

Safe Work Guideline AED Usage Guidelines

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Revised By:
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Automatic External Defibrillators (AED)

An Automatic External Defibrillator (AED) is a portable electronic device that automatically diagnoses life threatening cardiac rhythms in a casualty and is able to treat them through the use of defibrillation, allowing the heart to re-establish an effective rhythm. These lifesaving machines are used in conjunction with CPR to assist first aid personnel restore an abnormally beating heart during a sudden cardiac emergency. An AED does not take the place of CPR during a sudden cardiac emergency. These guidelines will not replace the need for first aid training.

Assessing an emergency Scene

Assess the scene upon arrival and determine who all is involved, what happened and what care is needed. If the casualty has a severe injury or unconscious, call 911 for medical assistance. For suspected head or spinal injuries, support the head from moving until medical assistance arrives. When calling 911 for medical assistance, tell the dispatcher the location of the incident, what has happened, how many people are involved, what the symptoms are, and what treatment has and is being given. .

Emergency CPR and using an AED

1. Ensure your safety. If you feel your safety is in jeopardy, do not proceed with administering first aid treatment. Call 911 and wait for emergency medical personnel to arrive. Do not abandon the casualty.
2. Identify yourself to the injured or suddenly ill person, and obtain consent to perform First-Aid. If injured or ill person is unconscious, or a child, you have implied consent and can proceed with treating the individual.
3. Call 911 and request medical assistance.
4. Request bystanders obtain the Emergency Response Kit, and the AED.
5. If possible, wash your hands. If it is not possible, be sure to wash your hands after providing first aid.
6. Put on a pair of vinyl or nitrile gloves and prepare a CPR barrier for use (either a Pocket Mask® face shield, or a disposable CPR barrier).
7. Tap the unconscious individual on the shoulders and ask them if they can hear you in both ears.
8. If no response, assess casualty's ABC's (**A**irway, **B**reathing and **C**irculation). Open the air way by gently pressing on the casualty's forehead and gently lifting the chin to tilt the head back. Do not lift back of neck. **Look** to see if the chest is rising, **feel** for their breath on your face, and **listen** for breathing for 5-10 seconds.
9. If breathing is not detected, find center of their chest and give 30 chest compressions. Push the chest 2 inches or 5 cm. Maintain a rate of 100 chest compressions per minute.
10. After 30 chest compressions are complete, place the CPR barrier over casualty's mouth. If using a disposable CPR barrier, place the barrier over the casualty's mouth and nose. Pinch nose to administer a rescue breath through the CPR barrier. If you are using the pocket mask, place the barrier over the casualty's nose and mouth. Breathe slowly and evenly for 1 second into casualty's

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mouth until the chest rises. Count 5-6 seconds and deliver a second breath. Do not over inflate the lungs. Just breathe hard enough to make the chest rise.

11. Continue with cycles of 30 chest compressions and 2 rescue breaths for 2 minutes. After 2 minutes, reassess ABC's and continue administering CPR if casualty remains unresponsive. Continue CPR until either medical assistance arrives or the casualty revives.
12. When personnel arrive with AED, continue CPR while AED is being readied. If the casualty is a pediatric (ages newborn through 8 years old), you will have to set the machine to its pediatric mode of use. The Philips Heartstart Onsite®, the Medtronic LP CR+® and the Zoll AED Plus® AED's use a separate set of pads designed for pediatric use.
 - a. **The Philips Heartstart Onsite®** pediatric pads are located under the flap of the lid in the carrying case. To remove the adult pads from the AED, pull on the release toggle switch located on the top of the AED. The top of the adult pad cartridge will pop out of the AED. Set the adult pads to the side. Open the foil packaging of the pediatric pads. Install the pediatric pads by pressing the pads into the space left by the adult pad cartridge until you hear a click. Activate the AED by pulling on the green "pull" handle. Follow the voice prompts of the AED.
 - b. **The Medtronic LP CR+®** pediatric pads are located in the black accessories bag attached to the AED. Open the lid of the AED and unplug the cable for the adult pads. Open the foil packaging of the pediatric pads. Connect the pediatric pads to the AED and follow the voice prompts of the AED.
 - c. **The Zoll AED Plus®** pediatric pads are located in the fast responder's kit. You will have to open the lid of the AED and disconnect the adult pads from the AED. Remove the Pediatric Pads from the foil packaging and attach to the AED unit. Follow the voice prompts of the AED.
13. Remove the casualty's clothing. If necessary, use the scissors in the fast response kit attached to AED case. If casualty is female, removal of brassiere will also be necessary.
14. Ensure casualty has clean bare skin. If casualty has an overabundance of chest hair, it might be necessary for you to shave where the pads of the AED are to be placed to gain sufficient contact with the casualty's skin. Shave a patch on the upper right portion of the chest and a patch on lower left side of the rib cage, using the disposable razor in the fast response kit. Use the towel in the fast response kit to clean the skin.
15. Activate the AED and follow the voice prompts given by the machine.
 - a. The Philips Heartstart Onsite® AED is activated by pulling the green "Pull" handle on the front of the machine and removing the plastic case and foil covering the pads.
 - b. Medtronic LP CR+® and Zoll AED Plus® AED's are activated by pressing the open button and lifting the lid on the front of the machine.
16. Apply pads to the casualty's chest. The Philips Heartstart Onsite® and Medtronic LP CR+® AED's have two separate pads. Look at the pads and place them in accordance to the diagrams on the pads. The Zoll AED Plus® pads are 1 piece. Unfold and place pad over casualty's chest as per diagram on the pad. Press the pads firmly to ensure full contact with the skin.

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17. Do not touch the casualty while the AED pads are attached to the casualty unless the AED says that it is safe to do so.
18. If AED advises to shock the casualty, ensure that everyone is not touching the casualty. Yell "clear" to warn everyone to stay clear of the casualty. Press the shock button when prompted by the AED.
19. After the shock is delivered by the AED and AED says it is safe to touch the casualty, reassess **ABC's**. If the casualty is not breathing, continue with 2 minutes of CPR. The AED will guide you with the CPR procedures. After 2 minutes of CPR, the AED will reassess the casualty's heart rhythm. It will then determine whether an additional shock is advised or not. Continue following the instructions of the AED until medical assistance arrives.
20. If the shock delivered is successful, place the casualty in the recovery position and cover with a blanket to preserve body heat. Do not remove the pads from the casualty as the casualty may go back into cardiac arrest.
21. Once emergency personnel have arrived, provide them with an oral report of what has happened and any treatment that you have given the casualty.
22. If emergency personnel take the AED with them to the hospital, ask where it is being taken to.
23. Call OH&S coordinator to report incident, and to inform where the AED has been taken. OH&S coordinator will facilitate the return of the AED from the hospital. Once the AED has been serviced, the OH&S coordinator will place the AED back in service.