



Automated External Defibrillator & CPR

WHAT IS AN AUTOMATIC EXTERNAL DEFIBRILLATOR (AED)

An AED is a piece of equipment that, in cardiac arrest events, is attached to the person's chest and the technology analyses the heart to determine if a shock is required to attempt to restart it.

The machine looks to see if the patient is in either VT (ventricular tachycardia) or VF (ventricular fibrillation) or both. If these heart arrhythmias are found, the machine will provide a shock to the patient's heart. The shock will momentarily stop the heart function in the hope it will kick back in to a normal rhythm.

If a person is not in either of these two rhythms, the machine will not provide a shock. The machine cannot be misused.

The AED provides voice instructions on how to operate and includes additional support to both the patient and the rescuer:

- Can determine foreign pulses from implanted defibrillators and pacemakers
- Provides support for CPR including
- a metronome to keep CPR rate
- a timer for 2 minute cycles of CPR
- quality of CPR compressions (*not all models*)
- re-analyses heart every 2 minutes, in line with cycles of CPR

ZOLL AED Plus
Defibrillator



Heartsine 500P Defibrillator

The AED has a rescue kit with items that are required to use the machine. These include a razor (to minimise chest hair on males), gloves, face mask for CPR rescue breaths and scissors (to cut clothing).

It is important to understand that the AED is to be used in conjunction with CPR and does not replace a person doing CPR.

AEDs are fully mobile with their own battery unit and electrode pads. Both the battery and pads **MUST** be connected at all times. The machine will advise you when the pads and battery need replacement and if there are any systems issues.

AEDs are currently not mandatory in Australia although they form part of DRABCD.



WHAT IS EFFECTIVE CPR?

Early and effective CPR is vital in a person's ability to survive a cardiac arrest! It assists with both the flow of oxygen to vital organs and buys valuable time before the Ambulance arrives. CPR is considered more important in comparison to the AED.

Effective CPR is defined as:

1. 30 compressions : 2 Rescue Breaths OR Hands Only CPR
2. Compressions 1/3 depth of the chest (all ages)
3. 100-120 compressions per minute
4. CPR is physically tiring – rotate person doing CPR every 2 minutes



TRAINING

The AED has been designed to be used by everyday people and to be picked up and used effectively without any formal training. Training is important to understand the health issues and for practical experience to increase confidence to respond.

When purchasing a defibrillator, training is normally included in the package you purchase. The machine additionally is provided with operating manuals and manufacturers guidelines.

All accredited first aid courses include a component of CPR and the use of an AED. It is important for everyone to keep their skills up to date. The Australian Resuscitation Council recommends:

- HLTAID001 – Cardiopulmonary Resuscitation – Update every 12 months
- HLTAID003 – Apply First Aid – Update every 3 years

GOOD SAMARITAN ACT

It is important to know that any individual administering first aid in Australia is covered by the Civil Liabilities Act 2002, or more commonly referred to as the Good Samaritan Act. This includes the use of an AED.

Civil Liability Act 2002 No 22

Current version for 1 July 2015 to date

Part 8 Section 56

56 Who is a good samaritan

For the purposes of this Part, a good samaritan is a person who, in good faith and without expectation of payment or other reward, comes to the assistance of a person who is apparently injured or at risk of being injured

Part 8 Section 57

57 Protection of good samaritans

- (1) A good samaritan does not incur any personal civil liability in respect of any act or omission done or made by the good samaritan in an emergency when assisting a person who is apparently injured or at risk of being injured.
- (2) This section does not affect the vicarious liability of any other person for the acts or omissions of the good samaritan.