

## **Heart Attack / Myocardial Infarction**

**A heart attack is a serious medical emergency in which the supply of blood to the heart is suddenly blocked, usually by a blood clot. Lack of blood to the heart can seriously damage the heart muscle.**

A heart attack is known medically as a myocardial infarction or MI.

Symptoms can include:

- chest pain: the chest can feel like it is being pressed or squeezed by a heavy object, and pain can radiate from the chest to the jaw, neck, arms and back
- shortness of breath
- feeling weak and/or lightheaded
- overwhelming feeling of anxiety

It is important to stress that not everyone experiences severe chest pain; often the pain can be mild and mistaken for indigestion.

It is the combination of symptoms that is important in determining whether a person is having a heart attack, and not the severity of chest pain.

### **Treating heart attacks**

A heart attack is a medical emergency. Dial and ask for an ambulance if you suspect that you or someone you know is having a heart attack.

If the casualty is not allergic to aspirin and it's easily available, give them a tablet (ideally 300mg) to slowly chew and then swallow while waiting for the ambulance to arrive.

The aspirin will help to thin the blood and restore blood supply to the heart.

Treatment for a heart attack will depend on how serious it is. Two main treatments are:

- using medication to dissolve blood clots – this is known as thrombolysis
- surgery to help restore blood to the heart

### **What causes a heart attack?**

[Coronary heart disease \(CHD\)](#) is the leading cause of heart attacks. CHD is a condition in which coronary arteries (the major blood vessels that supply the heart with blood) get clogged up with deposits of cholesterol. These deposits are called plaques.

During a heart attack, one of the plaques ruptures (bursts), causing a blood clot to develop at the site of the rupture. The clot may then block the supply of blood running through the coronary artery, triggering a heart attack.

Smoking, a high-fat diet, [diabetes](#) and being overweight or [obese](#) all increase your risk of developing CHD.

## **Recovery**

The time it takes to recover from a heart attack will depend on the amount of damage to the heart muscle. Some people are well enough to return to work after two weeks. Other people may take several months to recover. The recovery process aims to:

- reduce your risk of another heart attack by a combination of lifestyle changes, such as eating a healthy diet, and medications such as statins (which help lower blood cholesterol levels)
- gradually restore your physical fitness so you can resume normal activities (this is known as cardiac rehabilitation)

Most people can return to work after having a heart attack, but how quickly will depend on, your health, the state of your heart and the kind of work you do.

## **Who is affected**

Heart attacks are one of the most common reasons why a person requires emergency medical treatment.

Most heart attacks occur in older people over 45 years of age. Men are two to three times more likely to have a heart attack than women.

## **Complications**

Complications of heart attack can be serious and possibly life-threatening, and include:

- cardiogenic shock – this is where the muscles of the heart are severely damaged, meaning the heart can no longer supply enough blood to maintain many body functions
- heart rupture – is where the heart's muscles, walls or valves split apart (rupture)
- arrhythmia – is an abnormal heartbeat, such as a ventricular arrhythmia, where the heart begins beating faster and faster before going into a kind of spasm and then stops beating (cardiac arrest)

These complications can occur quickly after a heart attack and are a leading cause of death.

Many people will die suddenly from a complication of a heart attack before reaching hospital.

## **Outlook**

The outlook for people who have had a heart attack can be highly variable depending on:

- their age – the older you are the more likely you are to experience serious complications
- the severity of the heart attack – specifically how much of the muscle of the heart has been damaged during the attack
- how long it took before a person received treatment – the longer the delay the worse the outlook tends to be

In general around one third of people who have a heart attack die as a result. These deaths often occur before a person reaches hospital, or alternatively, within the first 28 days after the heart attack.

If a person survives for 28 days after having a heart attack, their outlook improves dramatically and most people will go on to live for many years.