



Automatic External Defibrillator Use and Access Policy

Danes Hill School & Bevendean

An AED is a machine used to give an electric shock when a person is in cardiac arrest, i.e. when the heart stops beating normally. Cardiac arrest can affect people of any age and without warning. If this happens, swift action in the form of early cardiopulmonary resuscitation (CPR) and prompt defibrillation can help save a person's life.

Cardiac Arrest

Cardiac arrest is when the heart stops pumping blood around the body. It can be triggered by a failure of the normal electrical pathway in the heart, causing it to go into an abnormal rhythm or to stop beating entirely. Oxygen will not be able to reach the brain and other vital organs. When a cardiac arrest occurs, the individual will lose consciousness and their breathing will become abnormal or stop. If basic life support is not provided immediately, the chances of survival are greatly reduced. Cardiac arrest can happen at any age and at any time. Possible causes include:

- heart and circulatory disease (such as a heart attack or cardiomyopathy)
- loss of blood
- trauma (such as a blow to the area directly over the heart)
- electrocution
- sudden arrhythmic death syndrome (SADS; often caused by a genetic defect)

When a cardiac arrest occurs, cardio-pulmonary resuscitation (CPR) can help to circulate oxygen to the body's vital organs. This will help prevent further deterioration so that defibrillation can be administered.

Automated External Defibrillators (AEDs)

An AED is a machine used to give an electric shock when a person is in cardiac arrest, i.e. when the heart stops beating normally. Cardiac arrest can affect people of any age and without warning. If this happens, swift action in the form of early cardiopulmonary resuscitation (CPR) and prompt defibrillation can help save a person's life.

Research has shown that an individual's chance of survival following the onset of a cardiac arrest decreases by 7–10% for every minute of delay in commencing treatment. Lack of blood circulation for even a few minutes may lead to irreversible organ damage – including brain damage. Early intervention by bystanders, even those with little or no first aid training, can therefore buy time until professional help arrives, improving the chance of a successful outcome.

Modern AEDs are inexpensive, simple to operate and safe for users. The AED will analyse the individual's heart rhythm and apply a shock to restart it, or advise that CPR should be continued. Voice and/or visual prompts will guide the rescuer through the entire process from when the device is first switched on or opened. These include positioning and attaching the pads, when to start or restart CPR and whether or not a shock is advised.

Location of AEDs – See Appendix 1

1. **The Link** (next to the main entrance doors): ext. 235 – School Nurses to check.
2. Outside Wall of **Pavillion**: Cabinet Code C999 or dial 999 (registered with ambulance service) ext. 235 – School Nurses to check. Available 24/7.
3. Outside wall of **Arbrook Farm** block. : Cabinet Code C999 or dial 999 (registered with ambulance service) ext. 235 School Nurses to check. Available 24/7.
4. The **Swimming Pool** office: ext. 230– Swimming teacher to check.
5. **Bevendean entrance hall**: ext. 301- Bevendean Office staff to check.
6. **Portable AED** @ Bevendean (Ground floor corridor near disabled toilet/ staffroom staircase) to take to the Paddock : Ext 301 Designated member of staff to check.

School Responsibilities

The School will ensure that there are:

- A reasonable number of trained AED/CPR trained personnel in the school
- AEDs are located strategically to ensure that they can be accessed quickly in an emergency
- Periodic checks are done, by designated people, to better ensure safe and continuous operability and access to the AED. These checks shall include but not be limited to:
 - ✓ A daily visual check of the machine showing the correct symbol/lights (varies for each machine)
 - ✓ A monthly check of pads and batteries for expiration dates and supplies and operation of the AED as per the manufacturer's guidance. Also that signage is in place.
 - ✓ A record will be kept that this has been done.
 - ✓ All cabinets and wall brackets will be clearly marked using a standard sign for AEDs and a School map shows the location of AED's (Appendix 1)



Training

- AEDs are designed to be used by someone without any specific training and by following step-by-step instructions on the AED at the time of use. Therefore the School AEDs can be used by staff, parents or members of the public on-site, if indicated.
- The School ensures that an adequate number of qualified First Aiders are available across the site as well as a fully equipped Medical Centre with two registered nurses covering 0800-1730 Monday to Friday.
- All staff can also access the CPR/AED training video on the VLE under the Medical section.

Using the AED

In the event of a cardiac arrest, defibrillation can help save lives, but to be effective, it should be delivered as part of the chain of survival.



There are four stages to the chain of survival, and these should happen in order. When carried out quickly, they can drastically increase the likelihood of a person surviving a cardiac arrest. They are:

1. Early recognition and call for help. Dial 999 to alert the emergency services. The emergency services operator can stay on the line and advise on giving CPR and using an AED.
2. Early CPR – to create an artificial circulation. Chest compressions push blood around the heart and to vital organs like the brain. If a person is unwilling or unable to perform mouth-to-mouth resuscitation, he or she may still perform compression-only CPR.
3. Early defibrillation – to attempt to restore a normal heart rhythm and hence blood and oxygen circulation around the body. Some people experiencing a cardiac arrest will have a ‘non-shockable rhythm’. In this case, continuing CPR until the emergency services arrive is paramount.
4. Early post-resuscitation care – to stabilize the patient.

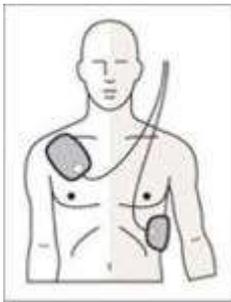
Anyone is capable of delivering stages 1 to 3 at the scene of the incident. However, it is important to emphasize that life-saving interventions such as CPR and defibrillation (stages 2 and 3) are only intended to help buy time until the emergency services arrive, which is why dialing 999 is the first step in the chain of survival. Unless the emergency services have been notified promptly, the person will not receive the post-resuscitation care that they need to stabilize their condition and restore their quality of life (stage 4).

The chain as a whole is only as strong as its weakest link. Defibrillation is a vital link in the chain and, the sooner it can be administered, the greater the chance of survival.

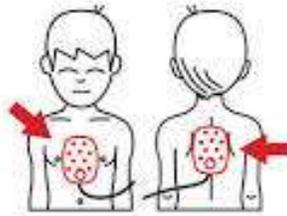
Sequence of actions when using an AED

1. Make sure the victim, any bystanders, and yourself are safe. If two rescuers are present, assign tasks.
2. If the victim is unresponsive and not breathing normally:
 - Send someone for the AED and to call for an ambulance.
 - If you are on your own do this yourself; you may need to leave the victim.
3. Start Basic Life Support according to guidelines.
4. As soon as the AED arrives:
 - Place the AED near the casualty's head and switch on the AED.
 - Expose the casualty's chest (Open/cut off clothing and shave if chest very hairy.) Attach the age appropriate electrode pads, (see below). If more than one rescuer is present, continue CPR whilst this is done.
 - Follow the voice/visual prompts.

- Ensure that nobody touches the victim whilst the AED is analyzing the rhythm.
5. If a shock is indicated:
 - Ensure that nobody touches the victim.
 - Push the flashing shock button as directed.
 - Continue as directed by the voice/visual prompts
 6. If no shock is indicated:
 - Immediately resume CPR using a ratio of 30 compressions to 2 rescue breaths.
 - Continue as directed by the voice/visual prompts
 7. Continue to follow the AED prompts until:
 - Qualified help arrives and takes over
 - The casualty start 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.
 - If certain the victim is breathing normally but is still unresponsive, place in the recovery position.



Adult Pad Placement



Child Pad Placement-under 8 or below 25kg

Special Circumstances

- If the casualty is in water, move to a dry surface and dry chest.
- If there is a lump/bump (implanted pacemaker) do not place pad over the area.
- In the case of a medication patch in the area, remove it and wipe the skin.

Post-incident Procedure

- The School Nurses, or a designated employee, should conduct an employee incident debriefing and document on an accident form as indicated by School policy. Assisting an individual who has suffered a cardiac arrest can be a stressful experience for the rescuer. Should a rescuer need support after an incident, they may also be able to request a debriefing from the local ambulance service
- Most AEDs will store data, which can subsequently be used to assist with ongoing patient care. Schools should therefore contact the local ambulance service after an AED has been used and make arrangements for the data to be downloaded. In the meantime, the AED may still be used if required, but care should be taken not to turn it on and off unnecessarily as this could potentially erase the data.
- A designated employee should check the AED, restock the supplies immediately after the event and perform the after-patient-use maintenance on the AED.

Policy created: 10 January 2019, reviewed September 2019 ADC

Date of next review: February 2020



