**WHAT IS AN AED?**

An **Automated External Defibrillator (AED)** is a computerized device that can analyze a person’s heart rhythm, then deliver an electrical shock to restore a heartbeat. It gives directions through voice prompts and visual indicators. An AED is very simple and safe to use. It will not deliver a shock if the victim does not need one.

**VENTRICULAR FIBRILLATION**

When the heart is not receiving enough oxygen or is injured, it can stop beating and become overwhelmed with chaotic electrical activity known as **ventricular fibrillation (V-fib)**. The victim becomes unresponsive and is not breathing. Although CPR can supply oxygen to the brain and vital organs to keep them alive, it usually cannot restore a heartbeat in an adult. CPR buys time until an AED can be used.

When an AED detects V-fib, it sends a powerful electrical current through the heart, briefly stopping the chaotic electrical activity. This allows the heart to resume its normal electrical rhythm, restoring a heartbeat.

**The sooner a shock is given, the better the chance of survival.** An AED is most successful when used less than three minutes after cardiac arrest.

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An AED will not shock a person whose heart is not in a shockable rhythm, even if the shock button is pushed.
Using an **AED**

**TURN ON THE AED**

**Use an AED as soon as it is available.** Place the AED near the victim’s head and turn on the unit by pushing a button, lifting the lid or pulling the handle. Follow the AED prompts.

**APPLY AED PADS**

Expose the chest and wipe it dry if wet. Apply the pads to the chest according to the pictures on the pads.

- Peel the pads off the backing.
- Place one pad on the right side of the chest, just below the collarbone.
- Place the other pad on the lower left side of the chest.
- Connect the pads to the AED. Some pads come pre-connected to the AED.

If there are two trained rescuers, one performs CPR while the other uses the AED. The rescuer using the AED applies the pads around the hands of the person giving chest compressions. **Do not stop CPR** while the AED is being prepared for use. The AED will prompt you to stop CPR when it is ready to analyze the heart rhythm.

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AEDs are usually stored with an accessory kit containing gloves, scissors to cut clothing, a razor to shave a hairy chest, a wipe to clean the chest, a towel to dry it off, and a CPR mask.
CLEAR THE VICTIM & SHOCK

It is critical that no one touches the victim or his clothing while the AED analyzes or delivers a shock.

When prompted by the AED to deliver a shock:

- Quickly look up and down the entire victim to ensure no one is touching him and loudly say, “Clear.”
- Push the shock button.

Resume compressions after the AED delivers a shock, or if no shock is advised. Every 2 minutes the AED will prompt you to stop CPR so it can analyze the heart rhythm.

If a second trained rescuer is present, switch roles every 2 minutes when prompted to stop CPR.

FOLLOW AED SAFETY PRECAUTIONS

- **Clear!** Make sure no one is touching the victim or his clothes while the AED analyzes or delivers a shock.
- If oxygen is close by, turn it off or move it several feet away before providing a shock.
- If the victim is lying in water, move him to a drier area before using the AED. A shock to a person in water could harm rescuers or bystanders. Make sure the rescuers and bystanders are not standing in water during AED use.
- If needed, dry the chest before attaching the pads. Water or excessive sweat on a person’s chest can interfere with a shock. Do not let the AED and pads get wet.

Rain, snow or small amounts of water will not interfere with safe AED use when safety precautions are followed.

Before pushing the shock button, what should she do?
AED Considerations

APPLYING AED PADS

- **An implanted device** such as a pacemaker may appear as a small, hard lump under the skin. If a victim has an implanted medical device, position the AED pad at least one inch away from it.

- If a **medication patch** is applied to the skin, do not place an AED pad over it. Remove the patch with gloved hands, wipe the chest clean with a towel, then apply the AED pad.

- **Chest hair** can limit the contact between the pads and the skin, preventing the AED from reading the heart rhythm and delivering a shock. Use a razor to shave the chest in the area of pad placement. Another option is to apply an extra set of pads firmly to the chest, quickly pull them off, then apply a new set of pads.

MAINTENANCE AND TROUBLESHOOTING

*Store an AED ready to use*, close to trained rescuers. Extra pads and an accessory kit should be stored with the AED.

*Perform regular inspections* according to manufacturer’s guidelines and local protocols. Make sure that pads and batteries have not expired, and there is no visible damage to the unit.

If the **AED detects a problem**, it will prompt you to troubleshoot:

- **Check pads**: Press down firmly on the pads, or replace the pads; check the cable connection.
- **Low battery**: Replace the battery.
- **Movement**: Do not touch the victim while the AED is analyzing the heart rhythm.