



**CETS**

**Cochrane Emergency Training  
Services**

# Automated External Defibrillator

## AED



## **What is CPR?**

CPR (Cardiopulmonary Resuscitation) is an emergency procedure that can restore blood flow to someone suffering cardiac arrest, keeping the victim alive until advanced medical care arrives.

## **What is an AED?**

An Automated External Defibrillator (AED) is a device that can check heart rhythms and deliver an electrical shock to restore its natural rhythms when needed.

## **How can CPR and an AED help?**

When the heart stops beating effectively during cardiac arrest, it can no longer pump blood to the body. The brain and vital organs cannot survive without oxygen and nutrients from blood and death can occur within minutes if not treated immediately. CPR can take over the pumping mechanism of the heart in order to help maintain blood flow and oxygenation to vital organs. Using an AED can correct or restore the abnormal heart rhythm and encourage the heart to resume beating normally.

## **What can you do?**

Most cardiac arrests occur in homes and public places, and many are witnessed by a family member, co-worker or friend. The survival rate of cardiac arrest outside a hospital is very low. Performing CPR and using an AED before Emergency Medical Services arrive can increase the chance of survival by up to 75%. AEDs are safe and easy to use. We urge the general public, especially anyone in close contact with those at high-risk of cardiac arrest to become trained in CPR and the use of AEDs. Every minute an AED is not used, survival rates drop 7-10% - This is why early public access to AED's is essential.

**[Cochraneemergencytraining.com](http://Cochraneemergencytraining.com)**

**[Cets.contact@gmail.com](mailto:Cets.contact@gmail.com)**

**[@cets.firstaid](#)**

*What to do if someone is unconscious:*

Yell for help

Call 9-1-1 and get an AED (or tell someone to)

Check for breathing

If the person isn't breathing or is only gasping begin CPR

Push hard and push fast on the lower half of the breast bone

Hands only or compression only CPR is acceptable if not trained in the 30:2 compression to respiration ratio or if uncomfortable giving rescue breaths.

Use an AED as soon as it arrives by turning it on and following the prompts

Keep doing chest compressions until the person either

- *starts to breathe*
- *starts to move or*
- *someone with more advanced training takes over*

An AED will re analyze/ re shock every 2 minutes

### **CETS AED Tips:**

- An AED will only shock if it detects a “shockable” cardiac rhythm, this means that if it detects a normal rhythm or no rhythm at all it will NOT shock.
- If AED says “Shock Not Advised” continue with CPR until help arrives, patient regains consciousness or you are physically unable to continue.
- It is very important that the pads are not touching. Child/Infant pads can be placed on the chest and back of the patient.
- You CAN use an AED on a pregnant patient
- You CAN use an AED on an infants and children
- An AED will analyze the patients heart rhythm every 2 minutes. Do not touch the patient while the heart rhythm is being analyzed or while the device is delivering a shock.
- Once Pads are applied DO NOT remove them even if patient regains consciousness. You may need to re-use them if patient goes into cardiac arrest again.
- DO NOT place AED Pads over any medication patches (nitroglycerin, nicotine, etc). Remove all medication patches prior to applying pads.
- AED’s can detect if the adhesive pad is not sticking and will instruct you to re-apply pads.
- AED’s are safe to use on individuals laying on snow, ice or small puddles
- Remember to remove hair or medical patches before applying pads in order to ensure proper adhesion to the skin
- Avoid placing and AED pad directly over an implanted pace maker
- Adult pads are safe to use on children/infants if no Child Pads are available

Resources:

<https://resuscitation.heartandstroke.ca/programs/aed/manufacturers>

<http://www.jems.com/articles/print/volume-41/issue-11/departments-columns/street-science/are-aed-shocks-safe-during-hands-on-compressions.html?c=1>