

# A.E.D Courses (Automated External Defibrillators)



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# What is an A.E.D.?

The initials A.E.D. stand for Automated External Defibrillator.

An AED is a small electric machine not much bigger than a sheet of A4 paper that is very lightweight and easy to transport.

The AED is a life-saving machine that seriously improves the chances of survival for those who suffer cardiac arrest.

The amazing thing is that the machine is extremely easy to use by lay persons even those who have no formal training in Basic Life Support.

P.F.E. studies (unpublished) have shown that both adults and children when tested with the use of an AED can deliver a therapeutic shock to a manikin within a matter of just a couple of minutes with no prior training and never having seen an AED before.

The AED works by giving the user voice prompts and telling the user what to do. Generally there are only two buttons to press one is the “On/Off” button and the other is the button to deliver the shock.

The AED is extremely safe to use and cannot cause any damage or injury to other personnel e.g. users, providing the voice prompts are followed exactly.

# Continued.....

AED's work by stopping the fibrillation of the heart. Fibrillation is a chaotic muscular reaction of the heart - sometimes referred to as "Heart Shaking" or "Heart Shivering".

This fibrillation is a useless activity of the heart and does not supply oxygenated blood to the body.

The AED will, by providing a shock to the heart, disrupt this abnormal rhythm by stopping the heart in the hope that the normal sinus rhythm of the heart will start spontaneously.

The AED provides the best chance of success when it can be used within the first 3 - 5 minutes of a heart attack having occurred.

# Some Frequently Asked Questions.....

## **Question:**

How long should it take to train people in CPR and the use of an AED?

## **Answer:**

The average length of an instructor-led course in Europe has been reported as 3 hours 15 minutes for CPR and 2 hours 45 minutes for use of an AED. There is, however, a move towards shorter courses and combining CPR and AED training in one session. Newer teaching techniques, particularly video-based self-instruction, appear to be effective and to reduce the time needed to acquire resuscitation skills.

For these reasons, it is not possible to recommend an optimum duration for a CPR/ AED course. The goal should be to enable all participants to achieve the learning outcomes recommended by the Resuscitation Council (UK).

## **Question:**

How often should people be retrained?

## **Answer:**

It is important that resuscitation skills are refreshed regularly, particularly by those who have a duty to respond in an emergency. The principle is that skills should be maintained at an effective level at all times. Individual employers and organisations should make arrangements for retraining to be available. The frequency of this refresher training will depend on the individual but, for guidance, skills should be refreshed at least once a year, and preferably more often.

## **Question:**

When should an AED be used out of hospital?

## **Answer:**

For out-of-hospital cardiac arrest, lay responders should start CPR as soon as the diagnosis is made, and attempt defibrillation as soon as an AED becomes available. Healthcare professionals should give about 2 min of CPR before attempting defibrillation (manual or AED), unless the arrest has been witnessed by them.

## **Question:**

Is it safe to defibrillate a victim if they are wet or lying on a wet surface?

## **Answer:**

Yes - in principle it is safe to defibrillate a victim who is wet or lying on a wet surface. If it is likely that you will be using the defibrillator in these conditions (for example at a swimming pool), it is recommended that the manufacturer / supplier be asked to confirm that their specific model is suitable for such use.

Appropriate safety precautions are required. The victim's chest should be dried so that the adhesive AED pads will stick and particular care should be taken to ensure that no one is touching the victim when a shock is delivered. As long as there is no direct contact between the user and the victim when the shock is delivered, there is no direct pathway that the electricity can take that would cause the user to experience a shock.

The above information has been taken from the U.K. Resuscitation Council's website which can be found at: [www.resus.org.uk](http://www.resus.org.uk)

# The Learning Outcomes for an AED Course:

On completion of training in the use of an AED the candidate should be able to demonstrate the sequence of actions and skills required to use an AED during the simulated resuscitation of an adult victim who has suffered a cardiac arrest. This should be assessed during or at the end of the training using a simulated incident and a resuscitation training manikin. Use of an AED consists of the following sequence of actions:

- 1 Check for risks to the victim, any bystanders, and yourself
- 2 Assess the victim to be unresponsive and not breathing normally
- 3 Send someone for the AED and to call for an ambulance
- 4 Start CPR
- 5 Switch on the AED and attach the AED pads
- 6 Follow the AED voice prompts
- 7 Ensure nobody touches the victim whilst the rhythm is being analysed
- 8 Deliver a shock to the victim safely
- 9 Perform CPR correctly according to voice prompts
- 10 Minimise interruptions in chest compression
- 11 Continue as directed by voice / visual prompts

# The A.E.D Course

Ideally this course should be renewed 6 montly to maintain skill retention and competency, but should not be renewed in excess of 12 months.

The course if delivered to competent First Aid qualified staff with in-date certificates should last no more than 2 hours.

Where CPR and AED training is required cistomers should allocate 4hrs for a group of 6 persons.

## **PRICE:**

The 2hr AED Course is £50 per person plus VAT (Minimum charge based on 6 candidates attending)

The 4hr AED Course is £65 per person plus VAT (Minimum charge based on 6 candidates attending)