NHS
Royal Berkshire
NHS Foundation Trust

# After a heart attack

## Guidelines and advice to aid your recovery

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**This booklet has been produced to help answer some of the questions you and your family may have about your heart attack. It covers many areas and aims to help you through the next few weeks and months. We want to ensure that you are discharged knowing which risk factors are most applicable to you.**

**It may not answer all your questions, so there is a blank section at the end of the booklet for you to write down any questions you may have. A nurse will sit down with you before your discharge, answer these questions and discuss what happens after discharge and ways of preventing further heart attacks.**

**It is important that you start to take control of your future but people are there to help you. Set yourself short-term goals, don't compare yourself to others or try to make too many changes in your lifestyle in one go. We hope that you make a speedy recovery and that your health continues to improve.**

## What is a heart attack (myocardial infarction)?

The heart is a muscular pump that carries blood through the lungs and around the body. It needs a good blood supply to provide it with the oxygen and nutrients it needs to function. This blood is provided by a network of coronary arteries that sit on the outside of the heart.

A heart attack is a blockage or narrowing of one of these arteries. This blockage is usually caused by a combination of fatty deposits (atheroma) and a blood clot. The fatty deposits narrow the artery and build up over many years. This can eventually block the flow of fresh oxygenated blood. At the onset of a heart attack a small crack occurs on the surface of an area of atheroma. The body's normal defence mechanisms then come into play, initially involving small particles in the blood stream called platelets. These are particles that stick together and clog up the crack. The process then continues causing further restriction of blood flow. When the clotting plug is big enough, or if the artery is too small, a total blockage of the artery can occur so that blood no longer flows down the artery.

Typical chest pain that often accompanies a heart attack is often described as 'crushing', 'tightness', 'gripping' or 'like a heavy weight in my chest'. The pain may be in the middle of the chest and may go through to the back to between the shoulder blades. The pain may also be felt in the arms, fingers, jaw or teeth. The person often feels sick and sweaty. They may also look pale and unwell and find it difficult to breathe.

However, some people having a heart attack do not experience such symptoms. Different people experience different symptoms. Think of the symptoms you experienced which brought you into hospital and how you felt at this time.

## What happens in hospital?

There are two different types of heart attack and the type you have had will have determined the treatment you have received so far, and the treatment which is to follow.

- **STEMI** – This is where one of the arteries is completely blocked and blood carrying the required oxygen and nutrients is unable to reach an area of your heart muscle, potentially causing severe damage. This is diagnosed by your ECG and everything will have already happened very quickly to open up the artery and supply your heart muscle with oxygen and nutrients to prevent long-term damage.
- **NSTEMI** – This is where one of the arteries is significantly narrowed and the blood supply to an area of the heart muscle is restricted and has caused some heart muscle damage. The test which diagnoses this is a blood test carried out 12 hours after your worst pain. It looks for an enzyme, Troponin, which if raised indicates damage to your heart. If your troponin test was positive, you will have been diagnosed as a NSTEMI and discussions surrounding looking at your arteries and opening up the narrowing will be taking place.

## What to expect

- **Monitor** – You will be attached to a heart monitor that enables us to watch your heart's rate and rhythm. As time progresses you may be transferred to a mobile monitor that you can carry around with you.
- **Regular ECGs** – These are tracing of the electrical activity of your heart which allow us to monitor for signs of heart damage.
- **Blood tests** – These let us see any damage done to the heart muscle and how it is recovering. We also routinely check your blood count, kidney function, liver function, cholesterol level and glucose level.

## Mobilisation / activity guide while in hospital

You are likely to be in hospital for 2-4 days. This enables us to monitor you for signs of complications and to start new medications in a controlled environment. Your activity will be restricted to reduce strain on your heart and enable time for it to recover. However, too much time in bed is not good either.

Everyone is different and it will depend on your individual condition, usually at around 24-36 hours you will begin to mobilise if you do not have any further symptoms. After this time, you should be able to go for a shower and be walking around the ward. You should not leave the ward area you are in unless you have checked with a member of staff, as the telemetry box monitoring your heart will lose signal.

**If at any point you experience any chest pain, heaviness or tightness, dizziness, breathlessness or undue fatigue, stop what you are doing, rest and ring the call bell for a member of staff.**

## Going home

Having a heart attack is bound to lead to feelings of apprehension and fear, causing you to worry about what the future holds. It is also normal to feel nervous when leaving hospital but you will gradually regain your confidence.

It is normal to feel quite tired and emotional when you first get home and it is important to recognise these feelings and discuss any fears or

worries with your family or your cardiac rehabilitation nurse. These feelings should gradually go away but if they persist for longer than a few weeks you should seek further guidance from your GP or cardiac rehabilitation nurse.

The activities below are offered as guide. You may want to do a little less or a little more than this, everyone takes different times to recover. Your cardiac rehabilitation nurse will advise you as an individual, if they feel you should be progressing at a slower or faster rate than the advice below.

## Activity guide following your discharge from hospital

- **Week 1:** When you first get home, you should continue with the same routine as the last few days in hospital. Get dressed, potter around your home and garden, climb stairs slowly and rest when you need to. Occupy yourself with something you enjoy, such as reading, listening to music, doing puzzles or crosswords. **Avoid driving, playing sports, lifting, pulling or dragging heavy objects.**
- **Week 2:** You may increase your activities at this stage and will feel ready to start doing some gentle physical activity. The key is to start slowly and gradually build up the amount you can do.
  How quickly you are able to do this will depend on the condition of your heart and on how active you were before your heart attack. Start taking short walks each day of between 5-10 minutes on the flat, once or twice a day, increasing as you feel able. Start doing light household tasks, such as washing up, laying the table or cooking light meals.
- **Week 3:** Continue to gradually increase your walking by a few minutes every two to three days, aiming for 15 minutes twice a day. The level of activity should feel fairly easy. If you feel tired after walking a certain distance, then do not continue to increase it until you are able to walk it ‘fairly easily’. If walking is not an activity you can do easily or is difficult due to other health problems, please speak with your cardiac rehabilitation nurse for alternative forms of exercise to try.

- **Week 4:** Gradually start including moderate housework, like vacuuming, sweeping, ironing and laundry. You may include moderate types of gardening and DIY jobs. Aiming for a walk of 20-30 minutes twice a day and consider including some slight hills. Anything new or more energetic is best left until after your follow-up.

## The goal…

Unfortunately, we do not store our fitness levels, and therefore it is recommended that you take part in regular physical exercise when you have made a full recovery, ideally, for a total of 150 minutes per week. A 30-minute exercise session can be made up of two x 15 minutes or three x 10 minute sessions if it is easier to fit into your day. This exercise should be at a level where you feel slightly short of breath whilst exercising but where it resolves within 2-3 minutes of stopping.

**Never walk through pain or symptoms such as excess tiredness or breathlessness that does not resolve quickly once the exercise has stopped. It is important to listen to what your body is telling you.**

## What should I do if I get chest pain at home?

You may or may not experience chest pain after discharge. You need to know what to do should this happen to you.

**GTN:** GTN may have been given to you to use if you get chest pain after discharge. It belongs to a group of medications called nitrates that relax the muscles of the blood vessels and reduce the workload of the heart. It will have been given to you either in tablet or spray form. GTN reduces your blood pressure so if it does relieve your pain please stay sitting for 5-10 minutes to allow your blood pressure to normalise.

**GTN spray:** If you have been discharged with a GTN spray and get chest pain, unless given differing instructions on discharge, please:

- Sit down.
- Hold the GTN bottle upright and near your mouth.
- Open your mouth, hold your breath and lift your tongue.

- Spray GTN once or twice under your tongue.
- Close your mouth and breathe normally.
- After 5 minutes if the pain is still there you can have a second dose of 1-2 sprays under the tongue.
- If you are still in pain after 5 further minutes you can have a third and **final** dose.
- If you have taken three doses and you're still in pain five minutes after the final dose, ring 999.

**GTN tablets:** If you have been discharged with GTN tablets and get chest pain, unless given differing instructions on discharge, please:

- Sit down.
- Place one GTN tablet under your tongue and let it dissolve (this takes about 5 minutes). The tablet will dissolve more quickly if your mouth is moist.
- If the pain persists after 5 minutes, place another under your tongue and let it dissolve.
- If the pain is still there after 5 further minutes, you can have a third and **final** dose.
- If you have taken three doses and you're still in pain five minutes after the final dose, ring 999.

**Do not use more than 3 doses during an angina attack. 1 dose is either 1 tablet or 1 to 2 sprays.**

**Side effects of GTN:** The most common side effect is headaches, for which Paracetamol may help. You may also feel dizzy or faint due to it reducing your blood pressure. GTN is short acting so dizziness should not last more than 15 minutes. If you have a tablet in your mouth and feel dizzy, please remove it.

## Calling the emergency services

**For the emergency services to reach you quickly it is important they have:**

- Your full address.

- Your postcode.
- Have your house / flat name or number clearly displayed.

## Storage instructions

- **Tablets** – Keep them in the brown glass bottle they are supplied in with the lid tightly closed. When you open the bottle for the very first time, write down the date on the bottle. This is because the tablets start to lose their effect if they are exposed to the air. Once opened, they should be replaced within 8 weeks. **GTN tablets can be bought over the counter if needed.**
- **Spray** – This will last until the expiry date on the container (spray once into the air if not used for a while). Keep the spray away from any heat source.

## Follow-up

You may be offered a follow-up appointment, which is usually 4-6 weeks after discharge. These appointments are carried out by telephone or video consultation or hospital attendance only if required. These appointments are run by the cardiology nurse specialists and in some instances, may be combined with your cardiac rehabilitation assessment. They will discuss with you how you are feeling, address any concerns you may have and review your medications. They will use the information to assess whether you need further investigations or a change of treatment. If, however you are recovering well, then there will usually be no on-going follow up with Cardiology.

If you are not available for your appointment, please contact the administration team using the number on the letter to arrange a more suitable time.

Bring this booklet to any appointments at the hospital or GP surgery.

## Flu vaccinations

It is sensible to protect yourself from flu by having the annual vaccinations offered at your GP practice or work. Register with them to ensure regular follow ups.

## Dental work

You can visit your dentist for routine work from four weeks after recovery. Antibiotic cover is not required. Your dentist and GP can advise you about emergency treatment.

## Surgery or dental extraction

If you are taking antiplatelet (Aspirin, Ticagrelor, Clopidogrel etc.): there are restrictions on surgery and dental extractions. Please inform your surgeon or dentist of the changes to your medication.

## Moods and feelings

Recovering from a heart attack takes time. You could have a number of emotional reactions to your diagnosis. You may lose some confidence following your return home. You may experience:

- **Shock** – an early reaction where you can't quite believe the diagnosis you have been given. It can be difficult to concentrate during this period and it may be beneficial to have a friend or family member present when new information is presented to you.
- **Denial** – some people find the diagnosis difficult to believe and find themselves denying that it is true. It is important to come to terms with the situation and take positive steps to aid recovery
- **Anger** – you may feel angry towards everything, including those who are trying to help. This may be associated with a feeling of guilt.
- **Fear** – often associated with feeling out of control. As you begin to understand ways in which you can aid your own recovery and prevent further events this should subside.

Some people are afraid that anything they do may bring on angina or a heart attack. Loved ones may try to prevent you from doing anything.

We provide guidelines for levels of activity which should settle some concerns. If you find that your fears are stopping you, you may want to seek advice from your GP or cardiac support.

## Work

Getting back to work varies depending on your occupation. You will be guided as an individual by the hospital staff. If possible, discuss returning on reduced hours and increasing them gradually. Speak with your manager or occupational health department. If you are experiencing difficulties, discuss them with your GP, cardiac support nurse or at your follow-up appointment.

## Travel

If you are planning on flying within the first 12 weeks after your diagnosis, please discuss with us prior to discharge.

The British Cardiovascular Society (2010) produced guidelines determining when it is safe to fly following a heart attack.

You may fly after three days if:

- You are under the age of 65.
- The blocked artery has been opened.
- No further tests or treatments are planned.
- Heart Pump Function (Ejection Fraction) is greater than 45%).

**You may fly after 10 days if:**

- You are symptom free
- You require no further tests or treatment
- Heart Pump Function (Ejection Fraction) is greater than 40%.

**You need to wait for your condition to stabilise if:**

- Heart Pump Function (Ejection Fraction) is significantly reduced (less than 40%).
- You are awaiting further tests or treatment.
- You have symptoms of chest pain or breathlessness.

If you have already booked a holiday prior to your admission and are

unable to go, your doctor can write you a letter to help you claim the money back from your insurance.

Holidays can be a time of great tension and stress, so plan well ahead and do not rush or leave things too late. Take this booklet with you. You may need to shop around for comprehensive travel insurance.

## Driving

**Private vehicles:** The Driving and Vehicle Licensing Authority (2011) have produced guidelines dictating how long it is before you can legally drive after a heart attack and/or Percutaneous Coronary Intervention (stent or balloon to a blocked artery).

You can drive again after one week if:

- Successfully treated with coronary angioplasty.
- Heart Pump Function (Ejection Fraction) is at least 40%.
- No other angioplasty is planned within 4 weeks.

Otherwise it will be 4 weeks before you can legally drive again.

Let your motor insurance company know. You do not need to inform the DVLA.

**Hospital staff will ensure you are clear about how long you are legally not permitted to drive.**

- **Taxi drivers:** You are governed by the guidelines of your local council. You will need to contact them for details.
- **Group II licence holders:** If you hold a Group II licence, you will have to satisfy the guidelines in place before your licence is renewed. This usually involves follow-up tests, such as exercise tests with guidelines for what need to be able to achieve. You need to inform the DVLA.
- **Pilots:** You will be expected to fulfil the requirements set out by the Aviation Authority.

## Sex

Many people are reluctant to return to sexual intercourse because they are frightened that it might cause pain or further damage to the heart. These fears are unfounded. It is generally recommended that you may return to sexual intercourse once you can climb two flights of stairs or walk a mile briskly without pain or breathlessness. This is because studies have shown that sexual intercourse uses about the same amount of energy as climbing stairs or walking.

It is not uncommon for you to find that you have no desire for sexual intercourse for some time following your diagnosis. Do not worry about this, your normal sex drive should return when you feel ready.

Impotence may result from the emotional stress you are experiencing or may be due to new medications. If you believe impotence is related to a new medication **do not stop taking it.** Seek advice from your GP or at your cardiology follow-up appointment – alternatives are available.

If you do find that you experience symptoms such as chest pain or breathlessness during intercourse, don't be alarmed, just stop and rest until you are feeling better. You may want to use your GTN tablets or spray to relieve your pain following the guidelines in this booklet.

## Cardiac rehabilitation ‘rehab’

Your cardiologist would strongly recommend that you participate in a cardiac rehabilitation programme. Cardiac rehabilitation is a professionally supervised programme that aims to help improve the health and wellbeing of people who have heart conditions. We understand this may be an anxious time for you and your family and you may welcome a little support or advice to help your recovery.

We are here to help; we can:

- Advise the safest way to resume physical activity and exercise, help restore confidence, improve fitness, strength, co-ordination and flexibility.
- Discuss medication issues.
- Offer reassurance, advice and support to you and your family

members on your heart condition.

- Provide individualised advice regarding modifying your risk factors for heart disease and making positive lifestyle changes, such as giving up smoking, changing your diet or becoming more active.

You are encouraged to attend this programme and to then continue to exercise afterwards. It is a great way to increase confidence and to receive on-going support in all aspects of your recovery.

Evidence suggests that you are less likely to have a further cardiac related admission to hospital, and more likely to return to work if you take part in a rehab programme.

Following your discharge from hospital a Cardiac Rehabilitation Nurse will contact you within 5 working days to invite you to a cardiac rehabilitation programme, which usually starts about four weeks after you have left hospital.

For further patient information and support on lifestyle and risk factors you may like to visit our cardiac rehabilitation page on: www.royalberkshire.nhs.uk/wards-and-services/cardiac-rehabilitation.htm

If you would like to join our closed RBH Cardiac Rehab Support page on Facebook, please search for the page on Facebook and answer the joining questions or alternatively give your cardiac support nurse your email address.

Please do not hesitate to contact the team if you have any further questions or concerns. There is an answerphone if you need to leave a message, please give your name and NHS number.

If your GP is outside West Berkshire, please contact: 0118 322 6638.

If your GP is within West Berkshire, please contact: 0118 467 2891.

## Reducing your risk factors

Coronary heart disease can run in families and becomes more common with increasing age. We cannot change this. There is however a lot of evidence which shows that attending to other known risk factors for heart disease can improve your future progress. It is important you do not try to tackle all your risk factors at once. We will

help to decide which ones are most relevant to you and that you can best deal with first. Help is available, please do not struggle alone.
Risk factors modifications include:

1. Stopping smoking.
2. Treating high blood pressure.
3. Avoiding excessive alcohol intake.
4. Being a healthy weight.
5. Being active and exercising regularly.
6. Reducing stress and anxiety.
7. If you are diabetic, maintaining good control of your blood sugars.
8. Reducing cholesterol levels.
9. Eating healthily.

More information as to why they increase the risk of further heart attacks follows. A nurse will discuss these with you prior to your discharge. They will help you recognise which are most applicable to you and start to think about ways in which they can be reduced. This will be followed up in the community and built on by the Cardiac Support Team which covers your area.
If you would like further information about any of the risk factors, there are British Heart Foundation booklets we can provide – just ask.

1. **Smoking: <u>STOP SMOKING!!!</u>** If you smoke, this is your biggest modifiable risk factor: the most important thing you can do to prevent a further heart attack and improve your health is stop smoking. Smoking doubles the chances of having a heart attack. It increases heart rate and blood pressure and makes blood more likely to clot.
   Ask for help if you need it. We can refer you to a stop smoking organisation and your GP or local pharmacy may run help groups.
2. **High blood pressure:** High blood pressure can prematurely age blood vessels, making them thickened and fragile. The heart becomes more thickened and muscular and this can cause the heart to tire.

3. **Alcohol:** Large amounts of alcohol can enlarge the heart, making it weaker. It can also cause skipped heart beats and a fast heart rate as well as making you put on weight. It is important to stay within the British Heart Foundation guidelines that are currently 14 units a week for both men and women.

   One unit is equal to: Half a pint of beer, bitter, cider or larger
   A pub measure (25mls) of spirit
   A small glass of wine (100mls)

4. **Weight:** If you are overweight, your heart has to pump harder. Excess weight can cause high blood pressure and raised cholesterol. Aim to reduce weight slowly. If you need help or advice, please discuss weight loss with your GP or practice nurse.

5. **Exercise:** Regular exercise will be of benefit to your wellbeing and long-term recovery. Exercise lowers your blood pressure and cholesterol, relieves stress, maintains a healthy weight or helps you lose weight and makes you feel good.

   For a healthy heart, it is recommended that you participate in 'cardiovascular' or 'aerobic' exercise as this strengthens the heart and lungs. This includes: brisk walking, jogging, cycling, dancing, and swimming. Ideally your exercise will make you feel warmer; breathe more heavily than normal, but you should still be able to carry on a conversation. Remember to build up slowly over a period of time even if you were very active before the heart attack.

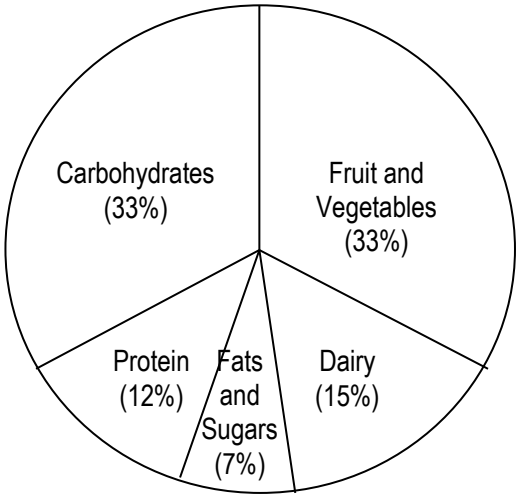
   Being physically active at work and home is not a substitute for regular, cardiovascular exercise.

   It is recommended that you participate in a cardiac rehabilitation programme, but if you are unable to attend, it is important to seek advice from your GP or practice nurse about the best way to progress onto more moderate exercise.

6. **Stress and anxiety:** Stress increases your blood pressure and puts strain on the heart. Try to avoid stressful situations but this is not always possible. The cardiac support/rehabilitation team are available to discuss stress management techniques or for over the

phone or face-to-face reassurance. They can also refer you on if you require further support.

7. **Diabetes:** Diabetes is associated with a higher risk of heart disease. It is very important to maintain good control of your diabetes. Keep within a sensible blood sugar range by testing regularly.
8. **Cholesterol:** Your blood fat (cholesterol) should be as low as possible. You should be on a low fat diet. Twelve weeks after your heart attack, you will need to get a fasting blood cholesterol estimate done via your GP. Often people need tablets as well as diet to get their cholesterol levels down, which should then be kept at a steady level. The lower your cholesterol levels the better.
9. **Diet:** Having a healthy diet can help prevent the progression of heart disease and reduce your risk of further cardiac events. It does this in several ways including improving your lipid profiles, helping have a healthy weight and providing heart protective nutrients.
   It is important to have a balanced diet. The Eatwell Guide below shows the proportions of different food groups your diet should be made up of each day.



## ***Fruit and vegetables***

**Aim for 5 portions of fruit and vegetables a day**

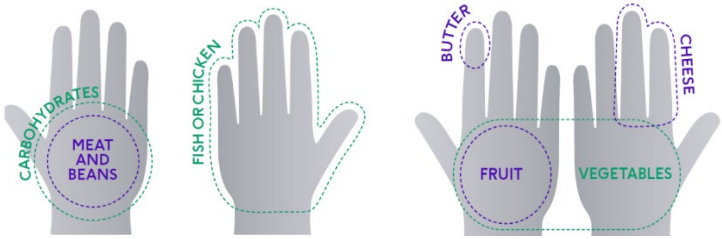
Aim for 5 portions of fruits and vegetables each day. An average portion is 80g. Fruits and vegetables are important as they contain vitamins and minerals important for health including antioxidants. Fruits and vegetables are also a source or fibre which can help with maintaining a healthy weight and improving your blood lipid levels.

## ***Carbohydrates***

Carbohydrates are our bodies' main source of energy. It is important to try and have some carbohydrates at each meal.
Try to choose wholemeal and brown versions of these starchy foods including brown rice, wholemeal bread and wholemeal pasta. Choosing these helps to increase the amount of fibre you consume.

## ***Protein***

Including protein in your diet is important but making sure you include the right types is equally important. Red meat and processed meats are usually high in saturated fat so limiting the consumption of these can be helpful. Choosing leaner cuts of meat as well as removing visible fat and skin from meat also helps to reduce the fat content.
Fish has many benefits to health. It is recommended to have 2 portions of fish a week, with at least one of them being an oily fish. Oily fish contain omega-3 which have many benefits including reducing the risk of blood clotting.
Beans, pulses, soya and other vegetarian options are often low fat protein sources. Portion size is also important – use the palm of your hand to measure.



## ***Dairy***

Dairy in your diet has many benefits. Go for low fat options, but be careful they don't have too much added sugar in. We advise no more than 5% of our total energy from added sugars. High intakes of added sugars are bad for health and can cause weight gain.

## ***Fats***

It is important to have some fat in our diet as our body needs it for energy and other functions. Making sure that we get the right types of fat in our diets can help to improve the lipid profiles of our blood. Using monounsaturated and polyunsaturated fats instead of saturated fats is beneficial however it is important to remember these fats are still high in calories. Excess intake of any kind of fat can contribute to weight gain.

| | |
|---|---|
| Saturated fat | This is found in animal products. It can increase your cholesterol levels, so avoid whenever possible. Choose low fat alternatives and try to keep cakes, biscuits and pastries to a minimum. |
| Polyunsaturated fat | This is found in pure vegetable oils, such as sunflower oil, margarines and oily fish. |
| Monounsaturated fat | This is found in oils such as olive oil and rape seed oil. |

## ***Salt***

Most of us eat more salt than recommended. Excess salt can increase blood pressure. It is recommended to not have more than 6g salt each day. Avoiding adding salt at the table and in cooking can help reduce the amount of salt in our diet. Using herbs and spices can help make sure our food is still flavourful. It is also important to limit your intake of high salt foods such as crisps and salted nuts.

## Your medication

Listed below are a few of the medications that you may be started on:

- **Ace inhibitors:** Tone up the heart and help it pump more efficiently, i.e. Ramipril.
- **Aspirin, Clopidogrel and Ticagrelor:** These make the blood less sticky which helps prevent clots forming.
- **Beta-blockers:** Help the heart to beat more slowly. This reduces workload of the heart so it uses less oxygen during exercise. They also help lower blood pressure, i.e. Bisoprolol, Atenolol.
- **Diuretics (water tablets):** Sometimes, when the heart muscle has been damaged it can't pump efficiently. This leads to a build up of fluid in the heart, lungs and limbs. Diuretics help reduce this excess fluid so that heart and lung function improves, i.e. Furosemide.
- **Cholesterol lipid lowering drugs:** These drugs help lower cholesterol in the blood, along with a healthy diet i.e. Simvastatin.
- **Calcium channel blockers:** Help the coronary arteries relax, helping increase the blood supply to the heart, i.e. Diltiazem.
- **Nitrates:** These are 'long acting' forms of GTN given as a tablet. The effects are the same, i.e. Isosorbide Mononitrate.
- **Potassium channel opener:** These work in a similar way to calcium channel blockers, allowing increased blood supply to the heart, e.g. Nicorandil.

There is a booklet produced by the British Heart Foundation available on the unit which provides more detailed information about medications and their possible side effects. Please ask if you feel you would benefit from this.

## Your tests and procedures explained

### Angiogram

A catheter is inserted into an artery in the wrist or groin and dye is injected. This allows images to be taken of your coronary arteries and identification of any narrowing or blockages.

## Angioplasty

An angioplasty follows an angiogram and is only required if narrowing or blockages are found. It is usually done immediately. The arteries are opened up to allow the blood to flow through unimpeded. How this is achieved will depend on the individual blockage or narrowing. It may be achieved by:

- Extracting clots.
- Inflating a balloon (which is then deflated and removed).
- Leaving a stent in place.

## Echocardiogram (ECHO)

An ECHO is a scan of the heart. Gel is placed on your chest and a probe is used to visualise your heart. It does not allow us to look at the coronary arteries but at the pumping function of the heart.

## Understanding your angiogram report

If your heart attack was treated by an angiogram you will be discharged with a copy of the report. This will normally include a diagram of the three main coronary arteries as shown below. These are the Right Coronary Artery (RCA) and Left Main Stem (LMS), which divides into the Circumflex (Cx) and Left Anterior Descending (LAD). Your report will show on this diagram any blockages or narrowing found, and any stents inserted. There will then be written information to explain the extent of any blockages or narrowing.

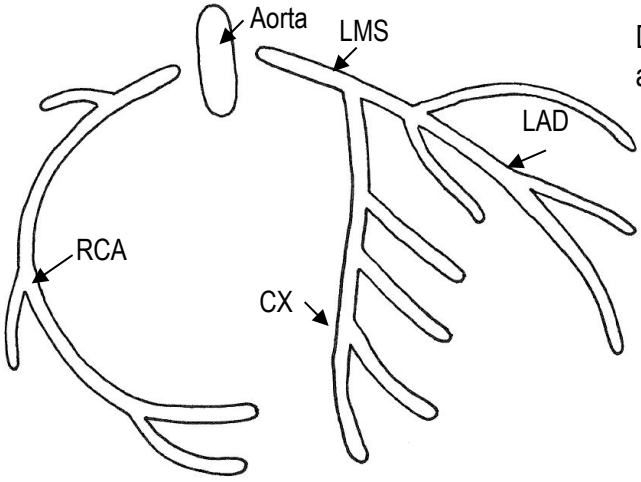



Diagram of three main arteries as featured in an angiogram

It can be worrying to look at your report if there are narrowings or blockages. Plaque build up is a normal aging process and most people would have some plaque present. The most important information is not how many or how severe the narrowings are, but whether they impede the blood flow. If an artery is narrowed or blocked, another route may have formed to provide the affected area of heart with oxygen and nutrients. This is collateral flow. Please discuss any concerns you have with a member of the cardiology team.

**Understanding your echocardiogram (ECHO) report**

Most patients who have had a heart attack will have an echocardiogram either before they are discharged, or as an outpatient shortly afterwards. This is to check to see if the narrowed or blocked artery which caused the heart attack caused damage to the heart muscle through a lack of oxygen and nutrients. An ECHO enables us to determine whether this has resulted in any damage to the heart muscle. You will be discharged with a copy of your report.

Post heart attack, the most important information an ECHO will give is the Ejection Fraction (EF). This is the percentage of blood which leaves the heart to circulate the body every time the heart beats. In a healthy heart, with normal pumping function, it is 60-70%.

It is usual for there to be a decrease of ejection fraction to some degree post heart attack. The advice we give to rest, and increase activity levels gradually, reduces the strain on the heart giving it the best possible chance of repairing and improving your EF. In addition to this, medications will also be given. Some damage may be long lasting and not repair in time. You may require an ECHO at a later stage to assess any improvement.

## Useful contacts

Royal Berkshire Hospital: 0118 322 5111
Cardiology Outpatients: 0118 322 6515
Cardiac Appointments (Cat 11): 0118 322 6676
Cardiac Care Unit: 0118 322 6684
Cardiac Support/ Rehabilitation Nurses:
West Berkshire 0118 904 6555
Cardiac Support/ Rehabilitation Nurses:
Outside of West Berkshire 0118 322 6638

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| Talking Therapies 0300 365 2000<br>www.talkingtherapies.berkshirehealthcare.nhs.uk/ |
| Oxford Health Talking Space: 01865 901222<br>www.oxfordhealth.nhs.uk/talkingspaceplus/ |
| Facebook – RBH Cardiac Rehab Support Page |
| RBH Cardiology presentations:<br>www.youtube.com/playlist?list=PLBay_LKYZ_gGaxunsgOl11W1ijnpzy1f5 |
| British Heart Foundation: www.bhf.org.uk |

## Notes

## Notes

This leaflet is printed privately for the Cardiac Fund. It was set up in 1976 for the purpose of providing cardiac services that would otherwise not be available through National Health resources. Our Cardiac Laboratory was largely equipped through the fund and many other areas in the Department have also benefited from equipment and staff training.

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If you would like to contribute please scan the QR code below to donate direct to the fund online, alternatively, cheques should be made payable to:

**The Royal Berks Charity Cardiac Fund U226**

Royal Berks Charity
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www.royalberkscharity.co.uk

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