



**SY20-21.4 Policy: Automated External Defibrillator (AED)**  
**Approved October 22, 2020**

**INTRODUCTION**

An automated external defibrillator (AED) is used to treat victims who experience sudden cardiac arrest (SCA). It is only to be applied to victims who are unconscious, not breathing normally, and showing no signs of circulation such as normal breathing, coughing, and movement. The AED will analyze the heart rhythm and advise the operator if a shockable rhythm is detected. If a shockable rhythm is detected, the AED will charge to the appropriate energy level and AED will automatically deliver the shock after a verbal 3,2,1 countdown.

**AED ACQUISITION**

As funds become available through school fund, grants, or donations, Thomas MacLaren School (the School) will acquire AEDs that meet the following guidelines (that meet the standards set forth in Colorado Revised Statute § 13-21-108.-):

- Receive approval of its premarket notification filed pursuant to 21 U.S.C. § 360(k), from the federal Food and Drug Administration;
- Be capable of recognizing the presence or absence of ventricular fibrillation or rapid ventricular tachycardia and is capable of determining, without intervention by an operator, whether defibrillation should be performed;
- Upon determining that defibrillation should be performed, automatically charges and requests delivery of an electrical impulse to an individual's heart.

**AED ACCESSORIES**

Each AED shall have the following accessories:

- One set of adult electrodes
- One set of infant/child energy reduction electrodes, for children 1-8 or under 55 lbs.
- Standard carrying case
- CPR Kit—breathing mask, scissors, razor/shaver, hand wipes, gloves
- Alarmed wall cabinet for AED storage

**AED STANDARDIZATION**

The School will attempt to standardize using the HeartSine Samaritan SAM 360P Fully Automatic AED model to remain consistent with training and maintenance. Donors of AEDs will be strongly encouraged to provide this specific model.

## **AED PLACEMENT**

The School will use the following guidelines when placing newly acquired AEDs.

1. **High Risk Students/Faculty:** Priority will be given to facilities with students/faculty that have known preconditions to high risk of Sudden Cardiac Arrest (SCA). Specifically, students/faculty with a preconditioned heart disease, including cardiomyopathy, congenital heart disease, myocarditis, connective tissue disease, mitral valve prolapse or conduction disease, medication-related cause, and other prescreened conditions. The School maintains a list in Power School of high risk students and this information is updated when received.
2. **High Populations:** The School will prioritize the locations of the AEDs by facilities with higher populations (students, staff, and general public).
3. **Accessibility:** The School will attempt to place AEDs at a location within the facility that is accessible to all students and staff. Following the American Heart Association guidelines, AEDs will be accessible within 3-5 minutes for all students and staff once all are fully deployed. AEDs will typically be placed near the front entrance/main office. Schools with multiple AEDs should have them place in “high risk” areas such as gymnasiums and sports stadiums. AEDs should not be in locked cabinets or behind locked doors. Donors will be encouraged to follow these guidelines; however, the School will have final say in determining the facility in which the AED is placed. As the School expands its facilities, AEDs will be prioritized according to these guidelines.

## **AED MANAGEMENT**

The School will be responsible for the following:

- Medical prescription
- AED tracking
- Battery/electrode expiration
- Records of monthly inspections performed by The School
- Trained personnel rosters
- Dispatch notification
- Automated email/dashboard alerts
- Written policies and procedures and any updates
- Dispatch notification
- Post event services
- Data download
- AED inspection
- Supply replenishment

## **AUTHORIZED AED USERS**

All employees of the School who have successfully completed CPR/AED training are authorized to use the AED. If no trained employee is present, any bystander acting in “good faith” and “without compensation” is authorized to use the AED at their discretion. See C.R.S. § 13-21-108(1); C.R.S. § 13-21-108.1(4)(a).

## **THOMAS MACLAREN SCHOOL EMPLOYEE RESPONSIBILITIES**

- Activating the internal emergency response system (calling 911) and providing prompt basic life support including AED and first aid according to training and experience
- Ensure staff (expected AED users) complete CPR/AED certification through a nationally recognized agency approved by the State of Colorado
- Understand and comply with the requirements of this policy

## **VOLUNTEER RESPONDER RESPONSIBILITIES**

Anyone can, at their discretion, provide voluntary assistance to victims of medical emergencies. The extent to which these individuals respond shall be appropriate to their training and experience. These responders are encouraged to contribute to emergency response only to the extent that they are comfortable. The emergency response of these individuals may include CPR, AED, and medical first aid.

## **EQUIPMENT USE**

- The AED and first aid emergency care kit will be brought to all medical emergencies
- The AED should be used on any person who is at least 1 year of age and displays ALL the symptoms of cardiac arrest
- The AED will be used only after the following symptoms are confirmed: victim is unconscious, victim is not breathing, victim has no pulse and/or shows no signs of circulation such as normal breathing, coughing, or movement

## **INITIAL TRAINING FOR THOMAS MACLAREN SCHOOL EMPLOYEES**

ALL expected AED users must complete training adequate to provide basic first aid, CPR, and AED. Training will be provided on site if feasible by the School. AED training course shall be approved by the State of Colorado American Red Cross, American Heart Association, National Safety Council, or American Health & Safety Institute. The School will maintain records of all CPR/AED trained employees in the School Main Office and Health Room. An annual cardiac emergency drill will be scheduled to practice for the use of an AED/CPR emergency.

## **VOLUNTEER RESPONDERS**

These responders will possess various amounts of training in emergency medical response and their training may be supplied by courses outside of the School. Volunteer responders can assist in emergencies, but must only participate to the extent allowed by their training and experience. Volunteer responders may have training adequate to administer first aid, CPR and use of the AEDs deployed throughout the facilities. Any volunteer wishing to potentially use one of the AEDs deployed by the School is recommended to have successfully completed a state approved AED course including CPR within the last two years. The School will not maintain training records for the volunteer responders.

## **REFRESHER TRAINING**

All currently trained Thomas MacLaren School employees will renew their CPR/AED training every year through the American Red cross OR every two years through the American Heart Association, National Safety Council, or American Health & Safety Institute. Volunteer responders should obtain documented renewal training at least once every two years.

## **INTERNAL POST EVENT DOCUMENTATION**

It is important to document each use of the medical emergency response system. An accident report form shall be completed by the responding Thomas MacLaren School employee for each accident requiring the use of the AED. A copy of the form shall be sent to the Head of School within 48 hours of a medical event.

## **EQUIPMENT MAINTENANCE**

All equipment and accessories necessary for support of medical emergency response shall be maintained in a state of readiness. Specific maintenance requirements include:

- The School will be responsible for a monthly visual check of the AED and reporting this check to the Office Manager / Head of School
- The School will be responsible for tracking of AED disposables, notifying when AED disposables expire or are used in a SCA event, and upgrading AEDs to new standards as needed.

## **AED USE PROCEDURES**

[whenever possible to be kept with each AED]

### **Purpose:**

To provide trained employees of the School with uniform guidelines to follow when responding to sudden cardiac arrest incidents and intervening with an AED.

**NOTE:** *If person is unconscious, check for breathing and pulse and initiate CPR if needed. Send for AED and call 911.*

Use of the AED is authorized for emergency response personnel trained in CPR and use of the AED. Use of the AED by other persons is also permitted when no trained responder is available and they are acting in “good faith” and “without compensation.”

### **Initial Procedure:**

1. Assess scene safety. Rescuers are volunteers and are not expected to place themselves at risk in order to provide aid to others, instead, the scene or environment around a victim must be made safe prior to attempts to assist
2. Determine unresponsiveness
3. Activate system:
  - A. At any school phone: dial 911
  - B. From any public phone or cellular phone: dial 911
  - C. Call main office and alert them to emergency and location of unconscious person
  - D. Main office state will assign someone to retrieve AED and meet responding staff or volunteer at emergency scene
4. CPR trained individuals will assess the emergency and if necessary, begin CPR
5. Turn on AED
6. Apply electrode pads (according to diagram on back of electrode pads) to victim’s bare chest
  - A. Peel electrode pads, one at a time, from the backing or liner
  - B. Shave or clip chest hair if it is so excessive it prevents a good seal between electrode pads and skin
  - C. Wipe chest clean and dry if victim is dirty or wet
  - D. Press electrode pads firmly to skin

**NOTE:** If victim is under eight years old or under 25 Kg (55 lbs.) remove pre-connected adult defibrillation electrodes. Connect the Infant/Child Reduced Energy Defibrillation Electrodes to the AED and proceed to step #6. Do not delay therapy to determine precise age or weight of child. If in doubt, defibrillate with pre-connected adult defibrillation electrodes.

7. Stand clear of victim while machine evaluates victim's heart rhythm
8. Refrain from using portable radios or cell phones within four feet of victim while AED is evaluating heart rhythm

**Shock Advised Procedure:**

1. Clear area, making sure no one is touching the victim
2. The AED will automatically deliver the shock after a verbal 3,2,1 countdown
3. After the shock, start CPR immediately
4. If pulse or signs of circulation, such as normal breathing and movement are absent, perform five cycles of CPR (two minutes)
5. The AED will countdown five cycles of CPR (approximately two minutes) and will automatically evaluate victim's heart rhythm when CPR time is over

**No Shock Advised**

1. Device will prompt to check for breathing and if absent, start CPR.
2. If pulse or signs of circulation, such as normal breathing and movement are absent, perform five cycle of CPR (two minutes)
3. If pulse or signs of circulation are present, check for normal breathing
4. If victim is not breathing normally, give rescue breaths according to training
5. AED will automatically evaluate victim's heart rhythm after two minutes
6. If victim regains signs of circulation, such as breathing and movement, place them on their side in the recovery position and monitor their breathing closely
7. Continue cycles of heart rhythm evaluations, AED will automatically deliver the shock if needed after a verbal 3,2,1 countdown, and re-initiate CPR until professional help arrives
8. Victim must be transported to hospital
9. Leave AED attached to victim until EMS arrives and disconnects AED
10. Turn over care of the victim to EMS personnel. Once they have arrived, follow the directions of EMS personnel for further actions

**After Use:**

1. Within 72 hours the School will service the AED including replacement of electrodes, batteries, and CPR kit as needed. Accident report will be forwarded to responding EMS, responding physician, and medical oversight as requested.
2. The staff or volunteer responder will document the event using the school accident report form and will forward a copy of completed form to the Head of School on the next business day
3. The AED will be wiped clean according to policy