



**Northern Illinois
University**

**AUTOMATED EXTERNAL
DEFIBRILLATOR
PROGRAM**

*Environmental Health and Safety Department
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Purpose

The purpose of the Automated External Defibrillator (AED) program is to increase the survival chances of individuals in the Northern Illinois University (NIU) community who experience sudden cardiac arrest. An AED is a lightweight, portable device that delivers an electric shock in order to stop a rapid or chaotic heart rhythm. With the development of AEDs, early recognition and correction of sudden cardiac arrest by lay rescuers can significantly improve the outcome of cardiac arrest. Use of the AED will not replace the care provided by emergency medical services (EMS) providers, but it is meant to provide a lifesaving bridge during the first few critical minutes it takes for EMS providers to arrive.

Scope

The scope of this program is to establish procedures and responsibilities for the purchase, installation, maintenance, replacement and use of AEDs.

Application

This program applies to all NIU departments that have purchased or received AED units for their facilities, either as mandated by the regulations or on a voluntary basis.

Regulatory References and University Policies

- Cardiac Arrest Survival Act of 2000 (Public Law 106-634, Title IV)
- Illinois Automated External Defibrillator Act (410 ILCS 4)
- Automated External Defibrillator Code (77 IAC Part 525)
- Physical Fitness Facility Medical Emergency Preparedness Act (210 ILCS 74)
- Good Samaritan Act (745 ILCS 49)
- NIU Health and Safety Policy

Definitions

Automated External Defibrillator (AED): An AED is a portable electronic device that can be used in cases of sudden cardiac arrest. The device can automatically diagnose life threatening cardiac arrhythmias of ventricular fibrillation and pulseless ventricular tachycardia and is able to treat through defibrillation, the application of electricity, which stops the arrhythmia, allowing the heart to reestablish an effective rhythm.

AED Coordinator: An individual designated the responsibilities for the functions of the AED program in their department or building(s).

CPR/AED Trained User: An individual who has successfully completed a course of instruction in CPR that includes an AED component in accordance with the standards of a nationally recognized organization such as the American Heart Association or the American Red Cross.

Emergency Medical Services (EMS) System Resource Hospital: The hospital with the authority and responsibility for an EMS System. This includes coordination and providence of pre-hospital, inter-hospital emergency care, and medical transportation.

Medical Emergency Plan: A written plan to deal with the occurrence of a sudden, serious, and unexpected sickness or injury. This type of occurrence would result in urgent or unscheduled medical care.

Physical Fitness Facility: As defined by 210 ILCS 74, a physical fitness facility is an indoor or outdoor establishment that:

- 1) Supervised by one or more persons for the purpose of directly supervising physical fitness activities taking place at the facility;
- 2) Served by more than 100 individuals in a calendar year who actively engage in physical exercise that use large muscle groups while substantially increasing the heart rate;
- 3) Owned in whole or in part by the university;
- 4) Exempted from this statute are yoga studios, driving ranges, bowling lanes, putting greens, batting cages, hospitals, hotels, or other facilities where participants do not focus primarily on cardiovascular exertion.

Part 1: AED Program Responsibilities

1.1 Department of Environmental Health and Safety

The Department of Environmental Health and Safety (EH&S) is responsible for:

- 1) Developing and maintaining the NIU AED Program.
- 2) Identifying AED Coordinators and assisting them in their responsibilities.
- 3) Assuming the role of AED Coordinator in those buildings in which an AED Coordinator cannot otherwise be identified.
- 4) Maintaining the university database of AED units.
- 5) Identifying and communicating relevant federal and state laws and regulations.
- 6) Conducting period audits of departmental AED programs.
- 7) Inspecting, servicing and maintaining AEDs as listed on the department inventory.

1.2 NIUPD EMS Coordinator

The NIUPD EMS Coordinator is stationed in the NIU Department of Police and Public Safety and acts as the medical liaison with the DeKalb Fire Department and the EMS System Resource Hospital.

1.3 AED Coordinator

1.3.1 General Requirements

The AED Coordinator is responsible for the day-to-day management of the department-owned AED(s), in consultation with EH&S. Responsibilities include:

- 1) Ensuring that their unit-specific AED Program meets the requirements of this AED Program.
- 2) Providing fiscal and administrative resources for the purchase, maintenance and replacement of the AED.
- 3) Ensuring that all CPR/AED Trainer Users within their unit affected by this program receive proper training.
- 4) Properly maintaining and testing AED units in accordance with manufacturer's guidelines.
- 5) Maintaining required personnel training and unit inventory, maintenance, and testing records.
- 6) Ensuring that EH&S and the NIUPD EMS Coordinator are notified when an AED is used to facilitate a medical emergency.
- 7) Placing AEDs back in service after use and submitting the utilization forms to the NIUPD EMS Coordinator.
- 8) Notifying EH&S if the AED Coordinator can no longer fulfill such duties.

1.3.2 Physical Fitness Facility Requirements

When an AED is in an area described as a Physical Fitness Facility, the unit must abide by the additional requirements stated in this section:

- 1) Develop and implement a site-specific “Medical Emergency Plan” in accordance with 77 IAC 527.400 in order to respond to medical emergencies;
- 2) Ensure that there is a CPR/AED Trained User on staff during staffed business hours;
- 3) Train each member of facility staff on the location of the AED and the requirement of the medical emergency plan;
- 4) Ensure that at least one operable AED is on the Physical Fitness Facility premises at all times;
- 5) Arrange for repair or replacement of an inoperable AED within 10 days;
- 6) Maintain copies of:
 - a. Inspection records;
 - b. Post incident AED Utilization Forms;
 - c. Medical Emergency Plan at the physical fitness facility;
- 7) File the current medical emergency plan with IDPH by submitting a copy to the following address:

Illinois Department of Public Health
Division of EMS & Highway Safety
422 South 5th Street – 3rd Floor
Springfield, IL 62701

The plans should be updated with IDPH if there is any change that may affect the ability of the physical fitness facility to comply with a medical emergency. This includes, but not limited to, situations where the facility is closed for more than 45 days, the AED is inoperable, or there is a lack of trained staff.

1.3.3 Special Situations

- 1.3.3.1 Outdoor Physical Fitness Facilities:
 - a) A CPR/AED Trained User shall be on site when activities or sponsored events of the university are occurring.
 - b) An AED shall be housed within 300 feet of the outdoor facility, if available. It should be accessible during events or activities. Building entrances should have directions to the AED.
 - c) If there is no building where AEDs can be housed, an AED should be available on the premises during the scheduled event. .
- 1.3.3.2 Multiple physical fitness facilities on one floor may use a single AED if:
 - a) An AED is located no more than 300 feet from each facility.
 - b) An AED is still accessible to both facilities.

- 1.3.3.3 In regard to special events, NIU reserves the right to require vendors and/or third-party entities to provide the required number of operable AEDs and associated CPR/AED Trained Users during the event in addition to any university owned and operated AEDs and associated NIU designated and trained staff.

1.4 General Use of AEDs on NIU Property

Areas defined as “Physical Fitness Facilities” must ensure that there is a CPR/AED Trainer User on staff during staffed business hours. Additionally, all facility staff must be trained concerning the location of the AED and the requirements of the facility’s medical emergency plan.

Under the Illinois Good Samaritan Act (745 ILCS 49/12), anyone who uses an AED (regardless whether they are trained as a CPR/AED Trainer User) to provide emergency medical care in good faith and without fee or compensation is not liable for any civil damages as a result of any act or omission, except for willful or wanton misconduct. However, it is recommended that departments that own a non-code required AED as a best practice have a minimum of one employee trained to use the AED. All university employees are considered volunteers (except those who are trained medical professionals and/or those staff are expected to assume such responsibilities as required by their respective job duties) when rendering assistance to any individual suffering a medical emergency.

Part 2: General Requirements

2.1 Placement of AEDs

There are several major elements that should be considered when determining the appropriate number, placement, and access requirements for AEDs. According to the American Heart Association Guidelines, the primary objective for any successful AED program is to achieve a three to five-minute response time from the moment a person is identified as needing emergency medical care to when the AED is at the side of the victim. Placement of AEDs will be considered by utilizing, in part, the following criteria:

- 1) Departments or other functional areas that are staffed with CPR/AED Trained Users.
- 2) Physical Fitness Facilities and any other locations mandated by regulatory requirements.
- 3) Areas with a high population density or operations involving elevated exposure to hazards.
- 4) Applicable requirements as outlined by the Americans with Disability Act, which may require further consultation from Architectural and Engineering Services.

The AED must be placed in a location where it is relatively secure from theft or vandalism, yet clearly marked, and readily accessible in the event of an emergency. All necessary supplies and equipment must be stored with the AED, including a resuscitation kit.

2.2 Installation

Any department that purchases an AED for its area must complete an AED Registration Form (**Appendix B**) and submit the form to EH&S. Once the AED registration form has been submitted, EH&S will contact the department to discuss the requirements associated with the AED Program. If there is a need to permanently install the AED in a building, the department must submit a work request to the Physical Plant Work Request Office in order to ensure the installation meets ADA requirements.

2.3 Authorized Equipment

All new AEDs must be approved by EH&S to ensure they meet selection criteria. The approved equipment consists of:

- 1) Cardiac Science Corporation, Powerheart AED Device G5, Fully Automatic with ICPR;
- 2) One set of G5 Intellisense adult defibrillation pads connected to the device;
- 3) One spare set of G5 Intellisense adult defibrillation pads;
- 4) One resuscitation kit containing two pairs of gloves, one razor, one pair of trauma shears, one towel, and one facemask barrier device.

2.4 Inspection and Maintenance

All AED equipment and accessories shall be maintained in a state of readiness in accordance with manufacturer guidelines. The AED Coordinator is responsible for record keeping, maintenance and testing of the AED(s), and completing monthly checks in accordance with the manufacturer's recommendations and requirements. Documentation shall include recording the date of inspection along with the AED Coordinator's signature. A monthly inspection form can be found in **Appendix A**.

If identified deficiencies cannot be promptly resolved, the AED shall be temporarily removed from service and repaired or retired. The AED Coordinator shall notify EH&S in the event the AED was retired and replaced. The AED Coordinator shall also contact Public Safety Dispatch so Public Safety can amend their EMS service to the area in question.

2.5 Training

Cardiopulmonary resuscitation (CPR) and AED training is mandatory for certain job titles including but not limited to: NIU Emergency Medical Technicians (EMTs) and Paramedics, athletic training staff, campus recreation center staff, campus medical professionals, and select staff from Facilities Management and Campus Services. If used for special events, ushers and event staff may also need to be trained. Otherwise, university departments with AED units strategically installed within their buildings are required to have at least one CPR/AED Trained User within the department who is capable of using an AED in a medical emergency. To be recognized as a CPR/AED Trained User at NIU, an individual must:

- 1) Successfully complete a course of instruction in CPR in accordance with the standards of a nationally recognized organization such as the American Red Cross or the American Heart Association that incorporates instruction in the use of an AED, or;
- 2) Successfully complete an instructor training course for AED in accordance with the standards of a nationally recognized organization such as the American Red Cross or the American Heart Association.

CPR/AED Trained Users must renew CPR training in accordance with the American Red Cross or American Heart Association guidelines. Department AED Coordinators must ensure compliance and maintain a list of current CPR/AED Trained Users and all training records.

Part 3: Notification Requirements

3.1 Post AED Event Procedures

An AED Utilization Form (**Appendix C**) must be completed every time an AED unit is deployed during a medical emergency. The AED Coordinator is responsible for the collection of information and completion of the AED Utilization Form. The AED Coordinator should submit the completed AED Utilization Form to the NIUPD EMS Coordinator within 24 hours of the incident.

When an AED is operated in a medical emergency the unit must be removed from service after use. Paramedics and/or EMTs from the NIU Police Department will respond to all emergency situations and download the information from the internal data storage of the AED unit.

Following the completion of all necessary paperwork, the AED Coordinator will inspect and decontaminate the AED unit, replace the pads and batteries per the manufacturer's guidelines, and return the unit back to service.

It is recommended that the responder/rescuer and assisting personnel speak to someone from the NIU Employee Assistance Program (EAP) following the use of an AED. Exposure to traumatic scenes and situations can lead to symptoms of post-traumatic stress disorder (PTSD). Specialized trauma treatment from an experienced clinician can help alleviate emotional upheaval and make a big difference in maintaining emotional wellness.

3.2 Record Keeping Requirements

The inspection and maintenance records required by this program shall be maintained for a period of two years (e.g., current year and immediate past year). Records that reflect the current status of employee training shall be maintained for at least 2 years. All other records, including those associated with AED use or post event debriefings, should be maintained indefinitely.

3.3 Program Evaluation

EH&S will conduct a periodic review of this program and make appropriate recommendations for improvement. The review will include at least the following components:

- 1) Review of the applicable laws and legislation
- 2) Review of departmental records related to personnel training and AED maintenance and testing.
- 3) Review of any AED Utilization Reports
- 4) Collaboration with other program stakeholders most notably Athletics, Campus Recreation and Public Safety to ensure the Program meets applicable codes and campus operations.

APPENDIX A



Northern Illinois University

Automated External Defibrillator (AED) Monthly Inspection Form

Department: _____

AED Location: _____

AED Manufacturer/Model: _____

AED Coordinator: _____

Check:	1/____	2/____	3/____	4/____	5/____	6/____	7/____	8/____	9/____	10/____	11/____	12/____
AED cabinet is unobstructed and door alarms when opened	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AED is maintained in accordance with manufacturer's guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AED is still in active service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AED is clean without damages or cracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Batteries are not expired	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pads are not expired	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AED contains adequate amount of ancillary supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspector initials												

Additional Comments: _____

APPENDIX B



Northern Illinois University

AED Registration Form

Name of Department: _____ Name of Building: _____

Address: _____

AED Coordinator: _____ Physical Fitness Facility* (circle): **Y** / **N**

Telephone Number: _____ *If unsure, please see the definition of a Physical Fitness Facility within the EH&S "AED Program."

Email Address: _____

List of Current AEDs:

Manufacturer	Serial Number	NIU Number	Public Access?	Purchase Date	Location

The Department agrees to comply by policies of the NIU Automatic External Defibrillator Program. These include:

1. Take reasonable measures to assure the AED unit is used by trained AED users.
2. Training must be approved by the IDPH and repeated at least every two (2) years.
3. Ensure that all personnel authorized to use the AED have current training documentation on file.
4. Maintain and test the AED in accordance with the manufacturer's guidelines.
5. Submit an AED Utilization Form for any event or incident that results in the use of possible use of the AED to the NIUPD EMS Coordinator and EH&S.

The above are stated policies for all departments that house AED's. Additional directives must be followed by physical fitness facilities and should refer to the written AED Program.

AED Coordinator Signature: _____ **Date:** _____

APPENDIX C



Northern Illinois University

Automated External Defibrillator (AED) Utilization Form

Instructions: Use this form to report any event, incident or situation that resulted in the use or possible use of an AED. The information provided is considered confidential and will be used strictly for data collection purposes only.

Department: _____

Date of incident: _____ Time of incident: _____

Location of victim: _____

The collapse was: Witnessed Unwitnessed

Name and contact information for person(s) who found the victim and any other parties involved:

Did the victim have a pulse? Yes No Was the victim breathing? Yes No

Was EMS (911) called? Yes No If yes, what time did that happen? _____

Briefly describe the event, incident, or situation that resulted in the AED being brought to the victim (whether used or not) or any other information not listed above:

Was the AED applied to the victim? Yes No

If yes, describe what actions the AED advised and how many times the patient was defibrillated:

Status of patient at the time EMS personnel arrived:

Did the victim have a pulse? Yes No Was the victim breathing? Yes No

Name of person completing this form: _____

Date completed: _____

Contact information: _____

Signature: _____ Date: _____

Return this form to the NIUPD EMS Coordinator and the Environmental Health and Safety Department. The AED unit must be properly sanitized and returned to a state of readiness per American Heart Association guidelines and Manufacture's recommendations.