

The use of Automated External Defibrillators

How Does An AED Work?

With voice prompts and pictures the AED guides rescuers through the resuscitation process, advising when to give CPR. If the AED determines the person's heart needs a shock, it tells rescuers to stand back so a shock can be safely given through the adhesive electrode pads affixed to the person's chest. (Note: Some AED models will tell the user to push a button to shock and then 'stand clear' of the victim, while others are fully automatic and will automatically give the shock after giving rescuers a 'stand clear' warning.)

An AED can be used safely and effectively without previous training. Therefore, the use of an AED should not be restricted to trained rescuers. However, training should be encouraged to help improve the time to shock delivery and correct pad placement.

When using an AED minimise interruptions in chest compression. Do not stop to check the victim or discontinue CPR unless the victim starts to show signs of regaining consciousness, such as coughing, opening his eyes, speaking, or moving purposefully AND starts to breathe normally.

Children (Always take advice from emergency services)

Standard AED pads are suitable for use in children older than 8 years. Special paediatric pads, that attenuate the current delivered during defibrillation, should be used in children aged between 1 and 8 years if they are available; if not, standard adult-sized pads should be used.

Sequence of actions when using an automated external defibrillator

The following sequence applies to the use of both semi-automatic and automatic AEDs in a victim who is found to be unconscious and not breathing normally.

Follow the adult BLS sequence. Do not delay starting CPR unless the AED is available immediately.

As soon as the AED arrives:

- If more than one rescuer is present, continue CPR while the AED is switched on. If you are alone, stop CPR and switch on the AED.
- Follow the voice / visual prompts.
- Attach the electrode pads to the patient's bare chest.
- Ensure that nobody touches the victim while the AED is analysing the rhythm.

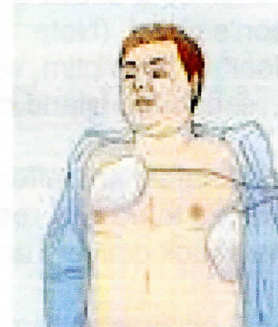
Placement of AED pads

The victim's chest must be sufficiently exposed to enable correct pad placement. Chest hair will prevent the pads adhering to the skin and will interfere with electrical contact.

Shave the chest only if the hair is excessive, and even then spend as little time as possible on this. Do not delay defibrillation if a razor is not immediately available.

Place one AED pad to the right of the sternum (breast bone), below the clavicle (collar bone). Place the other pad in the left mid-axillary line. It is important that this pad is placed sufficiently laterally and that it is clear of any breast tissue. Although most AED pads are labelled left and right, or carry a picture of their correct

placement, it does not matter if their positions are reversed. It is important to teach that if this happens 'in error', the pads should not be removed and replaced because this wastes time and they may not adhere adequately when re-attached.



If a shock is indicated:

- Ensure that nobody touches the victim.
- Push the shock button as directed (fully-automatic AEDs will deliver the shock automatically).
- Continue as directed by the voice / visual prompts.
- Minimise, as far as possible, interruptions in chest compression.

If no shock is indicated:

- Resume CPR immediately using a ratio of 30 compressions to 2 rescue breaths.
- Continue as directed by the voice / visual prompts.

Continue to follow the AED prompts until:

- qualified help arrives and takes over
OR
 - the victim starts to show signs of regaining consciousness, such as coughing, opening his eyes, speaking, or moving purposefully AND starts to breathe normally
OR
- you become exhausted.

Defibrillation if the victim is wet

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. Dry the victim's chest so that the adhesive AED pads will stick and take particular care to ensure that no one is touching the victim when a shock is delivered.

Minimise interruptions in CPR

The importance of early, uninterrupted chest compressions is emphasised throughout these guidelines. Interrupt CPR only when it is necessary to analyse the rhythm and deliver a shock. When two rescuers are present, the rescuer operating the AED applies the electrodes while the other continues CPR. The AED operator delivers a shock as soon as the shock is advised, ensuring that no one is in contact with the victim.