South Central Ambulance Service
NHS Foundation Trust

Public Access Defibrillators (PAD) Information Pack

October 2021

Contents

About Public Access Defibrillators


Thank you for your interest in purchasing and/or installing a public access defibrillator (PAD).
Whilst South Central Ambulance is unable to recommend a specific brand or manufacturer, we can advise you of the most popular defibrillators and storage cabinets in use within our footprint and provide you with an easy to understand comparison so that you can make the most informed choice. Please see the defibrillator supplier's information within this document.

Once you have decided which device and cabinet suits your needs, you should make contact with the company directly. Once you have completed the purchase you will then need to arrange for the device and the cabinet to be fitted, preferably, to the outside of the building of which it is being sited. We suggest you get in touch with a local electrician who will install the cabinet for you.

At South Central Ambulance Service, we prefer that you purchase a defibrillator and cabinet that can be externally mounted and be accessed by members of the public in the event of a sudden cardiac arrest. We understand if you do not wish to make the defibrillator publicly accessible but doing so will increase the chances of someone surviving a cardiac arrest.

Once you have purchased and installed the defibrillator and cabinet you should register it with The Circuit - The Circuit - the national defibrillator network. Once registered, the details will automatically be available to the ambulance service in the event of it being required in an emergency. If you would also like to have your defibrillator shown on our "Save a Life" app please email the location details to defib@scas.nhs.uk. The application enables people to see their nearest defibrillator in the event of an emergency as well as providing useful instructional videos for CPR and use of a defibrillator. The ambulance control room will keep the access code (if it is secured in a locked cabinet) and issue it in the event of the device being needed.

It is your decision as to whether the cabinet that you choose to store your device in is locked or unlocked. The Resuscitation council UK's recommendation is that AED cabinets should not be locked. Thankfully, instances of theft or vandalism have been relatively uncommon: they have targeted AEDs in locked cabinets as well as unlocked ones.

If storing your device in an outside cabinet, you will need to ensure it has a heating element built into the cabinet (most do) and you will need to factor in an electrical supply to the cabinet (usually 240v). You will need to contact your local Electrician in order to arrange installation of the cabinet.

Defibrillator Awareness Training

If sufficient resources are available, we can carry out Defibrillator Awareness Training sessions at a venue local to yourselves. These sessions will last circa 90 minutes and cover: Finding a patient; Alerting the Emergency Services; Assessing the Patient for Consciousness; CPR; and How to use the Defibrillator. There is a fixed donation of £50 for community groups and for business entities there will be a charge of £150 for this service. If you would like to take advantage of this training, please contact defib@scas.nhs.uk and we will ask someone to get in touch with you.

For any other queries or questions that remain unanswered after reading this document, please email defib@scas.nhs.uk

Key Items to Consider when purchasing an AED

Purchase of an AED

Regrettably SCAS are not in a position to recommend a particular brand or to help with the funding of AEDs. Local fundraising, Parish Council grants and other fundraising grants and information on differing AED's is available online.

Installation of the AED

Once the AED is purchased, from a supplier of your choice, we recommend that you place it in an external cabinet, accessible by the public on a 24/7 basis. The cabinet will require a power supply and therefore an electrician will be required to install the device. The cabinet is required to protect the device from adverse weather temperatures and potential vandalism.

When considering your placement of the defibrillator, we can only ask that you place it in a location with a high footfall. For example, a Village Hall, a local Public House or a disused Phone box.

Guardians of the AED & Maintenance

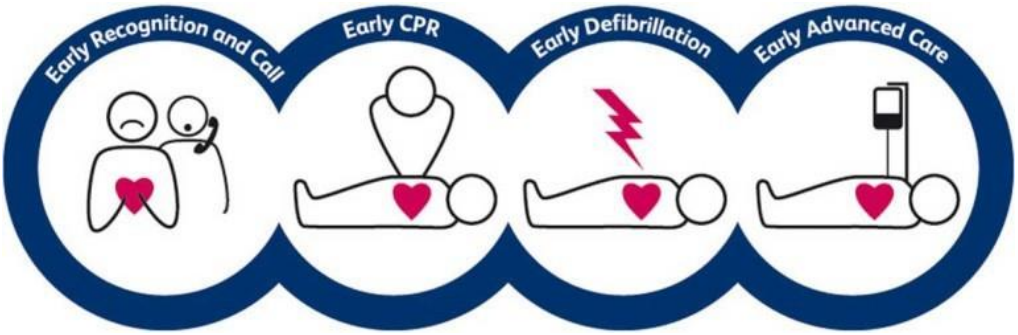
We will require at least two people to become 'Guardian' of the AED. The Guardians will be responsible for checking the device on a regular basis to ensure it remains 'Response Ready'. These Guardians will also be monitoring the expiration date of the pads and battery. A battery will have an expiration date between 3 and 7 years depending on your supplier and the pads around 18 months to 2 years. The Guardians will be required to ensure funds are available to purchase these replacement items. You will need to contact the original supplier of the defibrillator to replace the pads and batteries.

The Guardians may be contacted by SCAS in order to obtain outstanding information regarding the AED. A Guardian is also an individual who may be contacted by SCAS if the defibrillator has been used. We would like confirmation that the defibrillator has new pads and remains Response Ready at all times.

AED Insurance

It will be the responsibility of the Guardians to contemplate insurance for the device. Whilst theft or vandalism of such a device is not a regular occurrence, we are aware of these possibilities. It is recommended that insurance is arranged when the AED is purchased.

General AED Questions – Chain of Survival



What is an AED?
An AED is a compact, portable device which can be used on an individual where it has been recognised that they have had a Sudden Cardiac Arrest (SCA).

How does an AED work?
The AED has two adhesive pads (electrodes) which should be applied to the casualty's bare chest. Through the pads the AED can monitor the heart activity and deliver a shock. The AED will analyse the heart's electrical activity and if it detects a pattern consistent with a cardiac arrest, will charge itself ready to deliver a shock. This enables effective treatment to be provided within the first few critical minutes following an out of hospital cardiac arrest (OHCA).

What does AED Stand for?
AED stands for Automated External Defibrillator.

What is the paediatric capability?
AEDs are safe to use on children. Different AEDs have different ways of switching this feature on; some have a key or a button which when pressed states 'child mode', while others have specific paediatric electrode pads.

Why are AEDs important?
AEDs are important because they strengthen the Chain of Survival. They can restore a normal heart rhythm in someone who has had a sudden cardiac arrest. AEDs enable more people to respond to a medical emergency for which a defibrillator is required. When a person suffers a sudden cardiac arrest, their chance of survival decreases by 10% for each minute that passes without CPR and defibrillation. AEDs used along with CPR quite simply save lives.

Who can use an AED?
Most AEDs are designed for use by non-medical personnel such as police, flight attendants, security guards, and other lay rescuers. Having more people in the community who can respond to a medical emergency by providing CPR and defibrillation will greatly increase sudden cardiac arrest survival rates.

Why does someone experiencing a cardiac arrest need an AED?
In a cardiac arrest, the heart may have uncoordinated electrical activity called ventricular fibrillation (VF). This means the heart is not pumping effectively. The AED delivers an electric current to the heart muscle, momentarily stunning the heart, stopping all activity. This gives the heart an opportunity to resume beating in a normal rhythm and pumps effectively.

Will the use of an AED always result in a positive outcome for someone in cardiac arrest?
The AED treats only a heart in an uncoordinated heart rhythm, known as VF. For defibrillation to be successful, it needs to be carried out within a few minutes of the onset of VF. CPR can help to extend the period of time a casualty stays in VF. AEDs are less successful when the casualty has been in cardiac arrest for more than a few minutes, especially if no CPR has been provided.

Will I hurt the casualty by using an AED?
No. An AED will only give a shock to someone who is collapsed and not breathing normally and whose heart is in an uncoordinated, chaotic rhythm. An AED is a very intelligent device which has been pre-programmed to assess the rhythm and provide a shock if required.

What if I forget the steps for using an AED?
The steps for shocking a SCA casualty are simple and straightforward. The AED usually provides visual and/or audio prompts required for the entire resuscitation. The most difficult part is recognizing the need for defibrillation.

Should I perform CPR first or apply electrode pads from the AED?
CPR should **Always** be started when it is clear that the casualty is unconscious and not breathing normally. When an AED is brought to the casualty, continue CPR while the AED is opened, clothes on the chest area should be cut away or removed and the electrode pads applied. Once the electrodes are on the chest, follow the directions given by the AED.

If defibrillation is so important, why should I do CPR?
CPR provides some circulation of oxygen-rich blood to the casualty's heart and brain. CPR squeezes the heart to enable the blood to circulate to the heart and brain delaying brain death and the death of heart muscle. CPR also makes the heart more likely to respond to defibrillation.

Medical Questions

What is a cardiac arrest?
A cardiac arrest is when the heart stops pumping blood around the body. Often this is unexpected or abrupt and without a constant blood supply, the brain stops working almost immediately and the person goes unconscious. This is usually caused by an uncoordinated, chaotic heart rhythm called ventricular fibrillation (VF).

Is cardiac arrest the same as a heart attack?
No. A heart attack is caused by a sudden blockage of a small artery that supplies blood to the heart muscle. When the blood supply is seriously restricted or completely blocked, that portion of the heart muscle dies and this is what causes the chest/jaw/arm pain. Some people who have heart attacks may experience a cardiac arrest. However, cardiac arrest may occur independently from a heart attack and without warning signs. Cardiac arrest results in death if not treated immediately. Click on the link to see the signs and symptoms of a heart attack.

Does a cardiac arrest only happen after a heart attack?
No. Anyone can have a cardiac arrest at any time and there are many causes, one of which is a heart attack.

Who is at risk of sudden cardiac arrest (SCA)?
While the average age of someone having SCA is about 65, SCA is unpredictable and can happen to anyone, anywhere, anytime.

What is VF?
VF is an abnormal uncoordinated heart rhythm often seen in SCA. This rhythm is caused by an abnormal and very fast electrical activity in the heart. VF is chaotic and unorganized; the heart quivers and cannot effectively pump blood. VF will be short-lived and deteriorate to asystole (a flat line) if not treated promptly. CPR can prolong the duration of VF to enable defibrillation and potentially a better outcome.

How is VF treated?
The only effective treatment for VF is an electrical shock called defibrillation. Defibrillation is an electrical current applied to the chest. The electrical current passes through the heart with the goal of stopping the VF and giving an opportunity for the heart's normal electrical system to take control. This shock helps the heart reorganize the electrical activity, so it can pump blood again.

An automated external defibrillator (AED) can defibrillate the heart. CPR can prolong the duration of VF to enable defibrillation.

Should I use the AED if the casualty has a pacemaker or is pregnant?
Yes, never withhold AED use in a person with SCA.

What if the casualty is a child?

Many AED manufacturers now supply paediatric pads or programmes which typically decreases the output of the machine to 50-75 joules. These devices are recommended for children between 1-8 yrs old. If no such system or manually adjustable machine is in place an unmodified adult AED may be used. In infants under 1 yr shockable rhythms are unusually rare therefore good quality CPR is a priority. However for an infant in a shockable rhythm the risk:benefit ratio favours the use of the AED, preferably with an option to decrease the output if a manually adjustable machine is not available.

Purchase and Access to AEDs

What is a public access defibrillator (PAD)?

A public access defibrillator (PAD) is an AED which is available to be used by the public, whether they are in a public place or a private place. It may be available 24/7 or may have specific times that it is available if the building or organisation is not open 24/7. When AEDs are placed in a community, South Central Ambulance Service (SCAS) strongly encourages that the AED is registered, you can do this by emailing defib@scas.nhs.uk

Why is notifying SCAS important?

When SCAS are alerted to a Sudden Cardiac Arrest, the Emergency Call Taker (ECT) (when given the address of the incident) will be able to see if there is an AED within 400 metres of the incident. Once the ECT is assured that CPR is ongoing, another bystander (if present) will be directed to the AED location and given a code (if required) to open a cabinet if that is where the AED is stored. The steps to alert a bystander to the closest AED is only possible if the devices are registered with SCAS.

Why should people who are responsible for operating an AED receive CPR familiarisation?

CPR is the second link in the chain of survival and should be commenced while waiting for an AED to arrive. If a shock has been advised by the AED, following delivery of the shock CPR should be continued IMMEDIATELY if the casualty remains unconscious and not breathing. A number of cycles of CPR and an AED shock may be required prior to the arrival of medical staff.

If AEDs are so easy to use, why do people need familiarisation training in how to use them?

Time should not be wasted if those that have received familiarisation training are not immediately available. Untrained people have successfully used AEDs to save a life and a lack of familiarisation should not be a barrier to using the devices. Provided someone is willing to use the AED they should not be forbidden from doing so. The main purpose of training is to help people feel confident in the use of AEDs and remove any fear or myths regarding their use and promote best practice.

Can anyone buy an AED and how much does it cost?

Yes. The price of an AED varies by make and model. Most AEDs cost between £700 and £3,000.

What is the difference between semi-automatic and automatic?

All AEDs will automatically determine whether or not a shock is required.
Semi-automatic AEDs will prompt the user to press the shock button, whereas automatic AEDs will use a countdown or voice commands for the user and will deliver the shock automatically when it is needed without the need of the user pressing a ‘shock’ button. Fully automatic models are designed for those who may hesitate in a stressful time. All types of AEDs are effective and safe to use. Semi-automatic AEDs can provide additional safety as the user would be able to carry out a final check of the surrounding area to ensure that no one is touching the casualty prior to pressing the ‘shock’ button.

What is a biphasic waveform (shock type)?

Biphasic defibrillation "alternates the direction of the pulses, completing one cycle in approximately 10 milliseconds." The biphasic waveform decreases the energy needed for successful defibrillation, in turn decreasing burns and myocardial damage.

What is escalating energy?

An AED with escalating energy will, after the first shock, deliver each successive shock with higher energy. A non-escalating AED will deliver the same energy level shock each time.

What are the differences between the rescue prompt types?
There are various ways an AED can help you through a rescue. Newer models may prompt you through video and text display screens. Some models have LED indicators and voice commands to help the user perform the operations quickly and easily.

What model of AED does SCAS recommend?
SCAS do not recommend a specific device as all AEDs have similar features. However, we would be happy to provide advice and guidance to those who are considering purchasing an AED. Contact a member of the Community Engagement Team at defib@scas.nhs.uk

Can an AED make mistakes?
An AED will almost never decide to shock an adult casualty when it is not required. If the bystander has attached the AED to an adult casualty who is unconscious and not breathing (in cardiac arrest), the AED will make the correct "shock" decision more than 95 of 100 times and a correct "no shock indicated" decision more than 98 of 100 times. This level of accuracy is greater than the accuracy of emergency professionals.

Cabinets

Is it essential to put my AED in a cabinet?
No, but depending on the location of your AED it may be safer to have it kept within a cabinet.

Where do I purchase an AED cabinet?
Many of the suppliers of AEDs also supply cabinets, therefore when purchasing an AED you may also wish to discuss the purchase of a cabinet. Purchasing both together may be cheaper: approximate costs of a cabinet range from £300 to £800.

What kind of a cabinet do I purchase?
It would be worthwhile discussing your needs with the supplier who is providing your AED. The SCAS Community Engagement Team are happy to provide impartial advice and assist with your decision-making. You can contact the Community Engagement Team on defib@scas.nhs.uk

Do I need to purchase a cabinet with a lock?
The Resuscitation Council UK advises that AEDs should be kept in unlockable cabinets as having them locked causes further delays in retrieving the AED delaying treatment to the casualty. It is recognised that many organisations prefer to have a locked cabinet to ensure the safety of the AED and deter vandalism. If this is the case then a lockable coded cabinet is preferable rather than a key. When registering the AED with SCAS the code for the lock will also be recorded to enable a 999 ECT to provide a bystander with the location of the closest AED to the sudden cardiac arrest.

Do I need to include any other equipment when purchasing an AED?
Yes, the following equipment should be purchased to maximise the effectiveness of the AED adhesive electrode pads:

Tuff cut scissors (to cut clothes from the chest so the casualty has a bare chest)
Paper towel (use if the chest is wet to dry where the adhesive electrode pads are to be placed)
Face mask (to enable a bystander to provide mouth to mouth if they so wish)
Razor (if a casualty has excessive hair then the area where the adhesive electrode pads are to be placed should be shaved to maximise the pads sticking to the chest).

NB: If any of these are used then they should be disposed of and a new one provided as they are ‘one person use only’.

Further Questions about AED Use

Can I be sued using an AED?

Although a bystander has no legal obligation to act, once someone volunteers to help, they assume a duty of care towards the person in need. Regardless of the circumstances, anyone who attempts resuscitation would only be legally liable if the intervention leaves a person in a worse condition than they would have been if no action had been taken. In the case of a sudden cardiac arrest it is difficult to see how a volunteer's intervention could leave someone worse off, since without intervention death is inevitable.

Can I accidentally shock another bystander or myself?

AEDs are extremely safe when used properly. The electric shock may be automatic or semi- automatic requiring the bystander to press the shock button to allow the shock to go from one electrode pad to another through the casualty's chest. Basic precautions, such as verbally warning others to stand clear and visually checking the area before and during the shock, will virtually ensure the safety of bystanders.

Remember the 7P's when placing the adhesive electrode pads were shown on the diagram on each pad:

Patches – remove and wipe the area dry prior to placing the electrode pads in place

Piercings – do not waste time removing; try to place the electrode pad in the area shown on the diagram.

Perspiration – dry the area where the electrode will be placed of excessive sweat or if the casualty is wet.

Pendants – move any neck jewellery out of the way of where the electrode pads are to be placed on the chest.

Pacemaker site – be aware of the possible location of a Pacemaker just under the skin. Generally found on the upper left side of the chest just below the collarbone, which will not cause a problem with pads. However, for medical need they may be located on the right side of the body just under the collarbone. If this is the case, please stick the pad below the site.

Playtex – All underwired bras should be cut through the centre and moved to one side to ensure they do not spark during defibrillation.

Body hairy – If the person has excessive hair (ie prohibit the pad sticking to the chest) on the area where the pads are to be placed, then the area should be shaved quickly with a razor to remove the excessive hair.

Do I need to remove the adhesive electrode pads before performing CPR?

No. The electrode pads remain on the chest throughout the resuscitation and until the casualty is transferred to the care of SCAS staff. If the electrode pads are in their correct locations on the casualty's chest, they will not interfere with proper hand placement or compressions.

Is it safe to use an AED if the casualty is lying on a wet or metal surface?

Yes, it is usually safe to use an AED on a casualty who is lying on a metallic, wet or other conductive surface. If the self-adhesive pads are applied correctly and provided there is no direct contact between the user and the casualty when the shock is delivered, there is no direct pathway that electricity can take that would cause the user to experience a shock. If the casualty is wet, his/her chest should be dried so that the self-adhesive AED pads will stick properly.

Do I need to get my AED serviced or maintained?

AEDs require very little routine maintenance or servicing; most perform daily self-checks and will display a warning or make a warning noise (similar to a smoke alarm chirp) if they need attention. Current AEDs have an estimated life expectancy of 10 years. The batteries and pads will have a long shelf life; this can be between 2 and 5 years depending on the AED model. It is strongly advised that regular AED checks are carried out by a delegated guardian and defib@scas.nhs.uk can provide further information on this.

How much of the casualty's clothing should be removed to carry out defibrillation?

The chest should be exposed to allow placement of the adhesive electrode pads. Clothes may need to be removed i.e., cut, torn or moved away from the chest. A woman's bra should be removed.

Why is it so important to be sure that the electrode pads are firmly adhered to a clean, dry chest?
Successful defibrillation requires electricity to flow from one electrode pad to the other through the chest. If the electrode pads are not firmly adhered and there is sweat or another conductive material between the electrode pads, the electricity will be more likely to flow across the chest rather than through it. This will result in ineffective defibrillation.

Is it OK to place the electrode pads directly on a hairy chest?

Electrode pads must come in direct contact with the skin. If the chest hair is so excessive as to prevent good adhesion of the electrode pad, the hair must be removed quickly. There should be a razor with the AED to enable a bystander to remove the excess hair.

Why should the bystander continue CPR after the arrival of the Ambulance Service professionals?

It's helpful to ambulance professionals to be able to set up their equipment, including the defibrillator, while the bystanders continue CPR. The ambulance professionals will take over CPR and reconfirm that the casualty is in cardiac arrest.

Besides doing CPR and using an AED, how else might a bystander help at the scene of a sudden cardiac arrest?

Support and direction to bystanders, friends, and family are appropriate. When ambulance personnel arrive, the bystander should continue to provide CPR until they are no longer required to do so and directed to stop by the ambulance service professionals. It would also be helpful if the bystander who retrieved the Community AED returned it to where it was retrieved.

After I have successfully defibrillated the casualty, do I keep the electrode pads on?

Yes, even after a casualty has been successfully defibrillated, he/she is at risk of developing VF again. The AED will continually monitor the casualty for the return of VF. If VF is suspected, the AED will automatically begin to analyze the casualty after two minutes of CPR is complete. The AED should be left on until the ambulance service professionals assume responsibility for the casualty.

I used an AED on a SCA casualty and the AED always prompted "No Shock Advised". Even with CPR the casualty did not survive. Why didn't the AED shock this casualty?

Although VF is the most common rhythm in cardiac arrest, it is not the only one. The AED will only shock if an uncoordinated, chaotic rhythm is detected. There are other heart rhythms associated with SCA that are not treated with defibrillation shocks. A "no shock advised" message doesn't mean the casualty's heart rhythm is back to normal. CPR should be continued unless the casualty is clearly showing signs of life. Unfortunately, because of other underlying medical or heart problems, not all casualties of SCA who are in VF will survive even if defibrillation is carried out promptly & correctly.

What if I don't perform all the steps of CPR and defibrillation perfectly?

SCA is a high stress situation. Even experienced health care professionals do not do everything perfectly. In SCA, performing CPR and using an AED can only help the casualty. Always remember that doing something is better than doing nothing!

Can an AED record information regarding the cardiac arrest?

Yes, all AEDs have the ability to record data which shows what the casualty's heart was doing and what CPR and AED interventions were carried out to help the casualty.

What if I am not certain whether I need to use an AED?

If someone is unconscious and **not** breathing, then CPR and defibrillation from an AED are vital links in the chain of survival.

What if a bystander is directed by SCAS to retrieve an AED from an organisation/shop/business? Does a member of staff from the organisation have to attend the incident with the bystander?

This is a personal decision that the individual should make taking into consideration their role and responsibilities within their organisation. It is not essential in this situation for a member of staff/volunteer to go to the scene of the incident with a bystander, it is your personal choice if you wish to do so. If your AED is registered with SCAS then you have agreed that your AED is publicly accessible. Therefore, it is possible a bystander could be directed to your AED location if it is within 400metres of a sudden cardiac arrest.

Should all schools have an Automated External Defibrillator (AED)?

Fortunately, SCA in school-age children is rare. Resuscitation attempts at schools are more likely to be made on an adult (staff member or visitor) than a pupil. The presence of an AED at a school therefore provides potential benefit for everyone present at the site. An additional and important advantage of having an AED prominently located at a school is that students become familiar with them and can learn about first aid, resuscitation and the purpose of defibrillation.

AED Comparison Chart

The AED's listed below are available from the different manufacturers and suppliers detailed in this document.

Device name	Automatic & Semi-Automatic available?	Child mode enabled via switch or separate pads?	Communication process	CPR feedback	Battery operational Life (on device – no WiFi/4G)	Pads Shelf Life (fitted to device)	Approx cost of replacement Electrode Pads	Approx cost of replacement Battery
IPAD SP1	Both	Switch	Audio and LED	Metronome	5 years	3 years	Dual Adult & Child Pads £32.50	£160
Powerheart G5	Both	Pads	Audio and text screen	Metronome	4 years	2 years	Adult £44 Child £60	£225
CR2	Both	Switch	Audio	Metronome	4 years	4 years	£77*	£173
Lifeline VIEW	Both	Pads	Audio and TV screen	Visual display + metronome	4 years	2 years	£40	£166
Zoll AED 3	Both	Auto resetting Switch	Audio and TV screen	Visual display, metronome, active encouragement and positive feedback	5 years	5 years	£110 inc rescue kit	£121

Prices of replacement pads are a guide only as accurate as of April 2020. Prices for replacement batteries vary by device.

Please remember that if you are storing a device on an outside wall of a building you will need a cabinet with integrated heating unit in order to avoid damage to the device and battery due to cold /heat exposure.

For any other queries please email defib@scas.nhs.uk

The cost of both pads and battery are covered in the 8-year package offered by Cardiac Science
A 10 year warranty is offered on the SP1 by WEL Medical.

Healthy Hearts

All you need to know about heart attacks and cardiac arrests

- Do you know the difference between a heart attack and a cardiac arrest?
- Would you be able to recognise the symptoms of a heart attack in a family member, friend or work colleague?
- If you came across someone in cardiac arrest, would you know what to do?
- Find out the answers to these and other questions, along with downloads and video testimonies from patients who have experienced a heart attack or cardiac arrest, along with our staff in our emergency control rooms and ambulances who have responded to these incidents.

The Key Numbers

- On average, at least two people a day across the four counties SCAS serves suffer a heart attack.
- In the UK, around 30% of heart attacks are fatal (source: BHF)
- On average, SCAS is called out to attend more than four patients a day across the four counties who have suffered a cardiac arrest
- Across the UK, less than 1 in 10 people who have a cardiac arrest outside of hospital survive.

Heart Attack

A heart attack happens when your heart muscle is starved of oxygen-rich blood. The lack of blood damages the heart muscle and is life-threatening.

The symptoms of heart attack can vary from person to person and can include:

- Chest pain – a sensation of pressure, tightness or squeezing in the centre of your chest
- Pain in other parts of the body – it can feel as if the pain is travelling from your chest to your arms (usually the left arm is affected, but it can affect both arms), jaw, neck, back and abdomen
- Feeling lightheaded or dizzy

- Sweating
- Shortness of breath
- Feeling sick (nausea) or being sick (vomiting)
- An overwhelming sense of anxiety (similar to having a panic attack)
- Coughing or wheezing

Although the chest pain is often severe, some people may only experience minor pain, similar to indigestion. In some cases there may not be any chest pain at all, especially in women, the elderly and people with diabetes.

What to do if you think, or someone you are with thinks, they are having a heart attack:

Watch ambulance dispatcher Leanne Bleasdale explain the correct way that you should call 999 for a suspected heart attack.
https://youtu.be/LFmVZHSJKWI

Watch heart attack patient Geoff Hartnell talk about the symptoms to look out in a typical heart attack situation. It just might save your life one day?
https://youtu.be/AuBLf8RhXEA

The overall pattern of symptoms will help determine whether a person is having a heart attack. Do not worry if you have any doubts – just dial 999

It is important to rest while you wait for an ambulance as this will reduce unnecessary strain on your heart

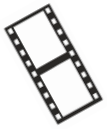
If you have aspirin to hand, and you are not allergic to it, slowly chew and then swallow an adult-sized tablet (300mg) while you wait for the ambulance to arrive. The aspirin helps to thin your blood and restore blood supply to your heart

Cardiac arrest

A cardiac arrest occurs when the heart stops pumping blood around the body.

Listen to call handler Sophie Robinson talk about the right thing to do if you suspect that someone is having a cardiac arrest.
https://youtu.be/knluw42Ob2E

Watch Peter Richardson, his wife Shelagh and good friend Glenys talk about the day that a heart stopping moment changed their lives forever
https://youtu.be/udwiNGzYpn4



Watch Peter Richardson, his wife Shelagh and good friend Glenys talk about the day that a heart stopping moment .changed their lives forever
https://youtu.be/udwiNGzYpn4

The Symptoms – If you find someone collapsed, not breathing normally and unresponsive, it is likely they are in cardiac arrest.

What to do if you find someone you think is in cardiac arrest:

1. Call 999 for help
2. Commence CPR (cardiopulmonary resuscitation)

3. Use a public access defibrillator (PAD) or automatic external defibrillator (AED) if nearby

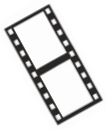
Currently in the UK, over 30,000 people a year suffer a cardiac arrest out of hospital. Less than 10% of those people survive.

CPR – Cardiopulmonary Resuscitation

CPR is a first aid technique that can be used to keep someone alive until a paramedic or other emergency medical professional arrives at the scene. The most important actions are chest compressions to pump blood around the body, and rescue breaths to provide oxygen (known as the 'kiss of life').

Here is a short video that we made that shows just how easy it is to learn how to carry out effective CPR.
https://youtu.be/_fAfVSL48BA

Myth Buster
MYTH: People get sued for trying CPR.
FACT: Although there are a few cases in the UK where a claim has been brought against a 'rescuer', there have been no reported cases where a victim has successfully sued someone who came to his aid in an emergency.



Here is a short video that we made that shows just how easy it is to learn how to carry out effective CPR.
https://youtu.be/_fAfVSL48BA

Watch Professor Charles Deakin explain about the benefits of members of the public carrying out life- saving CPR which greatly increases the chances of survival
https://youtu.be/ZnGSReRgU34

AED (Automatic External Defibrillator)

An AED is a safe, portable electrical device that helps establish a regular heartbeat during a cardiac arrest by monitoring the person's heartbeat and giving them an electric shock.

Myth Buster
MYTH: You need to be a trained medical professional to use an AED.
FACT: Anyone can use an AED – it's so simple to use even a child can do it. When turned on the AED will loudly instruct the user in clear, simple steps, exactly what to do.

Watch our *Automated external defibrillation for Adults* video at https://youtu.be/UTuhA4WhkmI

Where is your nearest AED?

We have an amazing Android & Apple app that users can access via their smartphone or tablet. Our app uses GPS functionality to show where the nearest AED is as well as a list of other AEDs in the area. It also features videos, CPR instructions and a section that will answers many of your cardiac arrest and heart attack questions

Downloading the App:

Apple Version:
https://itunes.apple.com/us/app/save-a-life/id1086609515?ls=1&mt=8

Google Play Version:
https://play.google.com/store/apps/details?id=com.scas

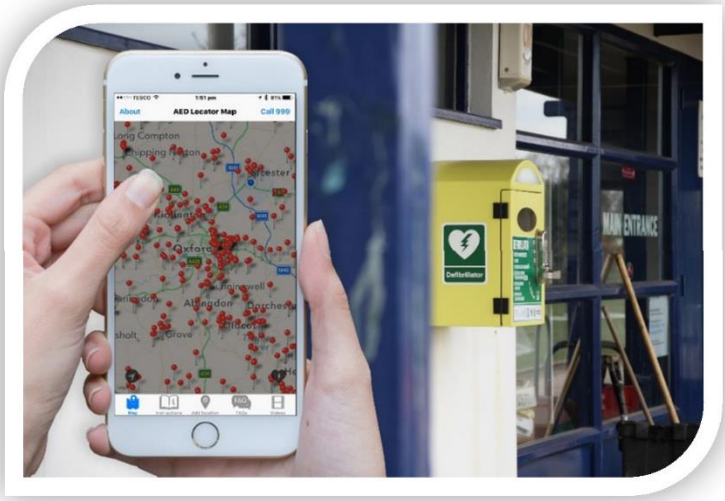
Remember, the first thing to do in any real emergency is to ring 999.
Please make sure that you have the latest version of the App installed and that you regularly update the list or clear your internet cache as appropriate to your device.

If you already have an AED installed but can't see it on our map please tell us about it by emailing defib@scas.nhs.uk

If you would like to raise the funds to provide an AED in your community the cost including a secure box is £1850 excluding fitting charges. SCAS can direct callers to charities, grants and community fundraising schemes. The Trust can also provide AED awareness training to those who purchase one.

The Trust's Public Access Defibrillator initiative is designed to complement SCAS' **Community First Responder (CFR) Schemes** across our region and to enhance the service we provide.

Please note that the previous 'AED Locator' app is now unsupported. We recommend that you delete the old app and install the new 'Save a life' app instead.



Produced by

South Central Ambulance Service NHS Foundation Trust
Units 7 and 8 Talisman Business Centre Talisman Road
Bicester Oxfordshire OX26 6HR

Tel 01869 365000
www.scas.nhs.uk
https://www.scas.nhs.uk/our-services/community-and-co-responders/