

# Cardiac Rehabilitation

A guide following your heart attack



## Introduction

A heart attack can be a frightening event for you and your family. It may leave feelings of anxiety and insecurity. This booklet has been given to you to offer information, advice and reassurance for you and your family, following your heart attack.

Cardiac rehabilitation has a team of health care professionals who are there to help you on your road to recovery following your heart event.

If you live within the Blackpool, Fylde and Wyre area this team includes:

- Nursing Sisters
- Physiotherapists
- Physiotherapy assistants
- Occupational Therapists
- Occupational therapy assistants
- Clinical Psychologists
- Administrators

We also have links with Pharmacist, Dieticians and Consultants.

If you live in a different area, you will automatically be referred to your local Cardiac Rehabilitation Team following your discharge, who will be in touch with you.

## Following your discharge

If you need any further advice or need to speak to someone regarding your recovery, you can phone your local Cardiac Rehabilitation Team. Please note these numbers are not for an emergency. In the event of an emergency please call 999.

Office hours are 8:00 – 16:30 Monday – Friday (excluding bank holidays)

Blackpool – 01253 955326

Preston – 01772 522311

Chorley – 01257 245635

Blackburn – 01254 732448

Burnley – 01282 804068

Lancaster – 01524 516343

Kendal – 01539 715415

Barrow – 01229 402645

Other \_\_\_\_\_

**If you need to speak to someone out of hours, you can ring  
Blackpool's Coronary Care Unit on 01253 957863  
where a member of staff will be able to advise you.**

## Contents

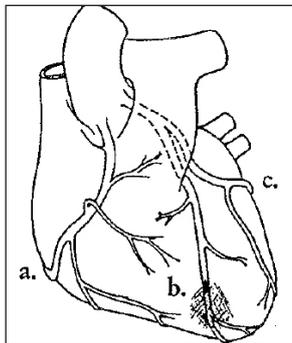
How the heart works .....	4
Heart attack.....	4
How it is diagnosed.....	5
Treatments for MI (heart attack).....	5
Wound care post angioplasty.....	6
Symptoms of a heart attack .....	6
Angina .....	6
Activities on returning home.....	8
Driving restrictions following a heart attack.....	8
Returning to work.....	9
Financial concerns.....	9
Sex after a heart attack .....	10
Holidays.....	10
Flying.....	10
Medications .....	11
Risk factors.....	14
Healthy eating .....	18
Exercise .....	21
Stress .....	21
Emotions .....	22
The Cardiac Rehabilitation Course (Blackpool).....	24
British Heart Foundation 'My progress card' .....	25
Useful telephone numbers and websites.....	27

## How the heart works

The heart is a muscular pump which circulates blood to your lungs and around your body. The blood carries oxygen and nutrients to the rest of your body through blood vessels called arteries and veins. Like all organs, the heart requires its own blood supply which it gets from the coronary arteries; these run on the outside of the heart.

**There are three main arteries:**

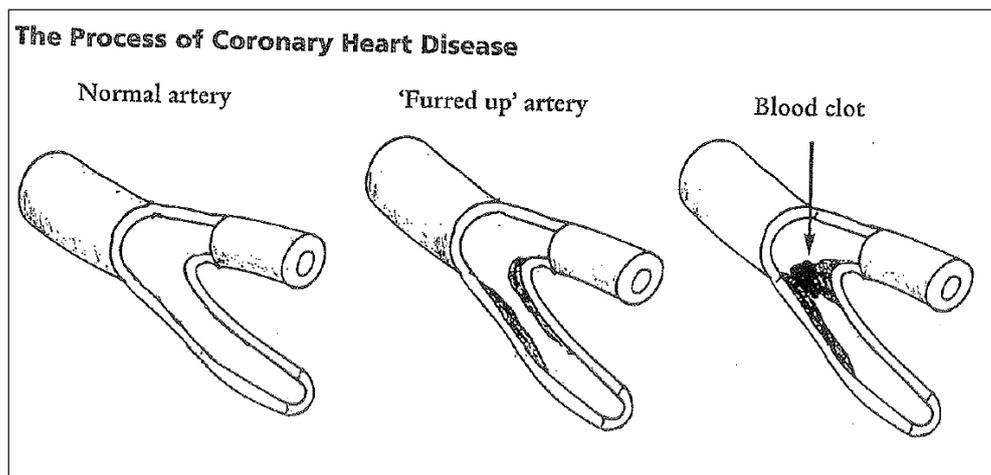
- Right Coronary Artery (RCA)
- Left Anterior Descending Artery (LAD)
- Circumflex Artery



Over time, the arteries in your body can gradually become narrowed by a build-up of deposits known as plaque or atheroma. This can be referred to as cardiovascular disease (CVD). Plaque is made up of fat, cholesterol, calcium, and other substances found in the blood. As these layers of plaque start to build up, blood flow becomes restricted through the arteries. This limits the flow of oxygen-rich blood to your organs and other parts of your body. When this process occurs in the coronary arteries that supply the heart muscle, it is known as coronary artery disease or coronary heart disease

## Heart attack

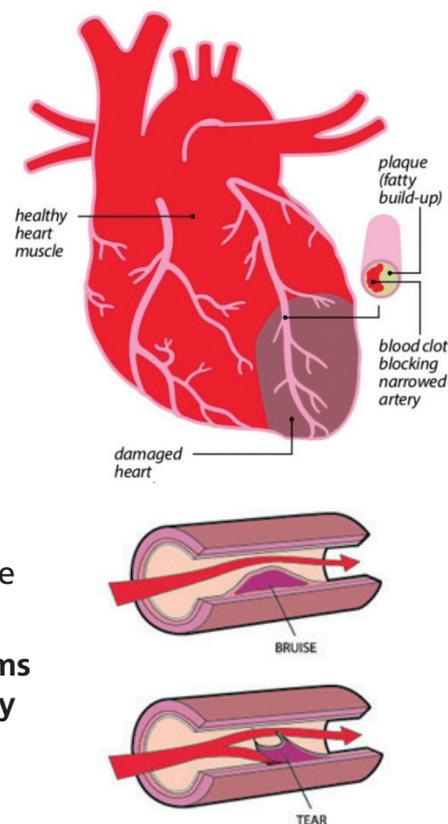
A heart attack may also be called a Myocardial Infarction (MI), a plaque rupture, a coronary thrombus, a coronary occlusion or acute coronary syndrome (ACS). A heart attack occurs when an area of the heart muscle has been deprived of oxygen-rich blood for a short period of time. This usually occurs as a result of a blood clot or complete blockage in a coronary artery. Often this is due to a plaque rupture (part of the plaque breaking off) causing the body to send cells to 'repair' it, which develops as a blood clot.



In rare cases, the heart muscle can be deprived of blood due to a tear in the artery wall (known as 'spontaneous coronary artery dissection' or SCAD). (Your Cardiac Rehab professional will clarify the type of heart attack you have had.)

**The part of the heart muscle that has been deprived of oxygen forms an area of scar tissue. For this reason, it may be necessary to modify your activity during the recovery period.**

**A blocked artery can damage your heart**



## How it is diagnosed

Doctors make a diagnosis of a heart attack based on your symptoms, recent medical history, clinical examination, electrocardiogram (ECG) and blood tests which will be repeated over 12-24 hours. The blood tests measure an enzyme called troponin which is a chemical released by your heart when the heart muscle has been damaged. This measurement will be raised even if only a small amount of damage has occurred. The doctor may then talk to you about having had a heart attack.

## Treatments for MI (heart attack)

### Coronary angioplasty (PCI)

A Percutaneous Coronary Intervention (usually called a PCI) may be performed immediately following the angiogram. A narrow section of artery may be opened up by inflating a small balloon inside the artery, squashing the atheroma and allowing the blood to flow more easily. A small piece of stainless steel mesh (stent) may then be placed inside the artery to make sure it stays open.

### Primary PCI (PPCI)

This is the same as a PCI (above) but is carried out as an emergency procedure before any other tests. If you have an ECG that shows a particular pattern known as 'ST elevation' you may be considered for a PPCI.

### Thrombolysis

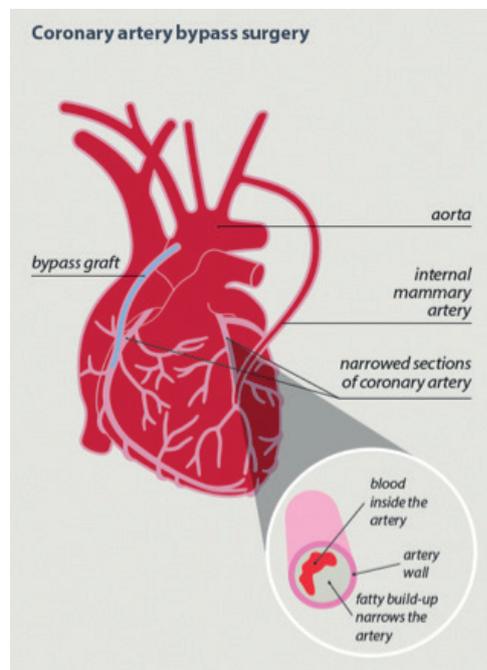
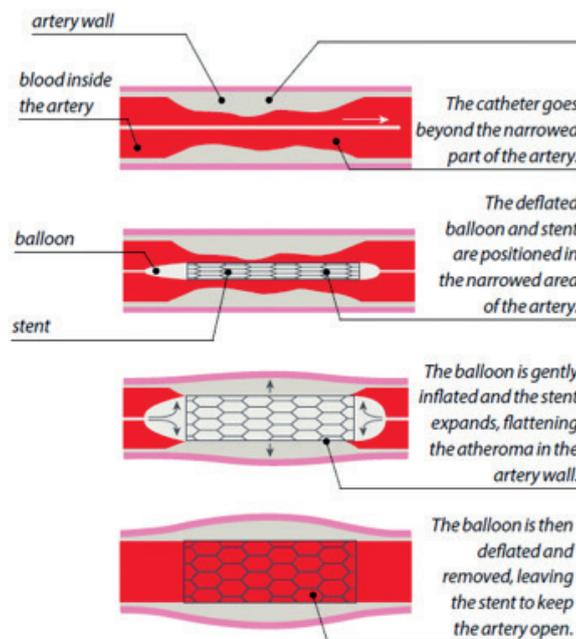
If a Primary PCI is not suitable for any reason following the first recognition of a heart attack, thrombolysis may be considered. Thrombolysis involves administering a drug to dissolve the blood clot that may be limiting blood flow to the heart muscle.

### Coronary Artery Bypass Surgery (CABG)

This is a surgical procedure where a piece of blood vessel (usually taken from the leg or elsewhere in the chest) is attached between the aorta (the main artery leaving the heart) to a point beyond the blocked or narrowed section of the coronary artery, literally bypassing the blockage. The piece of blood vessel taken to bypass the blockage is called a 'bypass graft'. A bypass graft can be carried out for each of the main coronary arteries affected.

### Medications/Medical management

Even if you have had any of the above procedures, it is almost certain that you will be prescribed some medications following a heart attack. Sometimes, your doctor may think that the best way of treating your heart attack and coronary artery disease is with medication only (see page 11 for commonly used medications).



## Wound care post angioplasty

During the day of your angioplasty, don't lift anything heavier than a cup of tea. Some bruising above and below the wound is common, but no large swelling should be present. It is normal to feel some aching or throbbing sensation around the wound site once the local anaesthetic wears off. You could take some simple analgesia such as paracetamol or codeine, do not exceed manufactures instructions.

If there is a small dressing over the wound, it may be removed the next day. In the unlikely event of severe bleeding, apply firm pressure over the wound and seek advice immediately. If you have any sudden bleeding, severe pain or large swelling on or around the wound site, contact your doctor or local hospital without delay for advice.

### Femoral wound care

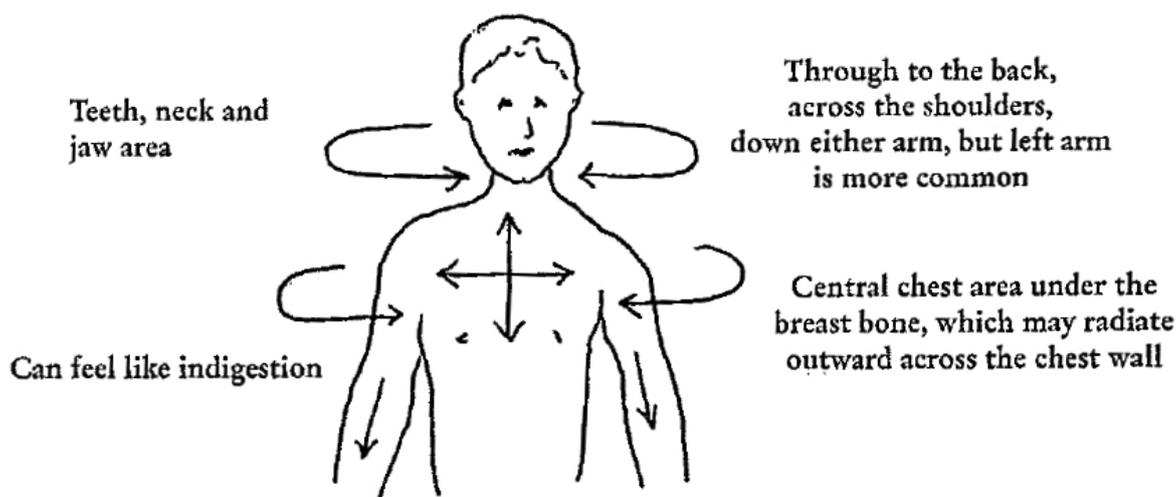
It is possible to feel a pea sized lump at the wound site, which should disappear within 90 days. If you have a femoral wound and you experience any pain, discolouration or pain down your leg or foot, contact your GP or local hospital without delay. If you have had an angioseal to your femoral wound, you should not have a bath for 3 days because the seal should not be soaked. You are ok to shower or take a strip wash.

## Symptoms of a heart attack

Symptoms of a heart attack can vary from person to person. Sometimes people experience severe pain or discomfort which may last for several hours. Others can have very few symptoms and may be surprised to learn that they have had a heart attack. However, the most common symptom is chest pain or discomfort that may radiate to the neck, jaw, arms or through to the back. People may also describe the pain as 'indigestion-like' discomfort. Symptoms may be accompanied by nausea, vomiting, breathlessness or a cold clammy sweat. Some people do not experience any symptoms at all. This is called a 'silent MI'.

## Angina

### Pain /discomfort may occur in any of these places

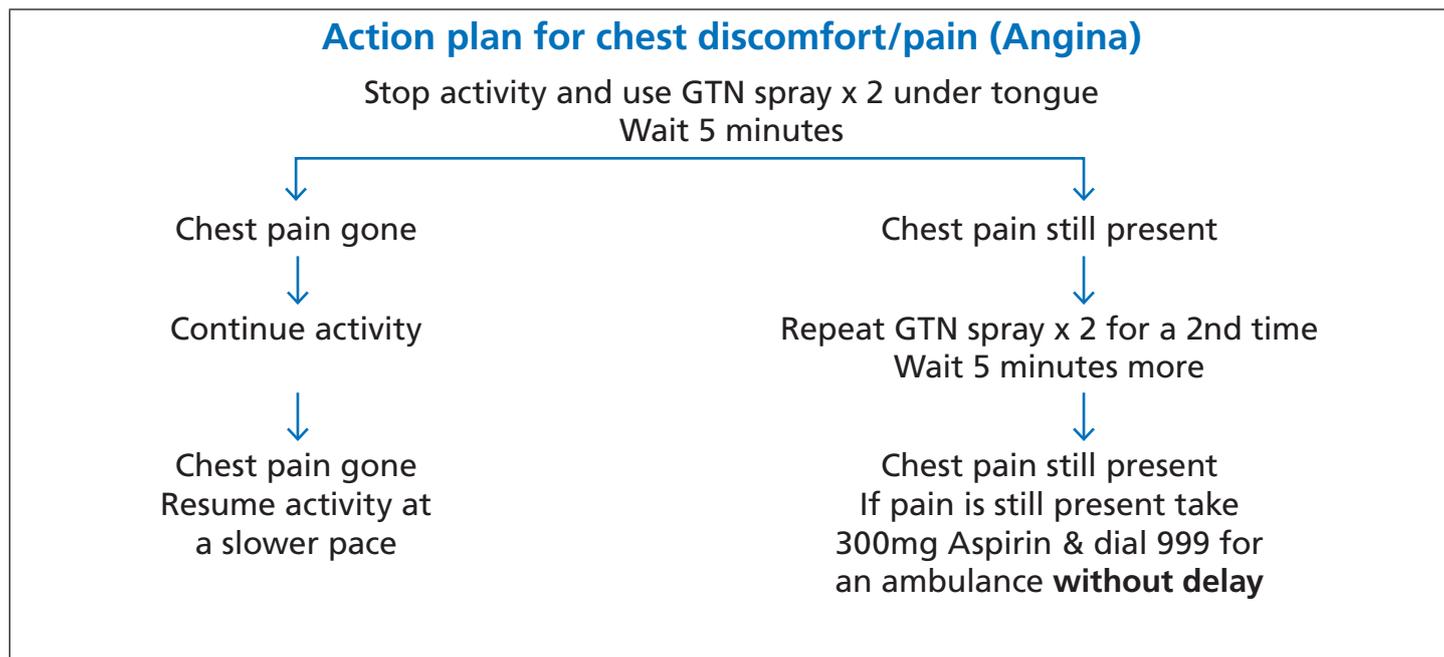


**Other symptoms to be aware of:-** If you become unduly or increasingly breathless, experience palpitations, or feel dizzy, then you should see your GP.

Angina is pain, discomfort, tightness, or indigestion-like ache which can often mimic heart attack symptoms (described above). It can be caused by narrowing in the coronary arteries which results in the heart muscle not receiving enough oxygen rich blood.

- Stable angina can occur when the heart is working a little harder than usual. For example, from exercise, excitement, cold or very hot weather, or eating a large meal. Stable angina is normally well controlled with medication.
- Unstable angina can occur over a few days with increasing frequency. You may find that you are able to do less and less exercise before your symptoms occur. It can also happen at rest or wake you in the night.

**Angina is your heart's way of saying it is not getting enough oxygen and should not be ignored.**



## Activities on returning home

In the early stages of recovery, you may find you are more tired than usual so build up your activities gradually at home over the first few weeks. Get into a routine. Don't stay in bed all day; this is not good for your mind and body. From the first day, get up, washed and dressed.

### Don't sit for long periods

Every hour get up and move, walk around the house.

### Use the stairs

If you were able to climb the stairs before your heart attack you should be able to afterwards. Take them at a gentle pace, taking a rest if needed.

### Listen to your body

Everyone is different. Spend the first few days pottering at home maybe do some light housework. Some people spend only a couple of days indoors, others may need longer but don't spend longer than a week before you get some fresh air.

### Go for a daily walk

Everyone is different and this advice can vary depending on your capabilities prior to your heart attack. As a general rule try to have a walk each day. Time your walks rather than measuring distance. Start with 5 – 10 minutes building up each time you go. Listen to your body, if you feel tired don't go as far next time. Remember to vary your walks and enjoy them. If the weather is bad perhaps ask someone to take you to a garden centre or supermarket instead so you can stay active. If you choose to go out in cold or wind remember to wrap up warmly.

In the earlier days avoid lifting heavy objects such as shopping bags, vacuum cleaners, laundry, children, suitcases and bins. Also avoid exercises which involve pushing, pulling or elevating your arms above your head for prolonged periods of time. Your Cardiac Rehab professional can discuss this with you.

Don't exercise straight after eating. This advice is good for everyone, but is extra important following a heart attack. Exercising after eating causes your heart to work harder. Allow 2 hours after a heavy meal.

## Driving restrictions following a heart attack

The DVLA puts restrictions on driving post cardiac events, which you must adhere to. This maybe one week or four weeks dependant your individual circumstances. **Due to medical terminology used, your cardiac rehabilitation professional will clarify your restrictions with you.**

### Car or motorcycle license

You don't need to tell DVLA if you've had a heart attack or a coronary angioplasty. However, you should stop driving for:

- 1 week if you had angioplasty, it was successful and you don't need any more surgery. Driving may resume 1 week after a heart attack if successful coronary intervention (PCI) **and if all of the following are met:**
  - no other urgent revascularisation planned (urgent means within 4 weeks of acute event)
  - LV ejection fraction is at least 40% before hospital discharge
  - there is no other disqualifying condition.

- 4 weeks if you had angioplasty after a heart attack but it wasn't successful
- 4 weeks if you had a heart attack but didn't have angioplasty

**If not treated by successful coronary intervention or any of the above are not met, driving may resume only after 4 weeks from the acute event, provided there is no other disqualifying condition.**

<https://www.gov.uk/guidance/cardiovascular-disorders-assessing-fitness-to-drive#acute-coronary-syndromes-acs-to-include-type-1-and-type-2-myocardial-infarction>

## Bus, coach or lorry license

**You must tell DVLA and stop driving for 6 weeks if you've had a heart attack or coronary angioplasty.**

Fill in form VOCH1 and send it to DVLA. The address is on the form. You must take an assessment with your doctor or GP after 6 weeks to see if you meet the medical standard to start driving again. DVLA might arrange for you to have specific tests, depending on your condition. Licence will be refused or revoked. May be relicensed/licensed after at least 6 weeks if:

- LV ejection fraction is at least 40%
- the requirements for exercise or other functional tests can be met
- there is no other disqualifying condition.

## Returning to work

Most people can return to work following a heart attack and this can be an important part of your recovery. Returning to work can help with feelings of isolation and depression. Work can also play a significant role in improving your self-esteem and general health and wellbeing. How quickly you return to work will depend on the type of work you do, the stress levels associated with your job and your individual health.

For example, a desk job which isn't stressful may be returned to after 2 weeks. However, if you have a physical job which involves heavy manual work, it may be necessary to take several months off work. Other things to consider; include if your job involves driving, how long it takes you to travel to work and how you get there, whether you are self-employed and your confidence.

Before returning to work it is always advisable to speak to your manager and ask to be referred to the Occupational Health department for extra support and guidance. It is recommended to take a phased return and gently build up your working hours/role. Also be honest with your work place and let them know if things are causing you unnecessary stress.

For further advice see the British Heart Foundation booklet 'Returning to work with a heart condition'.

## Financial concerns

For information regarding financial advice, please contact your local job centre, the benefit enquiry line, Citizen's Advice Bureau or AGE UK. Contact details for these are on page 27 of this booklet.

## Sex after a heart attack

People are often concerned about resuming sexual activity following a heart attack, worrying if they are fit enough or if they may get angina. Think of sex as another form of exercise, it doesn't put any special type of pressure on the heart. As a general rule if you are able to comfortably climb two flights of stairs or walk briskly for 20 minutes you can resume a normal sex life.

Some people may experience a loss of interest in sexual intercourse in the early weeks following a heart attack. Remember to communicate with your partner to avoid any misunderstanding or hurt feelings. If you have anxieties or difficulties after a couple of months speak with your GP or cardiac rehab professional. Occasionally beta blockers may cause impotence. If you think this is causing a problem, speak with your GP.

## Holidays

If you have a holiday booked for the near future, talk to your Cardiac Rehabilitation professional about your plans. This advice can vary from person to person. Helpful advice is also available on BHF website 'Holidays and travel'. Tips to carefully consider when taking a holiday, to help you to relax, and get the maximum enjoyment from it:

- Plan your journey, allowing plenty of time for delays
- Allow plenty of time and take regular breaks
- Avoid carrying and lifting heavy luggage
- Take enough medications with you, carry them in your hand luggage and carry an up-to-date list of medications with you
- Pace any activities to avoid doing too much, particularly in very hot or very cold weather
- When travelling abroad, make sure you have adequate insurance or ensure existing holiday insurance is updated, letting them know you've had a heart attack
- The British Heart Foundation website can provide information regarding travel insurance
- During long journeys stretch your legs regularly and do some simple exercises in your seat

## Flying

The British Cardiovascular Society has set out some guidance for flying following a heart attack. **Your cardiac rehabilitation professional can confirm with you which restriction applies to you;**

- Low risk – If you are under the age of 65 years, the blocked artery has been opened, the heart pump is not badly damaged (>45%) and no further tests or treatment are planned. You may fly after 3 days.
- Medium risk – If you are over the age of 65 years, your heart pump is quite good (>40%), you have no symptoms of breathlessness or chest pain and no other tests or treatment are planned. You may fly after 10 days.
- High risk – If your heart pump is significantly damaged (<40%), have symptoms of breathlessness or are waiting for further tests or treatment. Defer travel until your condition is stable.

## Medications

Medications play an important part in your recovery and should be taken as prescribed. You will be prescribed several types of medication which are used to treat any problems, that may have contributed to your heart attack and to reduce the risk of having another heart attack.

Please always make sure:

- You know what medications you are taking and when to take them
- What the medication is called
- What it is for
- Side effects to be aware of
- Keep an up-to-date list of your medications with you

**NEVER** stop taking your medication without speaking to your GP or pharmacist first. If you are unhappy with anything, discuss this with your GP or pharmacist. You will be given at least one week supply of medications to take home. These medications are often life-long (unless specified). Therefore you must ensure you order your repeat prescriptions from your GP without delay. Never run out of your medication.

**Make an appointment with your practice nurse for 2 weeks following your discharge to have a blood test and a blood pressure check.** This is to check your liver and kidney function. Following these results your GP may increase the dose of your blood pressure medications.

**Make another appointment 12 weeks following your heart attack to have your cholesterol checked, ask for a lipid profile.**

If you pay for your prescriptions you can apply for a 'NHS prescription prepayment certificate'. This you can purchase online at <https://apps.nhsbsa.nhs.uk/ppc-online/patient.do> or ask your local pharmacy or GP surgery for an application form. Go to the website for the up-to date price list.

### Herbal, homeopathic & over the counter medications:

**Always check with your pharmacist before taking any medications which are not prescribed for you! Including cold and flu remedies and pain killers. Medications can often interact with each other, so care should be taken.**

### The following section contains a list of drugs that are commonly used following a heart attack

**ANTIPLATELETS** make the blood less 'sticky' which helps to reduce the chance of a blood clot forming inside your arteries. This reduces the risk of a further heart attack. These medications are particularly important to protect any stents you've had inserted. **Do not allow anyone to stop them without speaking with your cardiologist first.**

Possible side effects: Stomach aches, nausea & vomiting. To prevent this always take after a meal. Other side effects include bruising but this should resolve in time. Ticagrelor can be associated with increased shortness of breath.

- Aspirin
  - Clopidogrel
  - Ticagrelor
- } Often stop after 12 months

**BETA-BLOCKERS** act by slowing the heart rate and lowering the blood pressure, reducing the work load of the heart. They are very effective in preventing episodes of angina and can improve the amount of exercise you can do, allowing you to carry on with activity for longer, without getting angina.

Possible side effects: Minor side effects include tiredness or even exhaustion, cold hands and feet, erectile dysfunction (impotence), dizziness, disturbed sleep and nightmares. These will lessen with time.

- Bisoprolol
- Atenolol
- Carvedilol

**ANGIOTENSIN CONVERTING ENZYME (ACE) INHIBITORS** work by relaxing and widening the blood vessels which lowers blood pressure. A lower blood pressure reduces the work load of the heart, to lessen the effect of the damage caused by a heart attack. They also have a long-term protective effect on the heart, helping maintain its function following a heart attack.

Possible side effects: Dizziness when you first start taking them. Less than 10% of people develop a troublesome cough, if this happens speak to your GP.

- Ramipril
- Perindopril
- Lisinopril
- Enalapril

**ANGIOTENSIN II RECEPTOR ANTAGONISTS (ARBs)** work in a similar way to ACE inhibitors and can be used as an alternative where a dry cough is a problem. You will need regular blood tests to monitor potassium levels and kidney function.

Possible side effects: Low blood pressure and dizziness when you first taking the medicine.

- Losartan
- Valsartan
- Candesartan

**CHOLESTEROL-LOWERING MEDICATION (Statins)** reduces the amount of lipids (cholesterol) in your blood, particularly the 'bad' type. They also help to stabilise the atheroma within the arteries. Some antibiotics can increase the toxicity of statins. Your doctor may temporarily stop your statin if you're prescribed an antibiotic.

Possible side effects: muscle aches and stomach upset. See your GP if you get these side effects or they disturb your everyday activities.

- Atorvastatin
- Simvastatin
- Pravastatin
- Rosuvastatin

Other cholesterol lowering medication can be used alongside a statin if your cholesterol levels are still high. They can also be used alone, if you cannot tolerate a statin, but work best with a statin.

- Ezetimibe

**NITRATES** widen the coronary arteries, which improve the blood and oxygen to the heart muscle.

Possible side effects: headache, dizziness.

- Isosorbide Mononitrate (ISMN) – long acting
- Glyceryl Trinitrate (GTN) Spray – Immediate acting, lasts for up to half an hour. (See page 7 for instructions of use)
- Ranolazine – used to treat chronic angina, works by allowing the heart muscle to rest which gives the coronary arteries more time to fill with oxygen

**DIURETICS** are also referred to as ‘water tablets’. They increase the amount of urine produced by the kidneys and remove excess fluid from the body. This helps to reduce any strain on the heart. Some diuretics are also used to lower blood pressure.

Possible side effects: increased urination, lower blood pressure, altered potassium or sodium in the blood. It’s important to have your bloods monitored when you first commence on a diuretic.

- Furosemide
- Bendroflumethiazide
- Bumetanide
- Indapamide

**POTASSIUM SPARING DIURETICS** are used to treat the build-up of water in the body associated with heart failure. They avoid too much potassium being lost, maintaining the balance of salts within the blood.

- Eplerenone
- Spironolactone

**CALCIUM CHANNEL BLOCKERS** reduce the amount of calcium entering the muscle cells of the arteries, causing them to relax and widen. This results in the heart receiving a better blood supply.

Possible side effects: headaches, flushing, dizziness, swollen ankles. These may settle down after a few weeks.

- Amlodipine
- Felodipine
- Diltiazem
- Verapamil

**ANTICOAGULANTS** Prevent harmful blood clots from forming. Prescribed for abnormal heart rhythms such as atrial fibrillation, or following an artificial heart valve.

Possible side effects: bruising and increased bleeding time

- Warfarin – works by interfering with the production of vitamin K, reducing its ability to coagulate. A regular blood test is required to check your ‘International normalised ratio’ (INR) to dose your warfarin. Certain foods can affect the amount of warfarin in your bloodstream – this will be discussed in further detail if you are prescribed warfarin.
  - Apixaban
  - Dabigatran
  - Edoxaban
  - Rivaroxaban
- Direct oral anticoagulants (DOACs) may be used to treat atrial fibrillation (AF). DOACs are not suitable for those who have had heart valve surgery. Benefits include not needing regular blood tests.

## Risk factors

You may wonder why you've had a heart attack. There are many different risk factors which can contribute to the build-up of the atheroma within the arteries. This section will discuss the different risk factors, how you can identify your own risk factors and how to reduce them.

Some risk factors you cannot control, but there are many that you can. It is important to be honest and identify your own risk factors and put steps in place to reduce them.

### Age

More commonly occurs in people over 50 and your risk increases as you get older. If you're over 40, you'll be invited by your GP for an NHS Health Check every 5 years.

### Gender

Men are more likely to develop Cardio Vascular Disease (CVD) at an earlier age than women.

### Family history

You are considered to have a family history of heart disease if;

- Your father or brother was under the age of 55 years when they were diagnosed with cardiovascular disease.
- Your mother or sister was under the age of 65 years when they were diagnosed with cardiovascular disease.

### Ethnicity

Statistics show that in the UK:

- if you are of a South Asian background, you may be at a higher risk of developing coronary heart disease, which could lead to a heart attack
- if you are over 65 and of a South Asian background, you are at a greater risk of having a stroke
- if you are of an African Caribbean background, you may be more likely to have high blood pressure
- people of African Caribbean and South Asian ethnicity are more likely to develop type 2 diabetes than the rest of the population.

### High blood pressure (hypertension)

It is estimated that 7 million people in the UK have undiagnosed high blood pressure (BHF). The only way to know what your blood pressure is, is to have it checked. Blood pressure is the 'pressure' of blood on the artery walls, it can be dangerous because there are often no signs or symptoms and over time if it is not treated, your heart may become enlarged making your heart pump less effectively. This can lead to heart failure.

High blood pressure can be easily diagnosed by your doctor or nurse. Medications to treat high blood pressure are prescribed routinely following a heart attack. This is to allow your heart muscle to 'rest'. It is important to continue to take your medications.

Your blood pressure should be below 130/80. There isn't always an explanation for the cause of high blood pressure, but these can play a part:

- not doing enough physical activity
- being overweight or obese
- having too much salt in your diet
- regularly drinking too much alcohol or
- having a family history of high blood pressure.

## Diabetes

Diabetes causes high levels of glucose in your blood. This is because of a problem with a hormone your pancreas produces called insulin. Insulin is responsible for moving glucose (a type of sugar) from your bloodstream into the cells of your body for energy. If there is little or no insulin being produced, or your body has become resistant to insulin, glucose stays in the bloodstream and can't move across to your cells to give them energy to work properly.

High levels of glucose in your blood can damage the walls of your arteries, and make them more likely to develop fatty deposits (atheroma). If atheroma builds up in your coronary arteries (the arteries that supply oxygen-rich blood to your heart) you will develop coronary heart disease, which can cause angina and heart attack.

If you have diabetes, your diabetes may have caused nerve damage to your heart and blood vessels. As a result of this, you may not always feel the pain or discomfort caused by angina or a heart attack in the same way as someone who doesn't have diabetes. Also, sometimes it is more difficult for doctors to diagnose angina or a heart attack in people who have diabetes.

The risk of diabetes can be increased by:

- being overweight
- being physically inactive
- having a family history of diabetes
- being of South Asian or African Caribbean origin, or
- having a history of diabetes during pregnancy.

## High Cholesterol levels

Cholesterol is a fatty substance in the blood which is made by the liver. We all need a certain amount of cholesterol. There are two main types of cholesterol, the good and the bad.

The good cholesterol is called High density lipoproteins (HDL). This works by helping to remove any excess bad cholesterol to the liver and destroying it.

The bad cholesterol is called Non-High-density lipoproteins /Non-HDL cholesterol. Too much bad cholesterol can lead to atheroma and cardiovascular disease. This includes low density lipoproteins (LDL).

Following your heart attack you will be commenced on a medication for your cholesterol (statin). **It is important to have your cholesterol levels checked with your practice nurse 12 weeks following your heart attack.** This blood test will show what your cholesterol levels are, if they remain high, your GP should review this. It is important to continue your cholesterol medication lifelong and have a routine check at least every 12 months.

**Guidelines suggest that your total cholesterol should be as low as possible.**

## Smoking

Smoking almost doubles your risk of developing coronary heart disease compared to a non-smoker. Stopping has huge benefits and it is never too late to stop!

**Chemicals in cigarettes** By giving up smoking, you protect your body from the harm of dangerous chemicals such as:

**Carbon monoxide:** This is a poisonous gas that you breathe in when you smoke. It means your blood cells can't carry oxygen around your body as well as they should. Having high levels of carbon monoxide in your blood greatly increases your risk of heart and circulatory diseases.

**Tar:** This is also in cigarette smoke and can cause cancer. When you breathe it in, 70% of the tar stays in your lungs and damages them. Cigarettes labelled 'light', 'mild' or 'low tar' are misleading. All cigarettes are bad for your health.

**Nicotine:** This is the addictive chemical found in cigarettes. It increases your heart rate and blood pressure. Untreated high blood pressure permanently damages your arteries and your heart.

Some physical effects smoking has on your body include:

- Nicotine increases the production of adrenaline which increases the heart rate and blood pressure.
- Carbon monoxide binds to the haemoglobin in the red blood cells, which reduces the oxygen supply to the heart muscle.
- Nicotine and carbon monoxide makes your blood sticky and more likely to clot.

## Help to stop smoking

Stopping smoking is the most important thing a smoker can do to benefit their health. The period whilst you're in hospital is a good time to try to stop smoking. The hospital staff can help with this by having nicotine replacement therapy (NRT) prescribed for you and referring you to the hospital 'Smoke-free team'.

The use of NRT can double the chances of successfully quitting, however the correct use of these products is vital. It's important that your health care professional discusses this with you. Many people have found the use of electronic cigarettes useful over recent years, but the research is still developing to how effective they are, they may still contain nicotine. **The use of electronic cigarettes is prohibited within the hospital site.**

**For extra help and support you can refer yourself to your local stop smoking service;**

- **Blackpool Service Information:**  
Visit <https://www.blackpool.gov.uk/Residents/Health-and-social-care/Public-health/Stop-Smoking.aspx>  
Telephone free on 0300 123 1044 and ask for the 'enhanced telephone support option'  
Speak with your GP or pharmacist
- **Fylde, Wyre, North Lancashire Service Information:**  
Visit <http://www.quitsquad.nhs.uk/index.php>  
Call Freephone 0800 328 6297

**Always be cautious of second hand smoke!**

## Alcohol

The government guidelines for alcohol for men and women are not to exceed 14 units per week, having two consecutive alcohol free days per week, and not to binge drink.

**How much is one unit of alcohol?** A unit is a measure of alcohol. The number of units is based on the size of the drink and its alcohol strength (ABV). The ABV (alcohol by volume) figure is the percentage of alcohol in the drink.

- A single pub measure (25mls) of spirits (40% ABV) contains one unit of alcohol.
- A glass (50ml) of liqueur, sherry or other fortified wine (20% ABV) contains one unit of alcohol.
- Half a pint (about 300mls) of normal strength (4% ABV) lager, cider or beer contains 1.1 unit of alcohol – be aware that many beers and ciders are stronger and have a higher volume than this.
- A standard 175ml glass of wine (13% ABV) would be 2.3 units – be aware that many wines have higher alcohol content and the size of glasses may be bigger.

Alcohol is high in 'empty' calories, can increase weight and increase blood pressure. It can have a negative effect on your bad cholesterol levels. If you find it difficult to moderate your drinking contact your GP. There are counselling services and medications are available to help.

## Being overweight or obese

This can increase your risk of coronary heart disease. Research shows that reaching and keeping to a healthy weight can reduce your risk because it helps prevent and manage conditions like high blood pressure, high cholesterol and type 2 diabetes which all put you at greater risk of coronary heart disease.

If you have a **body mass index (BMI) of 25 or more** then you may not be a healthy weight. This calculates your height to weight ratio, a BMI calculator can be found online – [bhf.org.uk/bmi](http://bhf.org.uk/bmi) or talk to your cardiac rehab health professional/doctor or practise nurse. Please remember the BMI is only a guide and does have some limitations.

**Waist circumference measurements may be a better indicator.** Fat around the middle can increase your risk of heart disease, cancer and type 2 diabetes. That's because these fat cells produce toxic substances that cause damage to your body.

You can work out your, at risk, by simply measuring your waist. Find the bottom of your ribs and the top of your hips and measure around your middle at a point mid-way between these. This may not always be at the level of your tummy button.

- A Healthy Waist measurement for Men should be 37 inches
- A Healthy Waist measurement for Women should be 32 inches

Losing weight steadily and gradually is the safest way and the weight is much more likely to stay off than if you lose it quickly. Everyone can benefit from eating a healthy diet and maintaining a healthy weight.

# Healthy eating

Healthy eating is important for everyone. Food is your body's fuel. Take notice of what you eat, when you eat and portion sizes of your meals.



Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

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The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet.

## Tips to a healthier diet:

- Replace saturated fats for healthy fats
- Eat 5 or more portions of fruit and vegetables per day
- Eat more wholegrain foods
- Reduce salt, sugar, and processed foods
- Make small, realistic changes
- Remember, it's a lifestyle, not a diet

## Fats

Small amounts of fat are essential to a healthy diet. Fats help absorb vitamins A, D, E and K. All fats are high in calories – 9kcal per gram. Eating fats in large amounts leads to weight gain. Being overweight is not good for heart health.

**Saturated fats** come from animal fats and are often solid at room temperature. They increase bad cholesterol levels, increasing the risk of heart disease. Examples of saturated fats include butter, lard, suet, dripping, coconut oil, palm oil, visible fat on meat, hard cheese, sausage, pies, pasties and burgers.

**Monounsaturated and polyunsaturated fats** are 'healthy' fats and have a positive effect on your cholesterol levels. Examples of unsaturated fats include olive oil, rapeseed oil, olive based

spreads, sunflower spreads and oils, nuts, avocados, oily fish such as mackerel, herring, sardines, salmon and tuna (not tinned tuna).

**Trans Fats/partially hydrogenated vegetable fats and oils** are associated with an increased risk of heart disease. These fats can increase 'bad' cholesterol and decrease 'good' cholesterol. They can be found in cheaper biscuits, cakes, pastries and confectionary. By law they have to be included on ingredients labels, so check the label.

Repeatedly reheating any type of fat and oil at high temperatures will convert the fat into a saturated fat. So beware of chip pans, deep fat fryers and reusing fat at home.

## Fruit and vegetables

About a third of all the food you eat should be made up of fruit, vegetables and salads. Try to eat at least five portions daily. This can reduce your risk of heart disease. One portion is the amount you can hold in your hand. Fruit and vegetables can be fresh, frozen, canned, juice or dried. They contain vitamins and minerals and are a good source of fibre, keeping your digestive system healthy.

**Tips:** Have a variety throughout the day. Bulk out meals such as pasta sauces and soups with vegetables and pulses such as lentils and beans.

## Carbohydrates

About a third of your food should be made up of starchy foods. This is the body's main energy source so you need to eat some carbohydrate foods at your breakfast, lunch and evening meal. Choose wholegrain options, they contain more fibre, vitamins and minerals. They release energy slowly and make you feel fuller for longer. Try porridge/oats for breakfast.

These foods are easily overconsumed so watch your portion sizes, and if you are overweight reduce quantities of starchy foods eaten.

1 gram = 3.75 calories

## Protein

Protein provides vitamins such as B12 and minerals including iron and zinc. Aim to eat 2-3 portions daily. Proteins include meat, chicken, fish, eggs, nuts, Quorn, tofu and pulses such as beans, lentils and seeds. Choose lean cuts of meat and poultry. Remove visible fat and skin, and limit meats such as burgers, bacon, sausages and pies. Pulses are especially good to eat for heart health. Be cautious of cooking methods, cook without adding fats, try to bake, steam, grill, poach or microwave.

Oily fish containing Omega 3 – salmon, pilchards, sardines, herring, mackerel, and fresh tuna – are especially beneficial for heart health. Recommendations are to eat 2 portions per week.

1 gram of protein = 4kcal

## Milk and dairy foods

These are an important source of calcium and protein. This food group includes milk, soya/nut milks with added calcium, cheese, yoghurt, fromage frais. Aim for 3 portions daily. 1 portion = 200mls milk or 30g cheese or 1 small pot of yoghurt. Choose low fat varieties when you can, and be cautious of high sugar content of some yoghurts and milkshakes.

## Sugar

Sugary foods can increase your weight. Recommended daily allowance:

- 24 grams for women – 6 teaspoons
- 38 grams for men – 9 teaspoons

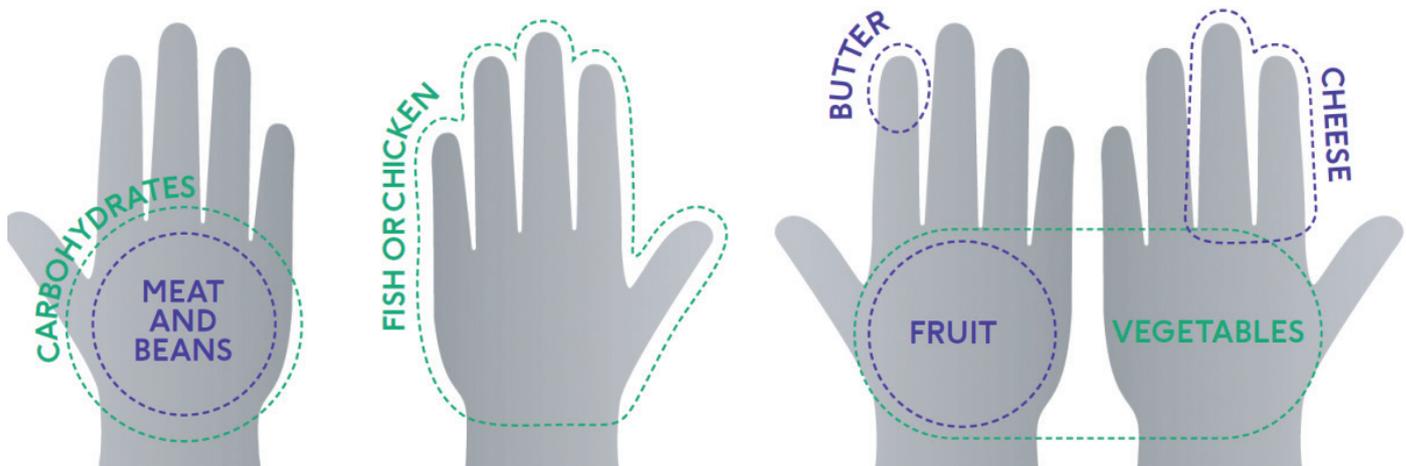
We all know which foods are high in sugar – sweets, chocolate, cakes, biscuits, honey, syrup, puddings and desserts, sugared cordials and fizzy drinks. Try to reduce these or cut them out.

## Skip the salt

- Recommended maximum daily allowance = 6 grams.
- Salt raises blood pressure and can cause fluid retention. Gradually reduce in cooking, and try not to sprinkle over foods.
- Check labels.
- Avoid 'Lo Salt' substitute, it is **not** a healthier option.
- Experiment with herbs and spices instead of salt.

77% of all the salt we consume in UK comes from processed, tinned and packaged foods, so try to cook 'from scratch'. Smoked and cured foods (ham, bacon, kippers) are high in salt, also soups, stock cubes, gravy granules and cheese.

## Portions – using your hands is an easy way to measure food portions (BHF)



- Remember, it's a lifestyle not a diet.
- Make small realistic changes.
- Visit the British Heart Foundation website for more information, hints and tips.

## Exercise

- It is advisable to have at least 150 minutes of cardiovascular exercise per week. This can be broken down into 10 – 30 minute bursts.
- Regular exercise improves the strength of your heart and enables it to pump more efficiently.
- Improves your confidence and enables you to realise your capabilities.
- Helps to lower your blood pressure.
- Helps to reduce 'stickiness' of the small blood cells called platelets, which reduces the risk of a blood clot forming and causing a heart attack.
- Hormones are released which give you a feeling of well-being.
- Increases your calorie burn-up rate thus helping you to lose weight, and slows down calcium loss, which helps to maintain bone strength.

## Stress

Stress is a word that many people use to describe the feeling of being overwhelmed or under pressure. It is known that stress is a normal part of everyday life; short bursts can prepare us, motivate and help us perform to the best of our ability, though in some instances stress can be difficult to deal with and too much stress can interfere with managing a balanced and healthy lifestyle.

Stress can affect thought processes, emotions, how we physically feel and how we behave. Work, relationships and family life, money worries, loneliness, change and major life events such as experiencing a heart related event can cause stress.

**Be aware of what can trigger your stress – What can you do?** Think about what you can change and what you can't – you cannot always change your situation and sometimes you have to accept that, but you might be able to change your responses and think of ways to make things a little easier. For example:

- **Relax** – Learn a relaxation technique that suits you. Take time out to practise, the benefits will help both your mind and body.
- **Eat a healthier diet** – This will boost 'feel good' hormones and provide vitamins for your body to deal better with stressful situations.
- **Enjoy time with family and friends** – communicating your thoughts and feelings with someone you trust is a good way to solve issues or at least put things in perspective.
- **Do something you enjoy**, listen to music, dance and laugh!
- **Be more active** – This can increase energy and stamina and boost hormones that make you feel good.

One way of increasing activity is walking, even for short distances; it is much more than just putting one foot in front of the other! It's about being in the "the here and now", feeling connected with the world – Seeing and listening to what is going on around you, breathing in the air and concentrating on the present, encouraging you not to dwell on the past or worry about what might or might not happen in the future. If you think that you are experiencing stress, consider making these 3 little changes to help:

- Turn off all technical devices an hour before you go to bed.
- Have two alcohol free days per week, alcohol disrupts a good night's sleep!

- Try some relaxed deep breathing: Breathe in and count to three in your head. Hold your breath counting for four and breathe out counting for five, gently controlling the breath as you breathe out – then breathe normally until you are ready to repeat.

We all have a personal stress threshold.

**REMEMBER** You are not alone– 1 in 5 people report feeling stressed at some point in their lives. If you feel things are getting out of hand seek advice from a professional:

- Your GP
- The Cardiac Rehabilitation Team
- The British Heart Foundation has useful resources.

Don't suffer in silence – there is support out there for you. See page 27 for phone numbers for support.

## Emotions

Everyone reacts differently to having a heart problem especially a heart attack. Some people take the news in their stride, though there are many people who find it more difficult to come to terms with.

Feeling shocked or being scared, feeling worried or panicky, resentful or angry and generally unhappy are not unusual. People can also feel frustrated or anxious, vulnerable or low in mood and very alone. None of these emotions are uncommon but they can be powerful and distressing.

**REMEMBER** Not feeling your 'usual self' is a natural response to a traumatic event and you are not alone in feeling this way.

Give yourself time to process what has happened, these feelings might come and go, having good days and bad days is not unusual for a while, but if you are finding these emotions too difficult to cope with on your own, talk to someone about it. This can be someone close to you that you can trust or perhaps a member of the Cardiac Rehabilitation team in your area. Your GP will also be able to support and advise, make sure you don't suffer in silence.

**'A problem shared is a problem halved.'**

It is not always easy to discuss your emotions, but putting a brave face on a situation might not help your recovery in the long run. Do consider getting help if your feelings are overwhelming you and stopping you getting on with everyday life and affecting your mood over several weeks. Your emotions might also have an impact on the people you live or work with.

People often describe their heart event as a 'Journey' they go through, often on that journey people close to you are also affected by what has happened. By keeping the lines of communication open it can help to support one another through this time.

These are some of the things you can do to help yourself and improve your sense of wellbeing.

- If you have the opportunity, join a Cardiac Rehabilitation programme in your area.
- Eat a healthy balanced diet.
- Be active every day within the limits of the advice of your medical team, balance activity and periods of rest.
- Spend time in the open air.

- Spend time doing activities you enjoy, maybe a hobby or something creative.
- Practise some relaxation or mindfulness techniques to help you manage.
- Keep a diary of your thoughts and feelings during your recovery.

A diary can be just for your eyes only or something you can use to help you explain your feelings to your GP or a healthcare professional. It is sometimes more difficult to explain emotional symptoms as opposed to physical ones. Healthcare professionals are aware of this and are there to listen and not judge. Do seek help if:

- Your worries are stopping you getting on with your recovery and everyday life.
- Your worries are extremely stressful and upsetting.
- You worry about a lot of different things and have a tendency to think the worst.
- You have these worries daily and you feel they are out of control.

If you have thoughts of taking your own life or harming yourself it is important to tell someone.

- GP – if your concerns are not immediate.
- SAMARITANS 08457 90 90 90
- A+E/999 if you have taken an overdose or about to seriously harm yourself.

**‘Most people do recover from depression and anxiety, although the time it takes is different for everyone.’**

Make sure you have the right information and seek professional advice if any of these issues are affecting you. If you are working on ways of improving your mood, be easy on yourself, only set realistic goals and don't try to achieve everything at once.

Always check with your pharmacist, GP, or Cardiac Rehabilitation team if you are exploring new or complimentary therapies.

**Don't be afraid to ask for help!**

## The Cardiac Rehabilitation Course (Blackpool)

Following your discharge from hospital you will be invited to an appointment with the Cardiac Rehabilitation Team. During this appointment we will help you identify your risk factors and ways to reduce them. We will also discuss your recovery and how you and your family are coping following your cardiac event.

You will be asked to complete a functional assessment, with our physiotherapist to allow them to gain a base line of your current physical ability. This information can help to provide a personalised plan to aid with your recovery.

You will then be invited to the Cardiac Rehabilitation program which consists of exercise and health education at various locations based in the Blackpool area. Cardiac Rehabilitation is a nationally recognised programme.

This program is free of charge and is offered as part of your recovery. We can provide a letter for your work, explaining the importance of this program as part of your recovery, if required. It is offered during the daytime. Days, times and locations will be discussed with you.

You are welcome to bring a relative to the educational sessions but not the exercise component.

### Why attend?

- Attending Cardiac Rehabilitation has been shown to reduce the likelihood of future admission to hospital, reducing a further heart attack by 26%
- Cardiac rehabilitation is recommended in current medical and best practice guidelines for all patients following a heart attack.
- Attending cardiac rehabilitation can improve your physical and functional ability and how you perceive your quality of life.
- Attending can help you to regain your confidence by informing you of what you can do to help yourself, reducing your risk of further problems.

## Medication

Any allergies to medicines? \_\_\_\_\_

Name and group of medicine, for example, Frusemide diuretic	Dose	When I take it	Side effects/change to medicine

## Tests

Date	B/P	Date	B/P	Date	B/P

Date	TCL	LDL	HDL

## Investigations

- Exercise test
- Echocardiogram
- Thallium scan
- Magnetic resonance imaging
- Angiogram
- Other: \_\_\_\_\_

## Treatment

- Coronary artery bypass surgery
- Angioplasty
- Pacemaker
- Implantable cardioverter defibrillator
- Valve surgery
- Other: \_\_\_\_\_

## My details

Name: \_\_\_\_\_

Date of birth: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

If you find this card please phone: \_\_\_\_\_

GP: \_\_\_\_\_

Phone: \_\_\_\_\_

Cardiac team: \_\_\_\_\_

Phone: \_\_\_\_\_

### Conditions:

- Angina
- Heart attack
- Heart valve disease
- Heart failure
- Arrhythmia/irregular heart beat
- Cardiomyopathy
- Diabetes
- Other: \_\_\_\_\_



# My progress card

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[bhf.org.uk](http://bhf.org.uk)



Heart Helpline  
**0300 330 3311**  
[bhf.org.uk](http://bhf.org.uk)

Information & support on anything heart-related. Phone lines open 9am to 5pm Monday to Friday. Similar cost to 01 or 02 numbers.

British Heart Foundation  
Greater London House  
180 Hampstead Road  
London NW1 7AW  
T 020 7554 0000  
F 020 7554 0100

BEATING HEART DISEASE TOGETHER

## Risk factor tracking record

Risk factors are things about your lifestyle that increase your chances of developing coronary heart disease (CHD). There are certain risk factors that you cannot change, such as your age, ethnic origin and family history. The good news is that many risk factors can be reduced.

The table below shows how you can keep your heart healthy.

Giving up smoking	Controlling blood pressure	Increasing physical activity	Controlling weight	Eating a healthy diet	Lowering cholesterol	Drinking within sensible limits	Controlling diabetes
No smoking.	Blood pressure (B/P) below 140/90 No greater than 130/80 if you have diabetes or CHD.	At least 30 minutes of moderate intensity activity five or more days a week.	Waist should be less than 31.5ins (80cm) for a woman and 37ins (94cm) for men. South East Asians: waist should be less than 31.5ins (80cm) for a woman and 35.5ins (90cm) for men.	At least five portions of fruit and vegetables per day. Reduce saturated fat, salt and sugar intake.	Total cholesterol level (TCL) as low as possible. If you have CHD, TCL less than 4mmol/l, low-density lipoprotein (LDL) under 2mmol/l and high-density lipoprotein (HDL) above 1mmol/l.	Have two alcohol free days a week. No more than two to three units of alcohol for a man daily. This may vary depending on your condition so check with your doctor.	Blood sugar level between 4-7mmol/l before meals. It should be no higher than 10mmol/l two hours after meals. This may vary depending on your condition so check with your doctor.
It can be difficult, at first to change your lifestyle, but over time you will notice the benefit to your health and well-being. Set small realistic goals to help you achieve your aim. You can do this on your own or with the help of your health professionals. Don't try to change too many things at once.							
Risk factor:	Goal: Action plan:		Progress/comments:		Progress/comments:		Progress/comments:
Date:	Review date:		Date:		Date:		Date:
Risk factor:	Goal: Action plan:		Progress/comments:		Progress/comments:		Progress/comments:
Date:	Review date:		Date:		Date:		Date:
Risk factor:	Goal: Action plan:		Progress/comments:		Progress/comments:		Progress/comments:
Date:	Review date:		Date:		Date:		Date:
<b>Additional comments:</b>							

## Useful telephone numbers and websites

- **Age UK** – 0800 055 6112 – [www.ageuk.org.uk](http://www.ageuk.org.uk)
- **Alcohol, Drugs and Sexual Health Support**  
Horizon Blackpool – 01253 205156 – [www.horizonblackpool.uk](http://www.horizonblackpool.uk) – [www.portmangroup.org.uk](http://www.portmangroup.org.uk)
- **Benefit Enquiry Line** – 0800 022 4250
- **Blackpool citizens advice bureau** – 0300 330 1184 – [www.blackpoolcab.org.uk](http://www.blackpoolcab.org.uk)
- **Blackpool Job Centre** – 0800 169 0190
- **Blackpool social services** – 01253 477592
- **British Heart Foundation** – [www.bhf.org.uk](http://www.bhf.org.uk)
- **Carers Support** – Blackpool – 01253 393748  
Lancashire – 0345 688 7113
- **Diabetes Advice** – [www.diabetes.org.uk](http://www.diabetes.org.uk) – 0345 123 2399
- **Lancashire Social Services** – 0300 123 6720
- **Lancashire Welfare Rights** – 0300 123 6739
- **Mindsmatters for Fylde and Wyre** – 01253 955943
- **Pendant Alarms** – Blackpool Vitaline – 01253 477678  
Fylde and Wyre helpline – 01253 642111
- **Stop Smoking Helpline**
  - Blackpool Service Information: Visit <https://www.blackpool.gov.uk/Residents/Health-and-social-care/Public-health/Stop-Smoking.aspx>
  - Telephone free on 0300 123 1044 and ask for the 'enhanced telephone support option'
  - Speak with your GP or pharmacist
  - Fylde, Wyre, North Lancashire Service Information: Visit <http://www.quitsquad.nhs.uk/index.php>
  - Call Freephone 0800 328 6297
- **Talking Therapies Supporting Minds** (provided for Blackpool) – 01253 955700
- **Wellbeing and Mental Health helpline** – 0800 915 4640

# Useful contact details

Cardiac Rehabilitation:  
Telephone: 01253 955326

Hospital Switchboard: 01253 300000

## Patient Relations Department

The Patient Relations Department offers impartial advice and deals with any concerns or complaints the Trust receives. You can contact them via tel: **01253 955588** or by email: **bfwh.patientrelations@nhs.net**

You can also write to us at: **Patient Relations Department, Blackpool Victoria Hospital, Whinney Heys Road, Blackpool FY3 8NR**

Further information is available on our website: **www.bfwh.nhs.uk**

## References

Details of the references used in writing this leaflet are available on request from: **Procedural Document and Leaflet Coordinator**  
**01253 953397** or **bfwh.trustpolicyteam@nhs.net**

### Options available

If you'd like a large print, audio, Braille or a translated version of this leaflet then please call: **01253 955520**



Our Four Values:

