



Automated External Defibrillator (AED)



A cardiac arrest is when someone's heart stops pumping blood around the body.

Without intervention, brain damage will begin to occur in around four minutes. After ten minutes, survival is extremely unlikely.

Giving an electric shock through the chest wall, by using an AED is often the only way a person can recover from a cardiac arrest. This can be done in the ambulance, or at hospital, or it can be done by a member of the public at the scene of a cardiac arrest if there is an AED nearby.

Bystander Cardiopulmonary Resuscitation (CPR) and their use of an AED in the first few minutes can significantly improve the chance of survival. Defibrillation within three to five minutes can increase survival rates to 50-70%.

60,000

Every year, around 60,000 people in the UK will have an out of hospital cardiac arrest.

28,000

Resuscitation will be attempted by the ambulance service in around 28,000 cases.

10%

Less than 10% of these will survive.

Using an
Automated External
Defibrillator (AED)
increases the
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Community AEDs can be found both in small rural villages, as well as urban cities; in fact, they can be found just about anywhere there are people. They are funded by communities, sometimes with help from local and national charities.

- Available to the public 24 hours a day. Usually placed on the outside of a building.
- The AED is usually stored in an external cabinet (keypad operated) that keeps the unit above 5°C to maintain the battery.
- If there is a code to the cabinet, this is recorded on the national defibrillator network, The Circuit, to which all ambulance services have access via their Emergency Operations Centres.
- In the event of a life-threatening emergency, someone calling 999 will be advised if there is a community defibrillator within a 500m radius, given the code to open the cabinet, and asked if someone can retrieve it.
- We recommend that two community guardians are allocated to be responsible for checking both the cabinet and the AED on a weekly basis, and to work with us to reset post use.
- Where there are concerns around security, we suggest considering locations that are well lit and within sight of CCTV cameras.
- Most cabinets are made of either steel or a tough polycarbonate compound, which make them very secure.

Private AEDs are usually inside premises such as business, schools, sports centres, etc and only available during certain times, although we

would encourage owners to consider making their defibrillator available to the public by placing it in an external cabinet.

If the AED is accessible to the public only during certain times, you can register this availability with 'The Circuit', it all helps.

Training

The Resuscitation Council (UK) guidelines state that the use of defibrillators should NOT be restricted to trained personnel. AEDs can be safely used by untrained members of the public as the device guides you through exactly what you need to do. An AED will analyse the patient's heart rhythm and will only deliver a shock if the heart needs it, so you cannot hurt someone by using it.

Being aware that you can use a defibrillator and that it is easy and safe to do so, can speed up the time between turning the machine on and the first shock being delivered, if required. For this reason, we offer a free, two hour familiarisation session, for those purchasing a community AED.

Buying a Community AED can be daunting due to the many different makes and models available. Below is a table comparing two different models and the secured discounted prices. We can provide competitive quotes for **private AEDs** on request and with our technical knowledge and clinical experience, we can guide you through the purchase process.

Table below is for comparison only. VONNE Project will receive Zoll Cabinet and AED.

Feature comparable	Wel Medical iPad SP1	Zoll AED3
Automatic Self Tests		
Daily / Weekly / Monthly	✓	✓
Defibrillator		
Electrodes tested for presence	✓	✓
Electrodes tested for usability	✗	✓
Rescue ready indicator	✓	✓
Battery capacity gauge	✓	✓
Pad life indicator	✓	✓
Used pad detection	✓	✗
Child or adult - no need to change the pads	✓	✓
Audio and visual assistant prompts	Ambient noise detector (ideal for loud environments)	High resolution LCD screen with video imagery
Integrated pad storage	✓	✓
CPD detection (if someone is not doing CPR, the machine will prompt someone to start CPR)	✓	✓
CPR Feedback	✗	✓
Time to shock	8 seconds	>6 seconds
Internal memory capacity	15 hours	120 minutes
Data transfer method	IR / SD card	WiFi / USB
User reprogrammable	✓	✓
Fluid ingress protection	IP55	IP55
Identify fault when case is closed	✓	✓

Shelf life and warranty (prices for replacement equipment 2025)		
	Wel Medical iPad SP1	Zoll AED3
Pads shelf life (up to)	3 years	5 years
Battery warranty	4 years	>5 years smart battery
Machine warranty	7 years (10 years on registration)	6 years (8 years on registration)
10 year plan for pads and battery replacements	£528	£216
Estimated running costs		
Electricity (per annum) *	£15-30*	£15-30*

* Depending on the external temperatures, i.e. during prolonged cold periods the cost will increase.

Full details of the VONNE Project Zoll cabinet will be include with the procurement of each cPAD site.

The likelihood of causing harm by performing CPR or using an AED is very small.

We are not aware of any reported successful claims in the UK against a rescuer attempting to resuscitate someone having a suspected cardiac arrest.

The Resuscitation Council UK have published a guide to understand more about CPR, AEDs and the law in the UK, view it at www.resus.org.uk/library/publications/publication-cpr-aeds-and-law

For technical advice or support

Email first.responder@neas.nhs.uk

For sales and private AED quotes

Email commercial.development@neas.nhs.uk

Register your AED

Once it is installed you will need to:

- register your device on the circuit <https://www.thecircuit.uk/>, and
- contact volunteer.development.team@neas.nhs.uk to arrange your free familiarisation session.

**Spread the word by passing this leaflet on once you are finished,
we need your help to share this information. Let's make the
North East a region of life savers.**