AUTOMATED EXTERNAL DEFIBRILLATOR (AED)

The use of an Automated External Defibrillator (AED) may be necessary when an individual is in cardiac arrest and should be used as soon as possible. **ALWAYS FOLLOW PROTOCOLS AND MANUFACTURER'S INSTRUCTIONS.**

History:
- Before using an AED on someone you think is having a sudden cardiac arrest, do a quick assessment on them.
- Time and circumstances surrounding event.

Assessment:
- Confirm the person is unable to respond.
- Obtain vital signs (If breathing and pulse are absent or irregular, prepare to use the AED as soon as possible).
- If no one knows how long the person has been unconscious, or an AED isn’t readily available, do 2 minutes of CPR, then use the AED to check the person.
- Assess for
  - Implantable devices (pacemaker) or nitroglycerin patches
  - If chest needs to be shaved

AED Precautions:
- Before using the AED, check for puddles or water near the person who is unconscious. Move the person to a dry area, staying away from wetness when delivering shocks.
- Do not touch individual while analyzing or defibrillating. Touching or moving the victim may affect analysis.
- Do not use alcohol to wipe chest. Alcohol is flammable.
- Remove metal necklaces and underwire bras. The metal may conduct electricity and cause burns.
- If the person has an implantable device (pacemaker or implantable cardioverter defibrillator) move the defibrillator pads as least 1 inch away from the implanted device or body piercings so the electric current can flow freely between the pads.
- Do not use AED in moving vehicle. Movement may affect the analysis.
- Do not use pediatric pads on an adult.
- Do not defibrillate an individual when around flammable or combustible materials such as gasoline or free flowing oxygen.
- Never place AED pads directly on top of medication patches.
- With a gloved hand, remove medical patches from the victim’s chest before attaching AED device.

Treatment:
- Adult
  - Follow all manufacturers’ instructions.
  - Remove pads and place on chest as indicated.
  - Do not place AED pads directly over an implanted device such as a pacemaker. This could interfere with the delivery of the shock.
  - Analyze the heart rhythm.
If the AED advises that a shock is needed, the responder should follow protocols to provide one shock followed by 5 cycles (about 2 minutes) of CPR or until the AED prompts for another rhythm analysis.

- Re-analyze the heart rhythm.
- If at any time, you notice an obvious sign of life, stop CPR and monitor airway, breathing, and circulation (ABCs). Administer emergency oxygen (8-15L/min or 100% by Ambu) if available.

**Child**

- Follow all manufacturers’ instructions.
- Use pediatric (1-8 years old or weighing less than 55 pounds) AED pads and equipment when available. Adult equipment may be used if warranted.
- Remove pads and place on chest as indicated.
- Analyze the heart rhythm.
- After a shock is delivered or if no shock is indicated give 5 cycles (about 2 minutes) of CPR or until the AED prompts for another rhythm analysis.
- Re-analyze the heart rhythm.
- If at any time, you notice an obvious sign of life, stop CPR and monitor airway, breathing, and circulation (ABCs). Administer emergency oxygen (8-15L/min or 100% by Ambu) if available.

**Call EMS:**

- All incidences of cardiac arrest/event

**Reference**