

North West Ambulance Service NHS

NHS Trust

Frequently Asked Questions on Defibrillators.

What does AED stand for?

Automated external defibrillator.

What is an AED?

An AED is a device that is used to deliver an electrical shock to a person's heart in cardiac arrest.

What is the difference between an AED and a defibrillator?

There is no difference.

What is Public access defibrillation (PAD)?

Public access defibrillation (PAD) is the term used to describe the use of AEDs in a public place. Higher survival rates are recorded where an AED was used quickly and without delay.

Is it law that you have to have an AED at work?

There is currently no legal requirement to have an AED in your workplace. However, having an AED available in a workplace, or a public place, significantly increases a person's chances of survival should they suffer a cardiac arrest. After a person has a cardiac arrest, every minute that passes without defibrillation reduces their chance of survival by 10%.

Are AEDs easy to use?

Yes. After turning on the AED (some turn on automatically when opened), the user is guided at every step by voice prompts and some AEDs have a visual display. The prompts will not move onto the next step until the required action has been completed.

Do I have to be trained to use an AED?

If an AED is situated in the workplace, people must be trained in its use as it is classed as workplace equipment. However, in an emergency, the UK Resuscitation Council states that untrained bystanders should not be discouraged from using the device. They are simple to use and cannot do any harm to the casualty.

Can AEDs be used on children as well as adults?

Yes, standard AEDs are suitable for use on children older than 8 years. In an emergency, an AED may be used on children as young as 1.

Can an AED be used when it is wet or raining?

Yes. The AED operator may need to dry the casualty's chest to ensure that the AED electrodes stick well and ensure a good electrical contact.

Can an AED be used on a pregnant woman?

Yes. The most important thing to do is assist the mother as the child will not survive otherwise.

Has anyone been sued for using an AED on a casualty who did not recover?

To-date, no one in the UK, USA or Australia has been successfully sued for using an AED on a person in cardiac arrest and failing to revive them.

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What if I use an AED and make things worse by shocking someone that does not need shocking?

It is impossible to shock someone that does not require it, as the AED only allows the operator to give a shock when the person's heart is not working properly, see figure below.



Are AEDs dangerous unless used by a medical professional?

No. An AED is designed to be used by anyone – even people who have never seen or used one before.

Should an AED be kept in a locked cabinet?

Bringing an AED to the casualty as quickly as possible is the priority – so the AED should be readily available. However, alarmed cabinets may be advisable for locations where security is an issue

What is the difference between a heart attack and cardiac arrest?

Normally, a person having a heart attack is conscious and their heart is working well enough at that moment to sustain life. A person in cardiac arrest is unconscious and is either not breathing at all or not breathing normally.

Could I kill someone if I try to use an AED?

No. A person in cardiac arrest is already clinically dead. Early cardiopulmonary resuscitation (CPR) and early use of an AED significantly increases their chances of survival. The instigation of this sequence of events is known as the 'chain of survival'. An AED will not allow a shock to be given to someone unless they are in cardiac arrest.

One of my employees has used an AED on a person and feels affected by it. Who can we speak to for support?

A person who has used an AED can be referred to an organisations occupational health department if this service is available, or they can make an appointment with their own general practitioner. A debrief may also be available from your local ambulance service.

How would I know if there was a problem with the AED?

All AEDs self-test on a daily, weekly or monthly basis – so if there was a problem the device would signal to indicate what the problem was, e.g. pads not correctly connected, low battery etc. AEDs also run through a self-test when activated prior to use.

Can pads be reused?

No, pads are single use only.

How would I dispose of used/old batteries?

All batteries should be disposed of safely (not in household waste). Contact your local council for advice on the safe disposal of used batteries or the AED manufacturer for assistance.

Is there a memory chip inside an AED and if so what does it record?

AEDs will record the incident on a memory chip/module. The information collected is the heart rhythm at the time the pads were placed on the chest, if the patient was shocked, and the result of the shock being delivered. This information can be downloaded following the event. The information can then be used by relevant bodies, such as the British Heart Foundation, as part of their research programmes and for statistical evidence of the effectiveness of AEDs.