

Post Myocardial Infarction and Angioplasty Information Pack

This leaflet tells you about Post Myocardial Infarction and angioplasty with stent. It is not meant to replace discussion between you and your doctor, but as a guide to be used in connection to what is discussed with your doctor.

What is a Myocardial Infarction?

A Myocardial Infarction is another name for a '**heart attack**'. The heart is a muscle which pumps blood around the body. To allow the heart to do this job coronary arteries supply this muscle with oxygen carried in the blood. A heart attack is caused by one of the coronary arteries becoming blocked, for example by a blood clot. This means that part of the muscle of the heart cannot get enough oxygen and becomes damaged.

Symptoms

There are many different symptoms of a heart attack and you may have had one or many of them. They include: pain to the chest, arm or jaw and perhaps what you thought to be indigestion. Some people also experience shortness of breath, are pale, sweating or nauseous.

What tests are done after a heart attack?

You may have some or all of the tests below prior to leaving hospital.

ECG (electrocardiogram) – this involves placing small stickers on the chest and arms and legs and attaching some leads which allows the nurses and doctors to diagnose the heart attack. You will have a series of these done in the days you spend in hospital and are completely painless.

Blood Tests – it is necessary to take several blood tests in the days following your heart attack. They detect 'cardiac enzymes' which confirm the diagnosis and after an initial increase will fall back to the normal range. It is also important to check your cholesterol and glucose levels so appropriate treatment can be started and we also monitor your kidneys to ensure they are not affected by any of the medication. Another blood test that is sometimes used to help diagnose a heart attack is called 'Troponin I'. This is a protein that is released into the blood stream when damage has been done to the heart muscle. A blood test will be taken initially to look for this protein and then repeated after 3 hours.

Angiogram – this is a procedure performed under a local anaesthetic and is used to detect any narrowing or blockages in the coronary arteries. Sometimes this can be opened up with a balloon and is called a coronary angioplasty and a stent is inserted. You may have had this as an emergency when first admitted; this is called a 'Primary Angioplasty'.

Exercise Tolerance Test – this is a test that involves walking on a treadmill whilst your heart rhythm, rate and blood pressure is monitored. It allows the doctors to see if your heart muscle is getting enough oxygen when your heart rate increases. Depending on the result you may need to have other tests done.

Echocardiogram – this is an ultrasound which looks at the heart muscle and heart valves to assess any damage to it as a result of the heart attack.

What happens when you go home?

Prior to discharge you will have contact with a cardiac rehabilitation sister who will come and see you and provide you with important information about your heart and what you can and can't do when you first go home and how to gradually increase your activity over the following 4-6 weeks. If you have not been seen by the rehabilitation nurse you should be given information by the ward staff and the cardiac rehab team will contact you in the early days after your discharge to discuss this information with you.

Care of your leg/wrist if an angiogram /stent has been performed

If you have had an angioplasty performed to treat your heart attack it will have been performed from either your groin or your wrist. You may be able to feel a pea sized lump at the site and it may feel bruised and sore. You should contact your GP or ward 6 if:

- the size of this lump gets bigger (bigger than a ten pence piece)
- the area becomes painful, hot or swollen

Ward 6 can be contacted directly on 0121 424 0206. Alternatively, if you were in Ward 9, they can be contacted directly on 0121 424 0209.

You should avoid having a bath or shower for 24 hours after the angioplasty has been performed but you can wash around the area with warm water.

Guidelines for activities at home for the first week

During your first week at home your activities should be similar to those you were doing during your last few days in hospital. Stay inside the house unless the weather is warm.

It's OK to:

- Get up and get dressed every day
- Walk around the house
- Walk up and down stairs at a comfortable pace
- Have a bath/shower and wash your hair
- Watch TV, read, play cards, Knit, sew etc.
- Simple household chores – washing up, laying the table, preparing light meals etc.
- Have visitors at home – though not more than 4 each day
- Have a rest during the day
- Aim to get 6-10 hours' sleep at night

It's not OK to:

- Drive the car
- Play sports or attend sports matches
- Do the garden
- No lifting, dragging or pushing heavy objects
- No vacuuming, carrying heavy loads of washing or hanging washing on the line

If you have any questions you want to ask, please speak to a member of the Cardiac Rehabilitation Team who will be happy to help you.

Information for Patients

After _____ week(s) at home if you are beginning to feel better, with no episodes of chest pain or breathlessness, you may gradually increase your activities as follows:

It's OK to:

- Begin a programme of daily walking
- Undertake light housework (one room at a time) but **do not** move heavy furniture
- Prepare meals
- Take short rides in a car with someone else driving
- Light gardening – weeding, planting out etc.
- Have a rest during the day
- Continue to get a good night's sleep

But remember you still must not:

- Drive the car
- Play sports or attend sports matches
- Lift, push or drag heavy objects
- Dig or mow the lawn
- Shovel snow
- Climb ladders or any DIY work
- Jog or run

Gradually increase the amount of physical activity that you can comfortably achieve. As a general rule, after the first few weeks at home you may do whatever you want to do, providing that the activity/exercise does not cause you to develop any of the following symptoms:

- Angina
- Excessive breathlessness that persists for more than 10 minutes after exercise
- Dizziness or feeling faint
- Nausea or vomiting
- Tiredness lasting more than 12 hours after exercise
- Palpitations or “skipped heartbeats”

If you do experience any of these symptoms – stop what you are doing. Wait for a few days then try the activity again. If symptoms persist you should talk to your doctor.

Exercise

After 1 week of being at home, you should start performing some regular walking. Daily walking is a simple and safe way to return to normal activity, and should be regarded as part of your treatment and rehabilitation.

By undertaking a walking programme, you should not only speed up your recovery, but you will ensure you've achieved a suitable level of fitness to be able to take part in the cardiac rehab classes which will increase your fitness levels even further. This will not only improve your quality of life and make you feel better but reduce the risk of you having any further cardiac issues in the future.

Before going walking please:-

- Wear clothing that's suitable for the weather (dress up warmly in cold weather and wear a scarf over your mouth and nose to warm the air as you breathe in).

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- Walk in the daylight and try to avoid walking very early in the morning or late in the evening even if it's still light outside.
- Wear a watch so you're always aware how long you've been walking for.
- Do some warm up exercises before going out in cold weather; for example, have a stroll around the house for a few minutes.
- Make sure you have your GTN spray with you (and your fast acting bronchodilator if you have asthma).

Do not attempt to walk:-

- **If you have chest pain**
- If you are feeling unwell
- When you are tired
- When the weather is freezing cold, very windy, or if it's very warm outside
- Within one hour of eating a meal
- Within one hour of taking a hot bath or shower

Guidelines for a Daily Walking Programme

- Start with a short walk – about 5 minutes on your first day at a slow/moderate pace on flat ground and see how you feel. If it makes you feel tired during or after, stick to 5 minutes a day until you feel you are ready to go further.
- If you feel quite comfortable during the walk and not excessively tired afterwards, the next time increase your walking time by 5 minutes and see how you feel
- If everything still feels OK, and you are happy, you can start to increase the time of your walk by 5 minutes every day. You can use this method to build up to walking for a minimum of 30 minutes a day, if you feel able.
- Once you have built up to at least 30 minutes per day and you start to feel fitter, try to increase your walking pace slightly or try walking on some gentle inclines. By increasing the pace you should be able to cover the same distance in a shorter time. You can keep on increasing your pace as your fitness and confidence increases, however you should never increase your pace to the point that you're unable to walk and talk at the same time.
- Once you have started increasing your pace, you should always start your walk at a gentler pace for 5-10 minutes to warm-up and finish the same way for a cool down.

After you've finished your walk please:-

- Make sure you're recovered before you sit down. You can do this by slowing down to a very gentle stroll during the last section of your walk and/or lightly tap your feet from side to side for a few minutes when you've got back to your house.
- Have a proper rest even if you feel reasonably fresh afterwards.
- It may help to fill in a walking diary to keep a record of your walking progress

You should stop walking if you experience the following symptoms:-

- Angina
- Excessive breathlessness
- Excessive sweating
- Dizziness or feeling faint
- Nausea or vomiting

Information for Patients

- Tiredness lasting more than 12 hours after exercise
- Palpitations (skipped heartbeats)
- Pain, swelling or stiffness in joints/muscles

If you do experience any of these symptoms, wait for a few days and try walking again for a shorter distance and proceed more gradually. If symptoms persist, you should talk to your doctor.

Medication

It will be necessary for you to take tablets when you go home and some of these will be for the rest of your life. The hospital will supply 28 days of medication.

Some of the common types of tablets are:

Aspirin – this thins the blood and reduces the incidence of developing a blood clot which could cause a heart attack.

Clopidogrel / Prasugrel / Ticagrelor – these also thin the blood and is particular used for patients who have had a coronary angioplasty and stent as it helps protect the stent in the early months after its insertion. You will be advised how long you are likely to take this medication for but usually it would be 12 months.

Beta-Blockers – these help slow the heart rate down to take some of the strain and workload off the heart.

ACE Inhibitors – Helps lower blood pressure and improves the function of the heart.

Statin – Helps lower the total amount of cholesterol in the blood. These are often prescribed even if your cholesterol is within normal limits as they have been shown to have other benefits including reducing the risk of further narrowing in the coronary arteries

Glycerine Trinitrate

Unless a medical reason has been identified you will be issued with a GTN spray on discharge. We do not give this because we expect you to have symptoms of angina, rather in the event of you having any similar symptoms to that which you experienced prior to admission.

About the spray

The GTN spray is used to **relieve** an attack of angina.

Angina symptoms are individual and can vary from chest tightness / heaviness, chest pain / discomfort.

Other symptoms can include tingling in the throat/arms/fingers, numbness down one or both arms and breathlessness. It is advisable to discuss your symptoms with your nurse or doctor.

The spray works very rapidly as it is absorbed under the tongue. Carry it with you at all times, keep it out of sunlight and store it in a cool place.

Always check the expiry date and ensure you have enough of the spray before going on holiday. You can buy GTN spray over the counter at the chemist.

Information for Patients

The main side effects are headaches, flushing and/or redness of the skin and dizziness. These tend to be short lived - they should disappear after a few minutes. However, if any of these effects prove to be troublesome, and you are unable to carry out your normal activities, contact your doctor.

There can be other side-effects; these are described in the information leaflet that comes with the spray. If you want to discuss these please speak to your doctor.

Sometimes when the spray is not tolerated your doctor may suggest GTN tablets. Do try to persevere with the spray, as it is very important to relieve any symptoms of angina.

What to do when you have angina symptoms

- **First sit down and stop what you are doing!**
- Hold the GTN spray upright and do not shake it
- Take one dose i.e. spray once or twice (whichever you can tolerate) under the tongue and **Keep your mouth closed (very important)**
- Wait five minutes, still resting. If you still have the symptoms after this time, **take a second dose** i.e. one or two sprays
- Wait five minutes, still resting. If the symptoms are still present after this time, **dial 999 for an ambulance.**

Do not wait for more than 10 minutes for the symptoms to go away without seeking medical attention

Do not drive while experiencing angina symptoms

Tell your GP if you experience any of the following:

- Pain or angina symptoms while you are resting
- Increased use of the spray
- Symptoms returning easily after being relieved with the spray

**If you feel your condition is getting worse at any time
please call for an ambulance**

Anticoagulants / Antiplatelet drugs

As part of your treatment you received a combination of various blood thinning medications:

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Information for Patients

It is unlikely that you will develop any side effects, however if you experience any of the following symptoms you should call the staff on ward 6 for advice on 0121 424 3566 or 424 2206:

- Unexplained bruising
- Unexplained bleeding
- Passing blood in urine or when opening bowels

If you hit your head or experience a head injury it is a possibility that you could bleed inside your head. You should be taken to the nearest A&E department to be examined as soon as possible. If you experience the following symptoms or your relative observes them, you should go the A&E straight away:

- unconsciousness, or lack of full consciousness (for example, problems keeping eyes open)
- any confusion (not knowing where you are, getting things muddled up)
- any drowsiness (feeling sleepy) that goes on for longer than 1 hour when you would normally be wide awake
- difficulty waking up
- any problems understanding or speaking
- any loss of balance or problems walking
- any weakness in one or more arms or legs
- any problems with your eyesight
- very painful headache that won't go away
- any vomiting – getting sick
- any fits (collapsing or passing out suddenly)
- clear fluid coming out of your ear or nose
- new bleeding from one or both ears

Driving

You are **not licensed to drive for 4 weeks** after most heart attacks. (The rehab team will advise you if this is different) You do not need to inform the DVLA if you have had an uncomplicated procedure. But you **must** inform your car insurance company. The cardiac rehabilitation team can send you a list of heart friendly insurance companies.

If you have a **PCV** (passenger carrying vehicle) or **HGV** (heavy goods vehicle) licence you will need to inform the DVLA and they will organise for you to have a routine exercise tolerance test at the hospital. This will be requested by them 6 weeks after the heart attack and you will be sent an appointment in the post. You will have to have this and the results before the DVLA will allow you to drive these vehicles again. You will usually have to pay for this test yourself.

DVLA website <https://www.gov.uk/cardiac-problems-driving>

Sexual Activity

Following a heart attack you and your partner may be anxious how sex may affect the heart. Sex is just as safe as other equally energetic forms of exercise.

It is usually safe to have sex if you can climb two flights of stairs briskly without getting chest pain or becoming breathless (3 - 4 weeks after the event).

Loss of Sex drive is not uncommon after illness. Some men may experience impotence after a heart attack; this may be due to emotional stress or on some occasions the result of drug treatment including Beta blockers.

Information for Patients

Your Rehab Nurse will be happy to discuss this subject with you in more detail.

Holidays

The advice on when to fly can vary dependant on medical condition and between different airlines, it is best to discuss your plans with your cardiac rehab nurse, cardiology consultant and the airline. You **must always** make sure you have adequate health insurance for your holiday and make ensure your heart condition and any other pre-existing health conditions are covered on your policy. You can get a list of heart friendly insurance companies from the cardiac rehabilitation team or from the British Heart Foundation website: www.bhf.org.uk

Healthy Eating

A diet that is high in fat, salt and alcohol can affect your heart by increasing your cholesterol which narrows your coronary arteries, increases blood pressure and your weight which puts more strain on your heart.

A healthy diet includes:

1. Plenty of fruit and vegetables
2. Plenty of starchy foods e.g. bread, rice, potatoes, pasta. Choose wholegrain varieties wherever possible. Oats have also been shown be beneficial for your heart.
3. Some milk and dairy products
4. Some meat, fish, eggs, beans and other non-dairy sources of protein
5. Only a small amount of foods and drinks high in fats and/or sugar

Eat more fruit and vegetables to protect your heart:

Fruit and vegetables are a good source of vitamins, minerals and fibre. 5 portions a day are recommended.

What is a portion?

- One apple, orange, pear, banana
- Two small fruits (plums, tangerines)
- Small handful of dried fruit
- Cupped handful of grapes, berries
- A medium bowl of salad
- 2–3 tablespoons of cooked vegetables
- 1 glass of unsweetened fruit juice (150 ml)

How to eat more?

- Have fruit, dried fruit or juice with breakfast
- Add extra vegetables to stews, curries and casseroles
- Choose fruit as a snack
- Add a salad to sandwiches or side salad with main meals

Remember to have a variety of different fruits and vegetables. Choose from fresh, tinned or frozen.

Which fats are good for your heart?

If you are overweight, cutting down on all fats can help you to lose weight. Reducing animal fats and using unsaturated fats can help reduce cholesterol levels.

Eat less:

- **Saturated fats (animal sources)**

Butter, ghee, lard, full fat milk, cheese, cream, meat, poultry and processed foods (cakes, biscuits, chocolates, crisps, puddings, pies).

Replace with:

- **Unsaturated fats (plant sources)**

Choose vegetable or olive oil and use low-fat spread or olive oil margarine. **Use sparingly!**

How to reduce your saturated fats:

- Choose low-fat alternatives of milk (skimmed or semi-skimmed), cheese and yoghurt.
- Try to limit processed foods that are high in fat.
- Choose healthier cooking methods such as grilling, steaming and poaching.
- Take the skin or fat off poultry and meat.
- If you eat meat, aim for 3–4 oz (75–100 g) of meat or poultry per meal.

Fish is a good source of healthy fats – try to choose fish and chicken more often than red meat. It is recommended that the general population aims for 1 portion of oily fish (e.g. salmon, mackerel, fresh tuna) and 1 portion of white fish (e.g. cod, haddock) per week.

Salt

Eating too much salt increases the risk of high blood pressure. Try to use alternative flavourings e.g. herbs and spices where possible.

Alcohol

Consumption should be kept within safe limits – no more 14 units/week for men and women.

A unit is 1/2 pint of beer, lager or cider, 1 single pub measure of spirits e.g. whisky, gin or vodka, 1 small glass of wine.

A Balanced diet and healthy lifestyle!

You doctor or dietitian can provide you with more detailed advice on changes to your diet, weight and lifestyle that are good for your heart. Don't forget that keeping to a healthy weight and increasing physical activity also helps to keep your heart healthy.

Contact us:

If you would like more information about your condition, please contact:

The Dietetics Dept
Birmingham Heartlands Hospital
Bordesley Green East
Birmingham
B9 5SS
Telephone Number 0121 424 2673 - 8am – 4pm

British Heart Foundation

Telephone: 08450 70 80 70 or visit them on the internet <http://www.bhf.org.uk>

Information for Patients

Cardiac Rehabilitation Programme- Recommended as part of your treatment

After you have had your Heart attack and /or angioplasty you may be invited to attend a cardiac rehabilitation programme which is aimed at helping to improve confidence and physical activity as part of your recovery. There are three components to the programme which are:

1. Education – a range of subjects are covered including healthy eating, medication, angina, blood pressure.
2. Exercise
3. Relaxation

Contact Details:

If you would like any further details you can contact the cardiac rehabilitation team Monday to Friday on:

Heartlands Hospital 0121 424 3312

Solihull Hospital 0121 424 4286

Good Hope Hospital 0121 424 7465

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email interpreting.service@uhb.nhs.uk