician doing the PPE, inputs responses to PPE questions developed by the American Heart Association and any other relevant information. Since the device is designed for specifically for athletes, Cardea Associates says that the device will result in a significantly lower amount of false positive results. False positive results are when results show that there is an abnormal heart condition when there isn't one at all. False positive results are one of the reasons many physicians hesitate in calling for mandatory ECG testing for young athletes because if a heart condition is revealed, the following testing is very costly, especially when further testing reveals there is nothing. They can also be difficult on the athlete and their parents because of the unnecessary fear which also includes the athlete not being able to play.

According to Cardea Associates press release, the "CardeaScreen produces accurate, comprehensive results using quality data; the ECG transmitter digitizes at 1000 Hz and a resolution of 1 Volt. The real-time recording screen continuously displays all ECG trace data that will be analyzed, helping the clinician correct patient motion and other noise that can degrade ECG quality. The single click of a button stops the recording and automatically analyzes the ECG, providing diagnostic recommendations for review by the physician."

Trials so far have shown the device to be effective, but it will take time as it is implemented to see further results. If it is truly a more affordable way to screen young athletes, then it will be a big step towards the safety of sports programs.