

AUTOMATED EXTERNAL DEFIBRILLATOR (AED) PROGRAM

for the

General Services Division

of the



Health Care Provider:

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WP 212-6175

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As of: December 15, 2009 (Updated 7/1//2015)

Division of General Services AED PROGRAM

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Division of General Services AED PROGRAM

PURPOSE:

This program enables trained and authorized personnel through the use of automated external defibrillator (AED) devices to intervene promptly in cases of sudden cardiac arrest. The South Carolina (SC) State Legislature, the SC Department of Administration, Division of General Services (DGS) and some tenants in its facilities, in compliance with the 1999 SC AED Law (Chapter 76 Section 44-76-10 to 44-10-50; <http://www.scstatehouse.gov/code/t44c076.htm>) are providing technology that may sustain an individual's life until trained emergency medical services (EMS) personnel arrive on the scene.

Helping to save lives is a shared responsibility. The DGS's emergency response program complements (does not replace) the existing EMS/ 9-1-1 structure. Trained employees can help keep a sudden cardiac arrest victim alive for EMS personnel to treat when they arrive. Training employees in cardiopulmonary resuscitation (CPR) and in AED use can minimize time to defibrillation. For the best chance of survival, a shock to the heart should be delivered within the first 5 minutes. The likelihood of successful resuscitation decreases by approximately 10 percent with every minute that passes. After 10 minutes without defibrillation, few attempts at resuscitation are successful. Nevertheless, the average response time for emergency medical services in a typical community is nine minutes. AED devices are to be strategically placed within DGS buildings to be either held by trained personnel or are public access units mounted in protective cases near the entrance of a building, similar to the convenience of fire extinguishers, so that trained persons have immediate access to this potentially lifesaving equipment.

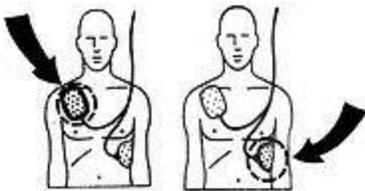
SCOPE:

As an addendum to the SC State Legislature AED Program this AED Program addresses DGS facilities and employees to include tenants. Any AED devices located in DGS buildings may be used by professionally licensed medical personnel or any employee that has current certification from the American Red Cross or American Heart Association in the use of CPR and AED and in accordance with state law and the SC State Legislature/DGS AED Program. Tenants that installed AED devices at their own initiative prior to this program either must abide by this program or have their own physician approved written plan and operate in accordance with the 1999 SC AED Law. Tenant plans and AED inspections are to be available to DGS Safety upon request.

DEFINITIONS:

AUTOMATED EXTERNAL DEFIBRILLATOR (AED): An AED is a portable device used by a trained First Aid Care Giver to treat a victim of sudden cardiac arrest (SCA). The AED operator turns on the unit and applies two electrode pads to the victim's bare chest. The AED then automatically diagnoses the potentially life threatening cardiac arrhythmias of the victim's heart and is able to treat them with defibrillation, the application of electrical therapy (shock to stop the arrhythmia, which allows the heart to reestablish an effective rhythm), or determine CPR

is needed when defibrillation is not appropriate. Voice prompts will direct the AED operator to ensure no one is touching the victim to avoid accidental injury and can provide multiple shocks under the operator's control. After the first shock the AED will analyze the victim in regular intervals and either instructs that CPR be given or to administer a shock, whichever is required. An AED is designed to be used by a trained layperson, which is in contrast to more sophisticated defibrillators with advanced functions (to include acting as a pace maker for a slow heart beats or read electrocardiograms - ECG) used by healthcare professionals. Various makes and models of AED are available in some but not all DGS buildings (see Appendices - Locations). Care Givers only need to be trained on how to operate the specific make and model they are expected to use, i.e., the type in the facility where they normally work. However, all AED devices generally work the same. The differences in makes and models of AED vary in being manual or semi-/fully automatic; in selecting adult or child energy levels by using adult versus pediatric pads or a selector knob or key; self-diagnostics for maintenance; display readings; and whether or not incident history (where the victim's ECG along with details of the time the unit was activated and the number and strength of any shocks delivered) can be down loaded to computer. Because the AED operator may be hearing impaired, many AED devices now include visual prompts as well. The DGS-selected Philips AED devices (obtained by federal grant through the City of Columbia Emergency Operations Division) are semi-automatic and tell the AED operator a shock is needed but requires the operator to push a button to actually deliver the shock, and the operator cannot override the AED to deliver a shock when the AED advises "no shock."



Typical placement of AED pads

AED LIAISON: An AED Liaison is a person designated in writing by DGS Safety who is accountable for the physical security and maintenance of the AED assigned to a specified facility (see appendices for locations). The liaison reports emergency use of the AED and maintenance problems to the AED Oversight Physician through the Health Care Provider and/or DGS Safety. An AED Liaison normally will be the Lead Emergency Coordinator for the specified building.

AMERICAN HEART ASSOCIATION (AHA): The AHA is a national program that provides certification training for First Aid Care Givers and is one of the two programs DGS Safety authorizes to provide such training. DGS Safety currently provides AHA Heartsaver 1st Aid with CPR and AED training, and the environmental emergencies module. Certification is valid for two years.

http://www.heart.org/HEARTORG/CPRAndECC/WorkplaceTraining/HeartsaverCourses/Heartsaver-First-Aid_UCM_303589_Article.jsp

AMERICAN RED CROSS (ARC): The ARC is a national program that provides certification training for First Aid Care Givers and is one of the two programs DGS Safety authorizes to provide such training. All ARC First Aid, CPR and AED training carry 2-year certification.

<http://www.redcross.org/portal/site/en/menuitem.d229a5f06620c6052b1ecfbf43181aa0/?vgnextoid=8b6fc0e92ba0d210VgnVCM10000089f0870aRCRD&vgnnextchannel=aea70c45f663b110VgnVCM10000089f0870aRCRD#FA-CPR-AED-EN>

DGS: Refers to employees who work for and facilities owned by the SC Department of Administration, Division of General Services.

SAFETY: The DGS Safety Office is responsible for providing or coordinating First Aid/CPR/AED (and Environmental Emergencies) training for designated First Aid Care Givers. DGS Safety officers are to be notified via telephone when there is a medical emergency in a DGS facility, especially one requiring First Aid/CPR/AED use or transport for emergency medical care, so they may respond as able for incident management, reporting and documentation. The DGS's Safety Officer is Holly Bockow, 737-2311 WP/803-513-5354 cell; 921 Main Street.

BUREAU OF PROTECTIVE SERVICES (BPS): The security service assigned to protect legislators, constitutional officers and designated DGS buildings and the employees therein.

CARDIOPULMONARY RESUSCITATION (CPR): CPR is a life saving technique utilizing rescue breathing and chest compressions to introduce oxygen and distribute oxygenated blood throughout the body. AED use requires the First Aid Care Giver know how to use the AED in conjunction with CPR.

- **ADULT CPR/AED:** CPR procedures used for adults who are persons over 8 years of age or those weighing more than 55 pounds. AED devices are designed for adult victims.
- **CHILD CPR/AED:** CPR procedures used for children who are one (1) year old up to 8 years of age or those weighing 20 to 55 pounds. AED devices designed for children typically will have an attenuated system (lower shock level selected by the AED operator by knob setting or insertion of a "child key" or pediatric pads).
- **INFANT CPR/AED:** CPR procedures used for infants who are not yet (1) year old or weigh less than 20 pounds. There is insufficient data to make a recommendation for or against using an AED in infants less than 1 year of age.

EMERGENCY MANAGEMENT SERVICES (EMS): Ambulance, fire and/or police are dispatched according to the emergency reported to 9-1-1.

FIRST AID CARE GIVER: AED use requires the person giving CPR to a victim is certified through an AHA or ARC course and current. In order to be a trained AED operator, the Care Giver must be certified in Adult/Child CPR and AED use. (Certification in First Aid is also recommended. Certification in Infant CPR is recommended for Care Givers in buildings with general public access. Example: Senate and House Security and the Bureau of Protective Services, especially those assigned duty at the Statehouse and Governor's Mansion, are required by the Legislative Nurse to be certified in First Aid and Adult/Child and Infant CPR and AED.) Care Givers are to take a first aid kit and AED to the incident scene or, in case of an emergency evacuation, to the building's Assembly Area. An AED and first aid kit are recommended to also contain a face shield for providing a barrier between the victim and Care Giver during rescue breathing; a pair of non-allergenic nitrile rubber gloves for personal protection against transmitting disease between the Care Giver and victim; a pair of trauma shears for cutting, as necessary, through a victim's clothing to expose the chest where AED pads are applied; a small towel for wiping away any moisture on the chest to ensure proper AED function; a razor for shaving those with very hairy chests to ensure positive AED pad contact with the victim's skin; and a bio-hazard bag for disposal of contaminated items.

GOOD SAMARITAN LAW: Generally, where an unconscious victim cannot respond, a Good Samaritan can help them on the grounds of implied consent. However, if the victim is conscious and can respond, a person should first obtain their permission to help. Someone who renders aid,

while not acting as a part of one's occupation or job description, cannot be held civilly liable for the harm or death of a victim by providing improper or inadequate care given that the harm or death was not intentional and the responder was voluntarily acting within the limits of their training and in good faith in responding to the emergency. A claim of negligent care could result if the injuries or illness were made worse by a volunteer who acts in a willful and wanton or reckless manner in providing the care, advice, or assistance. It may also be considered an act of negligence if a person does not at least call (9-1-1) for help. SC Law Section 15-1-310 (<http://www.scstatehouse.gov/code/t15c001.php>), i.e., the SC Good Samaritan Law, describes liability for emergency care rendered at the scene of an accident, whereas SC Law Section 44-76-40 (<http://www.scstatehouse.gov/code/t44c076.php>) includes use of an AED under the Good Samaritan Law.

HEALTH CARE PROFESSIONAL (HCP): A HCP is a licensed physician, surgeon, physician assistant, nurse practitioner or nurse licensed by the state of South Carolina. An HCP is designated for oversight of the DGS AED Program including AED Liaison Coordinators to ensure compliance with federal, state and local policies and procedures.

HOUSE SECURITY: The security force assigned to protect House members of the SC legislature in the House chamber of the Statehouse and the Blatt Building; under the Clerk of the House.

OVERSIGHT PHYSICIAN: A South Carolina licensed physician or health care professional is responsible to provide medical review and approval of this AED Program prior to implementation, and will be available for consult.

SENATE SECURITY: The security force assigned to protect Senate members of the SC legislature in the Senate chamber of the Statehouse and the Gressette Building; under the Clerk of the Senate.

SUDDEN CARDIAC ARREST (SCA): SCA is where the heart has a dysfunctional irregular pattern but correctable by shock treatment, i.e., ventricular fibrillation (chaotic beat) or tachycardia (beating too fast), both of which could lead to irreversible brain damage and death if left uncorrected.

TENANT: An organization that rents office space in a DGS-owned facility.

PROTOCOL:

All AED operators will:

- Have a current AHA or ARC Adult/Child CPR-AED certification and are to have access to AED devices in DGS buildings for the purpose of providing initial emergency care for SCA victims.
- Notify the closest emergency medical services (EMS – 911) as soon as possible when rendering emergency care or treatment.
- As soon as possible, notify the HCP, the AED Liaison and/or DGS Safety and complete the *Documentation of AED Use* form (see Appendices).

The AED Liaison will:

- Keep the HCP and/or DGS Safety involved and informed of all AED incidents and maintenance issues.
- Make the AED available to trained First Aid Care Givers in an emergency.
- Regularly check the assigned AED device(s) (see checklist in Appendices).
- Replenish AED pads and any other perishables associated with the AED and first aid kit used during emergency response in order to return the AED and first aid kit to service.

DGS Safety will:

- Regularly inspect to ensure all DGS-provided AED devices are tested and maintained according to the manufacturer's procedures, and electronic records thereof to be made available for the HCP or approving physician upon request.
- Maintain training records in its learning management system for DGS employees certified in First Aid, Adult/Child CPR and AED.

DGS AED PROGRAM AUTHORIZATION:

I have reviewed and approve the DGS AED Program that complies with the 1999 SC AED Law (Chapter 76 section 44-76-10 to 44-10-50).

The Philips Heartstart FRX AED operates within the scope of 2005 American Heart Association Guidelines and was selected because of its versatility to include use with adults and children and for its ease of use and reliability.

AED OVERSIGHT PHYSICIAN:

NAME: Thomas Gibbons, MD

ADDRESS: Doctor's Care Forest Acres Center, 4500 Forest Dr., Columbia SC 29206

PHONE: (803) 738-9522

SIGNATURE:

(copy on file with Betsy Hossenlopp; received 1/16/15)

HEALTH CARE PROFESSIONAL:

NAME: Betsy Hossenlopp BSN.RN., Legislative Nurse
1101 Pendleton Street (Gressette Building), Room 511
WP 212-6175; betsyhossenlopp@scsenate.gov

**PHILIP'S HEARTSTART
AED CHECKLIST
For AED Liaison**

The Philips FRx AED performs a self-test daily. In addition, a battery insertion self-test is run whenever a battery is installed in the device. The defibrillator's extensive automatic self-test features eliminate the need for any manual calibration. Other than the checks recommended after each use of the AED, maintenance is limited to periodically checking the ready green light.

The AED Liaison will check assigned AED devices at least quarterly (i.e., Jan 1, Apr 1, Jul 1 and Dec 1) for:

- _____ Battery Power - Green light (blinking)
(Notify DGS Safety if the Battery Power light is not green)
- _____ Expiration Date- AED Battery
(Order replacement battery when due to expire in the next 90 days)
- _____ Expiration Date – Perishable Supplies in AED Kit
(Replenish any perishable supply when due to expire in the next 90 days or as used)
- _____ Immediately report to DGS Safety (737-2315) any problems that takes the AED out of service
- _____ Provide the results of these checks to DGS Safety (via e-mail or hard copy)

AED Location: _____ Person Checking: _____
(Building Name, Room/Device Number)

**AED INSPECTION CHECKLIST
For DGS Safety**

DGS Safety will ensure quarterly AED checks are accomplished by the designated AED Liaisons. DGS Safety will do the check should an AED Liaison not be able to perform a quarterly check. Records of quarterly checks may be kept electronically and will be provided to the HCP and/or approving physician upon request. These records will include for each AED:

- Date checked
- Name of Person checking the device
- Condition:
 - OK
 - Problem – to be briefly described along with any required corrective action

Records shall include any maintenance action required for an individual AED such as malfunction, expired battery and corrective actions. Any maintenance problem that cannot be corrected on site, i.e., that takes the AED out of service, shall be reported to the HCP.

GENERAL AED PROCEDURES

Before applying the pads, remove items that are in close proximity to the pads such as:

- Medication patches
- Jewelry
- Underwire bras

If the victim has a hairy chest, the pads may not make adequate skin contact. The AED may instruct to press the pads more firmly. If unsuccessful and:

- If two sets of pads are available, apply the first set of pads and rip off excess hair then apply the second set of pads.
- If a razor is available, shave the areas where the pads are to be applied before applying the pads.

Do not use the AED if the victim is lying in water or the chest is wet or sweaty. Remove the victim to a dry area and/or dry the chest.

In order for the AED to conduct a proper analysis do not touch or move the victim.

The (Philips Heartstart) AED will not deliver a shock unless the AED operator pushes the shock button.

- If you do not touch the shock button within 30 seconds the AED will disarm itself. After a short pause it will re-analyze the victim's heart rhythm.
- If you need to turn off the AED during use, press and hold the On/Off button for one second to return to the standby (de-energized) mode and press again to turn off.

If a shock is not needed, the (Philips Heartstart) AED:

- Will not energize
- Will inform the operator a shock is not advised
- Cannot be overridden by the operator to give a shock

Do not remove the battery unless you are:

- Installing a charged replacement battery
- Self-testing the AED after use

Clean the AED in accordance with the manufacturer's instructions, as required (typically with a damp cloth, diluted chlorine bleach or 70% isopropyl (rubbing) alcohol).

DOCUMENTATION OF AED USE

VICTIM'S INFORMATION

NAME: _____
ADDRESS: _____
CITY: _____ STATE _____
AGE: _____ GENDER: _____
TELEPHONE: _____

INCIDENT INFORMATION

DATE: _____
ADDRESS: _____
LOCATION: _____
TIME OF INCIDENT: _____
TIME STARTED CPR: _____
TIME STARTED AED: _____
NUMBER OF SHOCKS: _____
TIME EMS ARRIVED: _____

WITNESS INFORMATION

NAME: _____
TELEPHONE: _____

VICTIM'S MEDICAL HISTORY / MEDICATIONS: (check all applicable)

____ Medical ID Bracelet/Necklace for _____
____ Nitro Glycerin
____ Defibrillator
OTHER: _____

CONTACTED: _____ **DGS Safety** _____ **AED Liaison** _____ **HCP**
CONTACTED BY: _____ **TELEPHONE** _____

NARRATIVE: (provide a detailed description of the condition of the victim when found and the events that followed until EMS arrived and assumed care for the victim)

(Continue on separate page, as required)

AED OPERATOR: _____ **TELEPHONE:** _____
(Name)

SIGNATURE _____ **DATE:** _____

Call and Submit this Report of AED Use to:

SC DOA DGS Safety
921 Main Street
Holly Bockow, 737-2311

(DGS Safety - Cc: Report to HCP)

**SC Department of Administration DGS
AED PROGRAM
Locations**

AED devices are located in the following DGS buildings.

BUILDING	ADDRESS	LOCATION	TYPE AED	AED LIAISON
Adjutant General	1 National Guard Rd	1 st Floor Elevator Lobby 2 nd Floor Elevator Lobby 3 rd Floor Elevator Lobby	Medtronic Lifepak 500 ⁽¹⁾ Medtronic Lifepak 500 ⁽¹⁾ Medtronic Lifepak 500 ⁽¹⁾	Buddy Sturgis, 806-4440 SturgisEG@tag.scmd.state.sc.us
Archives & History Center	8301 Parklane Rd	Help Desk in Reference & Research Room (1 st Floor)	Philips Heartstart FRX ⁽²⁾ B09K-01734	Brenda C. House, 896-6160, House@scdah.state.sc.us
Blatt	1105 Pendleton St	Security Desk, 1 st Floor Entrance Lobby	Philips Heartstart FRX ⁽¹⁾	Legislative Health Services Director, Betsy Hossenlopp BSN.RN., 212-6175 betsyhossenlopp@scsenate.gov
Brown	1205 Pendleton St	Room 253	Philips Heartstart FRX ⁽²⁾ B09K-01758	SC Parks, Recreation & Tourism, David Simms, 734-0258, DSimms@scprt.com
Calhoun	1015 Sumter St	Security Desk, 1 st Floor Entrance Lobby	Philips Heartstart FRX ⁽²⁾ B09K-01964	SC Court of Appeals, Jenny Kitchings, 734-1891 JKitchings@sccourts.org
Columbia Mills	301 Gervais St	Public Safety Operations Center (rear entrance)	Medtronic Lifepak 500 ⁽¹⁾	Chief Tonia Johnson 898-4981 Tonia.Johnson@scmuseum.org
Columbia Mills	301 Gervais St	Dept. of Revenue, 2 nd Floor Dept. of Revenue, 4 th Floor	Cardiac Science Powerheart ⁽¹⁾ Cardiac Science Powerheart ⁽¹⁾	Tax Commission, Erica Coffey, 898-5411 CoffeyE@sctax.org
Data Center	4430 Broad River Road	Security Desk (1 st Floor Entrance Lobby)	Philips Heartstart FRX ⁽²⁾ B09K-01928	Div. of Technology Operations, Bill Boswell, 896-0149, Bill.Boswell@admin.sc.gov
Dennis Building	1000 Assembly St	1 st Floor, North Hall (at Snack Bar) 2 nd Floor North Hall 3 rd Floor North Hall	Zoll AED Plus ⁽¹⁾ Zoll AED Plus ⁽¹⁾ Zoll AED Plus ⁽¹⁾	Dept. of Natural Resources Mary Crockett, 734-9111

Dennis Building	1000 Assembly St	Room 621	Zoll AED Plus (1)	Attorney General: Lindsey Lemay, RN, 843-861-3671,
Five Points Building	2221 Devine St	Suite 200	Philips Heartstart FRX (2) B09K-01735	SC Dept. of Consumer Affairs: Darlene Dinkins , 734-4233; DDinkins@sconsumer.gov
Governor's Mansion	1100 Richland St	Security Operations Center, Service Entrance	Cardiac Science (1)	Sgt Tammy Gordon, Bureau of Protective Services, 737-3000 TSGordon@schp.org
Gressette Building	1101 Pendleton St	Security Desk, 1 st Floor Entrance Lobby	Philips Heartstart FRX (1)	Legislative Health Services Director, Betsy Hossenlopp BSN.RN., 212-6175 betsyhossenlopp@scsenate.gov
Mills/Jarrett Building (DHEC)	2100 Bull St	Room O-105	Philips Heartstart FRX (2) B09K-01733	SC Dept. of Health & Environmental Control, Jessica W. Bryan, RN, 898-3257, BryanJW@dhec.sc.gov
North Towers/DSS Building	1535 Confederate Ave	Room 328	Philips Heartstart FRX (2) B09K-01771	SC Dept. of Social Services, Clay Watts; 898-7377 Clay.Watts@admin.sc.gov
Rutledge Building	1429 Senate St	Room 205A	Philips Heartstart FRX (2) B09K-01768	SC Dept. of Education, Danita McDaniel, 734-8781 Danita.McDaine@admin.sc.gov
Sims-Aycock (DHEC)	2600 Bull St	Employee Health Room 2556	Philips Heartstart FRX (2) B09K-01783	SC Dept. of Health & Environmental Control, Jessica W. Bryan, RN, 898-3257, BryanJW@dhec.sc.gov
Statehouse	1100 Gervais St.	Cabinet on 2 nd Floor nearest East Stairwell Exit	Philips Heartstart FRX (1)	Legislative Health Services Director, Betsy Hossenlopp BSN.RN., 212-6175 betsyhossenlopp@scsenate.gov
Supreme Court	1231 Gervais St	1 st Floor Security Office at right rear (NE) corner	Cardiac Science (1)	Betsy Goodale 734-1160 BGoodale@sccourts.org
Wade Hampton Building	1200 Senate St	Receptionist's Bookcase for State Treasurer (1 st Floor East Wing)	Philips Heartstart FRX (2) B09K-01781	DGS Safety, 737-2315, holly.bockow@admin.sc.gov

Notes:

(1) This AED device is owned and maintained by the tenant, not the DGS

(2) These AED devices were provided to the DGS on 12/14/09 as part of the Metropolitan Medical Response System (MMRS) for the City of Columbia SC under SC Grant procedures and guidelines. These AED devices are subject to inspection by and will be returned in satisfactory condition to the Columbia Emergency Operations Division upon elimination or withdrawal from the MMRS program.

It is suggested for this symbol or similar indication be placed on the office door of those certified and current in 1st Aid-CPR-AED.



The following sign should be posted (by Safety and Facilities Management) at main entrances of facilities equipped with AED devices.

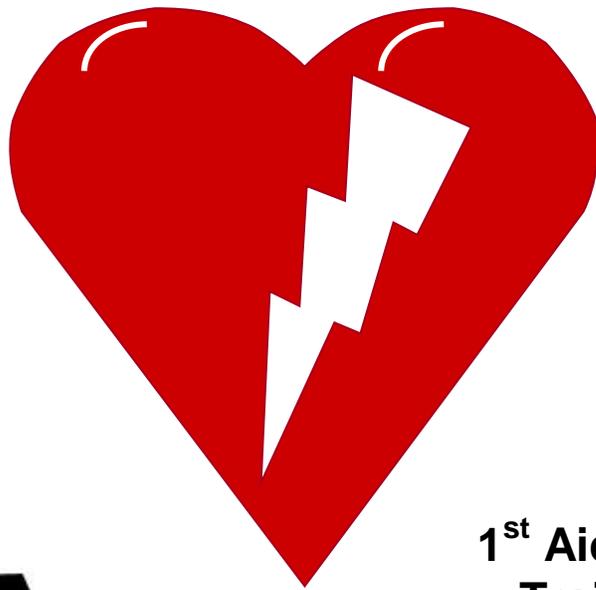


THE SOUTH CAROLINA
DEPARTMENT *of* ADMINISTRATION

FACILITY EQUIPPED WITH

AED

Automatic External Defibrillator



**1st Aid-CPR-AED
Trained Staff**

Location:

Contact: