



# Automated External Defibrillator (AED) Management Program

## Table of Contents

Introduction .....	3
Purpose .....	3
AED Roles and Responsibilities .....	3
AED Purchases.....	5
Required Equipment.....	5
Authorized Users .....	6
CPR/AED Training.....	6
AED Placement.....	6
AED Maintenance and Inspection .....	7
Records Retention.....	8
AED Response Plan Procedures .....	8
Incident Notification and Documentation.....	8
Unit Cleaning Procedures .....	9
Annual Program Review .....	9
AED Related Regulations and Legislation .....	9
<a href="#">Appendix A:</a> Departmental AED Request Form.....	11
<a href="#">Appendix B:</a> Departmental AED Registration Form.....	12
<a href="#">Appendix C:</a> AED Monthly Inspection Form .....	13
<a href="#">Appendix D:</a> AED Post-Incident Report Form .....	14
<a href="#">Appendix E:</a> AED Notice .....	15

## Introduction

According to the American Heart Association, sudden cardiac arrest (SCA) is one of the leading causes of death in the U.S. Over 380,000 people will suffer from SCA this year. Less than 12 percent of those victims survive. SCA can happen to anyone, at anytime, anywhere, so it's important to implement an AED program that provides the necessary resources to help save a life. SCA is an immediate, without warning, electrical malfunction in the heart that causes an irregular heartbeat rhythm (arrhythmia). SCA abruptly stops the heart's pumping action which prevents blood flow throughout the body. SCA usually causes death if not treated within minutes. Automated External Defibrillators (AED) are portable electronic devices designed to diagnose a cardiac rhythm and automatically treat through defibrillation. Defibrillation is the application of electric shocks that allows the heart to reestablish a normal rhythm. AEDs make it possible for lay responders (LLR) to administer defibrillation prior to the arrival of Emergency Medical Services (EMS).

## Purpose

Western Carolina University (WCU) is committed to providing a safe and healthy environment for all faculty, staff, students, and visitors to the university. The purpose of this program is to ensure that all AEDs installed on campus comply with appropriate guidelines in purchasing, placement, maintenance, training, and departmental supervision. This program applies to individuals trained on the proper use of an AED, departments with AED units currently in service, departments in consideration, or in the process of purchasing an AED unit.

## AED Roles and Responsibilities

The success of the AED Program depends on the effective collaboration of team members from across campus departments. Specific responsibilities of members are outlined as follows:

- **AED Program Administrator (*Safety and Risk Management Office*)**
  - Act as a liaison between AED owners, manufacturers, and health agencies to assist in unit maintenance and compliance.
  - Develop and update AED program, forms, and resource information for users.
  - Review of departmental request for AED purchases.
  - Coordinate with AED request to ensure that departments are informed on program responsibilities, purchasing requirements, maintenance, and training requirements.
  - Coordinate installment of AED equipment locations with AED owners and building Facility Coordinators.
  - Maintain documentation of all AED units, locations, and AED Area Coordinators.
  - Conduct annual inspections to verify that AED owners are in compliance with the AED program and maintaining inspection records.
  - Identify and communicate relevant federal and state laws and regulations.
  - Conduct incident debriefing and complete follow-up report for each use of an AED.
  - Collect and maintain records associated with AED requests, user training documentation, and AED Post - Incident Report forms.

- **AED Medical Program Advisor (*Health Services*)**
  - Provide medical consultation and expertise.
  - Review departmental request for AED purchases.
  - Oversee and approve protocols for the use of the AED and other medical supplies.
  - Act as the medical liaison with local emergency medical services (EMS).
  - Review all incidents involving the use of an AED.
  - In cooperation with the AED Program Administrator, perform an annual review of all components of the University AED program.
  
- **The Departmental AED Program Coordinator (*AED Owner*):**

University departments and other administrative units who acquire an AED are responsible for maintaining the device to the standards of its manufacturer, federal and state laws, the programmatic standards of the American Heart Association or the American Red Cross, and WCU AED Program.

**AED Owner responsibilities:**

  - Agree to all policies and procedures for the AED Program.
  - Designate a person who is responsible for management of the AED (i.e., departmental responsible person). This person will be referred to as the AED Area Coordinator.
  - Ensure that written requests for AED units are submitted for approval to the Safety and Risk Management Office and Health Services prior to any AED purchases or installations on campus.
  - Complete the Departmental AED Registration Form ([Appendix B](#)) available from the AED Program Administrator.
  - Ensure inspections and maintenance is conducted in a timely manner and in accordance with the written user and service manuals provided by the manufacturer. AED Area Coordinators must utilize the Monthly Inspection Form ([Appendix C](#)) available from the AED Program Administrator.
  - Provide or arrange for training and refresher training in CPR/AED certification for their faculty and staff, such that:
    - Training is conducted in a timely manner and in accordance with the American Heart Association or the American Red Cross.
    - Training must be documented, and AED owners must submit training records to the AED Program Administrator.
  - Purchase and maintain all AED equipment and supplies according to the manufacturer's instructions (i.e., batteries, pads, or ancillary supplies).
  - Notify the AED Program Administrator of any SCA incidences or the use of an AED.
  - Complete the AED Post-Incident Report form ([Appendix D](#)) each time an AED unit is used or there is an attempted use of the unit.
  - Maintain a copy of the manufacturer's user and service manuals for each type of AED in service.
  - Maintain on-site records, inspections, training, and other supporting documentation.

- Report any abuse or vandalism of the AED to the University Police Department and the AED Program Administrator.
- Notify the AED Program Administrator if the AED Area Coordinator can no longer fulfill their duties as assigned and a replacement is required.
- **Installation Administrator (*Facilities Management*)**
  - Install building AED cabinets and signage in accordance with manufacturer's guidelines, AED Program Administrator and AED Area Coordinator recommendations. Actual AED units will be installed by the AED Area Coordinator.

## AED Purchases

A department or administrative unit interested in obtaining an AED for their building should submit an AED Request Form ([Appendix A](#)) to the AED Program Administrator. The AED Program Administrator will coordinate with the requester to provide an overview of the WCU AED Program guidelines, review potential building locations, review maintenance and inspection requirements, and training requirements of departmental faculty and staff who volunteer to receive training. AED units are purchased through the North Carolina E-Procurement per state contract by the AED owner. Requesting departments or administrative units are financially responsible for the AED equipment purchase, alarmed AED storage cabinet, signage, installation, maintenance, training, and all other known or unforeseen costs associated with the AED. Departments or administrative units who have purchased and installed an AED for service prior to the implementation of the WCU AED Program should follow all guidelines required in this program.

## Required Equipment

In addition to the AED, other equipment and ancillary supplies are required for the installation and use of the AED.

This includes but not limited to:

- Alarmed wall-mounted AED cabinet (cabinet and location must be preapproved before ordering)
- AED wall signage (must be preapproved before ordering)
- One set of adult defibrillation electrode pads
- One set of child defibrillation electrode pads
- One prep and response kit at a minimal containing:
  - Two pairs of disposable nitrile gloves
  - One disposable razor
  - One pair of trauma scissors
  - One CPR pocket mask
  - Antiseptic wipes

**Exception:** *In special circumstances, certain departments or campus units may require an AED for portability and are exempt from AED cabinet requirements.*

## Authorized Users

Anyone may, at their discretion, provide voluntary assistance to victims of medical emergencies to the extent appropriate to their training and experience. Untrained bystanders are protected from civil liability when using an AED in good faith unless the person was grossly negligent or intentionally engaged in wrongdoing when rendering the treatment (North Carolina General Statute Section 90-21.14). However, we encourage all persons to have proper prior training. University employees should be aware they are not required to use an AED. Except for trained medical professionals, all university employees are considered volunteers when rendering assistance to any individual suffering a medical emergency.

Accordingly, North Carolina law also expressly provides immunity from civil liability for those who obtain and maintain AEDs, and those who use such devices to attempt to save a life. North Carolina Statute Section 90-21.15 (d) provides for two classes of persons or entities who are exempt from civil liability related to the procurement and maintenance of AEDs:

- The person or entity that provides the cardiopulmonary resuscitation and AED training to a person using an AED.
- The person responsible for the site where the AED is located when the person has provided for a program of training.

## CPR/AED Training

It is the responsibility of AED owners to provide or arrange for training and refresher training in CPR/AED use for their employees. CPR and AED training is voluntary unless it is part of a written job description. All training records must be maintained onsite, including a description of the training program. Western Carolina University recommends that all employees identified for AED training successfully complete an American Heart Association or American Red Cross CPR/AED course or a national acceptable equivalent certification which is valid for two (2) years.

## AED Placement

The department or administrative unit purchasing the AED will coordinate with the AED Program Administrator to identify the most appropriate location in the requested building for proper placement. The following guidelines should be considered:

- Placement of the unit for optimal response time should be a priority. Placement will not depend on department location within the building.
- Placement location should be visible and provide unobstructed public access. Consider placing the unit in a well supervised area to prevent tampering or theft.
- Locations near large conference rooms, theaters, public use areas, and other high traffic areas are often ideal locations.
- AED units in buildings should be identified with signage placed above the unit in a highly visible location.
- Security along with accessibility should be considered in AED placement with outdoor facilities which may not be supervised at all times.

All AEDs must be stored in a wall mounted storage cabinet per the manufacturer's guidelines. Each cabinet should have a local alarm (not connected to 911 or Emergency Services) which sounds when the cabinet door is opened. Emergency ancillary supplies for each AED should be included within the cabinet for use.

### **AED Maintenance and Inspection**

The AED Area Coordinator is responsible for the routine inspection and maintenance of each AED according to the manufacturer's recommendations. The AED Area Coordinator is responsible for replacing the battery pack and electrode pads prior to their expiration dates. All AEDs and ancillary supplies shall be maintained in a constant state of readiness.

In general, AEDs do not require routine maintenance. AEDs perform an automatic self-test once a week and every time the unit is turned on. Should the automatic self-test detect a condition that requires attention, the status indicator will change showing a fault and an alarm will sound giving notification.

The AED Area Coordinator is responsible for monthly inspection checks of each AED unit under their management. These inspections should consist of the following:

- Perform a visual check of the AED, the wall mounted cabinet, and AED signage for signs of damage.
- Check the AED status indicator to ensure the green status light or the normal condition symbol is displayed depending on the manufacturer.
- Check the "Use By" date on the electrode packet (visible through the defibrillator lid) and all other electrode packets. If the date has passed, replace all affected electrode packets per manufacturer requirements.

The AED Area Coordinator should immediately contact the AED Program Administrator if an AED is damaged, missing, or the status indicator light is not green or displays an abnormal condition. Should the AED unit be removed from service for any amount of time an "AED Temporarily Out Of Service" notice ([Appendix E](#)) must be attached over the AED storage cabinet until the AED unit is placed back to normal operating service.

After an AED is used for a medical emergency, all equipment shall be cleaned, decontaminated, serviced, and replenished as required and placed back into service as soon as possible after completing the following tasks:

- Clean and disinfect the AED using the manufacturer's guidelines.
- Check the electrode pads and replaced used pads per manufacturer's guidelines.
- Check the battery and replaced per manufacturer's guidelines.
- Check and replenish used ancillary supplies as appropriate.
- Return the AED to its designated location.

The AED Program Administrator will conduct an annual inspection of each AED on campus for missing or damaged units, examination of all batteries, pads, cables, departmental site documentation, and to confirm no issues have been detected by the AED's self-diagnostic check.

### Records Retention

The maintenance and inspection records required by this program shall be maintained for a period of three years. Records that reflect the current status of employee training should be maintained until the next training cycle is completed. All other records, including those associated with AED use or post event debriefings, should be maintained indefinitely.

The following records must be maintained by the AED Owner:

- Guidelines for use
- Manufacturer's instructions
- Self-inspection records
- Training records, including a description of the training program
- The identity of the department's responsible person
- Blank copies of the AED Incident Reports, Departmental Procedures, AED Monthly Inspection Form, and Temporary out of Service Form

### AED Response Plan Procedures

Trained personnel should follow their training in a cardiac emergency. Ensure the EMS system is activated by calling 911 or Emergency Services (828-227-8911) to provide additional medical assistance. Building Emergency Plan (BEP) medical response procedures should be initiated. It is important to note that the AED may be used by any person, trained or untrained in its use, who in good faith renders emergency care to the victim.

The following information should be given to the dispatcher:

- Caller's name
- Type of emergency (e.g. cardiac arrest)
- Exact location, building address, room number, if possible
- If CPR is in process
- If an AED is available
- Further information requested by the dispatcher

Designate a witness or nearby individual familiar with the building or location to meet with the responding EMS unit in order to facilitate the most direct route to the patient.

### Incident Notification and Documentation

- Departments or administrative units must notify the AED Area Coordinator immediately following an incident. The AED Area Coordinator will conduct an incident debriefing and

complete an AED Incident Report ([Appendix D](#)). A copy of the AED Incident Report must be sent to the Safety and Risk Management Office within 24 hours.

- A review of each medical event using an AED shall be conducted by the AED Medical Program Advisor. All key participants in the medical event shall participate in a review that includes:
  - Incident debriefing
    - Actions that went well during the medical event
    - Opportunities for improvement
    - Assigned action items to implement improvement(s)
- A summary of the post-incident review shall be sent to the AED Program Administrator for record retention purposes

### Unit Cleaning Procedures

Cleaning procedures should be followed by the AED manufacture instructions. The following procedures are to be used as general guidelines:

- After each use, or any time the unit appears soiled, it should be cleaned and disinfected.
- Clean the carrying case using a soft cloth dampened in nonabrasive soap and water.
- Clean the unit using a soft cloth dampened in nonabrasive soap and water , or 70% isopropyl alcohol.
- Do not use any other chemicals to clean the unit unless specified by the manufacturer.
- Do not use abrasives on the display windows or any connection ports.
- Do not immerse the AED in fluids or attempt to sterilize the AED or any AED accessories with the use of an autoclave.
- Ensure that used or damaged AED accessories are disposed of and resupplied.

### Annual Program Review

The University AED Program Administrator will annually conduct a review of all components of the University's AED program and make appropriate recommendations for improvement or remediation. The annual review will include at least the following components:

- Review of the University AED written program.
- Review of North Carolina Laws, the American Heart Association or American Red Cross, and Health and Human Services guidelines related to AED use.
- Discussion and review of Program Medical Advisor's responsibilities and activities.
- Discussion and review of each Area Coordinator's responsibilities and activities.
- Review of all departmental AED written programs.
- Review of all departmental records related to personnel training and AED locations, use, service, and inspections.

### AED Related Regulations and Legislation

- **Cardiac Arrest Survival Act of 2000. U.S. Public Law 106-505 (11-13-2000).** This law encourages the placement of AEDs in federal buildings (42 U.S.C. 238p) and provides nationwide Good

Samaritan Protection (42 U.S.C. 238q) that exempts from liability anyone who renders emergency treatment with a defibrillator to save someone's life.

- **Community Access to Emergency Devices Act. Community AED Act. U.S. Public Law 107-188 (6-12-2002).** This act authorizes federal grant funds for the purchase and placement of AEDs in public places, training First Responders on AEDs and encouraging private companies to purchase and train employees on use of AEDs (42 U.S.C. 244 and 245).
- **Federal Food and Drug Administration Regulations.** A good summary of these regulations is contained in the URMIA White Paper available from the Office of Risk Management.
- **Guidelines for Public Access Defibrillation Programs in Federal Facilities (January 18, 2001).** 66 Federal Register 2001. Publication provides a general framework for initiating a design process for an AED program in federal facilities and discusses the essential elements of such a program.
- **North Carolina Good Samaritan Law (Reference SB 1269).** Anyone may, at their discretion, provide voluntary assistance to victims of medical emergencies to the extent appropriate to their training and experience. Untrained bystanders are protected from civil liability when using an AED in good faith unless the person was grossly negligent or intentionally engaged in wrongdoing when rendering the treatment (North Carolina General Statute Section 90-21.14).
- **North Carolina House Bill 914.** Requires an automatic external defibrillator (AED) in all buildings and facilities that house state services, agencies, and institutions and provide training for state employees in those facilities.

# Western Carolina University

## Departmental AED Request Form

Departments and administrative units that acquire an AED are responsible for operating and maintaining the device in conformance to the Western Carolina University AED Policy.

- AED Owners are responsible for operating and maintaining the device in conformance to the Western Carolina University AED Program.
- Designate an individual who will be responsible for the management of the AED program for the department or unit.
- Submit the AED Request Form to the AED Program Administrator for approval prior to purchase.
- AED Owners are financially responsible for all AED equipment and unforeseen cost.
- Ensure that inspections and maintenance are conducted in a timely manner and in accordance with WCU AED Program and service manuals provided by the manufacturer.
- Purchase and replace batteries, pads and other ancillary supplies as needed.
- Provide or arrange for training and refresher training in CPR/AED for faculty and staff.
- Maintain on-site records as listed in the "Record Retention" section of the WCU AED Program.
- Notify the AED Program Administrator within 24 hours of an incident or possible use.

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### Department or Administrative Unit AED Information

Department/Unit Name: \_\_\_\_\_

AED Program Coordinator: \_\_\_\_\_

Program Coordinator Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_

AED Location(s) (Building/Room): \_\_\_\_\_

Number of AED(s) being requested: \_\_\_\_\_

Training Provider/Method: \_\_\_\_\_

Number of staff initially trained: \_\_\_\_\_

Training Plan: \_\_\_\_\_

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The Department or Administrative Unit agrees to the above responsibilities.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
AED Program Coordinator

### Approval

Comments: \_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
AED Program Administrator



## Western Carolina University AED Monthly Inspection Form

**Building:** \_\_\_\_\_ **Location of AED:** \_\_\_\_\_ **Model No:** \_\_\_\_\_ **Serial No:** \_\_\_\_\_

Enter Year:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
AED present, clean, and in proper working condition.												
One set of <b>ADULT</b> defibrillator pads, sealed, undamaged, and within expiration date.												
One set of <b>CHILD</b> defibrillator pads, sealed, undamaged, and within expiration date.												
Scissors, disposable razor, CPR mask, gauze, wipes, and 2 pairs of gloves available and in good condition.												
AED signage is present and visible. AED is not obstructed and is accessible.												
Check the status light or service indicator for no faults.												
Wall cabinet alarm is in proper working condition (if applicable.)												
<b>COORDINATOR INITIALS:</b>												
Problems Noted:												
Corrective Action:												
<ul style="list-style-type: none"> <li>Please ensure at least <b>ONE (1)</b> set of Adult AED pads and <b>ONE (1)</b> set of child pads are in the AED cabinet.</li> <li>Check that the battery is fully charged. If not, replace the battery per the manufacturer’s specifications.</li> <li>All out of date and defective batteries or AED pads should be replaced.</li> <li>All deficiencies should be corrected immediately.</li> <li>If an AED needs to be taken out of service, please post “AED TEMPORARILY OUT OF SERVICE” notice on AED cabinet.</li> </ul>												

**AED Area Coordinator Print:** \_\_\_\_\_ **Signature:** \_\_\_\_\_

## Western Carolina University

### AED Post-Incident Report Form

**INSTRUCTIONS:** This form is to be completed immediately after a cardiac arrest occurs (whether or not the AED was applied) **OR** any time the AED pads are put on a person (regardless of the person's medical condition). This includes the use of a WCU owned AED for any reason by either a volunteer, employee, or bystander. This report does not need to be filled out for non-cardiac related false alarms when the AED is retrieved but the pads are not applied. The AED Area Coordinator should complete this form and forward it to the Safety and Risk Management Office within 24 hours of the cardiac event.

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1. Building: \_\_\_\_\_ 2. Location \_\_\_\_\_

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3. Date: \_\_\_\_\_ 4. Time of Incident: \_\_\_\_\_ 5. Time 911 was called: \_\_\_\_\_

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6. Name of patient: \_\_\_\_\_

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7. Patient Gender: \_\_\_\_\_ 8. Estimated age of patient: \_\_\_\_\_

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9. Did the patient collapse (become unresponsive) Yes:  No:   
 If yes, what were the events immediately prior to the collapse (check all that apply):  
 Difficulty Breathing       Chest Pain       Electric Shock  
 Drowning       Injury       No Signs or Symptoms       Unknown  
 a. Was someone present to see the person collapse? Yes:  No:   
     If yes, was that person a trained AED employee? Yes:  No:   
 b. After the collapse, at the time of patient assessment and just prior to the AED pads being applied, was the person breathing? Yes:  No:   
 c. Did the person have a pulse? Yes:  No:

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10. Was CPR given prior to 911 EMS arrival? Yes:  No:  If no, go to question 11.  
 a. Estimated time CPR started: \_\_\_\_\_  
 b. Who started CPR? (circle one): Trained Employee | Untrained Employee | Bystander

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11. Was an AED utilized on the patient prior to EMS arrival? Yes:  No:   
 a. If no, briefly describe why and skip to #17: \_\_\_\_\_

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12. Name of person operating AED  
 Name of Person: \_\_\_\_\_ Contact Information: \_\_\_\_\_  
 (Circle One): Trained Employee | Untrained Employee | Bystander

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13. Did the AED shock the patient? Yes:  No:   
 a. How many shocks were delivered prior to the EMS ambulance arrival? \_\_\_\_\_

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14. Was there any mechanical difficulty or failure with the use of the AED? Yes:  No:

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15. Were there any unexpected events or injuries that occurred during the use of the Facility AED?  
 Yes:  No:  If yes, explain: \_\_\_\_\_

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16. Patient status before medical arrival:  
 a. Was a pulse restored Yes:  No:  Do not know   
 b. Was breathing restored Yes:  No:  Do not know   
 c. Was responsiveness restored Yes:  No:  Do not know

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17. Was the patient transported to the hospital Yes:  No:   
 a. If yes, how was the patient transported? (circle one): EMS Ambulance | Private Vehicle | Other

---

**Report completed by:**

---

\_\_\_\_\_  
Name (Print)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Office Phone Number

**If the caregiver was exposed to blood or other potentially infectious materials, immediately notify the Safety and Risk Management Office and Health Services.**

# Western Carolina University

## AED Notice

# AED TEMPORARILY OUT OF SERVICE

- Schedule Maintenance
- Repair
- Missing
- Other

Additional Details:

Affix this notice to the AED cabinet and report the issue to  
Safety and Risk Management Office 227-7443