

FIVES AND HERONIANS CC

Using the

A.E.D.

A guide



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BACKGROUND

Fives have purchased an Automated External Defibrillator (AED or 'Defib') to keep at the Clubhouse. The sincere hope is that it will never be used however, recent events involving a number of top sportspeople (Fabrice Muamba, James Taylor etc.) have highlighted that anyone can, at any time, suffer heart conditions that may require life saving interventions. As such it was considered that it would be better to have one ready just in case!

This guide has been produced to allow all club members to become familiar with the Defib and to feel confident using it should the need arise.

Note that for those that play at Old Chigs or Chigwell School, defibrillators are also available at a variety of locations around the school and may be available at other clubs - it is always worth being aware of their location!

Please note, the contents of this guide are not a substitute for full first aid training.

If you require any further information please contact the Club Welfare Officer Mark Sayers on 07878 462247.



WHAT IS AN AED?

- An AED recognises abnormal heart rhythms
- If detected, the machine will provide a shock to the heart to clear the electrical pathways
- The hope is, once the pathways are clear the heart will be able to resume normal control of the muscles



WHAT'S IN THE BAG?

The main bag contains the defibrillator and one set of adult pads

Child pads are in the storage rack above the AED

Attached to the carry handle is a separate bag containing -

2 sets of disposable vinyl gloves for protection

1 reusable mouth barrier mask with valve and filter - use if you are confident in doing so

1 disposable razor - it will only be necessary to shave the area the pads attach to if the casualty is particularly hirsute

1 disposable anti-microbial wipe

1 pair of trauma scissors for removing clothing



THE HEART

The heart is the first organ to develop in the womb and starts pumping before you even have blood. The heart has over 50,000 independent neurons which are capable of initiating the signals that cause the heart muscles to contract - forcing blood around through the valves.

Blood first goes to the lungs where it collects oxygen then back to the heart before being sent around the rest of the body to supply the oxygenated blood together with everything else it collects to the tissues that need it.

The pumping action is created as the 'nodes' fire messages along the conduction pathways which cause the muscles to contract and relax. No heartbeat is entirely regular as the body adjusts the quantity of blood and oxygen that is required depending on a huge number of criteria - faster heartbeats when exercising or emotionally stimulated, slower when resting.



HEART RHYTHMS

The normal heart beat is known as Normal Sinus Rhythm (NSR). Each individual has their own normal resting heart rate. This can range from 40-120 beats per minute (bpm) for an adult although the average is 60-80. Child rates reach up to 180 for infants (under the age of one) 150 up to the age of three, 130 between the ages of 4-10.

Various other elements can affect these rhythms. In certain situations, abnormal rhythms can require urgent medical attention.



NSR



VENTRICULAR TACHYCARDIA

Ventricular Tachycardia (VT) occurs when the heart is essentially beating too quickly, the muscle contractions force blood out of the heart but do not allow the heart to refill before squeezing again. Note the image below shows a heart beat of 190 - 210 bpm. The loss of circulation is an urgent life threatening condition if untreated and can quickly lead to Ventricular Fibrillation.

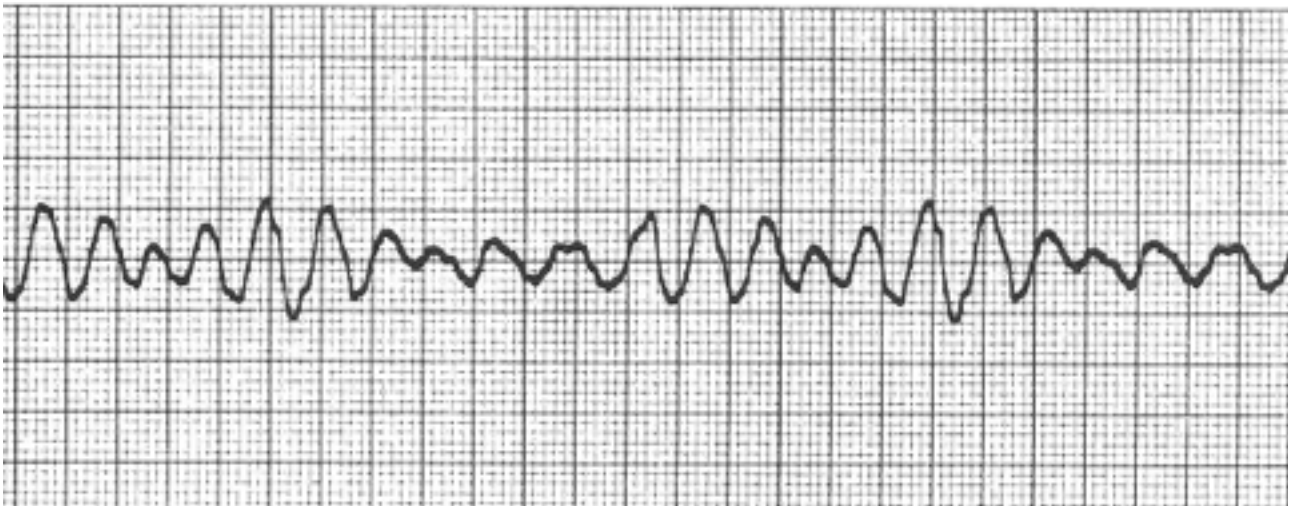


V.T.



VENTRICULAR FIBRILLATION

Ventricular Fibrillation (VF) occurs when essentially each bit of the heart is doing it's own thing and as such, the heart is more quivering than beating. The lack of pressure built up in the heart results in a lack of blood flow and, without urgent intervention, death.



VF



THE CHAIN OF SURVIVAL

RECOGNITION



CPR

DEFIBRILLATION



ADVANCED CARE



THE CHAIN OF SURVIVAL

Essentially the sooner emergency aid can be given, the greater the chance of survival. The chain of survival illustrates the four factors that must be implemented as soon as possible.

Recognition - As soon as an individual is recognised as unconscious and non-breathing someone should be nominated to call an ambulance and to fetch the defibrillator.

CPR - Whilst the casualty is unconscious and not breathing, oxygenated blood is not reaching their vital organs and, as such, they are deteriorating rapidly. CPR will maintain blood supply to those organs and will buy time - preventing deterioration until further assistance can be provided. Early CPR alone can double a person's chances of survival.

Defibrillation - Every minute that an individual awaits for defibrillation reduces their chances of survival by 10%. Early defibrillation can restore heart rhythm.



RECOGNITION

On discovering a casualty the first checks are DRAB -

D - DANGER

The safety of all others has to be considered first - no more casualties should appear!

R - RESPONSE

Call to the casualty, give an instruction - look for any signs of response such as eyes flickering or noises.

A - AIRWAY

Lift the chin. One hand should rest on the forehead whilst you lift the chin with two fingers to open the airway.

B - BREATHING

Look, Listen and Feel for breathing for up to 10 seconds. Ensure your face is close to their mouth which will allow you to look down their chest for signs of breathing movements, listen for the sounds of breathing and feel for breath on your cheek.



CALL 112 OR 999

Help is needed! Call 112 or 999 and ask for an ambulance. Inform the operator that you have an unconscious, non-breathing casualty. This will immediately ensure the quickest possible response.

They will need the full details of the location - Fives and Heronians Cricket Club, The Paddock, Green Lane, Chigwell, Essex, IG7 6DN. Due to the nature of the address, it may be worth informing them of some extra details such as highlighting the unmade road, the white gates etc. If people are available, send someone to the end of the lane to direct the ambulance. Inform the ambulance that a defibrillator is on site.

The operator may stay on the line to give further assistance and advice or to gather more information.



START CPR (ADULT)

Cardio - Pulmonary - Resuscitation (CPR) is the method of manually compressing the heart to maintain blood flow and the provision of sufficient oxygen to the lungs through mouth to mouth breathing.

If you have never practiced CPR in a training environment or do not feel confident in doing so, hands only CPR may be applied. This is not as effective as full CPR but still gives the individual a chance of recovery.

Place the heel of your hand into the centre of the casualty's chest, place your other hand above and lift your fingers away from the casualty. With your shoulders directly above the casualty rock/push straight downwards using your bodyweight approximately 5-6cm. Release the pressure allowing the chest to return to its original position whilst remaining in contact. Repeat these compressions at the rate of 100-120 beats per minute.

If trained or confident to do so - complete rescue breaths at the rate of 30 compressions to 2 breaths



START CPR (CHILD)

Procedures differ slightly for children. First aid procedures are based on ages and development. Anyone over the age of puberty is classed as an adult. Between the ages of one and puberty is classified as a child. Below the age of one is classed as an infant.

A child is less likely to have suffered an immediate cardiac arrest therefore the initial procedures differ. If you are alone, one minute's worth of CPR would be given before leaving the child to call for an ambulance. The early CPR stands a reasonable chance of success.

Five initial rescue breaths should be given before starting chest compressions. For an infant, your mouth should make a seal over their mouth and nose, for a child their nose should be sealed as with an adult. Blow steadily into the mouth for one second - check that the chest rises visibly. Take your head away to observe the chest falling then repeat.

Chest compressions are given at the same rate as for adults but for an infant you should use just two fingers, pushing 4cm, for a child one hand pushing 5cm.



APPLY THE AED

As soon as it arrives, place your defibrillator near the victim and on the side next to you. Press the ON/OFF button to open the lid and turn on your defibrillator. Remain calm. Your defibrillator will guide you through the defibrillation process.

Separate pads are available for children (these are kept in the rack above the defibrillator). The instructions below apply to the adult pack. Variations for small children are noted below.

Expose the victim's chest. Use the scissors to cut away all clothing from the chest area.

If the chest is excessively hairy, quickly shave the area where you will place the pads.

If the chest is dirty or wet, wipe the chest clean and dry.

If there are medicine patches on the victim's chest, remove them together with any jewellery items that may attract electricity.



USING THE DEFIBRILLATOR

Hold the left side of the electrode packet with one hand and pull the red packet handle down with the other. The electrode packet tears open.

Tear open the packet completely to remove the pads. A small piece of the packet will remain attached to the defibrillator.

Separate the electrode pads, one at a time, from the blue plastic. Use these pads on adults or children 8 years of age or more, who weigh 25 kg (55 lb) or more. Apply the electrode pads to the victim's bare chest (exactly as shown in the picture on the pads). Be sure to press firmly so that the pads completely adhere to the victim's chest.

WARNING!

If you cannot determine a child's age or weight, or if special infant/child electrodes are not available, proceed with the existing electrode pads, and continue on to the next step.

Note: Be sure you do not place the electrode pads over an implanted device such as an implanted pacemaker or ICD. An indication of an implant is a protrusion in the chest skin and a scar. If you are in doubt, apply the pads as shown on the labels.



USING THE DEFIBRILLATOR CTND.

Listen to the voice instructions and do not touch the victim unless instructed to do so.

If the defibrillator heart rhythm analysis determines that a shock is needed, the defibrillator will announce PREPARING TO SHOCK, and then instruct you to PRESS FLASHING BUTTON to administer a shock.

Do not touch the victim while a shock is delivered.

Do not remove the pads or disconnect them from the defibrillator until emergency medical personnel arrive. If the victim starts moving, coughing, or breathing regularly, place the victim in the recovery position and keep him or her as still as possible.

If no response is detected continue with CPR and listen to the AED for further instructions. The AED will continue to carry out the shock process every two minutes.

Without removing the electrode pads from the victim, Paramedics can disconnect the electrode pads from the defibrillator and reconnect them to their defibrillator.



AFTERMATH

The use of CPR and defibrillation is likely to be an emotional event. Whether it is successful or not it is important to consider the effect it will have on both participants and witnesses. Unfortunately anyone requiring CPR and defibrillation has suffered from a serious event and survival can not be guaranteed. Do not be afraid to seek assistance after the event and to discuss any feelings you may have.

Help -

CRUSE Bereavement Care ☎ 0808 808 1677

Samaritans ☎ 116 123

Or contact your local GP



DANGER.

RESPONSE.

AIRWAY.

BREATHING.



NO



CALL 112/OR 999



**SEND FOR THE DEFIB AND
START CPR**



**WHEN DEFIB ARRIVES
OPEN IT AND FOLLOW
THE COMMANDS**







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