



*Better
Together*

Patient information

Recovering from a Heart Attack

Cardiology Directorate

This booklet is designed to answer some of the questions you and your family may have. It is important that you share this information with your family so that they can understand your illness and may be reassured.

We hope that the booklet will help you while you are in hospital and at home, and will emphasise the lifelong changes you may need to make. The staff are there to help you on your road to recovery and will be pleased to discuss any aspect of your care. You and your family should ask questions, no matter how small or silly you may think they are.

We also hope to remove people's fears that are often caused by not knowing enough about heart disease and heart attacks.

Read this booklet carefully and follow our advice. If you don't understand something or you would like more information, do not hesitate to ask the nursing or medical staff.

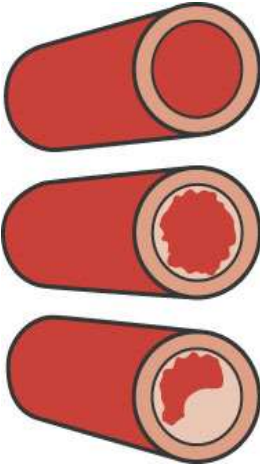
Finally, some people feel low after a heart attack. Remember that most people return to good health and an active life!

The heart

The heart is a powerful pump that is responsible for delivering blood to all parts of the body. In order to do this, the heart needs a good supply of blood from the coronary arteries. There are three main arteries - the right branch and two main branches on the left. These arteries then divide, delivering blood to all parts of the muscular wall of the heart.

Heart disease

This is caused by a build-up of fatty deposits in the walls, which eventually narrows the arteries and restricts blood flow. The process that causes the coronary arteries to narrow is called atherosclerosis or 'hardening of the arteries'.



1. Blood in the artery
2. Fatty deposits (atheroma) form in the wall of the artery, causing it to narrow.
3. Atheroma leads to severe narrowing of the artery and restricts blood flow. This may cause angina. A complete blockage causes a heart attack (also known as a myocardial infarction, MI or coronary) and this usually happens when a blood clot forms in the narrowed coronary artery.

What is angina?

When part of the heart temporarily does not have enough blood, this results in a particular type of discomfort, usually in the chest, which is called angina. Angina can be brought on by exercise, emotion, stress, cold weather or a heavy meal. The heart has to work harder in these situations and so beats faster, needing more oxygen-carrying blood.

The narrowed coronary arteries do not allow enough blood flow to meet this increased need. This angina pain can also spread down your arm into your back, or be in your throat and lower jaw, and you may also feel breathless.

This discomfort usually eases as your heart rate falls back to normal during rest or soon after taking Glyceryl Trinitrate (GTN) tablets or spray.

What is a heart attack?

A heart attack or myocardial infarction happens when the blood supply to an area of the heart muscle is stopped, usually by a blood clot forming in a narrowed artery that causes a complete blockage of a coronary artery or one of its branches. This area of the heart quickly becomes damaged which usually causes discomfort in the chest or sensations in the arms, back, jaw and throat area.

This discomfort is usually more severe than angina, lasts longer and can be accompanied by sweating, nausea (feeling sick), vomiting and shortness of breath. It is not usually relieved by GTN tablets or spray.

Acute Coronary Syndrome is a general term often used to describe a heart attack or unstable angina (angina occurring with minimal exertion or at rest, or a change in severity and duration of symptoms).

What affects how serious a heart attack is?

How serious a heart attack is depends on where the blockage is in the coronary artery. If there is a blockage in a large branch of the artery, this is usually associated with a larger area of damaged heart muscle. If a small vessel is blocked, only a small area of muscle is scarred.

Also, depending on where in the heart the affected muscle is, it can affect the way the heart works, for example, how well the blood is pumped around the body or the heart rate.

Interestingly though, the amount of discomfort you feel does not relate to how serious the heart attack is. Even minor ones can cause a lot of discomfort while major ones can be virtually painless.

What causes heart disease?

Atherosclerosis is a modern disease. An individual is more likely to develop this disease if they have the following 'risk factors'.

The main risk factors are:

- Smoking.
- High cholesterol (fat) levels in the blood.
- Diabetes mellitus (sugar diabetes) that is treated by a special diet, tablets or insulin.
- A history of heart disease (angina or heart attack) in the family.
- High blood pressure.
- Not being very active.
- A poor diet – too much saturated fat, not enough fruit and vegetables.
- Being overweight.
- Stress.
- A history of heart disease (angina or heart attack) in the family.

Treating these risk factors will help slow down the process of the disease. Unfortunately, however, some people develop hardened arteries and heart disease without having any of the recognised risk factors.

Going into hospital

After the doctor has assessed you, you may be nursed on a Coronary Care Unit (CCU) or a general ward. Special drugs called thrombolytics (clot busters) are sometimes given after a heart attack.

It is important that you are closely monitored while you are receiving this treatment and shortly afterwards. These drugs limit or sometimes prevent damage to the heart muscle.

On a CCU, specialised equipment is available to constantly monitor the electrical energy your heart gives out. Highly trained staff can give you treatment immediately if necessary, to correct disturbed heart rhythms. The average stay on a CCU is one to two days.

Whatever ward you are on, you should rest in bed until you are pain-free for 24 hours. During this time, regular investigations will be carried out to confirm that you have had a heart attack and to monitor your progress.

These investigations may include the following:

- **ECG (electrocardiograph)** - a paper tracing of the heart's electrical rhythm.
- **Chest X-ray** - to check for signs of water on the lungs.
- **Blood tests** - when the heart muscle is damaged, chemicals are released into the blood and can help doctors diagnose your condition.
- **Echo (echocardiograph)** - a heart scan to check the pumping action of your heart. This is not performed on everyone.

Leaving Coronary Care (CCU)

After your stay in the CCU, the chance of you suffering from abnormal rhythms or complications is greatly reduced. This means that the continuous monitoring of your heart is no longer necessary and you can be moved to a cardiology or general medical ward to continue your recovery.

The ward is for patients who are suffering from a variety of illnesses - some of them will have had heart attacks too.

The ward staff are trained to care for people who have had a heart attack, and are there to help you recover and prepare for your return home.

Rest is very important during the first few days after you have been transferred from the CCU. Your activities will be gradually increased each day until you are 'back on your feet' again and ready to go home. Your nurse is there to advise you about activity. You will be seen by the doctor on the ward, but not usually as often as the doctor saw you when you were first admitted.

While you are on the ward, the Cardiac Rehabilitation Team will visit you and discuss your ongoing care. Do not hesitate to ask any of the staff to help you if you have any problems.

Leaving hospital

The usual length of stay in hospital is five to ten days, or a little longer if the doctor thinks that it is the best thing for you.

As you start to feel better, you may be wondering what to expect when you leave hospital. Everyone has different concerns and needs to consider when going home.

Chest discomfort after your heart attack

Many people become very aware of even the slightest discomfort in their chest after a heart attack. Remember, odd chest aches and pains (usually sharp, shooting, needle-like or prickling sensations) are common after a heart attack and are almost always of no significance. These usually arise from the muscles or joints of the chest wall rather than the heart itself.

Some people continue to experience, or begin to notice, angina after a heart attack. This is usually brought on by exertion, emotion or cold, or after heavy meals.

Always carry GTN spray or tablets. You may also be more aware of your heartbeat, which is probably due to anxiety. However, if this continues or it seems fast or irregular, get medical advice.

If you experience chest pain, you should do the following.

- Firstly, sit down and rest. Take your GTN medication.
- If the pain does not go in five minutes, repeat your medication.
- If the pain continues after another five minutes, repeat your medication again.
- If you are still in pain after another five minutes, dial 999 and wait for the ambulance.
- Please be aware that if you have not used GTN before, sometimes it may make you feel dizzy or cause a headache so you are best to sit down when you first use it.

Emotional reaction

Many patients find the first few days at home very tiring. The change from a safe hospital environment to home can make you anxious and irritable.

These feelings are normal and usually pass in the coming weeks. However, if these emotions continue, they may interfere with your recovery and you should talk to your cardiac rehabilitation nurse or doctor.

Boredom is another common feeling following a heart attack, due to the restrictions on your activities while your heart is healing. During the initial period at home, you would benefit from having a hobby or pastime (for example, reading, listening to music or watching TV).

Family members tend to be overprotective when you first go home. Be patient with them. They have also had a shock and they need time, as you do, to realise what activities you can do and when you can do them. Most importantly, talk to your family and tell them how you feel.

Returning to normal

The following is a general guideline for people recovering from a heart attack.

It is aimed to help you get back to as normal and active a life as possible, and to reduce the risk of having another heart attack. You are just the same person but now you have a chance to reassess your lifestyle and maybe make some changes for the better.

Physical activity

Regular physical activity is good for the heart, lungs and body in general. You should try and do some physical exercise every day. You should gradually increase this day by day and week by week. However, you should avoid getting chest discomfort or uncomfortably short of breath.

Every person is different in the amount of exercise they can do and the rate at which they increase their activities. Do not compare yourself with others.

There is a timetable later on in the booklet, but remember that older people and people who were unfit before they had their heart attack may need to take things more slowly. Similarly, people who were fit before their heart attack may increase their activities sooner.

Remember to be sensible and get advice if there is anything you are not sure about.

Most people should return to their level of fitness before they had their heart attack.

Your family may expect you to return to normal sooner than they should. Some people feel that they have to catch up with their housework and take up their caring role immediately.

Be patient. Allow the rest of the family to take on this responsibility. Be kind to yourself and take time to return to all the usual chores.

Below are some examples of the things you should avoid in the first few weeks after coming out of hospital.

- Lifting heavy objects such as groceries, suitcases, garage doors and so on.
- Heavy gardening or DIY.
- Pushing or pulling heavy weights, for example, furniture, heavy shopping and trolleys.
- Trying to open a stuck window or unscrewing a jar that is stuck tight.
- Very hot or cold temperatures.

- Very cold, windy weather.
- Very hot or cold showers or saunas.

If you are following a walking programme, go out in the mildest part of the day in the winter, and in the summer, walk in the morning or early evening when it is cooler.

Sports

After a month or two, or following advice from your cardiac rehab nurse or doctor, you can return to, or start, most sports – start slowly and gradually increase. Beneficial sports are those that are ‘aerobic’ exercise, for example, brisk walking, cycling.

Non-competitive tennis, table tennis and badminton are also good forms of exercise to consider after you have completed a cardiac rehabilitation programme.

Return to work

Generally speaking, people can return to work four to 12 weeks after a heart attack. Most will be able to take up their previous jobs, although people who used to work very long hours or did hard physical work should consider if it is possible to reduce their commitments.

By law, Heavy Goods Vehicle (HGV) and Public Service Vehicle (PSV) licence holders must tell the DVLA that they have had a heart attack or acute coronary syndrome. They will have to give up their licence for a period of time. More investigations will be needed before they can get their licence back, and the Driver and Vehicle Licensing Agency (DVLA) will supply information on this process if asked.

Your family doctor (GP) and cardiac rehabilitation team will be able to tell you how suitable your work is. There may be courses available for you if you need to change your job. For details, contact the Disablement Resettlement Officer at your local Jobcentre.

Driving your car

You should not drive your car during the first four weeks after a heart attack. Following advice from your doctor or Cardiac rehabilitation team, you may begin to drive short distances, but avoid motorways and rush-hour traffic.

You should break up longer journeys by stopping frequently. You should contact your motor insurance company to tell them that you have had a heart attack to make sure that your insurance is still valid. You do not have to tell the DVLA.

Air travel

You should not fly until you are fully recovered. However, some airlines say that if a journey is essential following an uncomplicated heart attack, you may fly as early as 10 days after the heart attack. Follow the advice of your doctor, airline and travel insurance company.

Whenever you fly following a heart attack, be aware of the extra work that is involved with arranging a holiday, meeting timetables for travel and carrying luggage – be sensible!

Having sex

As long as you do not suffer symptoms such as chest pain or uncomfortable shortness of breath, sex is quite safe and neither you nor your partner should be concerned.

Lovemaking results in cardiovascular symptoms that are very similar to those caused by exercise. There is a rise in your heart rate and blood pressure, as well as an increase in breathing. However, in terms of working your heart, having sex increases your heart rate as much as climbing two flights of stairs does.

Tell your doctor if sex brings on chest discomfort, dizziness, shortness of breath, or a rapid or irregular heartbeat that continues for 15 minutes or more after sex.

Impotence (not being able to have sex) can be a short-term problem following a heart attack. The cause of this is usually fear and anxiety, and you should be able to have sex again when your emotional state recovers. It is important that you and your partner discuss this and consult your doctor if you have any problems. Don't panic if you find that your sexual desire is not the same as it was! Remember that physical fitness and time work wonders.

Sleep and rest

Sleep and rest are very important factors in your recovery. Many patients are exhausted when they have their heart attack. You may still feel tired after you leave hospital. This is quite normal.

You should try and get plenty of rest. Rest for 30 minutes or so after a meal. Remember that visitors can be tiring. Take a break if you need it.

Medication

You will probably be on tablets for the rest of your life. Each medication you are prescribed has a specific effect so it is important that you take your medication exactly as your doctor tells you to.

You should receive information leaflets about each of your medications while you are in hospital. If you do not, please ask for them.

Here are a few basic hints about taking your medication.

- Try to learn the names of your tablets and do your best to understand why you are taking them.
- Take your medication in the amount and at the time ordered.
- Do not stop taking a tablet that has been prescribed for you without first consulting your doctor.
- Check with your pharmacist before taking any medication that has not been prescribed, such as over-the-counter remedies.
- Do not take someone else's medication, even if it has the same name as yours.
- Contact your doctor if you have any unexpected reaction to medication, such as a fever, a rash or diarrhoea.
- Keep your medication in its own labelled container.
- If you forget to take your medication or are not sure whether you took it, do not take another dose. Wait until the next time your medication is due.
- Keep medicines out of the reach and sight of children.
- Carry a list of all the medication you take with you at all times.
- If you pay for prescriptions, speak to your pharmacist as there are payment options available to reduce the cost if you are on several tablets.

Follow-up care

Most people will receive a follow-up appointment to return to the hospital. This will be either to go to the outpatient department or for an exercise tolerance test. You will receive this appointment either in the post or when you leave hospital.

It is important that you attend so that the doctor or Cardiac rehabilitation team can check your health and progress. If you cannot attend, please contact the department on the phone number given on your appointment letter to alter your appointment.

Exercise tolerance testing

This is an investigation that may be carried out following your heart attack if your doctor thinks that it is necessary. You will be asked to walk on a treadmill while you are being supervised. Your heart rate and blood pressure are monitored while you are exercising to assess how your heart is working.

No-one passes or fails the test as individual factors are taken into account when working out the result.

Coronary Angiogram

You may be referred for a coronary angiogram. This is sometimes done while you are still in hospital or you may be admitted for a day at a later date. Not everyone needs an angiogram so do not worry if your doctor has not suggested one.

An angiogram is an x-ray picture of the coronary arteries. It allows the doctors to see if there are any narrowings in the arteries and if so, how significant they are. A small cut is made in the wrist or groin and a fine tube passed in to the artery. The tube is gently fed through until it reaches the coronary arteries.

This will enable the doctor to decide if you need any further treatment for your heart disease.

The test should not be painful, as you will be given a local anaesthetic first. Some people experience a flushing/warm sensation during the procedure – this is perfectly normal.

Cardiac rehabilitation

Once you have been discharged from hospital, a member of the Cardiac rehabilitation team will phone you to offer ongoing support and advice. They will monitor your progress and recovery, and discuss with you the appropriate option of cardiac rehabilitation.

As you recover from your heart attack, you may be interested to know that you will be offered the opportunity to attend a cardiac rehabilitation programme in your neighbourhood or nearest general hospital

If you cannot attend, the cardiac rehabilitation team make alternative arrangements (arrangements may vary slightly according to where you live).

The rehabilitation courses include discussions on subjects that are related to your health, for example, healthy eating and managing stress. You may also be invited to take part in a programme of supervised exercise, which will be tailored to meet your own specific needs and ability.

You will have the opportunity to regain and increase your fitness, and will be encouraged to make moderate exercise part of your daily life. The cardiac rehabilitation team will discuss this with you in more details.

Activity guidelines for when you go home

Please remember that these are general guidelines. Everyone is different.

Week One

- Take your time and get used to being at home.
- Be as active as you were on your last day in hospital.
- Plan your day to limit trips upstairs (but do at least three trips).
- Walk around the house and garden, on the flat, for about five to ten minutes. Repeat this again during the day if you feel well enough as the week goes on.
- Have a sleep or rest in the afternoon if necessary.
- Accept your limitations and don't overtire yourself.

Weeks two to three

- Do more activities around the house.
- Walk for 10 to 15 minutes on the flat at least once or twice a day, increasing gradually by the third week.
- Do not get overtired.
- Do light gardening. Do not do any digging.
- Shop for light items (within 10 to 15 minutes' walking distance).
- Take short rides in the car as a passenger.
- You can have sex if you feel safe doing so.

Weeks four to seven

- At this stage, you will probably be attending a cardiac rehabilitation class and many of your activities can be guided by what you are doing in the class.
- You can probably now do all but the heaviest of household duties – avoid window cleaning and heavy gardening.
- At this stage, you can begin driving again, starting with short journeys.

Weeks eight to ten

- Try to be at least as active as you were before your heart attack.
- Take exercise regularly, gradually increasing the duration to approximately 30 to 40 minutes, three to five times a week.
- Do all household duties but try and have rest periods to break them up.
- You can take longer car trips.
- Start doing certain recreational activities (bowling, cycling, swimming*, fishing, dancing and so on). Check with your cardiac rehabilitation team for advice about other recreational activities.
- Try to avoid heavy shovelling, competitive or strenuous sports and lifting heavy objects.

***Check with your nurse if you have a scar or have had an operation.**

And finally

Do not be discouraged because you have had a heart attack. Most people return to a normal life.

We would like to wish you the very best of future health.

Further information

British Heart Foundation

www.bhf.org.uk

Expert Patient Programme:

There is a free self-management programme for people living with long-term health conditions.

For more information, or to attend a course, please ring.

- Liverpool Tel: 0151 549 1706
- Sefton Tel: 01704 885 340
- Knowsley Tel: 0151 443 4441

NHS Direct: 0845 46 47

For free advice and information on any health matter, 24 hours a day, seven days a week.

Author: **Produced in partnership by your local NHS Services Aintree Hospitals Foundation Trust, Knowsley Primary Care Trust, Liverpool Primary Care Trust, Royal Liverpool and Broadgreen University Hospitals NHS Trust, Sefton Primary Care Trust.**

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