Automated External Defibrillator (AED) Policy

**Purpose:** The purpose of the Automated External Defibrillator policy is to reduce deaths due to sudden cardiac arrest through the implementation of access to AEDs in key campus buildings and training, and to meet all applicable federal, state, and local regulations.

**Background:** Per the Pennsylvania Health Department, heart disease is the leading cause of death in Pennsylvania, resulting 31,353 deaths from diseases of the heart in 2014. Sudden cardiac arrest is an often-fatal form of heart disease. For each minute that passes in cardiac arrest without return to a normal rhythm, a person’s chance of survival drops 10 percent. Ventricular fibrillation, a frequent cause of sudden cardiac arrest, is a condition in which the heart's electrical activity becomes disordered. When this happens, the heart's lower (pumping) chambers contract in a rapid, unsynchronized way. (The ventricles “flutter” rather than beat.) The heart pumps little or no blood to the brain and other vital organs. Early cardiopulmonary resuscitation (CPR) and rapid defibrillation are the two major contributors to survival of adult victims of sudden cardiac arrest. Automatic external defibrillation is one of the most promising methods for achieving rapid defibrillation and potentially decreasing mortality due to sudden cardiac arrest. The time to the first defibrillation shock is the most critical factor in determining survival rates for sudden cardiac arrest (SCA). Survival rates decrease by about 10% for every passing minute. On average, it takes EMS teams 6-12 minutes to arrive.

**Regulations:** Pennsylvania’s Public Access Automated External Defibrillator Guidelines summarize the Pennsylvania AED Law or [AED Good Samaritan Law](#). Those persons not regulated under the Emergency Medical Services (EMS) Act and who acquire and maintain an AED for the planned use by one or more individuals are protected from civil liability if the AED is used providing the following criteria is met:

- Expected AED user or users receive training in the use of AEDs in a course provided by the American National Red Cross or the American Heart Association, or through an equivalent course of instruction approved by the PA Department of Health.
- AEDs maintained and tested per the manufacturer’s operational guidelines.
- Instruction provided to the user of the AED to utilize available means to immediately contact and activate the EMS system.
- Appropriate data or information made available to EMS personnel or other health care providers as requested.

A lay person who receives training and uses an AED in good faith in an emergency will not be liable for damages or harm done to the individual receiving the AED treatment, unless the harm is the result of acts or omissions by the individual using the AED, that are intentionally designed to harm or constitute grossly negligent acts or omissions.

A lay person, who does not receive the training and uses an AED in good faith in an emergency, will not be liable for damages or harm done to the individual receiving the...
AED treatment, unless the harm is caused by the AED user acting contrary to how a reasonably prudent individual would act under the same or similar circumstances.

Responsibilities:

**Medical Advisor (Wellness Center Doctor):** a qualified physician who prescribes equipment purchases, advises the Program Coordinator, and reviews any events using the AED.

**Program Coordinator (Environmental Health & Safety/Risk Manager and Emergency Management Coordinator):** oversees the AED program and
- Develops and maintains a written AED program.
- Coordinates annual training for AED users.
- Orders and coordinates the placement of AEDs.
- Ensures AED units are properly maintained and tested per manufacturer’s instructions.
- Keeps AED locations and checklist current.
- Orders supplies as needed.
- Provides written notification to the local emergency medical services about the purchase of AED units, the types acquired, and locations.
- Identifies and communicates relevant federal, state and local regulations.
- Maintains all documentation including training records and maintenance and testing records.
- Notifies Medical Advisor of use of any AED on campus.
- Reviews program annually.

**AED User:** trained or untrained lay person
- Calls “911” and Campus Safety, 610-409-3333 or ext 3333 to report the emergency.
- Follows emergency procedures. (Appendix A)
- If trained, keeps certification up-to-date.

**Maintenance:**
*Philips Heartstart FRx, Heartstart Onsite, and Heartstream FR2 Defibrillators* – performs an automatic self-test every day and a battery insertion self-test run whenever a battery is installed in the device. On occasion, the unit may emit a “chirp” or a series of “3 chirps” –
- A single “chirp” indicates the battery or pads may need replacement.
- Three “chirps” indicates an internal issue.
In either case, contact Campus Safety immediately.

*Medtronic Lifepak CR Plus Defibrillators* - performs an automatic self-test once a week and every time it’s turned on
To further ensure proper operation of the unit, quarterly checks will be performed by designated personnel in the building containing the AED or by Campus Safety. (Appendix B and C) Quarterly checks include the following:

- Placement – visible, unobstructed and near phone.
- Battery installed.
- Status Indicator – Unit Ready for Use
  - FRx, Onsite - green Ready light blinking
  - FR2 – flashing black hourglass
  - Medtronic – the word “OK” visible
- Unit clean, no damage or cracks.
- Alarm sounds when cabinet door ajar.
- Pads in place and within expiration date.
- Infant/child key in place, if applicable
- Gloves, razor, antiseptic wipes, and CPR mask/barrier in place.

**Training:** Expected AED user or users receive training in the use of AEDs in a course provided by the American National Red Cross or the American Heart Association, or through an equivalent course of instruction approved by the PA Department of Health.

**Recordkeeping:** The Program Coordinator maintains all documents related to the use of AEDs including training, quarterly checks, and testing records for 3 years.
CHECK and CALL
1. CHECK the scene, then CHECK the person.
2. Tap on the shoulder and shout, “Are you okay?”
3. Call “911” and Campus Safety @ 610-409-3333 or ext 3333 to report the incident.
4. If person unresponsive and not breathing or only gasping, BEGIN CHEST COMPRESSIONS.

GIVE CHEST COMPRESSIONS
1. Remove all clothing from chest area.
2. Place the heel of one hand on the center of the chest.
3. Place the heel of the other hand on top of the first hand, lacing your fingers together.
4. Keep your arms straight - position your shoulders directly over your hands.
5. Push hard, push fast.
   • Compress the chest at least 2 inches.
   • Compress at least 100 - 120 times per minute.
   • Let the chest rise completely before pushing down again.
6. Continue the chest compressions
DO NOT STOP except in one of these situations:
• You see an obvious sign of life (breathing)
• Another trained responder arrives and takes over.
• EMS personnel arrive and take over.
• You are too exhausted to continue.
• An AED is ready to use.
• The scene becomes unsafe.

USE OF AED AUTOMATED EXTERNAL DEFIBRILLATOR
1. Turn on AED
2. Wipe chest dry –remove clothing and shave chest if necessary.
3. Attach pads.
4. Plug in connector, if necessary.
5. Make sure no one is touching the individual.
6. Push the “Analyze” button, if necessary.
7. If a shock advised, push the “Shock” button. If no shock is advised, continue with chest compressions.
8. Immediately perform compressions and follow AED prompts.

Notify the Program Coordinator of the use of the AED so that replacement pads may be obtained.

(Portions taken from the “Hands-Only CPR” American Red Cross document)
## Appendix B - AED Locations

<table>
<thead>
<tr>
<th>Building</th>
<th>Location</th>
<th>Type of AED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bakes Center</td>
<td>Basement - Across from Athletic Training Room</td>
<td>Medtronic Lifepak CR Plus</td>
</tr>
<tr>
<td>Bakes Center</td>
<td>Field House by Campus Safety call button</td>
<td>Philips Heartstart Onsite</td>
</tr>
<tr>
<td>Bakes Center</td>
<td>1st floor – Outside Fitness Center</td>
<td>Medtronic Lifepak CR Plus</td>
</tr>
<tr>
<td>Bakes Center</td>
<td>Athletic Training room – portable, used on fields</td>
<td></td>
</tr>
<tr>
<td>Bakes Center</td>
<td>Natatorium (pool) – right of white board</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Berman</td>
<td>1st Floor – Reception Desk</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Bomberger Hall</td>
<td>1st Floor – Lobby outside Career Services</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>BPS</td>
<td>Main entrance of Paisley Hall by the door</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>BWC</td>
<td>Wilkinson Hall common room</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Corson Hall</td>
<td>1st Floor – outside Student Financial Services Office</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Facilities Services</td>
<td>Shop – under First Aid Kit</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>IDC</td>
<td>1st floor – main entrance</td>
<td>Philips Heartstart Onsite</td>
</tr>
<tr>
<td>Kaleidoscope</td>
<td>By box office</td>
<td>Philips Heartstream FR2</td>
</tr>
<tr>
<td>Musser Hall</td>
<td>Main Entrance - in vestibule</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Myrin</td>
<td>Main Entrance – to the right of the Main inside doors</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>New Hall</td>
<td>Main Entrance – in lobby</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Olin Hall</td>
<td>Main Entrance – Wismer plaza side</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Pfahler Hall</td>
<td>1st floor – North entrance (BWC/Reimert side)</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Reimert Hall</td>
<td>Next to the Assistant Director Apartment</td>
<td>Philips HeartStart FRx</td>
</tr>
<tr>
<td>Richter/North Hall</td>
<td>Main entrance</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Ritter Hall</td>
<td>Parking lot entrance</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Sprankle Hall</td>
<td>CASE Office lobby</td>
<td>Philips Heart Start FRx</td>
</tr>
<tr>
<td>Thomas Hall</td>
<td>Main Entrance – lobby</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Wellness &amp; Counseling Center</td>
<td>Main Entrance</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>Wismer</td>
<td>Campus Safety Office</td>
<td>Philips Heartstart Onsite</td>
</tr>
<tr>
<td>Wismer</td>
<td>Lower level –near Dining Services offices</td>
<td>Philips Heartstart FRx</td>
</tr>
<tr>
<td>UCEMS Vehicle</td>
<td>In vehicle/Brodbeck office during summer</td>
<td>Philips Heartstart</td>
</tr>
</tbody>
</table>
## Appendix C - Quarterly Checklist

The defibrillator performs a self-test every day or weekly. In addition, a battery insertion self-test is run whenever a battery is installed in the device. Please do not disconnect the pads from the AED while performing quarterly checks as the AED will chirp and i-button will start flashing (for the Philips AEDs).

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Inspector Name</th>
<th>Unit Serial Number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Items to Check</th>
<th>Yes or No</th>
<th>If no, Corrective Action Required</th>
<th>Date Corrected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement – visible, unobstructed and near phone</td>
<td></td>
<td>Remove obstructions.</td>
<td></td>
</tr>
<tr>
<td>Battery installed</td>
<td></td>
<td>Install new battery.</td>
<td></td>
</tr>
</tbody>
</table>
| **FRx and Onsite** - Service indicator light (green Ready light) blinking | - If light solid, FRx is in use or running a self-test. Wait for self-test to complete.  
- If light off, FRx is chirping and i-button flashing, press i-button for instructions.  
- If light off, FRx is not chirping and i-button not flashing, the battery is depleted or AED needs repair. Insert new battery and run self-test. If test fails, contact dealer for repair. | | |
| **FR2** Status Indicator – flashing black hourglass present | If flashing black hourglass absent, remove and reinstall battery to run selftest.  
- If flashing black hourglass present, unit okay.  
- If still no hourglass, install new battery and run selftest.  
If no hourglass, contact manufacturer. | |
| **Medtronic** Status Indicator – word “OK” visible | - If battery Charge Pak symbol present, replace battery pak  
- Attention indicator symbol (red triangle w/exclamation mark inside) present – 6 shocks or 42 minutes remain in battery. Replace battery pack.  
- Red wrench symbol present – contact manufacturer | |
| Unit clean, no damage or cracks | Clean outside with damp, soapy cloth or rubbing alcohol. | |
| Alarm sounds when cabinet door ajar | Insert key and turn to correct position for alarm to sound. | |
| Pads in place and within expiration date. | If pads missing or expired, contact the Program Coordinator for replacement. | |
| Infant/child key in place | If missing, contact the Program Coordinator for replacement. | |
| Gloves, razor, antiseptic wipes, and CPR mask/barrier in place | If any supplies are missing, contact the Program Coordinator for replacement. | |

Return completed form to the Program Coordinator, Chris J. Wilcox, Emergency Management Coordinator.