

# AED Defibrillation & CPR

## 1. AED DEFIBRILLATION

The use of an AED (Automated External Defibrillator) in conjunction with CPR can significantly increase the chance of survival from a cardiac arrest.

The delivery of a controlled shock from an AED within five minutes of cardiac arrest provides the best chance of survival. For every minute that passes without defibrillation the chance of survival reduces by 14%. (British Heart Foundation)



AEDs provide set by step guidance for their use and will only deliver a shock to the casualty if required. The machine is able to detect if there is a heartbeat present and if required, a controlled electric shock will be delivered automatically to aid the resuscitation of the casualty.

## 2. DANGER

### ASSESS THE SITUATION

Make sure that you and any bystanders are safe. You need to look for:

- + FALLING DEBRIS
- + TRAFFIC
- + VIOLENCE
- + FUMES/GASES
- + ELECTRICITY
- + FIRE
- + SPILT FLUIDS



**NB** If fire is present, activate the fire alarm immediately.

If any hazards are present, consider neutralising or containing them. Only consider removing the casualty if you cannot neutralise the hazards.

## 3. RESPONSE

### CHECK WHETHER THE CASUALTY IS CONSCIOUS

01. Ask "Open your eyes if you can hear me" and call their name if you know it.
02. Ask in both the casualty's ears to open their eyes.
03. Shake casualty's shoulders.
04. **DO NOT** move the casualty unless the environment or situation is dangerous.



## 4. SHOUT

### CALL FOR HELP

If alone call for help. If someone responds to your call ask them to stay with you whilst you assess the Airway and Breathing. One of you should wait with the casualty whilst the other calls the Emergency Medical Services (EMS).

**NB** If no-one responds, do not leave the casualty but go on to assess the airway and breathing.

### CALLING THE EMERGENCY MEDICAL SERVICES

01. Lift the receiver and wait for a dialling tone.
02. Dial 999 / 112 for the Emergency Services.
03. The operator will ask you which service you require. Once you have stated 'Ambulance' you will be connected to ambulance control. The operator will ask you a set of questions.



**DO NOT** hang up at any stage of the conversation. The operator will terminate the call when appropriate.

## 5. AIRWAY & BREATHING

### FOR AN UNRESPONSIVE CASUALTY

#### OPEN THE AIRWAY

01. Look in the mouth to ensure there are no obvious obstructions.
02. Open the airway by lifting the chin and tilting the head back. This will free the tongue from the back of the throat.
03. If neck/spinal injury is suspected, put one hand on the stomach to feel if it rises and falls. This indicates normal breathing.



#### IS THE CASUALTY BREATHING?

##### ASSESS FOR BREATHING

01. **LOOK** for the rise and fall of the chest.
02. **LISTEN** for sounds of breathing, near to the face. (Fig. 1)
03. **FEEL** for breath on your cheek.
04. Carry this out for up to 10 seconds.

##### BREATHING NORMALLY

- + If normal breathing is present, place the casualty in the recovery position.

##### NOT BREATHING NORMALLY

- + If alone Call 999 / 112 for the Emergency Services and fetch AED unit, if you have a helper ask them to Call 999 / 112 and to locate the AED Unit.

## 6. CPR

### Whilst you are waiting for the AED to arrive, start CPR.

01. Ensure the casualty is on a firm flat surface.
02. Place the heel of one hand on top of the other in the center of the casualty's chest.
03. Compress the chest (up to a maximum depth of approximately 5-6 cm). Give 30 chest compressions at the rate of 100 per minute. (Fig. 1)
04. After 30 chest compressions, open the airway again using head tilt/chin lift. (Fig. 2)
05. Seal the nostrils with your forefinger and thumb.
06. Blow steadily in to the mouth until you see the chest rise. Give 2 rescue breaths and return to the cycle of 30 chest compressions: 2 rescue breaths until the AED unit becomes available. (Fig. 3)



## 7. USING THE AED

If you have a helper, ask them to continue with chest compressions until you have prepared the AED.

#### Press the ON button of the AED

01. Ensure the leads for the Defib Pads are securely connected to the AED unit.
02. If a resuscitation kit is available, use the razor to remove any hair from the casualty's chest area.
03. If the chest is wet, use a towel or tissues to dry the area.
04. Remove the Defib Pads from their backing material. As shown on the pads, place them on the casualty's chest.
05. Ensure no one is touching the casualty as the AED analyses the casualty's heart rate. The AED will advise the action to be taken.
06. If a shock is required the AED will either instruct you to press the shock button on the AED (Semi-Automatic Unit) or the AED will deliver a shock to the casualty (Fully-Automatic Unit)
07. Re commence CPR as instructed by the AED.
08. The AED unit will continue to check for a heart beat, continue the cycle of CPR followed by the AED heart analysis; this process will be continually advised by the AED unit.

#### Only stop CPR if

- + The casualty show signs of recovery.
- + You are instructed to do so by the Emergency Services.
- + You become exhausted and unable to continue.
- + The situation changes and you are now in immediate danger.

