

CPR: Frequently asked questions

What is CPR?

CPR stands for cardiopulmonary resuscitation. It is an emergency procedure of manual chest compressions and rescue breaths, performed to help save a person's life who is in cardiac arrest.

What's a cardiac arrest?

During a cardiac arrest, a person's heart stops pumping blood around their body and to their brain. This will make them unconscious and stop breathing, or stop breathing properly. Without CPR the person will die within minutes.

Is a cardiac arrest the same as a heart attack?

No, a cardiac arrest and a heart attack aren't the same, but a heart attack can lead to a cardiac arrest. During a heart attack, an artery supplying blood to the heart muscle gets blocked. This starves part of the heart muscle of oxygen, and causes symptoms like chest pain/discomfort – but the person is usually still conscious and breathing.

During a cardiac arrest the heart stops pumping blood around the body and to the brain. The person will fall unconscious, they won't respond to you and they'll stop breathing or won't breathe normally.

Both a heart attack and a cardiac arrest are medical emergencies, so you should call 999 immediately and follow the instructions of the operator. For a cardiac arrest this will include performing CPR immediately.

Should I be doing CPR differently if there's risk of coronavirus?

Yes. If you need to perform CPR on someone where the risk of coronavirus is unknown, don't put your face close to the person in cardiac arrest. If you think there's risk of infection, use a towel or a piece of clothing and lay it over their mouth and nose.

Just pushing hard and fast in the centre of the chest to keep the heart pumping can make a life saving difference and is better than doing nothing.

Eight in ten cardiac arrests occur at home so you are more likely to have to resuscitate someone you know than a stranger. If you are in the same household or support bubble as the person in cardiac arrest, you will know whether there is a risk of coronavirus. In this instance you may want to do the CPR process of checking for breathing and giving rescue breaths.

How will I know if someone has been revived?

Signs of regaining consciousness include coughing, opening their eyes, speaking, or moving purposefully and starting to breathe normally. Stop CPR at this point. If they are breathing normally but still unconscious, put them into the recovery position and continue to monitor their breathing until help arrives.

What are signs of life?

Signs of life include normal breathing, movement, the person being conscious and possibly talking.

What isn't normal breathing?

You can tell someone is having trouble when their breathing is noisy. They might be gasping and you may hear rattling and wheezing.

How does CPR help?

When a person is in cardiac arrest, their heart can't pump blood to the vital organs and the rest of the body. If the person doesn't receive help immediately they will die within minutes. By performing chest compressions and rescue breaths (if safe to do so), you are taking over the role of their heart and lungs, pumping blood and oxygen to their vital organs.

Every second counts, because a delay quickly reduces a person's chance of survival. A delay can also lead to permanent damage to the person's brain if they do survive.

What happens if I injure someone while doing CPR?

At the point of cardiac arrest, the heart is not pumping blood around the body and the person is technically dead. Performing CPR and using a defibrillator can double their chances of survival, so it's vital that it's carried out.

Occasionally during this process minor injuries can occur (such as a cracked rib), but you should continue to give CPR to help save their life. A broken rib or other injury can be fixed, but a stopped heart needs action immediately or the person won't live.

Can you be sued if you cause someone physical injury?

As a lay person, by performing CPR on someone you are acting as a 'good Samaritan'. Occasionally some injury to the person can occur but if it's unintentional and you're trying to save their life then that's acceptable. No member of the public has been charged and subsequently punished in the UK for attempting CPR on someone who was in cardiac arrest.

How long should I continue CPR?

You must always call 999 before starting CPR. Continue performing CPR until professional help arrives and takes over, the person starts to show signs of regaining consciousness, or you become exhausted. Doing chest compressions is tiring. If other bystanders are there, guide them to take turns with you.

Should I do CPR if someone has been electrocuted?

Yes – but only if the environment is safe. Never put your own life at risk. Call 999 immediately and explain the situation to the operator, who will be able to advise you.

What would happen if you did CPR and the person was breathing normally?

You should only perform CPR when someone is unconscious and not breathing or not breathing normally. If they are breathing normally and unconscious, you should still call 999 and then place them in the recovery position.

If someone was breathing normally and you started CPR on them, they would probably react, so you would know to stop.

If you do hands-only CPR, do you continue compressions or pause after 30 compressions (when breathing is normally done)?

Hands-only CPR is continuous and shouldn't be stopped unless someone else takes over, there are signs of life, or you become exhausted.

If someone has been involved in an accident and has blood on their face, can I just do compressions and not give rescue breaths?

Most out of hospital cardiac arrests occur in the home, so it's most likely to be a loved one that you're performing CPR on and this often means people overlook any blood or bodily fluids present.

If you feel uncomfortable giving rescue breaths where there is blood present, then you can do hands-only CPR. If there's risk of catching coronavirus, we would advise to just do chest compressions.

What CPR method is used for babies?

The Resuscitation Council advise compression of the chest by one third of its depth. Use 2 fingers for an infant under 1 year old. Use one or 2 hands for a child over 1 year old, whichever achieves the correct depth of compressions.

Could it be possible to confirm the ages when each of the techniques should be used i.e. baby, child and adult?

An 'infant' is younger than 1 year old. A 'child' is aged from 1 year old. An 'adult' is a little vaguer – it's essentially when someone appears to be 'adult-sized'. It's important to not worry too much about the exact age of a person, and treat them how you 'see' them. You would do full adult CPR on a child who looked 'adult-sized' – it's all about the depth of compressions and ensuring they're effective.

For chest compressions - where is the area on the dummy in relation to the human body?

The area you are shown to perform CPR on the dummy is the same place you would perform it on the human body. You should aim to push on the centre of the chest on the breast bone.

Can I move the casualty before performing CPR? (i.e. if they are in an awkward position after a trauma)

If you feel you're able to do this without causing any serious harm to the person or yourself, you can move them to lie flat on their back and onto a hard surface to help make CPR easier. If you're unsure, call 999 first and discuss the situation with the operator.

What will happen if their heart is beating but they are just not breathing?

This is called a respiratory arrest and will worsen into a cardiac arrest without CPR. Don't waste time checking for a pulse – if someone is unresponsive and not breathing or not breathing normally then call 999 and start CPR.

Should I stop CPR and check for breathing periodically?

No – continue CPR until the person regains consciousness, the emergency services arrive or you become exhausted

Is it better to press harder or softer if I am unsure about the depths?

Most commonly it would be better to press harder rather than softer. You are aiming for 5-6 centimetres or one third of the chest depth. If you press too softly then your compressions won't be effective. Remember – your hands are all that are keeping blood flowing around their body and, most importantly, to their brain.

Should I remove restrictive clothing? Do bras hinder effective CPR?

Unfastening a thick coat will enable better chest compressions but there is absolutely don't need to remove any other fairly thin clothing. Bras don't need to be removed.

Do I need to do anything differently if the person has choked on something/has something lodged in their airway?

Don't attempt to remove anything from the person's airway. There may be more resistance if you're giving rescue breaths, you should continue to try and breathe effectively into their airway. If there is a risk of coronavirus you still shouldn't perform rescue breaths and carry on with hands only CPR.

Defibrillators

What is a defibrillator?

A defibrillator is a device that can be used to shock the heart back into a normal rhythm during cardiac arrest. Those available to the public work automatically and provide instructions and will not deliver a shock unless one is necessary.

How will I know when to use a defibrillator?

If someone is able to fetch a defibrillator for you, or if one is easily within reach, then you should always attempt to attach it to the person having a cardiac arrest. If you are alone, never leave a person in cardiac arrest to go off and find a defibrillator. Call 999 then start CPR immediately.

I've heard defibrillators called different things (AED/PAD) – what does it all mean? Do they work differently?

AED stands for Automated External Defibrillator – this automatically analyses the heart rhythm and provides a shock during a cardiac arrest where required.

PAD stands for Public Access Defibrillator – a defibrillator that is accessible to the public, ideally freely and not in a locked cabinet. A PAD is an AED that is accessible to the public.

Don't I need training to use a defibrillator?

No – defibrillators give clear, verbal instructions on how to use the device. There are images on the packets for the chest pads that show you where to place them, which doesn't have to be exact, and sometimes also on the device itself. Being untrained in using a defibrillator shouldn't be a barrier to using one. Lives have been saved by untrained people giving defibrillator shocks to people in cardiac arrest.

I'm worried that I might shock someone and cause them harm – is this possible?

A defibrillator will tell you loudly and clearly when to stand back and not touch the person in cardiac arrest. You will then need to press the 'shock' button to deliver the shock when the defibrillator tells you to; the defibrillator doesn't do this automatically. This gives you time to make sure neither you nor anyone else is touching the person when the shock is delivered – but even if you or they were the chance of serious harm is extremely unlikely.

You also cannot cause any serious harm to the person in cardiac arrest by giving them a defibrillator shock. Remember that at the point of cardiac arrest that person is dead, and any attempt at CPR and defibrillation only serves to help save their life.

I know someone who had a cardiac arrest and a defibrillator shock wasn't given – shouldn't a defibrillator always be used?

A defibrillator should always be sought and attached to the person having a cardiac arrest.

A defibrillator is vital in a cardiac arrest situation, as it monitors the heart rhythm and can shock if needed. When you attach the pads, it will assess the heart rhythm the person is in and then tell you if a shock is appropriate.

Not all people in cardiac arrest will benefit from a defibrillator shock. There are four different rhythms that your heart can be in during cardiac arrest, and only two of them are known as 'shockable' rhythms, where a shock from a defibrillator can help restore the heart back into a normal rhythm again. If the defibrillator senses that a person is in a 'non-shockable' rhythm, it will continue to monitor the heart rhythm and instruct you to carry on with CPR.

The rhythm of the heart may change during CPR and a non-shockable rhythm may become a shockable one. Occasionally, the defibrillator will ask you to stop CPR so that it can assess the rhythm and if a shock is not required then the defibrillator will not allow you to shock the person, and you cannot override this function.

Is it safe to use a defibrillator if someone is wet or on a metal/ conductive surface?

Yes, this is usually safe. If someone is wet then try to dry off the parts of the body where the defibrillator pads need to be applied so that they can be stuck down properly. Follow the guidance from the defibrillator's verbal instructions as normal on when to stand back and not touch the person while a shock is delivered.

Can I use a defibrillator on a child?

A defibrillator is not recommended for use on a child who is less than 1 year old, but is safe to use in older children and teenagers. Adult sized defibrillator pads should be used from around the age of 8 and up, and child sized pads should ideally be used on younger children. If you're unsure, ask for guidance from the 999 operator.

Can I use a defibrillator on a pregnant woman?

Yes – but ensure that the defibrillator pads are placed clear of enlarged breasts in order to make sure the electrical current is conducted effectively.