SafeServe First Aid

KNOW THE DIFFERENCE

Heart attack or cardiac arrest?

Heart attack
A plumbing problem

WHAT HAPPENS

A blocked coronary artery cuts off blood to part of the heart muscle. The heart is still beating.

WHAT YOU SEE

- Awake and breathing
- Chest pain or pressure, which may spread to the arm, jaw or back
- Sweating, breathlessness, feeling sick

WHAT TO DO

- Call 999 straight away
- Sit them down, supported and comfortable
- Give one 300mg aspirin to chew, if not allergic
- If they stop breathing, start CPR

Cardiac arrest
An electrical problem

WHAT HAPPENS

The heart's electrical system fails. The heart stops pumping blood to the brain and body.

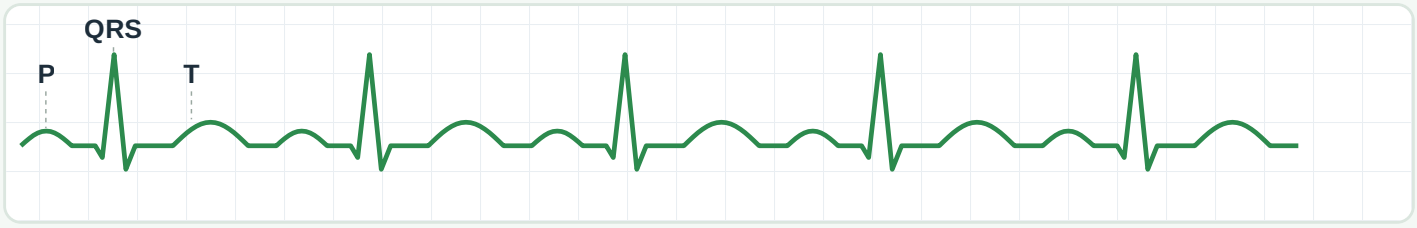
WHAT YOU SEE

- Sudden collapse, no response
- Not breathing, or only gasping
- No time to wait: minutes matter

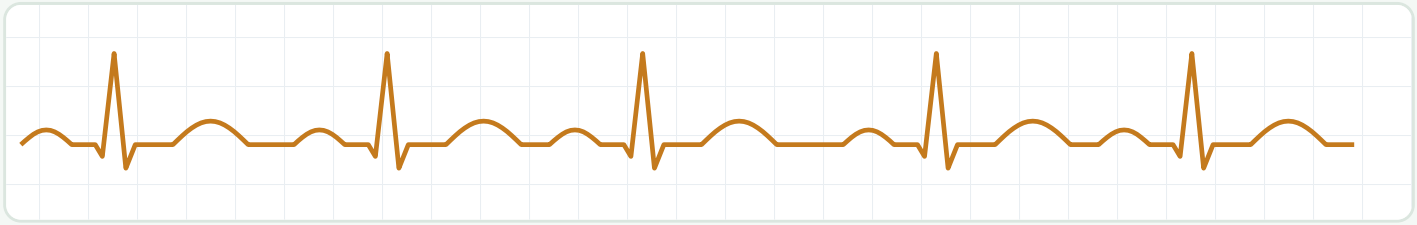
WHAT TO DO

- Call 999 straight away
- Start chest compressions at once
- Send for a defibrillator and use it
- Keep going until help takes over

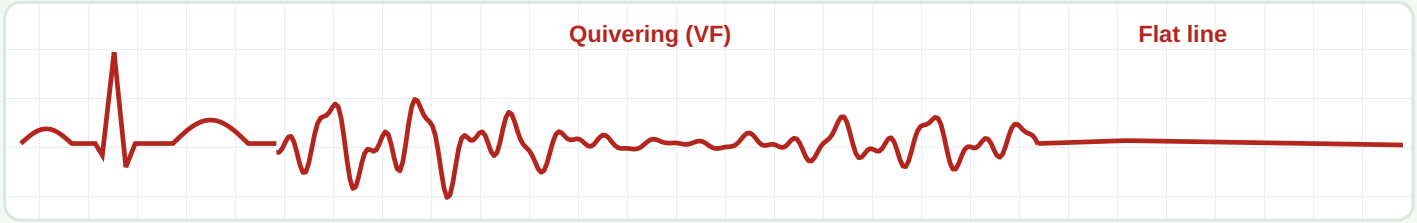
What happens to the heart's rhythm



Normal rhythm. Each beat is one electrical signal, shown as three waves: **P** (the atria squeeze), **QRS** (the ventricles squeeze) and **T** (the heart resets).



Heart attack. The heart usually keeps beating, but starved muscle can make the rhythm unstable, and a heart attack can lead to cardiac arrest.

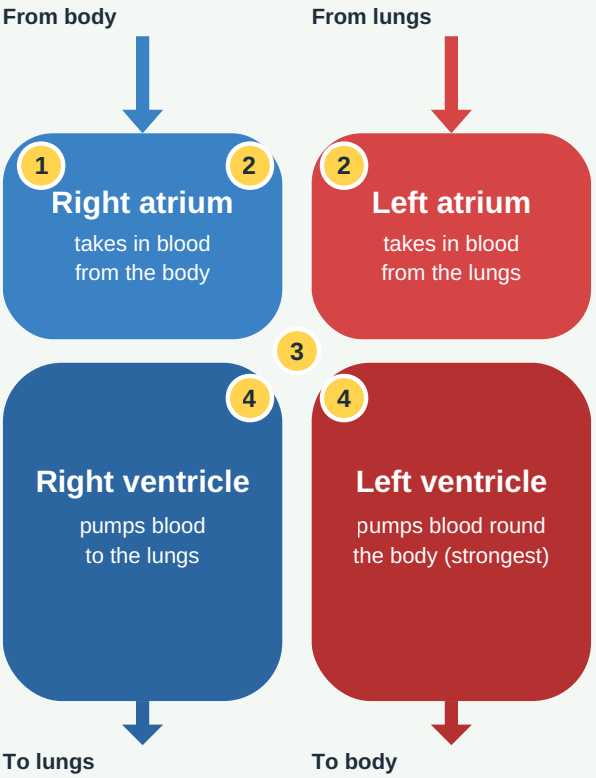


Cardiac arrest. The signal breaks down. The ventricles quiver (ventricular fibrillation) or stop. A defibrillator can shock a quivering heart, but not a flat line, so CPR keeps blood moving until help arrives.

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KNOW THE DIFFERENCE

How a heartbeat is made



1. **SA node.** The heart's natural pacemaker sits in the right atrium and fires the electrical signal.
2. **Atria contract.** The signal spreads across both atria, which squeeze blood down into the ventricles. This is the P wave.
3. **AV node.** The signal pauses here for a moment, giving the ventricles time to fill.
4. **Ventricles contract.** The signal races down special fibres and both ventricles squeeze. This is the QRS wave. The right ventricle sends blood to the lungs, the left ventricle sends it round the body.

The heart then resets (the T wave) and the cycle starts again, about 60 to 100 times a minute at rest. Blue is low-oxygen blood, red is oxygen-rich blood. The diagram shows the heart as if you were facing the person.

Heart attack: act fast

- Call 999 straight away
- Sit them down, supported and comfortable
- Give one 300mg aspirin to chew, if not allergic
- Stay with them
- If they stop breathing, start CPR

Cardiac arrest: act fast

- Call 999 straight away
- Start chest compressions at once
- Send for a defibrillator and use it
- Follow its voice prompts
- Keep going until help takes over

Not sure which it is? Call 999 and tell them what you see. If someone is unresponsive and not breathing normally, start CPR.

Sources: British Heart Foundation, Resuscitation Council UK. Always call 999 in an emergency. First aid guidance changes, so learn it hands-on with a qualified instructor.

Learn CPR and defibrillator use hands-on.
safeservefirstaid.co.uk | Peterborough