



Automated External Defibrillator (AED)



Training and Consultancy. *ForLife*

For technical advice or support please email: firstresponder@neas.nhs.uk
For sales (inc private AED quotes) please email: commercial.development@neas.nhs.uk
Website: www.firstaidneas.co.uk

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A cardiac arrest is when someone's heart stops pumping blood around the body and they stop breathing normally. 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%.

Community AEDs

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 will be stored in a locked cabinet (keypad operated) that keeps the unit above 5°C to maintain the battery.
- The keypad code to open the cabinet is recorded by the North East Ambulance Service Emergency Operations Centre (999).
- 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

Many businesses, schools and sports centres have defibrillators on their premises. These are often located inside secured premises and do not usually need a cabinet with a keypad lock.

We would encourage businesses that own a defibrillator to consider placing it in an external cabinet to open up availability but we understand this is not always suitable. If you can only make your AED accessible to the public during certain times, you can register this availability with us, 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. An AED will analyse the patient's heart rhythm, and will only deliver a shock if the heart needs it, 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, and for a small charge we can offer this to those purchasing AEDs for private/ workplace use.

Legal concerns

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

At the time of print 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), who are responsible for developing and publishing evidence-based resuscitation guidelines in the UK, have published a user's guide if you wish to understand more:

www.resus.org.uk/cpr/cpr-aeds-and-the-law

Buying an AED

Buying an AED can be daunting due to the many different makes and models available. We have compiled a table comparing three different models. We have secured discounted prices, as shown in the table, for community AEDs and can provide competitive quotes for private AEDs on request.

We have the technical knowledge and clinical experience to understand your requirements, and guide you through the purchase process.

Feature	Wel Medical iPAD SP1	Cardiac Science Powerheart G5	Zoll AED 3
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)	Back lit text screen (with written instructions)	High resolution LCD screen with video imagery
Integrated pad storage	✓	✓	✓
CPR Detection (if someone is not doing CPR, the machine will prompt someone to start)	✓	✓	✓
CPR Feedback	✗	✓	✓
Time to shock	8 seconds	<10 seconds	>6 seconds
Internal memory capacity	15 hours	90 minutes	120 minutes
Data transfer method	IR/SD card	USB	WiFi/USB
User reprogrammable	✓	✓	✓
Fluid ingress protection	IP55	IP55	IP55
Identify fault when case is closed	✓	✓	✓
Shelf Life and Warranty (Prices for replacement equipment available on application)			
Pads shelf life (up to)	3 years	2 years	5 years
Battery warranty	4 years	4 years	>5 years smart battery
Machine warranty	7 years extended to 10 years upon registration	8 years	6 years extended to 8 years upon registration
Estimated Running Costs			
Electricity (per annum) *Depending on the external temperatures, i.e. during prolonged cold periods the cost will increase.	£15-30*	£15-30*	£15-30*
Total Price (AED and external cabinet)	£1,498 + VAT	£1,650 + VAT	£1,849 + VAT

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

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

Less than **10%** of these will survive.

British Heart Foundation and The Resuscitation Council (UK)



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If you opt for a community AED, once it is installed you will need to:

- register it via our website:
www.neas.nhs.uk/our-services/register-a-defibrillator.aspx, and
- contact **firstresponder@neas.nhs.uk**
to arrange your free familiarisation session.

Spread the word

Please pass 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.

By using an Automated External Defibrillator (AED) the chance of survival can increase significantly to **50-70%**.

An AED is easy to use and could be the best investment you ever make.

All prices correct as of October 2018. Please note prices are subject to change.

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