

5 things you should know about automated external defibrillators in schools

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Holland, MI —

In the case of sudden cardiac arrest at a high school, whether at an athletic event or elsewhere, an automated external defibrillator, or AED, can be the difference between life and death.

However, simply having one at the school might not be enough, said Dr. Ron Grifka, chief of cardiology at Helen DeVos Children's Hospital. AEDs are devices that, upon being hooked up to a patient, can detect his or her heart rate and automatically deliver a shock with minimal input from the operator.

Grifka will give a presentation as part of a three-hour long symposium dubbed "Wes Leonard Sudden Cardiac Arrest in Student Athletes: What Schools Need to Know" on Monday at Calvin College's Price Conference Center.

The free event is named after a Fennville High School student who died suddenly from cardiac arrest after a basketball game. On first-come-first-serve basis, 150 people will be admitted beginning at 5:30 p.m.

Here are five things to know about AEDs in schools:

1. One might not be enough Depending on the school's size, multiple AEDs may be required to adhere to the guideline that they should be able to be retrieved within 90 seconds walking distance from the location of the patient, Grifka said.

"If the AED is in the school, but the football field, rugby field or softball field is 500 yards away, 400 yards away," he said, "by the time anybody was to remember to run and get it, bring it back and hook it up, it very well could be too late."

2. People must be educated on using them Whether it's watching an instructional video, reading the manual or receiving training, people must know how one is used.

Luckily, they have been made very user-friendly, he said.

"The companies have done an amazing, great job making them as simplistic as possible," Grifka

said. “(Once its pads are hooked up,) it analyzes the patient’s heart rhythm and it has certain algorithms written: If it’s this, this and this, we’re going to administer a shock.”

Before a shock is delivered, it will say “all clear,” because if someone is touching the patient, they also would receive the shock.

3. Know where they are and how to access Whether it’s in the office, outside the gym, in the trainer’s closet or in the cafeteria, multiple people should know where the AED is located and have access to one.

Grifka relayed a cautionary story his colleague once told him about how at a high school basketball game, the AED was on the other side of one of the locked metal gates used to cordon off hallways. Fortunately, it did not present a problem that night, he said.

4. Test them regularly Batteries can die, and the pads coated with saline for conduction can dry out, Grifka said.

“If you don’t have (functional) pads or the battery is not working or it hasn’t been checked and there’s some internal error — again, it’s all electronics — that’d really probably be as tragic as the patient having the arrest.”

Battery life can range from one to five years, he said.

Grifka recommends multiple people check the AEDs every month, which also helps familiarize people with where they are located and how to access them.

5. Have an AED program “Schools do tornado drills, fire drills. Maybe they need to do an AED drill because the chance of having somebody go into cardiac arrest is probably greater than a fire or a tornado,” Grifka said.

Either twice a year or once every quarter, there should be a program reminding people where it is, that there is testing once a month, how to access it and how to use it, he said.

“Retraining is real helpful because that just keeps it in everybody’s mind,” Grifka said. “It can be life or death, so you really need to know how to use it.”

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