



Cardiac information guide

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Version 15

Please bring this booklet with you on each visit to the hospital.

Your name	
Your admission date	
Your surgery date	
Your estimated date of discharge	
Medication(s) to withhold pre-operatively e.g. anti-coagulants	

Planning for home	
Name of person picking you up	
Contact number	
Name of person helping you at home	
Contact number	

Information for cardiac patients can be found by scanning the QR code or by visiting the following link:

hospital.nhsgoldenjubilee.co.uk/patient-information/patient-films/heart-surgery-films



	Page
About this leaflet	2
Enhanced Recovery	3
What can I do to improve my recovery before my operation?	3
Preparation for heart surgery	4
Before your procedure	7
What is a Coronary Artery Bypass Grafting (CABG) operation?	8
Valve surgery	10
Anaesthetic	11
Critical Care	14
Management of pain after surgery	15
Patient diary	17
Care and rehabilitation at home	30
Cardiac Rehabilitation Programme	32
Lifestyle	32
When you get home	33
Getting out of bed	36
Exercises	37
Dietary advice	37
Walking diary	40
Good to Go checklist	41
Useful information	42

About this leaflet

This booklet contains information about your cardiac (heart) surgery and what to expect during your stay at the Golden Jubilee University National Hospital (GJUNH). It will also give you advice and information on your recovery after your operation.

All patients are individuals and may progress differently, but this book will help guide you through your recovery and help you recover more quickly.

You have been offered an operation on your heart. Your surgeon will discuss the operation with you and the reason it is necessary.

An overview of your care is contained in this booklet. Use the patient diary on page 16 to keep track of important information and help you plan your recovery. Please discuss this booklet with the person who will help you at home.

You may go home as early as 4 days following your operation or you may stay longer, depending on how you are recovering. You will be discharged when you and the team are happy you are medically and physically fit to go home and continue your recovery there. Our team will keep you informed of your progress. You will receive a follow up appointment 6 to 8 weeks after your operation – this may not be at the GJUNH but this will be discussed with you.

If you have any questions before or after your surgery, please just ask or get in touch with us by telephone on **0141 951 5266** and we can direct your call to the correct department.

Ward phone numbers	
3 East	0141 951 5350
HDU 2	0141 951 5302
HDU 3	0141 951 5303

Visiting Hours	
3 East	1pm - 9pm
HDU 2 and HDU 3	Open visiting policy

Enhanced recovery

At the GJUNH, your Cardiac Team follow an Enhanced Recovery Programme where you are encouraged to be involved at every stage of your journey.

Enhanced Recovery aims for you:

- to be as healthy as possible before your operation;
- receive the best possible care during your operation; and
- receive the best care while recovering.

Having an operation can often be both physically and emotionally stressful. Enhanced Recovery After Surgery (ERAS) aims to get you back to normal as quickly as possible. Research has shown that the earlier a person gets out of bed and starts moving around, eating and drinking, after an operation, the quicker they recover.

Your active participation before and after your operation is essential to help you:

- get home sooner;
- feel better sooner; and
- get back to normal life sooner

This booklet will help you understand and achieve the goals to a successful recovery.

As part of the Enhanced Recovery Programme, you may be asked to come into the hospital early on the day of your surgery.

What can I do to improve my recovery before my operation?

While you are waiting for your operation, use this time to get yourself as healthy as possible:

- If you smoke or drink, use this as an opportunity to stop or cut down; this will help your recovery and reduce your risks of complications.
- Stay physically active to the best of your ability; this will help you get better quicker. If you can, start walking a little more each day before your operation.
- Eat well; your body needs fuel to repair.

- If you are overweight, now is the best time to try and lose weight; this will help your recovery and reduce your risks of complications.
- If you have diabetes, ensure your diabetes is well controlled.
- Visit your dentist before your operation to ensure your teeth and gums are healthy.
- Involve your family and friends in your preparation; they can help you achieve your goals.

Preparation for heart surgery

Stopping smoking

Giving up smoking is one of the most important steps in getting healthy before your operation. If you continue to smoke right up to the time of your operation, this will increase your risk of complications and affect your progress.

To get help stopping smoking:

- speak to your local pharmacist; or
- call Quit Your Way on **0800 84 84 84**, or
- visit **www.QuitYourWay.scot**

Please note that the use of E-cigarettes/Vapes is not permitted within the hospital or hospital grounds. If you need an alternative product, please ask the staff.

Alcohol

Drinking more than the recommended limit can damage your heart muscle, and lead to high blood pressure and stroke. Alcohol is also high in calories, so can lead to weight gain; cutting down can help you regulate your weight. Your GP can offer you more advice if you feel you need support with this.

If you drink alcohol, this is a good time to reduce your intake; ideally you should stop completely before your operation. If you continue to drink alcohol, make sure you stay within the recommended limits, and avoid binge-drinking.

Men should not drink more than 14 units of alcohol each week, the same level as for women. Don't 'save up' your 14 units, it's best to spread these evenly across the week.

- Single small shot of spirits (25ml ABV 40%) 1 unit
- standard glass of wine (175ml ABV 12%) 2.1 units
- pint of lower strength lager, cider or beer (ABV 3.6%) 2 units

To understand how much you are drinking, you can use the alcohol calculator at **www.count14.scot**

Physical Activity

Staying physically active, to the best of your ability, has many benefits for both your heart and your general wellbeing, and helps to:

- lower your blood pressure;
- control your weight;
- reduce the risk of, or help control, diabetes;

- relieve stress and anxiety;
- prevent blood clotting; and
- improve muscle strength and bone density.

The best activity for your heart is moderate exercise, for example, walking or swimming. You should aim to exercise to feel warm and breathe more heavily than usual, but you should still be able to talk and should be pain-free.

Aim to do 30 minutes of exercise a day, 5 days a week; this can be spread out in 10 minute periods, or can be all in one go.

If you are not used to doing this amount of exercise, build this up slowly and add it into your daily routine over a period of time.

Tips for daily exercise:

- take the stairs instead of the lift or escalator;
- walk on your lunch break;
- walk to the corner shop instead of driving;
- do some light gardening;
- join a local walking group; or
- if the weather is poor, you can try walking around your local supermarket or local shopping centre.

These changes to lifestyle can be carried on after your operation to help you have a healthy and successful recovery.

Eat well

Eating well can help give your body the fuel to stay fit and active and help you recover after your operation. It can also help to regulate your weight or help you lose weight if you are overweight.

We recommend that you try to reduce the amount of salt and fat in your diet, especially saturated fats.

A good balance is:

- Fruit and Vegetables – at least 5 portions a day.
- Bread, cereals and potatoes – some at each meal.
- Milk and dairy products – 2 to 3 portions of low fat versions a day.
- Lean meat, white and oily fish, eggs, pulses (beans and lentils) – eat 2 portions a day.
- Use low fat cooking methods.
- Chose unsaturated versions of spreads, oils and salad dressings.
- Remember that foods like pastries, pies, crisps, cakes and biscuits contain hidden fats and may be high in calories.
- Sugars provide you with energy, but provide little or no nutritional value; reduce sugars and avoid sugary drinks.

For further information, refer to the Eatwell Guide on page 37.

Weight

Overweight people are more at risk of having complications during and after surgery than those who are not overweight.

If you are overweight, it is important you lose some weight prior to your surgery. Your GP or doctor may be able to give you some advice or refer you to a dietitian to help you lose some weight before your operation. Following the eating well and physical activity advice in this booklet will also help.

Diabetes

If you have diabetes, good control of this is vital to reduce the risk of complications from your heart operation. Diabetes can damage the heart in several ways, so it is important to ensure that it is well managed. Eating a healthy diet, losing weight (if required), and being more physically active, can help. We recommend you visit your GP before your surgery to ensure your diabetes is well controlled. Poorly controlled diabetes can prolong your wound healing, putting you at risk of wound infection and giving you a longer recovery time.

Dental health

As soon as you know that you need a heart operation, you should visit your dentist to make sure that your teeth and gums are as healthy as possible. This will help to reduce your risk of infection.

If you aren't registered with a dentist, it is vital that you do so and have a check-up before your operation.

Infected gums or teeth can introduce bacteria into the bloodstream, which could cause complications. This is particularly important if you are having an operation on a heart valve.

If your teeth and gums are not in good condition when you come into hospital, your operation may be postponed.

Support from family and friends

Your family and friends can help you achieve your goals to get fitter before your operation and help you on the road to recovery when you get home.

Many patients find it helpful if friends or relatives come to stay or they go and stay with them for a few days after being discharged.

Tips to prepare your house for your return home

Your family and friends can help you prepare your house for when you get home from hospital by doing the following:

- Do all your laundry and put it away.
- Put clean sheets on the bed.
- Prepare and freeze meals in single serving containers and stock up your freezer.
- Tend to any outside work or gardening.
- If you care for someone, arrange help for them during and after your hospital stay. Let the nurses in the pre-operative assessment clinic know at your pre-operative visit if you need support/carers so that there is time to arrange adequate support for your admission and discharge.

- You will not be able to lift anything heavier than a full kettle for up to 6 weeks. Please advise staff as soon as possible if no one will be available to help you at home.
- You will not be able to drive after your surgery. Please arrange for someone to take you home from hospital. If this is not possible, please advise staff as soon as possible.
- If any of these tasks increase symptoms associated with your condition, try to get help from family or friends.

Booking Office

The Booking Office will confirm your appointments in writing. They will also be your point of contact if you have any questions about your appointments or you need to update the hospital on changes to your health.

The Booking Office will also contact you 7 days and 48 hours before your operation to check on your general health and ensure you have stopped taking any medication you have been advised to stop before your operation.

You may be contacted at short notice for your operation, so it is recommended you get prepared as soon as possible e.g. have your hospital bag ready to go.

If you become unwell with symptoms unrelated to your heart operation, for example, you develop a cold, cold sore or urine infection, you should contact our Booking Office on 0141 951 5266.

Before the procedure

Pre-operative Assessment Clinic

You will come to the pre-operative assessment clinic before your operation. It would be beneficial to bring someone with you.

Why is pre operative assessment necessary?

Pre-operative assessment will:

- make sure you are fit for your operation and for the anaesthetic;
- make sure you are given as much information as you need about what will happen before, during and after your operation; and
- give you a chance to ask any questions about your operation and your care whilst you are in hospital.

The pre-operative assessment clinic is led by our nurse practitioners. You will be at the clinic for approximately 4 hours, during which time you will have various tests and investigations carried out and will be seen by several members of your clinical team.

Your tests are likely to include:

- Blood tests
- Chest X-Ray
- MRSA screening
- Electrocardiogram (ECG) – tracing of the heart

The following tests and investigations may also be necessary:

- Echocardiogram – ultrasound of the heart
- Pulmonary Function Test (PFT) – lung function tests
- Carotid Doppler test – ultrasound of the carotid arteries of the neck

Please bring with you:

- All your medication in the original containers including any medication that has been bought by you or for you, for example herbal products or health remedies or medication you buy from the chemist, supermarkets or health food shops.
- A note of any questions you wish to ask.
- Details of any allergies you have, such as food, latex or medicines.
- A note of home, work and mobile telephone numbers for both you and your next of kin, and another person who can be contacted regarding your condition.

If any of the drugs you are taking need to be stopped before surgery, then you will get specific instructions at pre-admission clinic. Please remember to check this information and follow the instructions given before your operation.

Prehabilitation

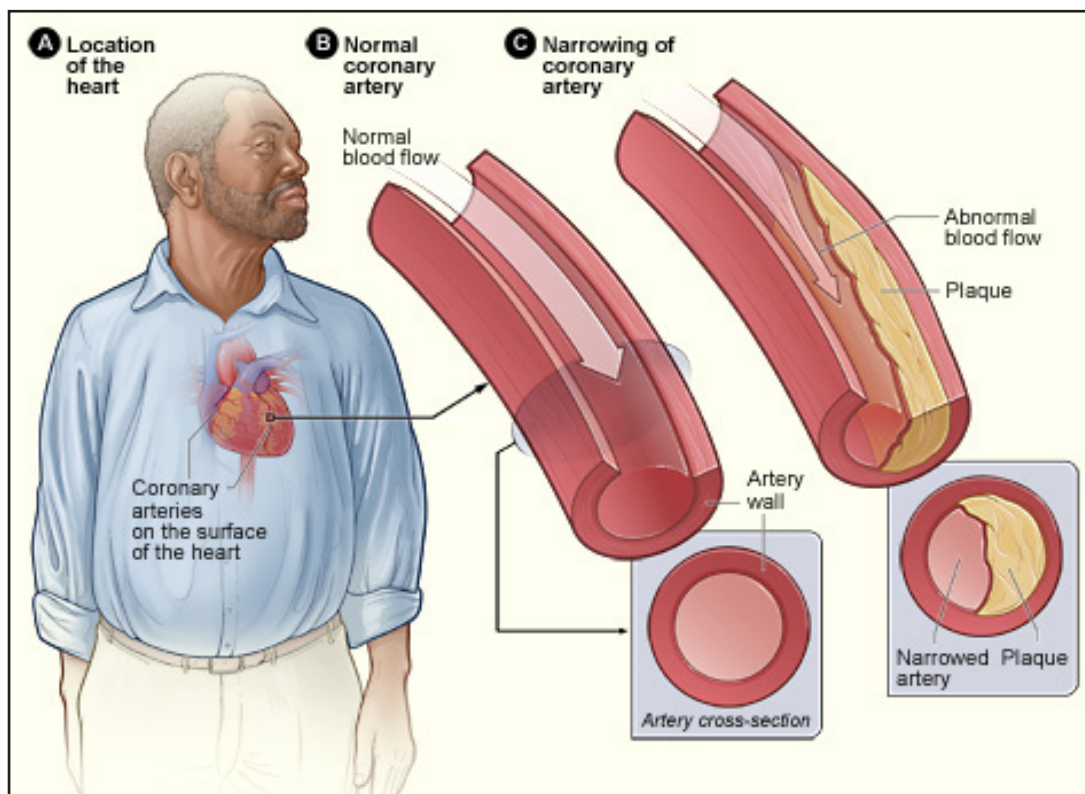
As part of your pre op assessment appointment you will be seen by the physiotherapist for prehabilitation. The physiotherapist will provide you with information about safe levels of activity and how to improve your health and levels of fitness prior to surgery.

Prehabilitation is designed to optimise an individual's overall general health and levels of fitness to enable them to withstand the effects of surgery and introduce steps you can take to help you prepare for your surgery. Small changes can make a big difference and benefits can be seen in as little as 7 - 10 days.

Prehabilitation means your journey to recovery starts before your surgery has even begun and can help to reduce your length of stay in hospital and reduce complications after surgery.

What is a Coronary Artery Bypass Grafting (CABG) operation?

A CABG operation is one of the most common heart operations performed. The procedure will bypass blockages in the coronary arteries. Blockages occur when fatty deposits build up in the artery, causing it to narrow. This is shown by the coronary angiogram investigation performed by your Cardiologist.



The coronary arteries supply blood to the heart muscle. When one or more of these arteries become blocked, you may experience chest pain, also known as angina. If the coronary artery becomes completely blocked, a heart attack occurs. To relieve these symptoms and improve your chances of living longer, a CABG operation is advised. Your cardiologist and surgeon will only recommend surgery if other options, like medication or angioplasty (inserting a stent to open the narrowing) are not appropriate for you.

The coronary artery bypass graft operation uses extra blood vessels, sewn to your narrowed coronary arteries, to 'bypass' the narrowed area and bring blood to the heart muscle. Other arteries and veins in your arm, legs or behind your breastbone can be used as a graft. There are other vessels that supply these areas of the body, so the blood supply is not compromised after the graft is taken.

Your surgeon will make a cut down the front of your chest and through the breastbone to access your heart. Your blood circulation will be supported by a heart bypass machine; this allows your heart to be still in order to put the grafts in place. Occasionally, bypass grafts can be done without the use of the heart bypass machine; this is not suitable for all patients - your surgeon will discuss this with you.

After a CABG

The blood supply to your heart will be improved, relieving your symptoms, and you can return to normal activities. The majority of patients will be free from angina after surgery, but a small number may develop it again. If this happens, you may require a repeat CABG, but this can be 10-20 years later.

Valve surgery

The heart has 4 chambers which help the heart continually pump blood around the body. Valves exist between each chamber to keep blood flowing in one direction. These valves are named the aortic valve, mitral valve, tricuspid valve and pulmonary valve. The right side of the heart pumps blood to the lungs and the left side of the heart pumps oxygen-rich blood to the rest of the body through a large vessel called the aorta.

Sometimes one or more valve can be damaged or diseased. They may not open properly and can obstruct the flow of blood; this is known as valve stenosis. Alternatively they may not close properly, which causes blood to flow in the opposite direction; this is known as regurgitation.

These abnormalities can place an increased strain on the heart as it has to work harder to push blood through the narrowed valve (stenosis). This can cause the heart to become thickened and enlarged and can also put pressure on the lungs. The most common symptoms are chest pain, breathlessness, fainting, and palpitations.

Leaking valves can occur suddenly or over time; the symptoms are similar to a narrowed valve.

Without treatment, the heart muscle can be permanently damaged. The most common valves to be affected are the aortic and mitral valves; these can either be repaired or replaced.

Your surgeon will make a cut down the front of your chest and through the breastbone to access your heart. Your blood circulation will be supported by a heart bypass machine, which allows the heart to be still in order to repair or replace the damaged valve. If you are having a replacement valve, your damaged valve will be removed and a new valve will be sewn into place.

Types of artificial valves

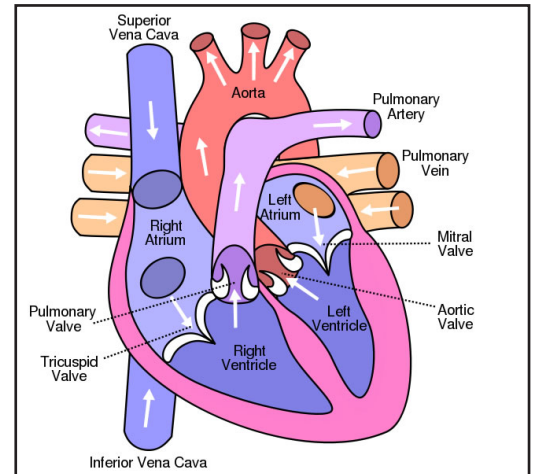
You will receive either a mechanical (metal), biological (animal tissue) or homograft (donated human) valve. Your surgeon will discuss the best valve for you and your condition.

Mechanical valves:

- are made from carbon, which doesn't set off metal detectors;
- make a slight ticking noise when opening and closing;
- have some risk of stroke; and
- have some risk of clot formation (you will need to take blood thinning tablets (Warfarin) for the rest of your life).

Biological valves:

- are made from porcine or bovine (pig or cow) valves;
- do not produce noise;
- will wear out with time (this depends on your age; your surgeon will advise you more on this); and
- you may need to take blood thinning tablets (Warfarin) for 6 weeks to 6 months after the operation.



Homografts:

- are a donated human aortic valve;
- are preserved for use and kept in special donor banks throughout the UK; and
- are only used in special circumstances.

Your surgeon will discuss the best choice of valve for you. This depends on many factors such as age (e.g. female of child bearing age), other medical conditions, tendency to bleed, alcohol intake, contraindications to anti-coagulants, lifestyle and patient preference.

After valve surgery

The blood flow in your heart will be corrected, improving your symptoms, and you can return to normal activities. Your Cardiologist will review you every year to check on your valve function.

Risks of surgery

Heart surgery is a big operation. Like all operations, it carries a risk. Every patient is different so the extent of risk varies. Your surgeon will discuss the risks and benefits with you in detail.

Potential complications include bleeding, infection, stroke, kidney failure and heart attack during or after the surgery. These risks relate to older age, general health, smoking and other medical conditions and heart function. This is why it is important for you to optimise your health before your operation for the best outcome.

- The risk of death following coronary artery bypass grafting is 1-2%.
- The risk of death following replacement of an aortic valve is 2-4 %.

Endocarditis

Infective endocarditis is a condition where a bacterial infection is introduced into the blood stream and attaches onto a structure within the heart. Patients with congenital heart disease and some other types of heart conditions are at a higher risk of infective endocarditis than the general population. The mouth is a common place where bacteria can enter the blood stream. It is important to maintain excellent levels of oral hygiene, this includes twice daily brushing and 6 monthly check up's with your dentist. High risk conditions include valve replacements and repair using a prosthetic ring or material. Antibiotic prophylaxis for high risk dental procedures would be recommended – your cardiology team will provide you with advice on discharge.

Anaesthetic

Anaesthetists are doctors who have had specialist training in anaesthesia, in the treatment of pain, in the care of very ill patients (intensive care) and in emergency care (resuscitation). They will make major decisions about your anaesthetic with you, although if you are unconscious or very ill, they will make decisions on your behalf. Anaesthetists work closely with your cardiac surgeon and other staff (operating department staff, other healthcare staff in training, anaesthetic and recovery nurses) making up the theatre team.

Your Consultant Anaesthetist is responsible for:

- your wellbeing and safety throughout your surgery;
- agreeing a plan with you for your anaesthetic;

- real time assessment of your heart, using ultrasound, in theatre;
- planning your pain control with you;
- managing any transfusions you may need; and
- Your care in the Intensive Care Unit (ICU).

The word 'anaesthesia' means 'loss of sensation'. If you have ever had a dental injection in your mouth or pain relief drops put in your eyes, you already know important things about anaesthesia:

- it stops you feeling pain and other sensations;
- it can be given in various ways;
- it can be directed to different parts of the body; and
- not all anaesthesia makes you unconscious.

Drugs that cause anaesthesia work by blocking the signals that pass along your nerves to the brain. When the drugs wear off, you start to feel normal sensations again, including pain.

The type of anaesthesia you receive forms an important part of any enhanced recovery pathway. The anaesthetic care provided for enhanced recovery aims to keep pain and unpleasant side effects to a minimum in order to get you back on your feet as soon as possible.

Decisions regarding your anaesthesia will be tailored by your Consultant Anaesthetist to your personal needs. The following explains the most common anaesthetic technique used for cardiac surgery.

General anaesthetic

A general anaesthetic produces a state of controlled unconsciousness during which you feel nothing and may be described as being 'anaesthetised'.

Anaesthetic drugs and or gases breathed into the lungs are carried to the brain by the blood. They stop the brain recognising messages coming from the nerves in the body.

Side-effects, complications and risks

There are some complications or side effects that are related to the anaesthetic itself. Some of these occur quite commonly, but are generally minor or short-lived. Serious complications occur, but these are uncommon or rare.

- Common complications and side effects include: feeling sick and vomiting, a sore throat, shivering, itching, soreness at drip sites, developing a chest infection and temporary periods of confusion. Confusion is common after major operations in elderly and infirm people, but can happen to people of any age. Some people become agitated and confused in their thinking and behaviour, whereas others become quiet and withdrawn. The majority of people who become confused make a full recovery. If a physical reason is found, it will be treated (for example, antibiotics, oxygen, pain relieving medicines, nutrition and fluids, drugs to help with constipation etc). Other than that, the simplest measures can be the most helpful. The support of family and friends is vital.
- Uncommon complications include: breathing difficulties at the end of the anaesthetic, damage to teeth, pre-existing medical problems getting worse, and awareness during anaesthesia.
- Rare and very rare complications include: damage to the eyes, serious allergy to drugs, and nerve damage. Death caused directly by anaesthesia is extremely rare and is estimated to occur in 1 in 200,000 anaesthetics in the UK.

More information on general anaesthesia and associated risks is available at:

- www.rcoa.ac.uk/document-store/anaesthesia-explained
- www.rcoa.ac.uk/patientinfo

Other information regarding your theatre experience:

On the day of your operation

Your Consultant Anaesthetist will see you before your operation and may:

- ask you again about your health, and clarify or confirm information that has been recorded in the pre-operative clinic;
- review your test results;
- listen to your heart and breathing; and
- look at your neck, jaw, mouth and teeth.

Your Consultant Anaesthetist will talk to you about your anaesthetic and methods of pain relief. They will be able to answer your questions and discuss any worries that you have.

Fasting – ‘nil by mouth’

The hospital will give you clear instructions about fasting at the pre-operative assessment clinic. These instructions are important; if there is food or liquid in your stomach during your anaesthetic, it could come up into your throat and damage your lungs.

Having a pre-med (pre-medication)

Pre-med is the name for drugs that may be given before an anaesthetic. These are commonly used and usually include drugs to reduce acid in the stomach and to help you relax. Your Consultant Anaesthetist will discuss this with you and tailor this to your needs.

Your usual medicines

You will have been given written instructions about which of your usual medicines you should take before your operation. It is safe to take most drugs with a small sip of water, even if you are ‘nil by mouth’. However, some drugs should not be taken, so please follow the specific instructions given to you at pre-admission clinic. If you are admitted to hospital the night before, the nurses on the ward will give you your medications.

Once you are admitted to the ward your usual medicines will be assessed by either a pharmacy technician or a ward pharmacist to make sure they are suitable for use. They will be kept in your room in a locked cupboard and the nurses will give the drugs to you as prescribed

The operating department (‘theatres’)

When you arrive in the Theatre area, members of staff will confirm your identity, the operation you are having, and any allergies you have. Thereafter, you will be met by your Consultant Anaesthetist or an Anaesthetist in training, who will be working with your consultant.

- It may take up to 30 minutes of preparation before your general anaesthetic itself begins.

- Monitors are connected to you that continuously monitor your heart rate, blood pressure and oxygen levels. Sticky pads on your chest are attached to the heart monitor and a peg on your finger measures the oxygen level in your blood.
- The anaesthetist will use a needle to insert a cannula (thin plastic tube) into a vein on the back of your hand or forearm. This “drip” is used to give you medicines and fluids during the operation.
- The Anaesthetist will then insert another cannula into an artery at the wrist. This is called an arterial line; it allows your blood pressure to be measured continuously and is also used for further blood tests during and after your operation.
- If you are afraid of needles, please tell your Anaesthetist. Use of a needle cannot be avoided, but your skin can be numbed with local anaesthetic beforehand.

When the team is ready you will then be met by your Anaesthetic and Theatre Nurse who will take over your care and transfer you to the operating theatre. In the Theatre, once all of the preparations have been completed, the Anaesthetist will give you oxygen to breathe through a mask, whilst slowly injecting anaesthetic drugs into your cannula. From this point, you will not be aware of anything else until the operation is finished and you are in the ICU.

While you are anaesthetised, you will also require:

- A breathing tube placed into the trachea (windpipe) through your mouth.
- A larger cannula placed into a vein in your neck, collarbone, or groin. This is called a central venous line, and is used to give fluids, to measure pressures and/or to give medicines to control your blood pressure.
- A tube passed into your bladder (a catheter) which keeps the bladder empty. It is also used to measure the amount of urine that your kidneys produce.
- It may also be necessary to insert an ultrasound probe into the oesophagus (gullet) via the mouth. This allows real time assessment of your heart before, during and after your operation.

Blood transfusion

Blood transfusion is a possibility during all major surgery. Blood and its products are only given if absolutely necessary.

You can find out more about blood transfusion and any alternatives there may be by asking your Anaesthetist beforehand or you can visit:

- www.blood.co.uk/information-for-patients/blood-transfusion.
- www.scotblood.co.uk/media/11442/snbts_receiving_a_transfusion_v2_10244_lr_rgb.pdf

Critical Care **(Intensive Care Unit (ICU) and High Dependency Unit (HDU))**

When the operation is finished, your Anaesthetist will transfer you from the theatre to the critical care area, where you will receive additional close monitoring and specialist treatments if required.

Usually it is necessary to continue the anaesthetic after the operation has finished, or until your condition is stable. As the anaesthetic will continue, a ventilator (breathing machine) will be needed to control your breathing. When your condition allows, the critical care team will allow you to breathe for yourself and you will gradually wake up.

You will be looked after by doctors, nurses, physiotherapists and dieticians who specialise in critical care. They work closely with your surgical team to ensure that your recovery is proceeding well.

You may have your own nurse, or one nurse looking after 2 patients. They will ensure that you are comfortable and give prescribed medicines to control your blood pressure, pain, nausea and prevent blood clots. Some of the medicines that you were taking at home may be stopped or changed to help your recovery. If you are worried about this, speak to your nurse.

Your heart rate, blood pressure, breathing and kidney function will be closely monitored. You may also have regular blood tests, x-rays, or scans to check on your progress or diagnose any problems. As your recovery progresses, you will need less monitoring and some of your drips, tubes and monitors will be removed.

The physiotherapists will teach you regular breathing exercises. It is very important that you can breathe deeply and cough effectively throughout your time in the Critical Care area. This will help avoid a chest infection.

The nursing staff will also help you get out of bed as soon as possible. Physiotherapists will then help you walk, or march depending on medication you are on. As well as helping your breathing, walking maintains your muscle strength, improves the circulation in your legs, and enhances wellbeing.

You will be able to have visitors in the Critical Care area. Your nurse will advise you on visiting times and the number of visitors allowed. You may be looked after in an area where there are other patients who are very ill. It may not be suitable for young children to visit and if there is a lot of activity, there may be a need to restrict visiting temporarily.

The length of time that you spend in Critical Care will depend on the type of operation you have had, any complications and any other health problems you may have. When the team looking after you is satisfied that you are recovering safely, you will return to the surgical ward.

Management of pain after surgery

At the GJUNH, we have extensive experience in managing pain following surgery. Good pain relief makes you feel better, helps you to recover more quickly, and may reduce the chance of some complications.

- If you can breathe deeply and cough easily after your operation, you are less likely to develop a chest infection.
- If you can move around freely, you are less likely to get blood clots (Deep Venous Thrombosis (DVT) in the legs or elsewhere).

The nurses will assess your pain regularly to identify, measure and plan your pain relief. You will be given regular pain relief either as a tablet or liquid or into your cannula. Prevention or early treatment of pain is far more effective than trying to treat established or severe pain – don't wait until it is too late.

Visually Indicated Pain Scale

Use the scale below to indicate your pain

	4	Severe pain. Out of control.
	3	Painful at rest. Can't do exercises or deep breathing.
	2	Sore at rest and on movement but managing.
	1	Comfortable at rest. Sore on movement.
	0	No pain at rest or on movement

Side effects of pain medication

These may include nausea and vomiting, constipation, headache, dizziness, feeling sleepy, or mild confusion. These can be reduced with anti-sickness drugs, drinking enough fluid, laxatives and rest. Please let the nurses know if you feel any of these side effects. If you are taking other medications, or have had a reaction to a medication in the past, please let us know.

When you go home

You will be given pain relief to take home with you to last for a few days. Continue pain relief as required, take them as directed and do not exceed the stated dose. A copy of your prescription will be included in the letter given to you for your GP. Further supplies can be obtained from your local GP. Please ensure you do not run out of your pain relief medication before you get a new supply from your GP.

This is your personal diary to help you record and monitor your progress whilst you are in hospital.

This diary is a tool to help you get fitter sooner and plan for home. It sets out goals for you to achieve, with support from the team looking after you, to allow you to get back to normal life sooner. Your diary will last for 4 days after your operation, but you may be ready to go home before then.

We hope that you will be active in completing your diary. If you have any questions, please ask a member of the team.

Each day you will be asked about:

- moving around;
- pain control;
- exercises for your rehabilitation;
- eating and drinking; and
- washing and dressing.

We will ask you to record when you have been able to achieve these things and write any notes if you wish.

Good to Go (page 40)

The Good to Go checklist lists the goals you should aim to achieve to ensure you are ready to go home; these will be discussed with you daily while you are in hospital. Discharge day can be as early as 4 days post op.

Your estimated date of discharge will be reviewed daily to help plan for you going home.

We will also use the Good to Go board in your room to communicate this to you and your family, so that we can work together to plan your discharge.

Moving around

It is important to continue to be active whilst you are in hospital. By sitting out of bed and by walking regularly, your breathing will improve. This also reduces the chance of you developing a chest infection, and clots in your legs. If you normally have difficulty walking, or are unable to do so, we will advise you on suitable alternatives.

Sternotomy precautions

It is very important to protect your sternum whilst it is healing after surgery. Daily movements should be edited/restricted to avoid pulling, stretching, twisting or heavy lifting.

Your Physiotherapist will advise you on the best way to get in/out of bed and sit/stand to adhere to this.

- Treat as a broken bone in chest.
- This bone will take approximately 6 to 8 weeks to heal.
- You may experience some discomfort from this wound but you should be comfortable enough to move and carry out your breathing exercises.

- If your pain is stopping you from taking deep breaths in, coughing or moving you should tell your nurse.
- Ladies, please bring in a non-wired bra to ICU for added chest support.

Walking

Walking is a very important part of your recovery; it helps to:

- increase circulation;
- encourage deep breathing; and
- increase your strength and stamina.

Walking usually begins on the first day after your operation. Assistance may be required until you can manage your drips, catheter or drains safely. If you are unable to walk, you will be encouraged to march on the spot.

The amount of walking you do will be gradually increased over a few days and you can expect to be walking on your own within 2 to 3 days. Once you are able to walk on your own, try to have a walk every hour. Your physiotherapist will also make sure you can manage a flight of stairs before you go home.

Please bring loose fitting clothes and comfortable flat footwear for walking. Ideally full shoe slippers or trainers, not mules or open back.

When you are walking on the ward you will see signs and pictures of famous Glasgow landmarks along the Clyde. Each landmark will have a distance of how far you are from the GJUNH and how far you will have walked on the ward.



Breathing exercises

These are the step-by-step instructions for your deep breathing exercise. If you can, carry out this exercise in a high sitting position.



◀ Step 1

Take a deep breath in through your nose, hold for 3 seconds and breath out slowly through your mouth.

Repeat 3 times.

Step 2 ▶

Huff – sharply breathe out through your mouth. This is the same action as using your breath to steam up a mirror.

Repeat 3 times.



◀ Step 3

Cough.

Circulation exercises

When resting in bed try to do the following exercises:

- wiggle your toes;
- pull your toes up towards you then push them away; and
- circle your ankles.

Practice these exercises before you come in for your operation to get in training for your recovery.

Eating and drinking

It is important that you eat and drink as soon as possible after your operation to help your wounds heal, reduce your risk of infection, and give your body fuel to help you recover. Start by eating and drinking small amounts regularly, unless advised otherwise. If you do feel nauseated, please let a nurse know; they can give you medication and advice which will help.



Before surgery

Admission

You should be planning for your discharge before admission and highlight any issues as soon as possible to the nursing or medical team.

- A nurse will check that all your pre-assessment information is correct.
- If there has been any change to your health or medication since pre-assessment, please inform the nurse.
- You will meet your consultant again, who will answer any questions you may have.
- You may also meet the anaesthetist, who will discuss the type of anaesthetic to be used during your surgery.
- An estimated date of discharge which will be between 5-7 days post surgery will be discussed with you, along with any arrangements that have to be made prior to discharge; this will include confirming who will help at home and who will be able to take you home from hospital. You may be ready for discharge sooner but this will be reviewed daily to help with planning.
- Check you have the right equipment prior to discharge.

Estimated date of discharge:

Checklist of items for planning your stay

- ☐ change of clothes
- ☐ loose fitting pyjamas
- ☐ good-fitting slippers
- ☐ your own medications
- ☐ wash kit
- ☐ incentive spirometer
- ☐ a list of any questions you want to ask

Day of surgery

You may be admitted to the Surgical Admissions Unit (SAU) on the same day as your surgery or to ward 3 East the day before. The staff will prepare you for your operation and you will have a chance to discuss any concerns you may have.

After surgery

Following your operation, you will be transferred to the Critical Care area. Throughout the day, we will continue to monitor your progress closely. You may still be quite sleepy and will be on a breathing machine (ventilator). Once you are awake and are ready to come off the breathing machine, the nurses will take the breathing tube out and put an oxygen mask on you.

You will have some intravenous lines in your neck and other tubes in your arm or wrist; this is normal and allows us to monitor how well you are doing and to help replace any fluid you may have lost during the operation. These will be removed as early as possible to aid recovery on the ERAS pathway. You will have drains in your chest to remove any excess fluid from the operation. Visitors should be kept to a minimum today. You will be able to have a drink and something light to eat. Some patients are able to get up with the nurse later in the day; others may have to stay in bed until the following morning.

Day 1 after your operation

Today you may stay in the Critical Care area or be transferred back to Ward 3 East. You may have some of the tubes, drips or drains removed today. Throughout your stay we will continually monitor your heart via your heart monitor leads on your chest. We will aim to remove the monitor as soon as your pacing wires are removed to allow for easier mobility.

In the morning, we will aim to help you out of bed to sit in the chair for breakfast. Sitting in a chair and mobilising is a key part of ERAS and your recovery.

Hygiene

The nurses will help you wash at the bedside and put on loose clothing/pyjamas and appropriate footwear for walking.

Managing your pain

You will receive regular pain relief tablets.

Please let a nurse know if you need additional pain relief.

Pain score at rest:

Moving around: Goal

It is beneficial to move around as much as possible. Your nurse and physiotherapist will tell you when you can move on your own and will advise you how often to move around. You will be encouraged to sit up out of bed where possible as it will benefit your chest and help keep it clear.

Today you can sit out in the chair for up to 6 hours, or more if you feel able to.

You can have rests in bed in between. Our nurses will help you with this. Please don't try to get up or go back to bed yourself, as you will require help with the drains and pumps that are attached to you.

Number of hours I sat out of bed: 1 2 3 4 5 6

Day 2 after your operation

You will be transferred to ward 3 East (if you haven't already).

Hygiene

You will be encouraged to be more independent with your hygiene needs, but a nurse will assist you if you require it.

Managing your pain

You will receive regular pain relief tablets.

Please let a nurse know if you need additional pain relief.

Pain score at rest:

Moving around

Today you can sit out in the chair for up to 8 hours, or more if you feel able to, and walk around the ward with a nurse or physiotherapist 2 to 3 times.

You can have rests in bed in between. Our nurses will help you with this. Please don't try to get up or go back to bed yourself as you will require help with the drains and catheter that may be attached to you.

Number of hours I sat out of bed: 1 2 3 4 5 6 7 8

Number of times I walked around the ward: 1 2 3

Breathing exercises

Morning: 8am 9am 10am 11am 12noon

Afternoon: 1pm 2pm 3pm 4pm 5pm

Evening: 6pm 7pm 8pm 9pm 10pm

Circulation and arm exercises

Morning: 8am 9am 10am 11am 12noon

Afternoon: 1pm 2pm 3pm 4pm 5pm

Evening: 6pm 7pm 8pm 9pm 10pm

Eating and drinking

You are encouraged to eat and drink.

Number of drinks (cups) I have had: 1 2 3 4 5 6 7 8 9 10



What I have eaten:

Breakfast	
Lunch	
Dinner	
Snacks	

If you feel nauseated, please let a nurse know who can give you something.

Bowels/urine

Your urinary catheter may be removed today.

Have I passed urine today?

Yes ☐ No ☐

Please let the nurses know if you pass wind or your bowels move, as we need to monitor this following your operation.

Have I passed wind today?

Yes ☐ No ☐

Have my bowels moved today?

Yes ☐ No ☐

Daily goals

Have I reached my goals today?

Yes ☐ No ☐

Have I had difficulty achieving my goals today, e.g. too tired, pain etc?

Yes ☐ No ☐

If yes, please explain:

Good to Go (page 40)

Arrangements for your discharge home will continue. Family and friends are encouraged to play an active part in your return home.

Is there anything I am concerned about for going home?
--

Estimated date of discharge: _____



Day 3 after your operation

You will be getting closer to achieving your discharge goals and you may be able to go home tomorrow. Staff will help you prepare for this.

Hygiene

You will be encouraged to be more independent with your hygiene needs but a nurse will assist you if required.

Managing your pain

You will receive regular pain relief tablets.

Please let a nurse know if you need additional pain relief.

Pain score at rest:

Moving around

Today you can sit out in the chair for most of the day, and walk around the ward regularly if you feel able to. If you still have drains or other attachments, please ask a nurse or physiotherapist to assist you.

Number of hours I sat out of bed: 1 2 3 4 5 6 7 8

Number of times I walked around the ward: 1 2 3 4 5 6

Breathing exercises

Morning: 8am 9am 10am 11am 12noon

Afternoon: 1pm 2pm 3pm 4pm 5pm

Evening: 6pm 7pm 8pm 9pm 10pm

Circulation and arm exercises

Morning: 8am 9am 10am 11am 12noon

Afternoon: 1pm 2pm 3pm 4pm 5pm

Evening: 6pm 7pm 8pm 9pm 10pm

Eating and drinking

You are encouraged to eat and drink.

Number of drinks (cups) I have had: 1 2 3 4 5 6 7 8 9 10



What I have eaten:

Breakfast	
Lunch	
Dinner	
Snacks	

If you feel nauseated, please let a nurse know who can give you something.

Bowels/urine

Your urinary catheter may be removed today.

Have I passed urine today?

Yes ☐ No ☐

Please let the nurses know if you pass wind or your bowels move, as we need to monitor this following your operation.

Have I passed wind today?

Yes ☐ No ☐

Have my bowels moved today?

Yes ☐ No ☐

Daily goals

Have I reached my goals today?

Yes ☐ No ☐

Have I had difficulty achieving my goals today, e.g. too tired, pain etc?

Yes ☐ No ☐

If yes, please explain:

Good to Go (page 40)

Arrangements for your discharge home will continue. Family and friends are encouraged to play an active part in your return home.

Is there anything I am concerned about for going home?

Estimated date of discharge: _____



Day 4 after your operation

You may be ready to go home today, if you have achieved your discharge goals.

Hygiene

You will be encouraged to be more independent with your hygiene needs but a nurse will assist you if required.

Managing your pain

You will receive regular pain relief tablets.

Please let a nurse know if you need additional pain relief.

Pain score at rest:

Moving around

Today you can sit out in the chair for most of the day, and walk around the ward regularly if you feel able to. If you still have drains or other attachments, please ask a nurse or physiotherapist to assist you.

Number of hours I sat out of bed: 1 2 3 4 5 6 7 8

Number of times I walked around the ward: 1 2 3 4 5 6

Breathing exercises

Morning: 8am 9am 10am 11am 12noon

Afternoon: 1pm 2pm 3pm 4pm 5pm

Evening: 6pm 7pm 8pm 9pm 10pm

Circulation and arm exercises

Morning: 8am 9am 10am 11am 12noon

Afternoon: 1pm 2pm 3pm 4pm 5pm

Evening: 6pm 7pm 8pm 9pm 10pm

Eating and drinking

You are encouraged to eat and drink.

Number of drinks (cups) I have had: 1 2 3 4 5 6 7 8 9 10



What I have eaten:

Breakfast	
Lunch	
Dinner	
Snacks	

If you feel nauseated, please let a nurse know, who can give you something.

Bowels/urine

Have I passed urine today?

Yes ☐ No ☐

Please let the nurses know if you pass wind or your bowels move, as we need to monitor this following your operation.

Have I passed wind today?

Yes ☐ No ☐

Have my bowels moved today?

Yes ☐ No ☐

Daily goals

Have I reached my goals today?

Yes ☐ No ☐

Have I had difficulty achieving my goals today, e.g. too tired, pain etc?

Yes ☐ No ☐

If yes, please explain:

Good to Go (page 40)

Arrangements for your discharge home will continue. Family and friends are encouraged to play an active part in your return home.

Is there anything I am concerned about for going home?
--

Estimated date of discharge: _____



Day 5 after your operation

You may be ready to go home today if you have achieved your discharge goals.

Hygiene

You will be encouraged to be more independent with your hygiene needs, but a nurse will assist you if required.

Managing your pain

You will receive regular pain relief tablets.

Please let a nurse know if you need additional pain relief.

Pain score at rest:

Moving around

Today you can sit out in the chair for most of the day, and walk around the ward regularly, if you feel able to. If you still have drains or other attachments, please ask a nurse or physiotherapist to assist you.

Number of hours I sat out of bed: 1 2 3 4 5 6 7 8

Number of times I walked around the ward: 1 2 3 4 5 6

Breathing exercises

Morning: 8am 9am 10am 11am 12noon

Afternoon: 1pm 2pm 3pm 4pm 5pm

Evening: 6pm 7pm 8pm 9pm 10pm

Circulation and arm exercises

Morning: 8am 9am 10am 11am 12noon

Afternoon: 1pm 2pm 3pm 4pm 5pm

Evening: 6pm 7pm 8pm 9pm 10pm

Eating and drinking

You are encouraged to eat and drink.

Number of drinks (cups) I have had: 1 2 3 4 5 6 7 8 9 10



What I have eaten:

Breakfast	
Lunch	
Dinner	
Snacks	

If you feel nauseated, please let a nurse know who can give you something.

Bowels/urine

Have I passed urine today?

Yes ☐ No ☐

Please let the nurses know if you pass wind or your bowels move, as we need to monitor this following your operation.

Have I passed wind today?

Yes ☐ No ☐

Have my bowels moved today?

Yes ☐ No ☐

Daily goals

Have I reached my goals today?

Yes ☐ No ☐

Have I had difficulty achieving my goals today, e.g. too tired, pain etc?

Yes ☐ No ☐

If yes, please explain:

Good to Go (page 40)

Arrangements for your discharge home will continue. Family and friends are encouraged to play an active part in your return home.

Is there anything I am concerned about for going home?
--

Estimated date of discharge: _____



Care and rehabilitation at home

When you go home, there are a variety of things you need to know for your safety, comfort and a speedy recovery.

You can view films relating to your cardiac surgery discharge by scanning the QR code or at the following link:

www.youtube.com/playlist?list=PLZeCzyCuo2tGUXeb4EReEc5l5Ngclqk3e



Discharge / medication

A Pharmacist or Staff Nurse will tell you about the medication which has been prescribed for you to continue taking at home.

The instructions for your 7 day supply will be printed clearly on the boxes. Only take the medication you have been issued with at the time of discharge; your own GP may change these at a later date. Make sure you hand in your discharge prescription to your GP to ensure that you don't run out.

In the early stages, do not strain your chest, as this may delay the healing process. You may need to take pain relief on a regular basis, around every 4 hours, to ensure good pain control to enable you to continue to get better.

Your sternum (breastbone) will not be fully healed for about 3 months; however it is sufficiently healed after 6 weeks to allow an increase in exercise.

TED stockings (Thrombo-embolic deterrent stockings)

- You will be given 2 pairs of TED stockings; you are advised to wear these stockings for 4 weeks following your operation.
- You should wear your stockings 24 hours a day for the first 2 weeks and during the day only for the next 2 weeks.
- If you need to be re-measured, or require replacements, please speak to your GP or Practice Nurse.
- If you notice that the TEDs are becoming tight, examine your legs – you may be retaining a small amount of fluid, which can make your legs appear swollen and puffy. A useful tip is to weigh yourself on a regular basis.
- Check and clear up any issues before you leave hospital.

What wounds will I have following cardiac surgery?

You will have an incision in the centre of your chest. You will also have puncture sites below that. You may also have a wound on your leg, arm or groin.

Wound care

Until the wound has healed (6 weeks):

- Cleanse your wounds daily preferably in a shower
- You should use non perfumed liquid soap
- Shower from the head down
- Do not rub or scrub the wound
- Pat your wounds dry with a clean towel
- Avoid touching the wound if possible
- No lotions, powders or sprays near the wound

Check your wound daily – you must contact your GP or Practice Nurse if you notice any of the following:

- Redness or appears “angry – looking”
- Heat or swelling
- Change or increase in the amount of pain
- Pus or discharge

If you are discharged home with dressings in place the staff on the ward will make arrangements for a District Nurse to look after your wounds. Do not be tempted to remove your dressing yourself or touch your wound.

The Cardiac Rehabilitation team from the GJUNH will contact you at home to provide a follow up service to start early intervention, and provide advice and support.

Women are advised to wear a well-fitting non wired bra as soon as possible after surgery to reduce strain on the chest wound.

You may feel discomfort in your leg if a vein was removed for the bypass graft. Many people feel pins and needles or numbness around the leg wound; this is quite normal and should not be a cause for concern. Any swelling in the legs can be helped by wearing TED stockings and by raising your legs when sitting at home.

You can also expect some numbness over the left side of your chest; these symptoms should improve over the next 6 weeks. Muscular aches and pains across the shoulders, chest, neck and back are common following surgery. The physiotherapist will discuss exercises during your discharge talk; these exercises can be found on page 36.

After effects of surgery

Most patients undergoing heart surgery are attached to a heart bypass machine. The combination of the bypass machine and anaesthetic can affect your mood and senses.

- **Taste**
Many people have a metallic taste in their mouth or find that all food tastes the same. Your appetite and sense of taste will return to normal over the next few weeks.
- **Vision**
It is common to see flashing lights, wavy lines and other visual disturbances. This will improve over the next few weeks. It is not advisable to arrange a visit to see an optician until at least 6 weeks after your surgery.

- **Hearing**
You may notice a loss of hearing; this is only temporary and should improve 4 to 6 weeks after surgery.
- **Mood**
Initially you may be emotional, tearful and experience periods of low mood. If you find these symptoms do not improve, visit your GP for advice or discuss this with your cardiac rehabilitation team.
- **Concentration**
You may find that your concentration is not at its best following the operation. This will improve over the next few weeks but you may feel your concentration is affected when you are tired or under stress for the next 6 to 12 months.
- **Sleeping**
It will probably take a few weeks to settle back to your normal pattern of sleep. You can help yourself by:
 - going back to your usual bedtime routine;
 - settling yourself in a comfortable position using pillows for support if you need them (you may now sleep in any position that is comfortable for you); and
 - ensuring you take pain relief before you settle to sleep.

If you have difficulty getting out of bed, please follow the guidelines on page 35.

Return to work

You can return to work between 12 and 16 weeks after your operation date, depending on the type of work you do and the demands of your job. Liaise with cardiac rehabilitation and your GP for advice specific to you.

Cardiac rehabilitation programme

Your local rehabilitation team will assess your suitability to attend rehabilitation classes. These usually start from 6 to 8 weeks following your surgery.

The aim of cardiac rehabilitation is to maximise your recovery, rebuild your confidence, and help you return you to as full a life as possible.

The programme usually involves attending 1 or 2 classes per week for approximately 8 to 12 weeks. Classes include supervised exercise sessions and practical advice on diet, healthy lifestyle, medications, and relaxation techniques.

Please take a list of your current medication with you to your first session.

Lifestyle

You should consider the following lifestyle changes following your operation:

- stop smoking;
- take regular exercise;
- follow a healthy balanced diet;
- maintain a healthy weight; and
- moderate your alcohol intake.

Remember these changes are for life to help improve your long-term health.

Smoking

Smokers are almost twice as likely to have a heart attack compared with people who have never smoked. Stopping smoking has huge benefits and it's never too late to give up. There is no quick and easy way to stop smoking. You have to want to quit. Stopping smoking is one of the most important decisions you can ever make for your health. Agencies that can help are:

- NHS Health Scotland www.healthscotland.com
- call Quit Your Way on **0800 84 84 84**, or
- visit www.QuitYourWay.scot

Dangerous substances inhaled from smoking

Nicotine is a stimulant, which increases your heart rate and raises blood pressure.

Carbon Monoxide reduces the amount of oxygen available to the muscle.

When you go home

When you go home, it is important that you continue the walking programme you started in hospital. This will help you return to as full and independent a life as possible, before you start cardiac rehabilitation.

Regular exercise helps to:

- strengthen your heart;
- improve your circulation and lung function;
- strengthen your muscles and bones;
- make you feel better by reducing stress and anxiety; and
- control your weight by burning up extra calories.

Getting started

Before any type of exercise it is important that you do a warm up, and when finished, a cool down.

Warm up: (can be done standing or sitting)

1. Take a deep breath in.
2. Side stretch to left 5 times.
3. Side stretch to right 5 times.
4. March on the spot for 30 seconds.
5. Heel / toe taps 5 times (right and left).

Cool down:

1. Take 3 deep breaths in.
2. Repeat side stretches 5 times.
3. Repeat heel/toe taps 5 times.

Your heart will benefit most from exercise that builds up stamina. This is your ability to keep going without getting too out of breath. Walking is an excellent stamina building exercise, which should be developed gradually.

Pace

You should walk at a pace that gets you breathing more deeply, and slightly out of breath, but still allows you to keep a conversation going. Start each walking session at a gentle pace, gradually increasing towards a brisk walk with a good stride, allowing your arms to swing. Slow down towards the end of the walk to enable the heart rate to gradually lower.

If you feel you are tiring or becoming uncomfortable during the walk, stop and rest. Breathing exercises will help you to gain control.

Improve your stamina

As everyone is different your progress should be guided by how you feel rather than how many weeks it is since the operation. It will also depend on how fit you were before surgery.

The following advice is given for guidance only and should be modified to meet your individual needs. Progress at your own rate setting realistic goals each day. **You may find the walking diary on page 39 helpful for monitoring your progress.**

For the first few days at home, take frequent short walks around the house or garden, weather permitting. By the end of the first week, aim to progress to 10 minute walks outside. Ideally start walking on level ground and have someone with you. Do not be afraid to walk outside, try to start as early as possible – wrap up if necessary.

Gradually increase your walking over the next 6 to 12 weeks, aiming to progress to 30-40 minutes exercise daily; if necessary, split this into 2 walks a day. During this time you should also be increasing the pace of your walking.

As you increase your level of activity, you may experience some minor discomfort around your chest wound. This is normal as the bones and muscles in your chest heal. Shortness of breath will settle as your fitness improves.

12 weeks following surgery

By 3 months after your surgery, you should have reached a comfortable level of fitness for your lifestyle. To maintain this new level of fitness, you should continue to incorporate stamina, building exercises in to your daily routine. A daily 30-40 minutes of moderate exercise in the form of walking, swimming or cycling is sufficient. Remember exercise needs to become a lifetime habit. The best forms of exercise are the ones you enjoy!

Resting

While building up your stamina, you should continue taking a daily rest hour. It is also advisable to delay exercise for 1 hour after eating a meal, and for 30 minutes following a bath or shower.

Activity guidelines after leaving hospital

Do not do any exercises that put undue strain on your breastbone, e.g. rowing, weightlifting and press-ups, or heavy lifting. Remember to start activities slowly and build up intensity gradually.

Gardening

- light gardening such as potting and raking after 6 weeks; and
- heavy digging and mowing the lawn after union of the breast bone at 3 months.

Swimming

- begin after 3 months if your wound is fully healed; and
- use a modified breast stroke until the stroke is comfortable.

Cycling

- exercise bike after 4 weeks; and
- regular bicycle after 6 weeks (check handlebar position to avoid overstretching).

Bowling

- light carpet bowls after 6 weeks, progressing gradually to a normal game.

Fishing and tennis

- after 3 months, beginning gradually; and
- do not row a boat for 3 months.

Golf

- after 6 weeks start with putting;
- progress to half swing;
- driving only after 3 months; and
- start with a few holes gradually progressing to 18.

Housework

- light housework e.g. dusting and washing dishes can be attempted on discharge; and
- more strenuous housework (sweeping, vacuuming and hanging heavy washing on the line) after 6 to 8 weeks.

Competitive sports

- Competitive sports and team games should be avoided for at least 3 months; consult your doctor before starting.

Driving

- Driving should usually be avoided for 6 weeks – you must let your insurance company know but there is no need to inform the DVLA;
- special rules apply to HGV or public vehicle drivers - consult your GP or the DVLA for further advice;
- you must visit your GP before you start driving so that they can check you are fit to start driving again;
- you must wear a seatbelt; and
- begin with short journeys accompanied by another driver and avoid becoming stressed.

Sexual activity

- Sexual activity may be resumed when you feel comfortable to do so. Initially you may need to modify your position to avoid too much strain on your breast bone.

Signs and symptoms of overexertion

When exercising, you should expect to feel yourself becoming warmer, your breathing rate increasing and your heart beating faster. These are normal and good responses to exercise. If this does not happen, you are not increasing your fitness level.

You should stop exercising if you experience:

- dizziness or light-headedness;
- pounding heart;
- excessive sweating;
- severe shortness of breath;
- chest pain or severe palpitations (consult your doctor as soon as possible); or
- nausea.

These are signs that you are overdoing it and should reduce the pace of your exercise.

Other useful advice

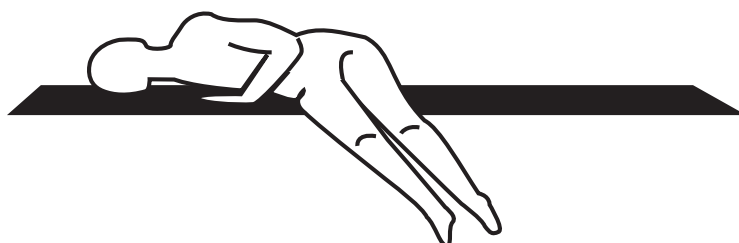
- Expect a degree of breathlessness, tiredness, poor concentration, and memory loss.
- Many patients also report a tendency to be more emotional, depressed and weepy. These feelings are normal and should improve over the next 6 weeks.
- Some arm movements and coughing may cause clicking of the breastbone. This is common and will stop once healing is complete.
- Do not push, pull or lift anything heavy (greater than 2 to 4 kilos) for at least 8 weeks.
- Care should also be applied when bending, stretching or walking the dog on a leash.
- Follow the diagrams below to avoid undue stress when getting in and out of bed.

Getting out of bed

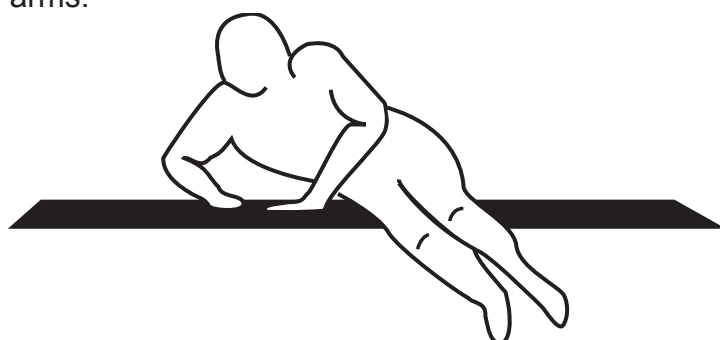
Roll onto your side.









Let your legs slip over the edge of the bed.



Gently push up with your arms.



Exercises

	Sitting straight-backed pull your chin in, keeping your neck and back straight (not tipping your head forwards). Hold at the end position and feel the stretch in your neck. Repeat 5 to 10 times.
	While sitting turn your head to 1 side until you feel a stretch. Hold for approximately 5 seconds and repeat to other side. Repeat 5 to 10 times.
	While sitting tilt your head towards 1 shoulder until you feel the stretch on the opposite side. Hold for approximately 5 seconds and repeat to other side. Repeat 5 to 10 times.
	Sit or stand and roll your shoulders in both directions. Repeat 5 to 10 times.
	Sit or stand and lift your shoulders then relax. Repeat 5 to 10 times.
	After discharge from hospital you can start moving your arms more fully. Clasp your hands in front and slowly lift both up until you feel a gentle stretch at your breastbone. Repeat 5 to 10 times.

Dietary advice

The following advice on diet will help you to achieve long-term healthy eating goals. These are possible post-operative symptoms:

- Poor appetite: It may take 6 to 8 weeks for you to regain your appetite after your operation. Aim to eat 3 small meals and 3 snacks per day. Try to eat every 2 to 3 hours; don't wait till you feel hungry. Try to establish a regular meals pattern.
- Altered taste (metallic or no flavour from foods): You should drink plenty of fluids; try different drinks, suck or eat a sweet/mint or chew gum to stimulate your saliva and /or eat cleansing foods e.g. fruit and salad vegetables.
- Nausea: You may prefer to eat cold foods as the smell of hot meals may put you off eating.
- Constipation: This can be caused by anaesthesia, pain medication, inactivity or limited fluid and food intake. Try to include foods that contain fibre, such as wholemeal bread/cereals, fruit and vegetables. Aim to drink 6 to 8 glasses (1.2 litres/just over 2 pints) of water, or other fluids everyday.

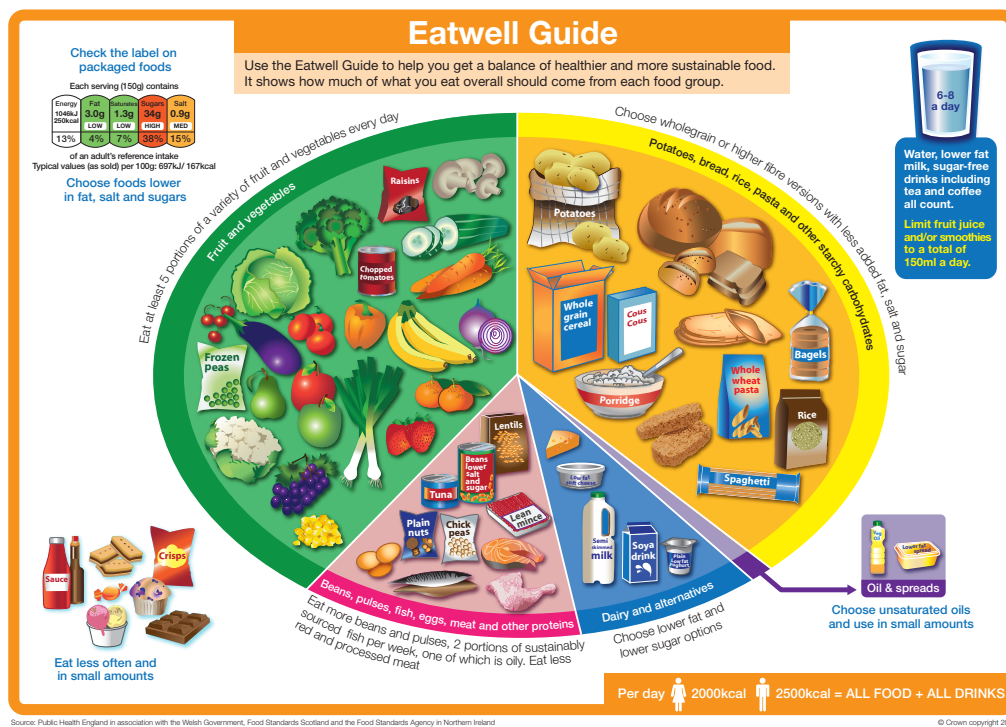
During this time you can eat a wide variety of foods. Until you have recovered from your operation, and regained your appetite and fitness, you should not follow a strict low fat or weight reducing diet.

Long term 'healthy eating goals'

It is very important to enjoy your food. To eat a healthy diet, you do not have to give up the foods you like. However, to achieve the correct balance, some foods should not be eaten too often or in large quantities.

Starchy foods

Starchy foods, such as bread, cereals, rice, pasta and potatoes are an important part of a healthy diet and should make up a third of the food we eat. Try to eat wholemeal varieties whenever possible, as they are higher in fibre and vitamins. We digest wholegrain food more slowly, so feel fuller for longer.



Fruits and vegetables

Aim to eat at least 5 portions of a variety of fruit and vegetables each day.

1 portion is:

- 1 medium fruit (e.g. apple, orange, banana, peach, pear);
- quarter to half large fruit, e.g. melon, pineapple, mango;
- 2 to 3 small fruits (e.g. plums, satsuma);
- a handful of grapes, cherries or berries;
- 1 glass (150ml) of fruit juice; or
- 3 heaped tablespoons of vegetables.

Fresh, frozen and tinned fruits and vegetables can be eaten. Although fruit and vegetables are low in calories; remember that their calorie content is increased if you add butter, cream or cheese sauces.



Milk and dairy products

These foods are a good source of calcium. To protect your bones, you should eat 2 to 3 portions per day. Choose low fat varieties wherever possible, otherwise your intake of saturated fat may be too high.

1 portion is:

- 1/3 pint of semi-skimmed or skimmed milk;
- 1 small pot of healthy eating or low fat natural yogurt;
- 25g/1 oz of –low fat/reduced fat hard cheese; or
- 1 small tub of cottage cheese.

Fish, meat and alternatives

These foods provide a good source of protein.

Fish

Aim to eat at least 1 or 2 portions (1 portion = 140g/5oz) of oily fish a week such as salmon, mackerel, trout, herring, fresh tuna and sardines. Oily fish are the richest source of Omega3 fatty acids, which may help to prevent heart disease.

Meat

Some types of meat are high in fat, particularly saturated fat. To reduce your intake of fat, trim meat of all visible fat and remove skin from poultry and game. Use low fat cooking methods such as casserole, stir-fry, roast and grill.

Pulses

Pulses (baked beans, kidney beans, lentils, chickpeas, peas) are low in fat. As these are high in protein, they can be eaten as an alternative to meat or added to meat dishes so smaller amounts of meat are used, e.g. chilli con carne.

Sugar and sweet foods

Sugar adds taste to foods/drinks and is a source of energy calories. However, if taken in excess, may lead to weight gain. In addition, sugar can result in an increase in your blood triglyceride (fat) level. Many sugary foods, e.g. puddings and cakes, are also high in fat.

To reduce your sugar intake:

- avoid or add less sugar to tea/coffee; use a sweetener instead;
- try sugar free / reduced sugar soft drinks;
- eat fewer sweet foods (e.g. cakes, puddings, chocolates and sweets); keep these as an occasional treat; and
- choose a plain biscuit, scone or teacake (but not too many).

Fats and oils

Fat provides flavour to meals; however it is easy to eat too much. Fat is the most concentrated source of calories, therefore you may gain weight or be unable to lose weight if your fat intake is high.



Salt

You should have no more than 6g of salt a day, which is about a teaspoon. Aim to reduce your salt intake; this can help in reducing your blood pressure. Many processed foods are high in salt, so try to cook with fresh ingredients.

To reduce your salt intake:

- use less in cooking and don't add at the table; always taste before you add salt;
- flavour foods with pepper, garlic, lemon juice, herbs, spices or vinegar;
- eat fewer high salt foods (crisps, salted nuts, preserved meats e.g. gammon, cheese, canned soups); and
- use small amounts of gravies / sauces made from stock cubes, gravy granules or soy sauces.

Walking diary

Use this page to record the number of minutes you walk, your number of walks per day and how easy or difficult it was (you should aim to be between 3 and 4 on the scale below). You should see your stamina improve over time.

1 – too easy 2 – fairly easy 3 – a little hard 4 – fairly hard 5 – too hard

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Week 1							
Number of minutes							
Number of walks							
Difficulty							
Week 2							
Number of minutes							
Number of walks							
Difficulty							
Week 3							
Number of minutes							
Number of walks							
Difficulty							
Week 4							
Number of minutes							
Number of walks							
Difficulty							
Week 5							
Number of minutes							
Number of walks							
Difficulty							
Week 6							
Number of minutes							
Number of walks							
Difficulty							




The Good to Go checklist will help you prepare for going home and plan your discharge from hospital. You may go home 4 or 5 days after surgery, or sooner if you are able.

Are you good to go?




Reaching my Goals

	I'm regularly going for a walk every 1-2 hours (following physiotherapist's individual advice for me).	
	I'm doing my deep breathing exercises and my arm and circulation exercises every 1-2 hours.	
	I know what exercises I need to do at home.	
	I am back to my normal ability with washing and dressing – or I know when the homecare helper will visit.	
	Any pain is under control - painkillers are working well.	
	I'm eating and drinking well - my bowels have moved after surgery.	
	I have completed stair practice with the physio.	





Looking after my wounds

	My wounds are healing well - I know how to look after them at home.	
	If I have stitches, I know they are coming out on: Date: Time: Place:	





People who will call once I am home

	Cardiac rehab nurse from the ward will call me on Week:	
	Cardiac rehab nurse from my local hospital will call me on Week:	
	Consultant will review me on Week:	

Getting back to normal

	I have someone I can call upon for help and support once I'm home.	
	I know when I can go back to work.	
	I know when I can get back to driving.	
	I know which health professionals to call if I have any problems or questions and I have the telephone numbers in my phone.	

For the day I go home

	I have transport arranged.	
	I have someone to accompany me on the journey home.	
	I have all the paperwork that I'll need: • Sick-line for my employer. • Letter for the Practice Nurse or District Nurse (give to the nurse if you go to have your wound checked or stitches removed). • My copy of the discharge paperwork. • Letter for my GP (hand in to the receptionist at your health centre as soon as possible).	
	I understand when to take the medications I'm going home with and what they are for.	

Unique to me

Warfarin tablets I have the information booklet, and I know when/where I have to have my blood tested.	

Useful information

Cardiac Rehabilitation advice line: telephone **0141 951 5641**

Intensive Care Unit: telephone **0141 951 5304**

Monday to Friday, 9am – 4pm. If we are unable to answer your call, please leave a voice message with your name and phone number and we will call you back.

For out of hours assistance please contact NHS24 on **111**.

Visiting hours

For up-to-date visiting hours, please speak to a member of your nursing team or visit our website.

Notes

All of our publications are available in different languages, larger print, braille (English only), audio tape or another format of your choice.

我們所有的印刷品均有不同語言版本、大字體版本、盲文（僅有英文）、錄音帶版本或你想要的另外形式供選擇。

كافة مطبوعاتنا متاحة بلغات مختلفة و بالأحرف الطباعة الكبيرة و بطريقة بريل الخاصة بالمكفوفين (باللغة الإنكليزية فقط) و على شريط كاسيت سمعي أو بصيغة بديلة حسب خيارك.

Tha gach sgrìobhainn againn rim faotainn ann an diofar chànanan, clò nas motha, Braille (Beurla a-mhàin), teip clàistinn no riochd eile a tha sibh airson a thaghadh.

हमारे सब प्रकाशन अनेक भाषाओं, बड़े अक्षरों की छपाई, ब्रेल (केवल अंग्रेज़ी), सुनने वाली कसेट या आपकी पसंदनुसार किसी अन्य फॉरमेट (आरएफ) में भी उपलब्ध हैं।

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: **0141 951 5513**