NHS
Royal Papworth Hospital
NHS Foundation Trust

Cardiac surgery

Patient's guide to surgery and enhancing your recovery
Agreement to consent form

Important

Please bring this booklet into hospital on admission

This document contains a consent form which your surgeon will go through with you and ask you to sign if you are willing to proceed.

You will be given this booklet which will include a copy of the consent form.

This information booklet has been prepared to help you and your relatives understand more about your cardiac surgery. It also gives you general information about what to expect from the time of your admission to your discharge from Royal Papworth Hospital, and some practical advice on what to do when you get discharged.

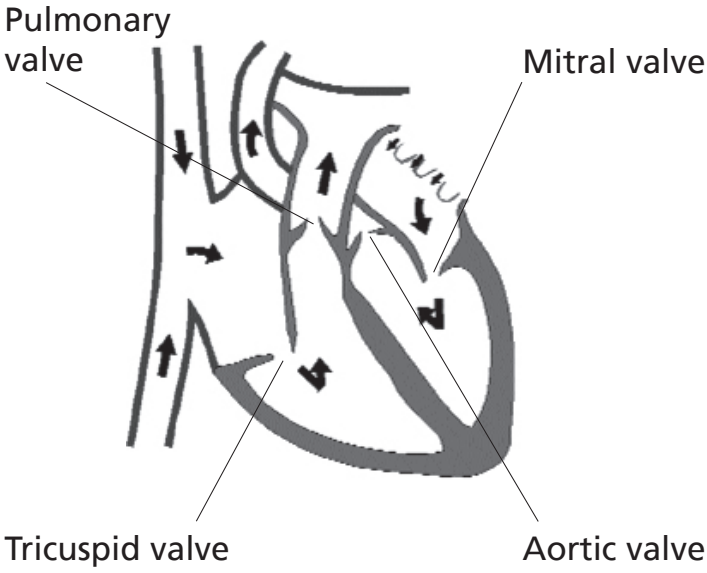
Contents

Your heart and how it works

The heart is a muscular pump. The right side of the heart receives blood from the body and pumps it to the lungs. There the blood picks up the oxygen that you have breathed in (all living tissues need oxygen to survive and they receive it from a network of blood vessels that lie within the lung).

The left side of the heart receives this oxygen-rich blood from the lungs and pumps it to all parts of the body. This is a continuous process.

The valves of the heart



Reasons for needing cardiac surgery

Coronary artery disease
The heart muscle (myocardium) receives its blood supply from the coronary arteries. Sometimes these arteries can become narrowed by a disease process known as atherosclerosis. This is when fatty deposits are gradually laid down inside the vessel causing the artery to become narrowed. This is shown up by the coronary angiogram investigation performed by your cardiologist.

The heart and coronary arteries
As the coronary artery becomes narrowed, the blood supply to the heart muscle (myocardium) is decreased. When the demand for oxygen-rich blood is greater than the supply, angina pain arises from the muscle.

If the coronary artery becomes completely blocked, usually by a blood clot occurring at the site of the narrowing, a heart attack (myocardial infarction) occurs.

What is used to create the graft?
The coronary artery bypass graft operation (CABG) uses extra blood vessels, sewn to your narrowed coronary arteries, to 'bypass' the narrowed area and bring blood to the heart muscle. There are spare arteries inside the chest wall and the forearm and spare veins in the legs which can be removed safely. All these can be used to construct excellent bypass grafts.

The arteries in the chest (the internal mammary arteries) are the most common bypass grafts, as they have been shown to have the best long-term results and can be accessed through the main incision for the cardiac surgery. In most cases, these arteries can be kept intact at their origin since they have their own oxygen-rich blood supply. During the procedure, the arteries are sewn to the coronary artery below the site of blockage.

There are two arteries in the lower part of the arm, the ulnar and radial arteries. Most people receive adequate blood flow to their arm from the ulnar artery alone and will not have any side effects if the radial artery is removed and used as a graft. Careful preoperative and intraoperative tests determine if the radial artery can be used. If you have certain conditions (such as Raynaud's syndrome, carpal tunnel syndrome or painful fingers in cold air) you may not be a candidate for this type of bypass graft. Some people report numbness in the wrist and hand after surgery, however, long-term sensory loss or numbness is uncommon.

Veins from the legs - the saphenous veins, may be harvested (removed) using one of the three techniques described below:

1. Open vein harvest (OVH) - a continuous incision (cut) is made from the ankle upwards towards the knee or groin (depending on the length of vein that is required). The vein is then surgically removed.
2. Bridging vein harvest (BH) - the vein is surgically removed through multiple small incisions along the leg.

3. Endoscopic vein harvest (EVH) - a small incision is made below the knee and at the groin. The vein is removed using a camera and specialist equipment called an endoscope. If an extra length of vein is required, a third small incision is made at the ankle. Further information on EVH is available on the National Institute for Health & Care Excellence (NICE) website www.nice.org.uk/guidance/ipg494/informationforpublic

The decision on which approach to use will be made by your consultant surgeon at the time of your operation. Both bridging and endoscopic vein harvest techniques can potentially proceed to open technique if it is not possible to remove the vein satisfactorily.

The aim of CABG is to relieve angina and reduce your risks of future heart attacks. In most patients angina is completely absent after the operation. Other benefits include improved function of the heart muscle in some patients.

The disadvantage is that it is a big operation and like all operations it carries a risk. Every patient is different and the extent of the risk varies from individual to individual. Your surgeon will discuss the risks and benefits of the operation with you in detail.

The average hospital stay after surgery is seven days, but may be as short as five days.

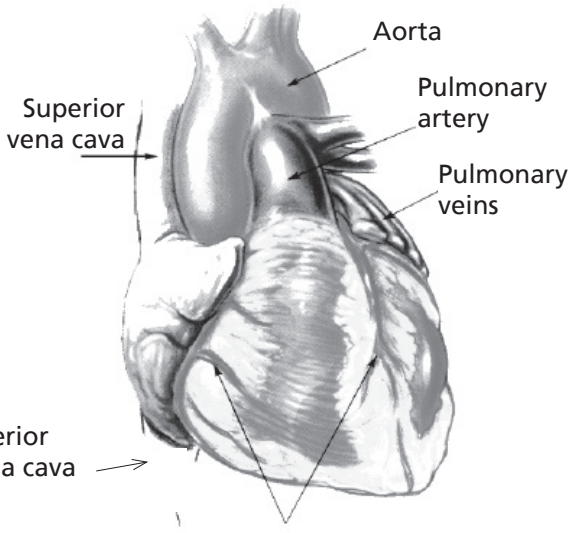
Heart valve disease

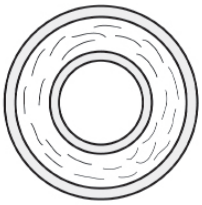
The heart pumps blood continuously around the body. Within the heart are four valves that ensure that the blood flows the right way.

Sometimes one or more valves can become damaged or diseased. They may not open properly and therefore obstruct the blood flow (valve stenosis). They may not close properly and thus allow blood to leak back (regurgitation or incompetence).

These abnormalities place an increased strain on the heart and are often recognised by tiredness or breathlessness on exercise. Sometimes no symptoms are present but a heart murmur may be heard by the doctor. Without treatment the heart muscle can become permanently damaged.

Major arteries and veins of the heart

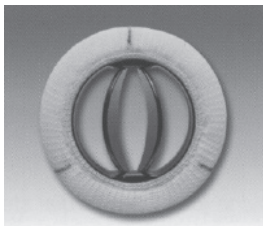




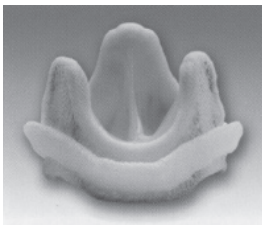
Cross section of a normal artery

Narrowed coronary artery

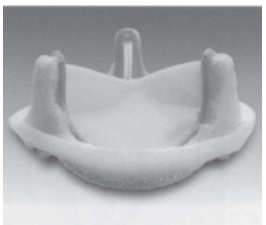
Types of valves



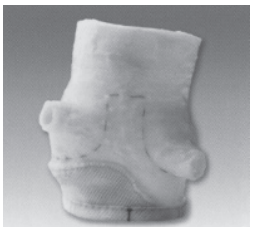
Mechanical valve



Tissue valve - Porcine (pig) stented



Tissue valve - Bovine (cow) pericardial stented



Tissue valve - Porcine (pig) stentless

The most common valves to be affected are the aortic and mitral valves. The affected valves are either replaced or repaired.

It is very important if you are having an operation on your heart valve that your teeth and gums are healthy. This is because infected teeth and gums can cause the new heart valve to become infected. So please ensure that you see a dentist regularly and within at least six months prior to your surgery.

Some patients require both valve and coronary graft surgery at the same time. Your surgeon will discuss the appropriate valve for you, together with the risks and benefits.

Septal defects (hole in the heart)
The heart has four chambers, two top chambers called right and left atria and two lower chambers called right and left ventricles. Dividing the right side of the heart from the left is a thick muscular wall called the septum. The right side of the heart pumps blood to the lungs to pick up oxygen and the left side of the heart pumps this oxygen-rich blood around the body. Normally there is no communication between the two sides of the heart.

Sometimes there is an abnormal communication between the two sides (a 'hole in the heart'). This is called an atrial septal defect or a ventricular septal defect, depending whether the communication is between the top chambers or the lower chambers.

Blood from the left will then mix with blood in the right side of the heart causing a strain on the heart. Most of these defects will be diagnosed soon after birth but sometimes may not be recognised until later. Because these abnormalities place an increasing strain on the heart, breathlessness or tiredness may occur. Sometimes no symptoms are present but a heart murmur may be heard by the doctor.

Septal defect repairs
The surgeon will gain access to the affected area and will repair the defect. Usually a patch made of a special material is sewn over the hole. This will ensure that the blood from the right side of the heart will no longer mix with blood from the left side.

Aneurysms

Aortic and ventricular aneurysm
An aneurysm is a ballooning of a blood vessel caused by a weak spot in the blood vessel wall. In the case of an aortic aneurysm the ballooning occurs in the main artery (the aorta) that leaves the heart.

Aortic aneurysm repair
Once an aneurysm in an artery is located, it is cut out and replaced with a Dacron graft. This graft is made from woven polyester. It is very durable and usually lasts a lifetime. Your surgeon will discuss the risks and benefits of an aneurysm repair operation with you.

Ventricular aneurysm
In ventricular aneurysm, the ballooning occurs in the scar where the heart attack has occurred. A scar usually forms in the area of the dead muscle in the heart following a heart attack. This piece of dead tissue is usually removed at the same time as the CABG.

What are the risks?

Risk of death
There is a small risk of death from any operation, and cardiac surgery is no exception. The risk varies a lot between patients, depending on how old and ill you are, the type of operation you are having and the condition of your heart. The risk to you as an individual will be carefully estimated by your consultant and discussed with you.

As a rough guide, the risk of death from cardiac surgery for all patients in Royal Papworth Hospital 2013/14 was as follows:

Coronary artery bypass grafts	1-2%*
Single valve operation	2-3%*
Combined valve and bypass operation	4-6%*

**Please remember that these numbers are for a group of patients and include urgent and emergency cases. Your own risk may be lower or higher and will be discussed with you when you see the surgeon.*

Some hospitals do more complicated surgery on older and sicker patients whilst others do more routine surgery. To compare hospitals fairly, the death rate is 'risk-adjusted' to take into account the difficulty of each operation. The average death rate for cardiac surgery in the UK, based on data from April 2010 to March 2013 is 2.5%.

The risk-adjusted death rate for Royal Papworth Hospital in the same period is 1.54% (source: Society for Cardiothoracic Surgery in Great Britain and Ireland www.scts.org).

During cardiac (and some lung) operations the body is cooled and warmed by the heart lung machine (cardiopulmonary bypass machine). To do this the bypass machine is connected to a heater/cooler unit, which is kept in the operating theatre.

Tests on these heater/cooler units in Europe and the UK have revealed a growth of a Mycobacterium species (which is a type of bacteria that is common in the environment but does not frequently cause human infections), with the potential for growth of other organisms. There have been reports of a particular organism called Mycobacterium Chimera causing serious infections in a very small number of patients having operations on their heart valves, in some cases several years after the operation. In the United Kingdom a small number of such infections have been reported since 2007. Given that around 35,000 cardiac operations on bypass are performed each year of which approximately 15,000 have been heart valve operations, this represents a very small risk. This level of risk is so small that surgery should not be delayed, as the risks of delaying surgery are greater than proceeding.

Further reading: www.gov.uk/government/collections/mycobacterial-infections-associated-with-heater-cooler-units

Other risks
There is also a small but serious risk of stroke (2-4%), bleeding (5-10%) and infection (5-10%). After cardiac surgery, one in three patients may develop a fast, irregular heart beat (called 'atrial fibrillation') which is usually treated with medication.

It is not uncommon after cardiac surgery for patients to develop temporary kidney problems, called acute kidney injury. At Royal Papworth during 2014/2015 this was detected in about 30% of patients. This is diagnosed by changes in blood tests and/or a reduction in urine output.

It is important that you are well hydrated prior to surgery and the ward nurses will encourage you to drink water up until two hours before your anticipated operation is due to start.

Some patients will require a longer stay in CCA due to the increased complexity of their surgery. This may be for a few days or even a few weeks. In these patients a number of the vital organs may need to be supported temporarily, including the:

- Heart - using special devices or certain drugs
- Lungs - using artificial mechanical ventilation (breathing machine) or even a tracheostomy (tube in the windpipe)
- Kidneys - using a dialysis machine

Most patients notice that their short-term memory and thinking processes are rather slow to begin with, but usually this returns to normal within two months.

Live well

Good nutrition is always important but it becomes even more vital before and after surgery. A healthy balanced diet will provide your body with all the nutrients it needs to fight infection and repair tissues. Studies have shown clearly that people who are underweight, malnourished or overweight have more complications after surgery.

Prior to surgery your nutritional state will be assessed. If you are identified as malnourished or at risk of malnutrition (this means you are eating and drinking too little or have unintentionally lost weight) you will be provided with some written dietary information to help you to improve your nutrition before surgery. You may also be prescribed supplement drinks and referred to a dietitian for further advice.

If you are found to be overweight, you should try to take steps to lose weight before surgery as this will reduce your risk of complications (particularly breathing and wound problems). You should do this sensibly by continuing to eat a healthy balanced diet.

It is important that you continue to eat regular meals but you could cut down on food and drinks high in fat and sugar and reduce your portion sizes. If you need to snack between meals, choose healthy snacks such as fruit and low-calorie yoghurts.

Stay active

While waiting for your cardiac surgery it is important to remain physically active. The stronger and fitter you are before the operation, the quicker you can recover.

Physically active means any activity not sitting still or lying down. Try to keep doing the activities you would do in your normal daily life, as much as your symptoms allow. If your symptoms include chest pain, tightness or shortness of breath it is important to discuss your level of activity with the doctor or nurse you see in clinic.

Walking is a great way to remain active, whether you can walk a few steps or a few miles.

Get practising

After cardiac surgery most patients have a wound down the centre of their chest over the breast bone (sternum). An important part of wound and bone healing is limiting the activities you do with your arms after the operation. This is because certain activities put a lot of stress on the bone that is trying to heal.

The main restriction is **NO lifting, pushing or pulling** with your arms for the first 6-12 weeks after the operation to allow the wound to heal successfully. As a guide you should not lift any object that is greater than 10lbs/5kg in weight.

This will affect how you get out of bed, stand up and sit down in a chair, carry shopping bags and general everyday living activities within the home.

- **Getting in and out of bed**
  It's a good idea to practice the best technique beforehand. We advise you to roll onto one side and gently lower your legs off the edge of the bed, then push down through the elbow you are leaning on and come up into a sitting position on the edge of the bed. For lying down the same process is followed in reverse.
- **Getting in and out of a chair**
  Sit on the edge of the chair with your arms crossed on your chest. Then with your feet firmly flat on the floor, rock gently backwards and forwards three times with your nose coming forward over your toes. On the third rock forward push up strongly through your legs and come up into the standing position.

Be prepared

Start to make plans for going into hospital and coming home after your surgery.

- **Think about how you will travel to the hospital.** It might involve an early start so try to get some rest the day before.
- **Think about what you will take into hospital.** Bring comfortable shoes and loose clothing to avoid the use of hospital gowns. If you normally use a walking aid or have glasses, dentures or hearing aids, then make sure you bring these with you.
- **Think about how you will get home from hospital.** You will be given the date that we expect you to be discharged. Make sure your friends and family know when this will be so they can pick you up. Hospital transport home is not readily available.
- **Check that you have enough support in place for when you get home**, as you might need extra help. If you live alone you may want a family member or friend to stay with you for a short period.
- **Before going into hospital, think about stocking up your freezer** so you don't have to worry about shopping immediately after you are discharged.
- If you are finding it difficult to manage at home prior to your operation, or you cannot get up out of a chair easily without using your arms, do mention this to the nurse at pre-admission clinic. You will be given an 'All About Me' booklet to fill in and bring with you. This includes measuring heights of furniture around your home. You may also be referred to the occupational therapist team at pre-admission clinic to avoid delaying your discharge home.
- If you are the carer for someone else, think about how this person will be looked after while you recover from your operation.

Flexibility exercises

These exercises will help to keep your body and shoulders flexible; do them slowly, five times in each direction. Start these exercises by sitting on an upright chair.

Shrug shoulders up and down.

Keeping hips and feet facing straight forwards, turn your head and trunk as far as you can comfortably go, first to the right and then to the left.

Breathe out and slowly slump down. Slowly straighten up whilst taking a breath in.

Strengthening exercises

Warm-up exercise: sitting on a bed or chair, pump your feet up and down. This helps the movement in your ankles and the blood flow in your legs. Aim: to strengthen your thigh muscles

Inner range

Lying or sitting on a bed, place a rolled up towel under knee, pull your foot up towards you.

Lift foot to straighten knee. Count to five. Relax down. Repeat using other leg.

Progression - Increase number of repetitions. Add a weight to the ankle (reduce repetitions at first).

Straight leg raise

Lying or sitting on a bed - pull your foot up towards you.

Keeping your knee straight, lift leg six inches. Count to five. Relax down. Repeat using other leg.

Progression - Increase number of repetitions. Add a weight at the ankle (reduce repetitions at first).

Middle and inner range

Sitting on a chair or over edge of the bed, lift your foot to straighten knee. Count to five. Relax gently down. Repeat using other leg.

Progression - Increase number of repetitions. Add a weight at the ankle (reduce repetitions at first).

Lower limb exercises

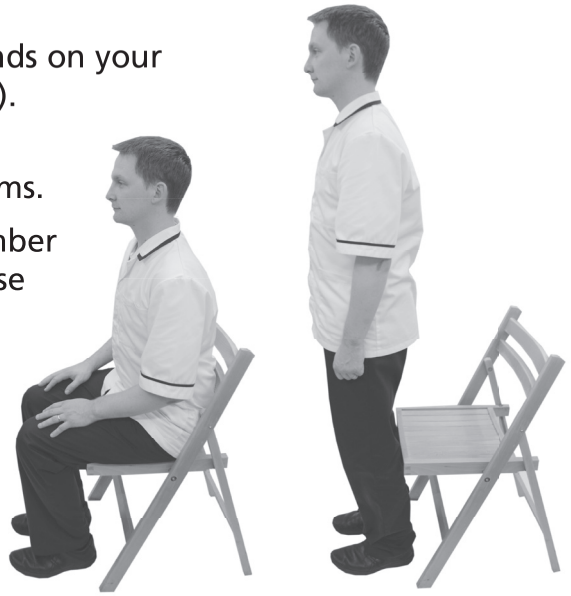
Aim: to strengthen your leg muscles

Sit to stand

Sitting on a chair with hands on your knees (or on arms of chair).

Stand up, then sit down slowly. Do not use your arms.

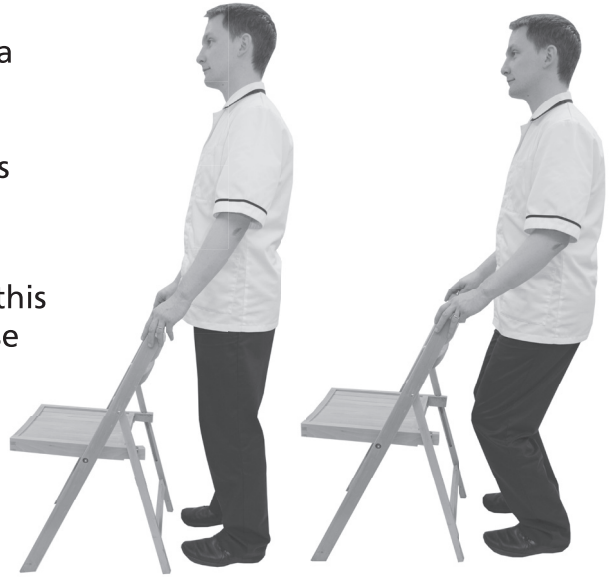
Progression - Increase number of repetitions first, then use lower chair or stool.



Squats

Hold onto the back of a chair, standing up with feet hip width apart. Slowly bend your knees a small way, hold, then stand up straight.

Progression - To make this exercise harder, increase the depth of squat by bending your knees more.



Step ups

Standing in front of a step or bottom stair. Hold onto a hand rail. Slowly step up onto the stair with both feet, then step down again. Alternate the leg you lead with.

Progression - To make this exercise harder, increase the height of the step.

Heel raiser

Hold onto the back of a chair, standing up. Rise up onto toes and back down to floor.

Progression - Increase number of repetitions. Then progress onto one foot (reduce repetitions at

Exercise Diary
You might find it useful to complete this exercise diary, to help you monitor your exercises and show what progress you have made.

Date	Time	Activity	Duration/ repetitions	Comment
DD/MM	10:00am	Leg exercises	5 of each	
	3:00pm	Flexibility exercises	3 of each	

Preparation for your operation

Pre-admission
Because we know that coming in for your surgery can be worrying, Royal Papworth Hospital holds a pre-admission morning where you, accompanied by a relative or friend, are invited to the hospital to learn more about what to expect during your stay in hospital.

Most patients will attend the pre-admission clinic approximately one to two weeks before their surgery.

The clinic, which is run by the cardiac support nurses, is to give you and your relative the opportunity to find out more about your operation and your recovery. It also provides an opportunity for you to talk about any worries and anxieties you may have. You will meet some of the staff and can familiarise yourself with the hospital before you are admitted.

On arrival you will be greeted by one of the clinic coordinators, who will briefly explain what will happen to you during the morning.

During the pre-admission clinic you will have the following tests:

- **Chest X-ray**
  To look at the size and shape of your heart and the condition of your lungs.
- **Electrocardiogram (ECG)**
  This shows the electrical activity of the heart.
- **Blood tests**
  A blood sample is taken from your arm and various tests are carried out including your blood group.

You will also see the following people at the pre-admission clinic:

- A nurse will go through your medical history and any personal issues that may affect your discharge home.
- A cardiac support nurse will examine you and ask questions about your illness. You can discuss any concerns or questions you might have about your operation with the cardiac support nurse.
- A pharmacist will discuss your medication with you and will advise you if there are any medications you need to stop, and for how long they need to be stopped before your surgery.
- Your procedure will involve a general anaesthetic. An anaesthetist will assess you and tell you about the drugs that will be given to you before your operation and you will have an opportunity to ask questions. By signing the consent form you are consenting to receiving a general anaesthetic.
- Trainees - Royal Papworth is a teaching hospital. Trainees from many professions are involved at all levels, from student nurses and doctors to specialist surgeons and anaesthetists. However, all training is done under close supervision. All Royal Papworth professionals (whether they are in training or not) only do tasks that they are competent to do.

Blood transfusion

When having surgery it is likely that you will lose some blood. If only a small amount is lost your body will naturally replace this over the next few weeks. If more blood is lost, it may be necessary for you to have a transfusion so that you do not suffer any ill effects. Although blood transfusion is quite safe, there are some potential risks associated with this treatment. Your doctor or nurse will explain these risks to you and will offer you an information leaflet 'PI 10 - Receiving a transfusion - a patient's guide'.

In the UK the risk of contracting a viral infection, such as hepatitis or HIV from blood transfusion is extremely small. Very rarely

Cancellations

On occasion it may be necessary to cancel your operation at short notice due to emergencies, though we do our best to ensure this doesn't happen. Your doctor and nurse will come and speak to you about what happens next if this occurs, and will endeavour to reschedule your surgery as soon as possible.

patients receiving blood transfusion may experience an allergic reaction or develop other complications, such as haemolysis (breakdown of red cells in your blood) or a bacterial infection. The actual risk of contracting vCJD through blood is unknown but appears to be extremely small. There is also a very small risk of receiving unsuitable blood, however there are stringent procedures in place to minimise this risk.

By signing the consent form, you are consenting to receiving a blood transfusion. If you do not wish to receive blood or blood products please make this known to your consultant.

If you receive a blood transfusion, you will be ineligible to donate blood in the future.

X-rays and other images

X-rays, other medical images and photographs may be used in your treatment. They may also be used in teaching or research. If this happens, your confidentiality is guaranteed.

On admission to hospital

Please follow the instructions detailed in your letter. If you are coming in the day before your surgery, please report to the main reception of the hospital.

Who does the operation?

The operation is done by a team which includes surgeons, anaesthetists, surgical care practitioners, nurses, operating department practitioners and perfusionists.

Unless there are exceptional circumstances or emergencies, your own consultant surgeon will be a member of that team and will take overall responsibility for the conduct and outcome of the operation. We cannot guarantee that a particular person will perform the procedure. The person will, however, have appropriate experience.

Just before the operation

Hair removal
It is very important that you DO NOT shave or remove hair from your chest, arms, legs or groin as this will be done in hospital. Hair harbours a certain amount of bacteria, therefore, it is necessary for areas that are going to have an incision, or a drip (e.g. forearm) to have the hair removed safely, to prevent infection. Hair removal will be carried out either the night before or on the morning of your surgery by a member of staff.

Washing
The night before and the morning of your surgery you will be asked to wash with a special wash solution. This will be supplied to you from the pre-admission clinic if you are coming in on the same day as your surgery. YOU WILL NEED TO WASH YOUR HAIR WITH IT AS WELL.

Please follow the showering guidance available on the wards. This wash solution will help reduce the amount of bacteria on your skin before surgery and will help reduce the risk of your wound developing an infection.

Hand hygiene
Keeping your hands clean is an effective way of preventing the spread of infection. Please remember to wash your hands thoroughly and regularly, especially after using the toilet. This will reduce the number of bacteria on your hands.

Eating and drinking
As previously stated, It is important that you are well hydrated prior to surgery and the ward nurses will encourage you to drink water up until two hours before your anticipated operation is due to start.

Same day admissions
At 5.00am please have a light breakfast (i.e. tea and toast) and take any medications.

For all admissions the day before your surgery
- you may continue to eat and drink as normal before you come into hospital.

After your operation

The Critical Care Area (CCA)
Following your cardiac surgery you will be cared for in CCA. A member of the Critical Care staff will telephone your partner/relative when you arrive in the CCA.

Monitoring
During your stay you will be monitored and observed closely. You will have a nurse with you most of the time and she/he will explain everything that is going on.

While you are anaesthetised (asleep) you will be attached to a breathing tube and machine. As you wake up the breathing machine will be disconnected and the tube will be removed to allow you to breathe by yourself. An oxygen mask will be placed over your mouth and nose.

Various types of equipment will be used to record your heart rate and to monitor your progress.

There will also be:

- A drip in the side of your neck and in each arm. These are used to give you your medications including a regular painkiller.
- Two or three chest drains at the base of your wound to drain any excess fluid left from the operation.
- A small tube in your bladder to drain your urine, this is called a urinary catheter.
- Sometimes patients have some very thin wires protruding from their abdomens. These are pacing wires and are covered by a dressing and will be removed before you go home.

Most of these drips and tubes are put in while you are anaesthetised. They will be removed over the following few days after your surgery.

Visiting/contact

Family/partners (maximum of two visitors per patient) are welcome to visit after the patient has returned from theatre and has been settled in to the CCA. Alternatively the family/partner can telephone at any time and will receive a report from the individual nurse who is caring for the patient.

Post-operative stay in the CCA

Usually patients stay in the CCA overnight and will return to the ward with:

- Oxygen mask
- Drip attached to neck
- Urinary catheter

Post-operative care on the ward

On your return to the ward you will be receiving regular painkillers. It is very important that you let the nursing staff know if you are in pain as it is essential for you to be able to cough and breathe deeply in order to avoid a chest infection. It is advisable to take pain relief regularly to prevent pain from occurring.

The physiotherapist will begin to help you with your walking and posture. If they feel you require a stair assessment they will do this prior to your discharge. However it is not essential for discharge home even if you have stairs at home.

Day two onwards
Usually from day two after your surgery, the remaining drip and the urinary catheter will be removed. The physiotherapist will begin to help you with your walking, posture and climbing stairs, ensuring that you are as fit as possible before going home.

You will have a wound in the centre of your chest. Initially this will be covered by a dressing. All ladies will need the added support of their bra.

If you are having a bypass graft it is likely that you will have a leg wound and/or arm wound. Dissolvable stitches are used in both of these wounds.

It is important to report if there is any discharge so that the necessary dressing can be placed over the site. Do not worry as this should resolve after a few days.

Please do not touch your wound, as this could increase the risk of bacteria moving from your hands to your wound. Do not be afraid to ask any member of staff to clean their hands and apply gloves before touching your wound.

After bypass or valve operations you may have to wear special stockings to help the blood flow from your legs and to minimise swelling in the leg wounds. It is also important when resting to keep your legs elevated on the foot stool provided.

You will find that you feel very tired and are sleeping a lot. This is part of the body's way of recovering from major surgery. It is good to try and get back into a normal routine, i.e. sleeping longer through the night, with additional short sleeps in the day. It is not unusual to experience a disrupted sleep pattern for around six weeks after your surgery and some patients can experience vivid dreams and hallucinations during this time.

Initially your appetite will be poor, so just try to eat a little when you can. This helps with wound healing. Indigestion and constipation are also common, as normal function slows down during surgery. Do let your nurse know as he/she can give you medicines to help.

Some patients suffer from nausea as a result of the anaesthetic and the drugs. Do ensure that you inform the nursing staff should this happen to you as it can be treated. You will get up and about quite quickly. Two to three days after surgery you will be able to walk around.

At first you will need help to wash, change and move about. By day three or four you should be able to walk to the bathroom and look after yourself. You may bath or shower if you wish. You will be encouraged to start dressing into comfortable day clothes so please come prepared, including light supportive shoes or slippers.

Before going home you should be dressing in normal clothes, walking outside and up and down stairs.

Once drains and lines are removed, own clothing is essential to improve your dignity, autonomy and can shorten your length of time in hospital.

After-effects of the surgery

Blues day
Commonly patients suffer a day called the 'blues day'. A few days after surgery you may feel low, perhaps tearful for no apparent reason. Don't worry, these emotional changes are a result of having major surgery and generally only last a day or two. Some patients also experience this when they get home.

Pins and needles
Some patients experience pins and needles in their arms and hands. This is normal and should settle over time.

Heart rate
After the operation you may feel your heart beating fast, irregularly or missing a beat (atrial fibrillation). This is common after cardiac surgery and is a reaction to the heart being handled. You may be attached to a monitor for a short time.

Eyesight
Following cardiac surgery you may find that your vision is blurred. This is not unusual and is a result of being on the heart-lung bypass machine. This may last a day or two, but may last up to six weeks.

Breathing
You may experience an occasional involuntary intake of breath. This is normal and will decrease with time.

Preventing hospital-associated blood clots (Venous Thromboembolism - VTE)
A hospital-associated blood clot can occur in patients when they are in hospital and up to ninety days after a hospital admission. There are two kinds: a deep vein thrombosis (DVT) that forms in a deep vein, most commonly in your leg or pelvis, and a pulmonary embolism (PE) which occurs if a clot becomes dislodged and passes through the blood vessels to the lungs. The term VTE is used to cover both DVT and PE.

Admission to hospital can increase your risk of developing VTE as patients tend to lie or sit still for long periods of time. On admission, and again as necessary during your stay, you will be assessed for your VTE risk. Most patients admitted to Royal Papworth are given preventative treatment as a matter of routine.

You may be given exercises to perform, special support stockings to wear, and/or anticoagulant medicine ('blood thinners').

There are also ways in which you yourself can help to reduce your risk of VTE:

- Try to get up and walk about as soon as possible and as much as possible - the physiotherapists and nurses will help you with this in the early stages of your recovery.
- Unless you are placed on a fluid-restricted regime, drink plenty of fluid to keep hydrated.
- Try to remember not to sit or lie with your legs crossed. The nurses will remind you!
- As with all aspects of your stay, if you have any queries or concerns, please ask a member of staff.

What happens when I go home?

You may be discharged from the ward within five to ten days following surgery. This depends on the type of operation you have had. The doctors, nurses, physiotherapists and occupational therapists looking after you will make sure that you are fully prepared for your discharge and will be happy to answer any questions that you may have.

You will be given a letter to take to your GP explaining what has happened to you during your stay in hospital. During your first week at home it is an advantage to have someone with you.

Should you have any questions or need any advice after your discharge then you are welcome to call the **Cardiac Support Nurse Link Line: 01223 638100**, Monday to Friday 9.00-6.00pm, except Bank Holidays.

You will receive a letter from the hospital with your outpatient appointment and this can be anywhere from 6-12 weeks following your operation. If you have any queries about this appointment please contact the Cardiac Outpatient call centre on 01223 638933 between the hours of 9.30am-4.00pm Monday to Friday.

Medication

You will be sent home with a supply of tablets. When you are ready for discharge your nurse or a member of the pharmacy staff will explain the drugs, which you will need to take at home.

While you were in hospital you will have been offered painkillers (analgesics) on a regular basis.

Once you have been discharged, we advise you to keep taking your painkillers on a regular basis. When you feel ready to cut them down, try stopping the ones during the day first, continuing to take them when you get up in the morning and before you go to bed, as this will help to ensure a good night's sleep.

Any other tablets which you need to take home will be explained to you prior to discharge and these will then be reviewed at your clinic appointment.

Wounds

The breast bone (sternum) will take up to 12 weeks to heal completely. Therefore you may feel pain, tingling or pins and needles in different places across your chest, back and shoulders for some time.

Dissolvable stitches do not need to be removed following surgery. However, if you have had any drains, you will have one stitch per drain that will need to be removed. This is normally performed before discharge, but may be removed by the nurse at your GP's surgery.

Ladies should continue to sleep wearing their bra for a minimum of 6 weeks post their surgery to support the healing chest wound.

You may have a bead at the top and bottom of your chest wound. These will need to be snipped off by your practice nurse.

Once you go home, if you notice that your wound begins to 'ooze', becomes red or 'angry' looking or 'hot and tingly', or if you feel feverish, contact your GP for advice.

If you still require wound dressings on discharge, this will be done either at your home by a district nurse or by the practice nurse at your doctor's surgery.

Please affix patient label or complete details below.

Full name:

Hospital number:

NHS number:

DOB:

Consent 015
Patient agreement to cardiac surgery

Intended procedure/surgery

_____

_____

_____

Statement of health professional

(To be filled in by health professional with appropriate knowledge of proposed procedure, as specified in consent policy). I have explained the procedure to the patient. *In particular I have explained:*

The intended benefits:

.....

.....

Significant, unavoidable or frequently occurring risks (see page 3).

Death ..... %	Irregular heartbeat ..... %
Stroke ..... %	Need for a pacemaker ..... %
Bleeding ..... %	Myocardial infarction ..... %
Infection ..... %	Prolonged stay in critical care

Other .....

.....

Any extra procedures, which may become necessary during the procedure:

☐ Blood transfusion (see page 5)

☐ Other procedure - please specify below:

.....

.....

I have discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient.

Consultant/Performer

Signed: .....

Date: .....

Name (PRINT): .....

Job title: .....

Contact details

If you require further information at a later date, please contact switchboard on 01223 638000 and ask to speak to your consultant's secretary.

Statement of patient

Please read the patient information and this form carefully.

If your treatment has been planned in advance, you should already have your own copy which describes the benefits and risks of the proposed treatment. If not, you will be offered a copy now.

If you have any further questions, do ask - we are here to help you. *You have the right to change your mind at any time, including after you have signed this form.*

- **I understand** what the procedure is and I know why it is being done, including the risks and benefits.
- **I understand** that the procedure requires a general anaesthetic and have read the information leaflet called Your anaesthetic for major surgery' (PI 170) and had the opportunity to ask questions.
- **I agree** to the procedure or course of treatment described on this form and have read this information leaflet on cardiac surgery (PI 41) and had the opportunity to ask questions.
- **I agree** to the use of photography for the purpose of diagnosis and treatment and I agree to photographs being used for medical teaching and education.
- **I understand** that any tissue removed as part of the procedure or treatment may be used for diagnosis, stored or disposed of as appropriate and in a manner regulated by appropriate, ethical, legal and professional standards.
- **I understand** that any procedure in addition to those described on this form will be carried out only if necessary to save my life or to prevent serious harm to my health.
- I have listed below any procedures **which I do not wish to be carried out** without further discussion:

.....

.....

Please affix patient label or complete details below.

Full name:

Hospital number:

NHS number:

DOB:

NHS
Royal Papworth Hospital
NHS Foundation Trust

- I have been told in the past by Public Health that I am at increased risk of CJD (Creutzfeldt-Jakob disease) or vCJD (variant Creutzfeldt-Jakob disease).

  ☐ Yes *(Health professional to refer to Trust CJD procedure DN92.)*

  ☐ No

Patient

Patient signature: ……

Date: ……

Name (PRINT): ……

Confirmation of consent

(To be completed by a health professional when the patient is admitted for the procedure, if the patient has signed the form in advance).

On behalf of the team treating the patient, I have confirmed with the patient that they have no further questions and wish the procedure to go ahead.

Signed: ……

Date: ……

Name (PRINT): ……

Job title: ……

Statement of interpreter (where appropriate). I have interpreted the information above to the patient to the best of my ability and in a way which I believe he/she can understand.

Signed: ……

Date: ……

Name (PRINT): ……

A witness should sign below if the patient is unable to sign but has indicated his or her consent. Young people/children may also like a parent to sign here (see notes).

Signed: ……

Date: ……

Name (PRINT): ……

Important notes (tick if applicable).

☐ Patient has advance decision to refuse treatment (e.g. Jehovah's Witness form)

☐ Patient has withdrawn consent (ask patient to sign/date here)

Patient signature: ……

Date: ……

Name (PRINT): ……

Patients who have a leg wound, where the vein has been taken, may experience some numbness along the wound and find that the leg becomes swollen and bruised. This is quite normal and may be helped by putting your foot up on a high stool to rest. The swelling will resolve over a period of time, usually 6 to 8 weeks but in a few cases can take up to 6 months.

Patients who have an arm wound where the radial artery has been used may find that the hand and wrist may be slightly swollen and may feel numb for a few weeks after surgery.

Resuming activity

Most people find that it takes around six to eight weeks after the operation for them to make a full recovery. Obviously there is considerable variation depending on the severity of the heart disease and the type of operation performed.

In general recovery tends to be quicker after coronary artery bypass grafts than after valve surgery. Age is relevant, since older patients tend to require a longer recovery period than younger patients. As a general rule, do what you can without becoming short of breath and then increase the number and demands of the activities gradually. The physiotherapist will refer you to cardiac rehabilitation, which will be local to your area. They will contact you 2 to 4 weeks post discharge.

Bathing
This can be done as soon as you feel strong enough. Remember to adhere to sternal precautions when getting in and out of the bath - no pulling, pushing or lifting. You may find it easier to use a shower if one is available, as sometimes getting in and out of a bath may be difficult until the breast bone heals. You may find bathing tiring at first so bath before bedtime.

Housework
Light work (e.g. dusting or drying up) can be introduced into your regime when you feel fit and able for it, usually within the first one to two weeks you are at home. Avoid vacuuming for the first six weeks.

Gardening
Light gardening such as weeding may be done four weeks after discharge. Mowing the lawn and heavy digging etc. should not be done for 12 weeks. This will allow the breast bone to become stronger after healing.

Work
It should be possible to return to work after 2 to 3 months, depending on your job. The decision to return to work should be taken in consultation with your GP and your employer.

Driving
You may drive six weeks after your operation. If you wish to drive from four weeks you should seek authorisation from your GP. When you do resume driving expect to feel some heaviness or discomfort around your shoulders or arms as you move the steering wheel. It is illegal to drive if you are not wearing your seat belt, but you might find placing a cushion or padding under the seat belt is more comfortable. You must inform your insurance company about your operation. You do not need to inform the DVLA unless you have had a device fitted after your operation (for example, a permanent pacemaker).

Exercise
Your physiotherapist will give information about how to build some form of exercise into your lifestyle. Action makes the heart grow stronger. It may take up to 12 weeks until you can resume:

- **Bowling**
- **Fishing**
- **Walking your dog on a lead**
- **Golf** - wait 12 weeks before starting the full swing.

Racquet sports and road cycling
Should not be attempted for 12 weeks - if you have an exercise bike this can be used as soon as you feel able. Remember to follow sternal precautions when using the exercise bike - no pulling, pushing or lifting.

Gentle swimming
Can be resumed after 12 weeks if the wounds have healed.

Sleep
It is not unusual to experience a disrupted sleep pattern for around six weeks after your surgery

Sexual activity
Most doctors suggest waiting for around four weeks after the operation before resuming sexual intercourse. It may be a case of confidence and anxiety about your wound. If you remain relaxed and possibly adopt a more passive role then you will return more easily to your normal routine. Don't bear weight on your arms to support yourself and remember to adhere to your sternal precautions.

As a general rule
Avoid any heavy lifting, pushing or pulling (e.g. vacuuming or carrying the shopping) for the first 12 weeks. This allows time for the breast bone to become stronger after healing.

Flexibility exercises (post-surgery)

As well as improving your overall fitness, you will find that you benefit from doing a few simple stretches each day to increase your flexibility. These exercises target your chest and shoulder region that can be stiff and uncomfortable after your operation.

Sitting down on an upright, firm chair, stretch first one arm as far above your head as you can.

Try and push gently up towards the ceiling and then lower it again, repeat with the other arm.

Repeat slowly four or five times.

Sit down on an upright, firm chair. Keeping hips and feet facing straight forwards, turn your head and trunk as far as you can comfortably go, first to the right and then to the left.

Repeat slowly four or five times.

Standing up, feet slightly apart and hands by your sides, slowly slide your left hand down towards your left knee, so that you bend from the waist, (try not to twist your body as you do this exercise). Repeat with the right hand down to the right knee. You should feel a gentle and comfortable stretch down the side of the chest, no more than this. If you are unable to stand to do this exercise you can do this in sitting instead.

Repeat slowly four or five times.

These stretches should not be painful. Stretch to a point of comfort and hold this for a few seconds, do not bounce. Continue to do these exercises two or three times a day for as long as you feel your chest is limited in movement.

Exercise Diary
You might find it useful to complete this exercise diary, to help you monitor your exercises and show what progress you have made after your operation.

Date	Time	Activity	Duration/ repetitions	Comment
DD/MM	10:00am	Leg exercises	5 of each	
	3:00pm	Flexibility exercises	3 of each	

Cardiac rehabilitation

This aims to give you all the information and support you need to make the best possible recovery and reduce the risk of further heart problems. Cardiac rehabilitation usually includes exercise sessions and health promotion.

Research has shown that following cardiac rehabilitation people are able to do more, feel more confident, less stressed and enjoy a healthier lifestyle.

Following your stay in hospital you will be referred to your local cardiac rehabilitation team. The team will telephone or write to you and arrange an appointment. This will be from six to eight weeks after your surgery.

What programmes are available?

1. Royal Papworth Hospital in-house programme: This rehabilitation programme is based at Royal Papworth Hospital and Cambourne Leisure Centre. It lasts for 12 weeks but you only need to attend the hospital once a week for the first six weeks, and then carry on at home for the following six weeks. You will then have a final review during the twelfth week. Although during the first six weeks you will be attending rehabilitation sessions in the hospital, there will be a strong emphasis on establishing a home routine. A DVD of the exercises is available. The staff will offer you support and advice to help you achieve this.

2. Local hospital: Most local hospitals will offer an in-house cardiac rehabilitation programme or a home-based option. Access to these programmes varies widely across the region. Where there is no local hospital or home based programme available, the Papworth Road to Recovery Outreach Service will be offered.

3. Road to recovery: Has been designed for people who live too far away to attend regularly as an outpatient or for those patients that are better suited to a home programme for domestic or work reasons. It is a home-based course with an exercise DVD, relaxation CD and a programme diary. It requires your commitment to do the exercises at least three times a week and to do the home study. The programme will last for 12 weeks, but you only need to attend the hospital once for an initial assessment. During this assessment your fitness and recovery will be assessed. You will be provided with the equipment you need and a clear explanation of the programme. The rehabilitation staff will telephone you each week to monitor and discuss your progress and to answer any questions that you may have. You will have a final telephone review at week 12.

Taking part

We strongly recommend that you attend a cardiac rehabilitation programme as an important part of your treatment. Your details will be forwarded to the nearest appropriate programme. Some programmes do not start for several weeks following your surgery, to allow you time to continue increasing your fitness. You will be contacted directly to make an appointment or start you on a homebased programme.

If you have any queries or concerns during the early weeks of your recovery or have not heard from a cardiac rehab team within two weeks of discharge, please contact the Papworth Cardiac Rehabilitation Team.
Tel: 01223 638429

Health promotion

Diet
It is important to maintain a healthy body weight. Try to eat less processed foods as these tend to be higher in fat and/or sugar and try to increase your consumption of wholegrains, fresh fruit and vegetables. Including more fish and lean white meat and reducing your red meat consumption is also encouraged.

It is advisable to cut down the amount of animal fat in your diet (such as butter and cheese) and replace with plant based oils/ spreads (such as olive oil, rapeseed oil and groundnut oil).

Alcohol
Can be taken in moderation.

The NHS recommends no more than 14 units a week and 2 or more alcohol free days.

Note: if you are taking Warfarin anticoagulant tablets, excessive alcohol can interfere with the anticoagulant process, therefore caution is advised.

Smoking
If you have been a smoker, do not be tempted to start smoking again. If you would like help with smoking cessation, the hospital staff will be able to provide details of local QUIT organisations, who offer help and advice. We can refer you to this organisation if you wish.

Monitoring results (audit)

At Royal Papworth Hospital we always try to improve our service to patients and to improve the results of operations. To do this we have to keep a very close eye on operations and on their results. If you have an operation at Royal Papworth Hospital the details of the operation and the outcome will be entered into a computer database.

We analyse the data regularly to see how well we are doing and to look for ways to improve. The data are also submitted to national and international bodies which monitor cardiac surgery. They may be published in medical journals. All information is made completely anonymous to protect your confidentiality.

British Cardiac Patients Association

The BCPA offers help, support and advice to cardiac patients, their families and carers. They have local groups in many areas of the UK.

For further information about the BCPA and an application form to join please contact: **BCPA**
Tel: 01949 837070

www.bcpa.co.uk
Email: admin@bcpa.co.uk

National Helpline
01223 846845 (for membership information)

Guidance for health professionals

What a consent form is for
This form documents the patient's agreement to go ahead with the investigation or treatment you have proposed. It is not a legal waiver - if patients, for example, do not receive enough information on which to base their decision, then the consent may not be valid, even though the form has been signed.

Patients are also entitled to change their mind after signing the form, if they retain capacity to do so. The form should act as an *aide-memoire* to health professionals and patients, by providing a check-list of the kind of information patients should be offered, and by enabling the patient to have a written record of the main points discussed.

In no way, however, should the written information provided for the patient be regarded as a substitute for face-to-face discussions with the patient.

The law on consent
See the Department of Health's *Reference* guide to consent for examination or treatment for a comprehensive summary of the law on consent (also available at www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyandGuidance/DH_103643).

Who can give consent
Everyone aged 16 or over is presumed to be competent to give consent for themselves, unless the opposite is demonstrated.

If a child under the age of 16 has 'sufficient understanding and intelligence to enable him or her to understand fully what is proposed', then he or she will be competent to give consent for himself or herself. Young people aged 16 or 17, and legally 'competent' younger children, may therefore sign this form for themselves, but may like a parent to countersign as well.

If the child is not able to give consent for himself or herself, someone with parental responsibility may do so on their behalf and a separate form is available for this purpose.

Even where a child is able to give consent for himself or herself, you should always involve those with parental responsibility in the child's care, unless the child specifically asks you not to do so.

If a patient is mentally competent to give consent but is physically unable to sign a form, you should complete this form as usual, and ask an independent witness to confirm that the patient has given consent orally or non-verbally.

When NOT to use this form
If the patient is 18 or over and is not legally competent to give consent, you should use 'Consent form 4' (form for adults who are unable to consent to investigation or treatment - available from the Department of Health - www.dh.gov.uk) instead of this form.

Legally a patient will not be competent to give consent if:

- They are unable to comprehend and retain information material to the decision and/or
- They are unable to evaluate and use this information in coming to a decision.

You should always take all reasonable steps (for example involving more specialist colleagues) to support a patient in making their own decision, before concluding that they are unable to do so.

Relatives **cannot** be asked to sign this form on behalf of an adult who is not legally competent to consent for himself or herself.

Information
Information about what the treatment will involve, its benefits and risks (including side-effects and complications) and the alternatives to the particular procedure proposed, is crucial for patients when making up their minds.

The courts have stated that patients should be told about 'significant risks which would affect the judgement of a reasonable patient'.

'Significant' has not been legally defined, but the GMC requires doctors to tell patients

about 'serious or frequently occurring' risks. In addition if patients make clear they have particular concerns about certain kinds of risk, you should make sure they are informed about these risks, even if they are very small or rare.

You should always answer questions honestly. Sometimes, patients may make it clear that they do not want to have information about the options, but want you to decide on their behalf.

In such circumstances, you should do your best to ensure that the patient receives at least very basic information about what is proposed. Where information is refused by the patient, you should document this in the patient's notes.

Discharge advice after cardiac surgery

The below advice will take you from discharge to 12 weeks post procedure and provides milestones and advice to aid your recovery at home. Remember - action makes the heart grow stronger!

Discharge to TWO WEEKS post-discharge

1. Breathlessness can occur in 50% of patients. This should be improving.
2. Report signs of wound infection to GP i.e wound redness, oozing/discharge or temperature.
3. Swelling generally occurs in the affected leg - if so, elevate leg when sitting.
4. Palpitations (atrial fibrillation) can occur, sometimes associated with anaemia and/or breathlessness.
5. You may still feel sick.
6. Slight disturbances of vision may occur temporarily.
7. You will still experience pains in upper chest, shoulders and back, and may get numbness and/or pins and needles in arms and hand.
8. Regular painkillers will still be needed, as well as laxatives until bowels are regular.
9. Patients on WARFARIN please see anticoagulant booklet.
10. You should be able to attend to own hygiene (you may bath or shower).
11. Walking is encouraged everyday, gradually increasing the distance.
12. Gentle arm and upper body exercises to be continued.
13. Wounds:
    - Daily shower recommended if wounds have oozed.
    - Use unperfumed moisturising lotion if dry and flaking skin develops.
    - Breast bone (sternum) will still be sore so you may hear bone clicking. Consult GP or Cardiac Support Team if this is painful.
    - Leg wound can take up to a month to heal. Numbness can occur in affected leg.
    - Arm wound (radial) - fingers may still be swollen but this should be improving. Area at base of thumb is often numb - may be permanent.
    - Wounds can take a month to heal.
14. Mood swings and sleeplessness can be expected.
15. Nightmares may occur but talking about them helps.
16. Strenuous activities involving the upper body should not be attempted until 12 weeks post-surgery.
17. Follow a healthy diet.
18. A daily 1 to 2 units allowance of alcohol is permissible - if on WARFARIN see anticoagulation booklet.
19. Cardiac support nurses will ring approximately one week after discharge.
20. You may ring the cardiac support nurses for advice on 01223 638100 between the hours of 09:00-17:00 (answer machine available).
21. You can telephone Medicines Helpline on 01223 638777 (answer machine).

TWO to SIX WEEKS post-discharge

1. You should feel less breathless.
2. Leg may still be swollen - if so, elevate when sitting.
3. Painkillers may be reduced in quantity & strength.

Guide to reducing pain killers:

- Continue to take painkillers regularly.
- If pain controlled, may stop strongest middle of day tablets (strength of painkillers is on the Patient Medication Card).
- If after 5 days pain still controlled, stop strongest teatime tablets.
- If after further 5 days pain still controlled, stop strongest morning tablets.
- If after further 5 days pain still controlled, stop strongest bedtime tablets.
- Continue the procedure by then stopping the weaker tablets in the same way but if pain controlled, reduce after 3 days.
- Please note - most patients will need to stay on painkillers for at least 4 to 6 weeks, and many will stop tablets only to have to increase again as pain is not being kept under control with the reduced tablets.
- Patients should be able to deep breathe, cough, move and sleep with minimal pain. If not, stronger painkillers may be needed. Contact GP.

4. Increase walking distance aiming to walk for 20 minutes prior to attending cardiac rehab. If this is not achievable, cardiac rehab will advise and help you to reach your own individual goals.
5. Gentle arm and upper body exercises should be continued.
6. May commence light activities.
7. Continue wearing anti-embolic stockings until achieved normal mobility.
8. Driving at six weeks from date of discharge unless you have permission from your GP to drive at four weeks.
9. You may feel emotional and vulnerable.
10. Strenuous activities involving the upper body should not be attempted until 12 weeks post-surgery.
11. Follow a healthy diet.
12. Outpatient appointment to see surgeon will be received.
13. You can contact the Cardiac Support team 01223 638100.
14. You can telephone Medicines Help Line on 01223 638777.

SIX to TWELVE WEEKS post-discharge

1. Patients who are breathless before their surgery may still be breathless.
2. Leg may still be swollen - if so, elevate when sitting.
3. It is not unusual to get the occasional twinge of pain, but should no longer require painkillers on a regular basis.
4. Patients on WARFARIN will continue to have regular blood tests.
5. Continue to increase activities and consider returning to work.
6. Receive an appointment for Cardiac Rehabilitation.
7. Patients who have had valve surgery, unless all teeth and roots have been removed, must visit a dentist every 6 months and maintain good oral hygiene.
8. You should be feeling more confident and happy - continue with health education advice.
9. Activities involving the upper body e.g. digging, playing golf, racquet sports and cycling, must not be attempted until 12 weeks after operation.
10. Gentle swimming is allowed after 12 weeks providing the wounds have healed.
11. Follow a healthy diet.
12. Outpatient appointment to see cardiologist approximately 3 months post-surgery.

It will be useful for you to fill in the following diary each day after your recovery to write down your feelings and show the progress you are making each day.

Diary

Day 1 - post surgery

How am I feeling?

How well controlled is my pain?

☐ Well controlled

☐ I'm still sore and would like some more painkillers

What are my goals?

- Start eating and drinking.
- Try to eat something at each meal
- Drink at least 6 cups of fluid.
- Sit out of bed with assistance from staff.

What have I eaten today?

☐ Breakfast.....

☐ Lunch.....

☐ Dinner.....

How many cups of drink have I managed today?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

Some nausea is normal on day 1

☐ ***I haven't managed to eat because:***

.....

.....

.....

How active have I been?

☐ Sat out of bed with assistance for …… hours.

☐ Walked on the spot with assistance

☐ Practised supported cough and exercises …… times today

☐ I haven't been able to because:

.....

.....

.....

What am I proud of achieving?

.....

.....

.....

.....

.....

.....

.....

.....

.....

Day 2 - post surgery

How am I feeling?

How well controlled is my pain?

☐ Well controlled

☐ I'm still sore and would like some more painkillers

What are my goals?

- Eat 3 meals and drink at least 6 cups of fluid
- Follow guidance about walking, exercises and coughing
- Get out of bed (without using arms)
- Walk a few steps with guidance
- Sit out of bed for up to 6 hours

What have I eaten today?

☐ Breakfast.....

☐ Lunch.....

☐ Dinner.....

How many drinks have I managed today?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

☐ ***I haven't managed to eat because:***

.....

.....

.....

How active have I been?

☐ Sat out of bed

☐ Walked around my bed

☐ Walked …… steps

☐ Practised supported cough and exercises …… times today

☐ I haven't been able to because:

.....

.....

.....

What am I proud of achieving?

.....

.....

.....

.....

.....

.....

.....

.....

Day 3 - post surgery

How am I feeling?

How well controlled is my pain?

☐ Well controlled

☐ I'm still sore and would like some more painkillers

What are my goals?

- Eat 3 meals and drink at least 6 cups of fluid
- Walk around the ward with help as needed
- To get dressed in my own clothes

What have I eaten today?

☐ Breakfast.....

☐ Lunch.....

☐ Dinner.....

How many cups of drink have I managed today?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

How active have I been?

☐ Walked ..... steps or distance ☐ 1 ☐ 2 ☐ 3 ☐ 4 times today

☐ Have done my exercises ..... times today

What am I proud of achieving?

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Are there any changes to my support arrangements at home after discharge? (If yes, talk to your nurse) Yes No

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Day 4 - post surgery

How am I feeling?

How well controlled is my pain?

☐ Well controlled

☐ I'm still sore and would like some more painkillers

What are my goals?

- Walk independently around the ward within my limits
- Get dressed on own as able
- Open my bowels
- Eat 3 meals and drink at least 6 cups of fluid

What have I eaten today?

☐ Breakfast.....

☐ Lunch.....

☐ Dinner.....

How many cups of drink have I managed today?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

How active have I been?

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What am I proud of achieving?

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Are there any changes to my support arrangements at home after discharge? (If yes, talk to your nurse) Yes No

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Final post operative period

How am I feeling?

How well controlled is my pain?

☐ Well controlled

☐ I'm still sore and would like some more painkillers

What are my goals?

- Walk up and down 1 flight of stairs (if appropriate)
- Walk around the ward on my own with confidence
- Understand my medication
- Prepare for going home

What have I eaten today?

☐ Breakfast.....

☐ Lunch.....

☐ Dinner.....

How many drinks have I managed today?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

How active have I been?

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What am I proud of achieving?

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Contacts

Cardiac rehab: 01223 638429

Cardiac Support Nurses helpline: 01223 638100
(09:00 - 17:00 Monday to Friday except Bank Holidays)

Physiotherapy: 01223 638215
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