

The Basic Life Support Handbook





A note to the Reader

Thank you for downloading this manual. It covers the basics to deal with Basic Life Support and can act as a refresher for those with existing training.

Did you know that an estimated 565,000 workers in Britain sustained an injury at work in 21/22 and over the last five years 644 workers were killed at work. The estimated cost to business per year is £18.8 billion.

The Health and Safety (First Aid) Regulations 1981 require all employers to make arrangements to ensure their employees receive immediate attention if they are injured or taken ill at work.

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Thank you.

A note on content

The pages of this book are taken from our training courses, so you can see the quality of our resources. On completion of the course, a download of the entire manual is available, courtesy of ProTrainings, one of our awarding bodies.

Having a manual is an aid or a refresher to existing knowledge, but not a substitute for training.

For you training needs, please to contact us for a chat about where we can help you with compliance and having trained staff to deal with emergency situations.

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Asking Permission to Help

One simple way of protecting yourself against the fear of possible legal action is to obtain the patient's permission by saying: "Hi, my name is Keith. I am a first aider. May I help you?".

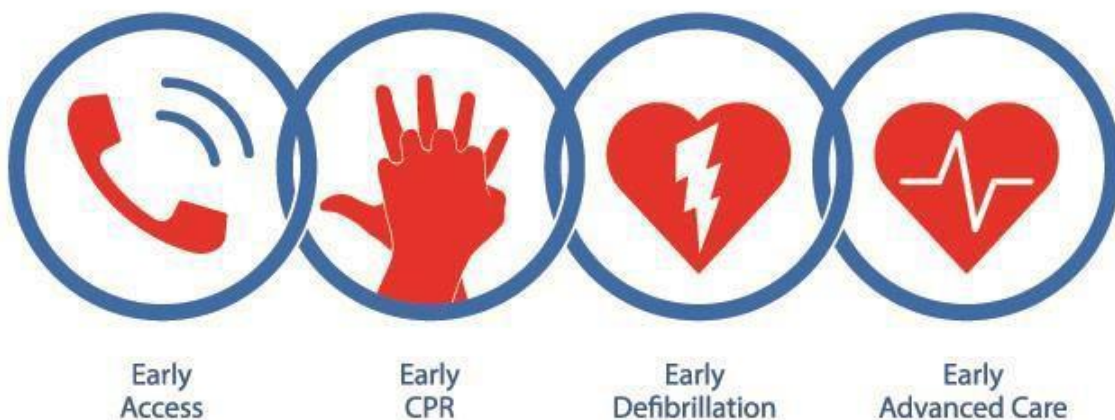
A conscious patient may answer verbally, by nodding or maybe offering up his injured limb to you. All of these can be taken as gaining the person's consent.

With an unconscious casualty, they cannot give you permission to help. However, consent can be assumed to have been given as the patient is likely to have asked for help if they were conscious. You should still ask the person and introduce yourself, but when they cannot answer you can still help. Keep talking the whole time you are helping, as the hearing is the last thing to go and the first to come back.

If someone refuses your help and you are not able to help them, you can still assist by calling the EMS, referring to bosses or family members and trying to reassure them.

As a first aider in the workplace, you may have a duty of care. In these cases, the casualty will usually have to come to you for your help.

Chain of Survival



The chain of survival concept is designed to show you your role in an emergency procedure. Following each link in the chain in the correct order can greatly increase the patient's chances of survival.

Remember the links in the chain are **Early Activation of the Emergency Services**, **Early CPR**, **Early Defibrillation** and **Early Advanced Life Support**. The first aider carries out the first two links and often the third AED link, but if help is not called for then the final link will not arrive.

Scene Safety

Make sure you keep yourself, bystanders and the patient safe when approaching the scene of an accident. Always remember to stop, think, then act. Check for anything that may be a danger, such as broken glass, body fluids, electricity, gas or traffic. Remember that scene safety is your primary concern.

Check the Scene

Key questions to ask:

- Is it safe for me to help?
- What happened?
- How many patients are there?
- Am I going to need to call EMS?
- Do I have any personal protective equipment on and ready to use?
- Is there an AED available?



Check the patient

If it is safe to help, check the patient.

Tap the patient and introduce yourself. If there is no response, activate EMS. To activate EMS, Call 999 or 112.

IF PATIENT NOT BREATHING AND YOU ARE ALONE, PHONE FIRST – Then start CPR, do not leave patient to go looking for an AED, the EMS will bring one.

IF PATIENT NOT BREATHING AND YOU ARE NOT ALONE - send someone to call the EMS and get the AED, make sure they know the location, what has happened and how many people are involved.

Tell them to come back to you and tell you what the EMS has advised.

When you call the EMS, they will be able to give you any advice and support that you need. Work out how to use speakerphone or hands free with your phone so you can deal with the patient while getting advice.



Dial 999 or 112

The ABCD's

The ABCD's concept is designed to give the first aider a guide to what to do first in a first aid emergency, and to show all the primary care and life-threatening conditions.

A - Airway - open the patient's airway by moving the tongue from the back of the throat, which often blocks breathing.

B - Breathing - check for breathing for up to 10 seconds.

C - Circulation - if they are not breathing, administer CPR.

D - Defibrillation - where there is no circulation, use defibrillation to administer an electric shock. This interrupts a cardiac arrest and should allow the heart to start again.

S - Serious bleeding, Shock and Spinal injury - once ABCD's are ok, we move on to these. All these will be covered in our course.

Before entering into a rescue scene, the rescuer should perform an initial assessment to ensure that the scene is safe. Next, personal protective equipment should be worn to protect the rescuer before beginning to help. If alone, the rescuer may need to put the patient in the recovery position, if they are breathing, while leaving to contact EMS. If the patient is not breathing, then perform CPR. The recovery position allows the patient to breathe easily, stay safe, and it takes away the risk of them choking if they vomit.

Barriers – Gloves and Face Shields

The fear of infection may deter some people from providing emergency first aid. Effective use of barriers, including gloves and face shields, protect both you and the patient from the risk of infection. There are special rules in some workplaces for the correct disposal of gloves and other infected materials, so it is best to check your local guidelines.

There are many types of face mask, such as pocket masks or key fob masks. They come in different packages but are all basically the same. The BSi HSE first aid kits in the work place now contain a face mask.

Always use a barrier when dealing with any first aid emergency



Recovery Position

Check that there are no injuries that could be made worse by moving the patient and place them carefully on their side using the recovery position. Monitor their vital signs and keep them warm and comfortable until the EMS arrive.

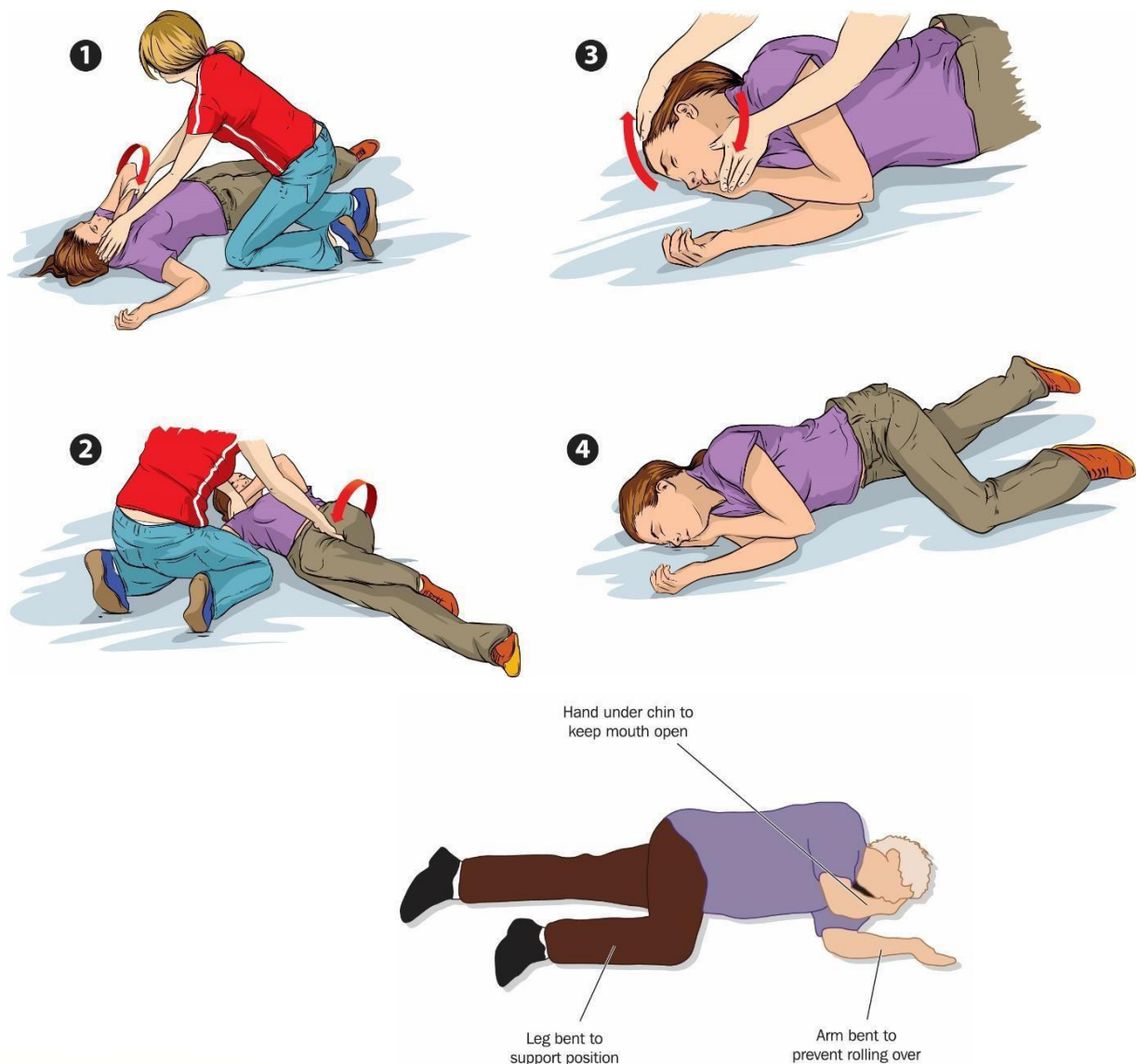
If you suspect spinal injury and the patient is in no immediate danger, do not move them. If you have to move them on to their side, as you have to leave them to get help or they start to vomit, then use the recovery position.

First aid is to prevent the patient getting worse and this can be done with some simple easy skills that will be learnt on the course.

P - Preserve Life

P - Prevent Deterioration - stop the situation getting worse

P - Promote Recovery



Heart Attacks

Heart attacks are caused by a blockage in the heart, starving it of blood and oxygen. The blockage can be in the form of narrowing, plaque, clots or a muscular spasm, and can be fatal. Heart attack is the most common form of death in the UK.

Sudden cardiac arrest is when the heart stops, but a heart attack is when the heart is in major trauma. It could stop at any time.

A big problem is that the patient often will not accept that they are having a heart attack and this delays the treatment.

Symptoms

- Crushing pain in the centre of the chest, with pain radiating between the abdomen and jaw, possibly down one arm
- Laboured breathing
- Rapid or irregular pulse
- Nausea/vomiting
- Pale, cold and clammy skin
- Grey/blue appearance
- Feeling of chronic indigestion

Treatment

- Calm the patient and place them in the "W" position, with head and legs raised
- Alert EMS
- Monitor the patient's ABCs
- Loosen clothing
- Be prepared to begin CPR if the patient's condition worsens

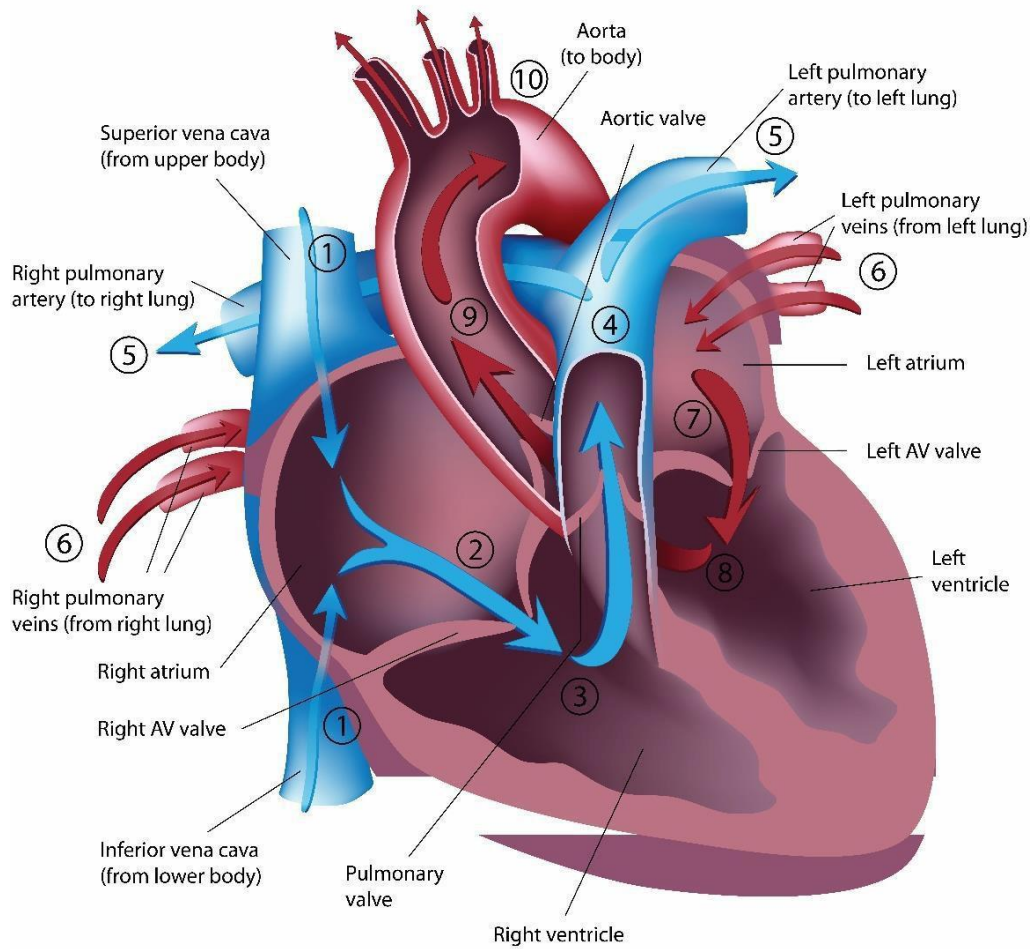
Aspirin

Give 300mg tablet to the patient for them to take. They must chew the tablet, not swallow it, as this helps the body to absorb it more quickly. The Aspod holds two Aspirin safely anywhere you go and is available from your ProTrainings dashboard.

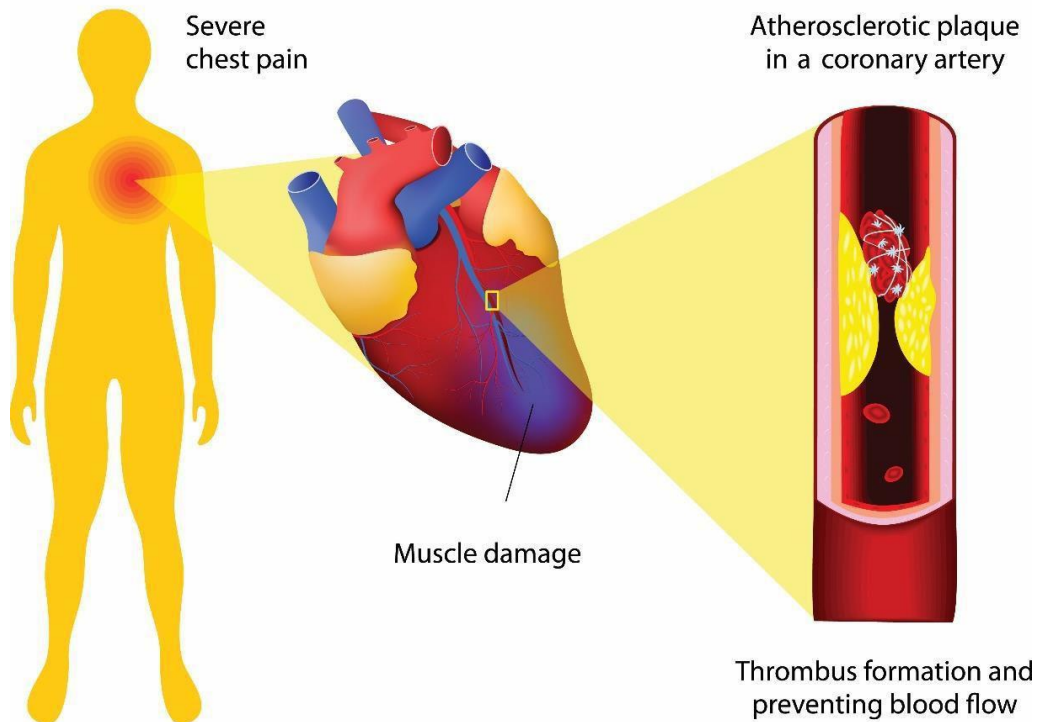


ASP-D[®]
There when it matters

The pathway of blood flow through the heart



Heart Attack



Adult CPR

Adult CPR is performed once you have checked for patient responsiveness and checked for breathing for up to 10 seconds. If the patient is not breathing, activate EMS, perform 30 compressions at a rate of 100 to 120 compressions per minute at a depth of 5-6cm in the centre of the chest. Compressions should be the same speed on the push and the release and in a regular interval. Full recoil of the chest is vital to allow the heart to fill with blood.

These 30 compressions should be followed by two rescue breaths. Before carrying out the rescue breaths, make sure the airway is open by titling the head back, lifting the chin and squeezing the soft part of the nose. Then seal your mouth over the patient's and blow gently for about one second, you will see the chest rise. Breaths can be delivered as mouth to nose by sealing the mouth or mouth to tracheostomy if they have a Stoma in their neck.

Repeat the cycle until an AED or EMS arrives. Do not waste time between the compressions and the breaths. There should be only a 5-10 second break in giving the compressions with a maximum of 10 seconds to avoid delays in compressions. It is vital to keep the oxygen-rich blood pumping around the body, which is why compressions are so important.

CPR Handover to a Second Rescuer

Providing CPR can be exhausting and it may become less effective as you grow more tired. Where possible, it is best to share the work with another rescuer. It is not important if the other person is CPR trained as you can tell them what to do. The rescuer tells the other person what to do while he is doing the chest compressions and then while he does the breaths the second rescuer gets ready. On completion of the breaths, the second rescuer takes over.

It's a good idea to try to swap over every two minutes. If you become tired and no one is there, consider just doing chest compressions to have a rest from the breaths.

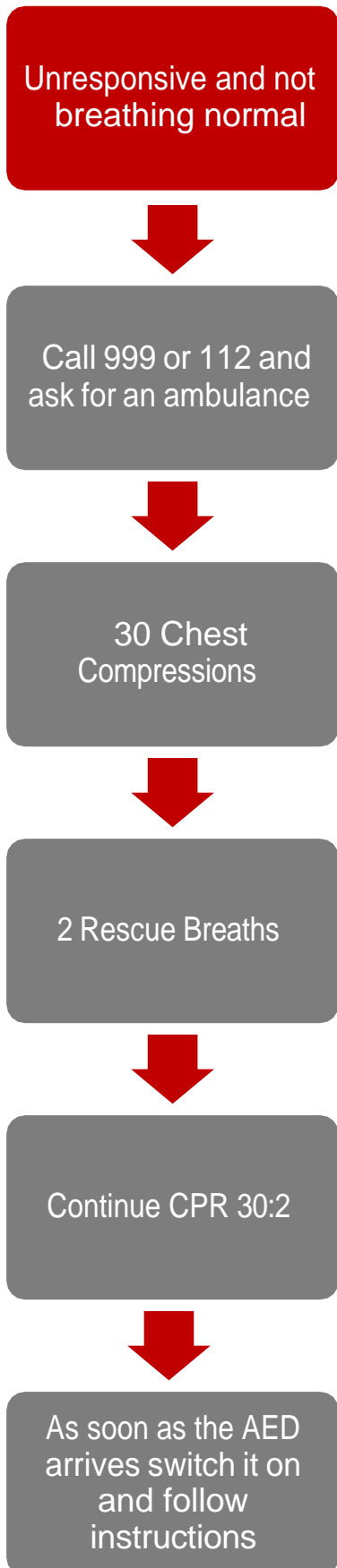
Hands-only CPR

Hands-only CPR helps encourage lay rescuers to get involved who may not otherwise help. Many people are reluctant to give the breaths and this is one reason why people do not perform CPR. With this new technique, blood is circulated around the body, oxygenating the body's tissues and organs.

The rescuer delivers 5-6cm deep compressions at a rate of 100 to 120 compressions per minute without the need to deliver rescue breaths. Hands-only CPR eliminates the fear of transmitting disease by removing the mouth-to-mouth component of CPR.

It is still advised that you hand over to a second rescuer every two minutes to ensure that the best possible compressions are given before the AED or EMS arrives.

First Aid Flowchart



Drowning

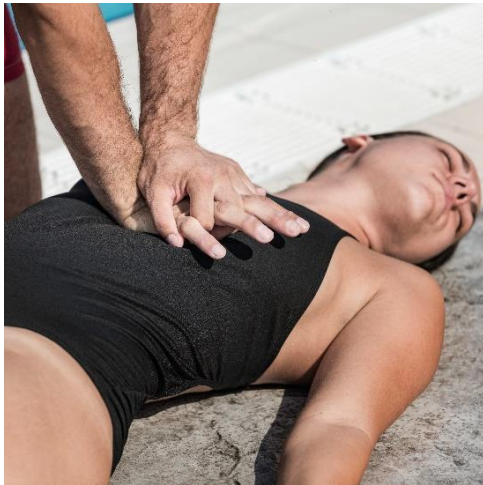
You do not inhale a lot of water in most cases of drowning. Any water consumed is generally swallowed and often vomited when resuscitation takes place.

Make sure the scene is safe. Use the "call fast" approach and do one minute of CPR before going for help if alone.

Give five rescue breaths before starting chest compressions. The reason for this is that the person is not breathing because of a respiratory problem rather than a cardiac problem.

CPR with a drowning case can be more successful than with a sudden cardiac arrest.

Secondary drowning is a problem that can occur hours after a drowning or a near drowning case, so professional medical advice should always be taken.



Cardiac Arrest Survival Rates

Some data on CPR has been released by Zoll Medical. When a cardiac arrest occurs, only half of victims will need a shock. The other half will require high-quality cardiopulmonary resuscitation (CPR). A general figure is that for every one-minute delay in the AED arriving, the patient's chance of survival drops by 10%. This figure is based on no one doing CPR.

If effective CPR is delivered, the chance of survival drops by just 3-4% per minute. To clarify these figures, it assumes that the person has 100% chance of survival at point of sudden cardiac arrest.

This evidence highlights that effective and prompt CPR is vital for the patient's chance of survival. As such, effective training in these skills is essential.



Why do we need AED Units and why are they important?

The CPR efforts of a first aider are the most important step in saving a patient's life. However, when traditional CPR does not succeed in keeping the patient alive, an AED unit will be of huge value to the first aider, while they wait for the EMS to arrive.

Early use of an AED unit saves lives as it interrupts the abnormal twitching of the heart (VF), often shocking the heartbeat back into a normal rhythm.

AED units are incredibly effective, and very easy to use as they have voice prompts to tell the first aider what to do and when. However, training first aiders in the use of AED units can significantly increase the chances of a patient's survival through confident and competent use of the equipment.

The only problem with AED units is that there are not enough of them. The cost of them often puts companies off buying them, but this is changing and more units are being placed where they are needed.

Survival rates of when the AED arrives

For about every one minute the AED unit takes to arrive, the patient's chance of survival drops by 10%. The target time is to get the AED unit to the patient within four minutes, but this is not always possible if there is not one on site.

It is vital to ask if there is an AED unit when you call for help, so that someone can look to see if there is one that could arrive sooner than the EMS.



Different types of AED



Choking

Conscious Choking



Mild airway obstruction – they can still breathe.

Serious airway obstruction – no air can pass into or out of lungs, they cannot breathe.

Ask, "Are you choking?". If a person is unable to breathe or speak, treat the patient as below. If they can talk or cough, allow them to continue until they clear the obstruction or you feel you need to call the EMS

Treatment

Activate EMS.

For Adult and Child

Stand behind the victim with one foot in-between the victim's feet and your other foot behind you.

Perform five back slaps between the patient's shoulder blades. Place the flat side of your fist just above the patient's belly button. Grab the back of your fist with the other hand and pull inwards and upwards.

Continue back slaps and abdominal thrusts until the object is cleared or the patient becomes unconscious. In the event that the patient becomes unconscious, you would perform CPR.

Advise the patient to seek medical help afterwards, even if the object has been successfully cleared.



Infant

Administer five back blows and chest thrusts using your two fingers, until the obstruction is cleared or the patient becomes unconscious.

For more information on our courses please contact:

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