

Your guide to heart surgery



This booklet will provide you with a step-by-step guide to heart surgery at the Wesley.

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Introduction and General Information

This book has been written to help you and your family understand your heart and what will happen when you have heart surgery. Use this book during your stay and when you go home. Keep it with you as it is often referred to during your stay. Remember staff are always available to answer your questions and to assist you and your family wherever possible.

What is a bypass operation?

Coronary artery bypass surgery is an operation designed to redirect blood around blockages in the coronary arteries and improve blood flow to the heart muscle. Vein or artery grafts are attached either side of a blockage to create a new route for the blood to flow. A vein from your leg or an artery from your arm can be used as grafts. One end of the graft is sewn onto the aorta, the large artery taking blood away from the heart. The other end is sewn into the coronary artery below the blockage. An artery already inside your chest wall can be used by detaching it at its far end and reattaching it to a coronary artery below the blockage. One or more grafts can be used depending on the number of blockages.

Angina or chest discomfort is usually relieved once the blood flow to the heart muscle is improved by bypass surgery. However, bypass surgery does not stop or cure the process of coronary artery disease (atherosclerosis). To keep the new grafts clear, it is important to identify and adjust any factors contributing to the disease process.

Existing disease can be slowed, stopped or reversed by following a HeartWise lifestyle which teaches you to identify and manage your risk factors. During your stay you will be given information on caring for your heart and learn important facts you can use.

What is a valve operation?

There are many causes of valve problems. Valves can be faulty, either because they were not formed properly at birth or because they become damaged or diseased.

The sound that comes from your heart when your valves are faulty is often described as a 'heart murmur'. The type of murmur depends on which valve is affected and what is wrong with the valve.

Some valves become tight, not allowing enough blood to pass through them. This may cause you to faint suddenly.

More often heart valves become loose and don't seal properly. Faulty valves make the heart work harder. This may lead to your heart muscle stretching and losing its elastic ability to pump (heart failure).

Faulty valves don't always require fixing but if they do the surgeon will try to repair the valve rather than replace it. If the valve needs replacing your surgeon will discuss the type of valve used based on your specific needs.

If you need heart surgery:

We have provided this information about what will happen during your stay in hospital and to answer some of your questions. However, you or your family may have more questions. Please ask your doctor, nurse or any other staff member at any time.

If you or your family would like to talk to someone who has had heart surgery, a group of volunteers called "BraveHearts" are available to share their experiences and may be able to answer some of your questions. If you would like to see a "BraveHeart", let your nurse or the HeartWise nurse know, so this can be arranged.

Before your surgery

If you have had an angiogram and are going home before your surgery, please remember the following:

- + **Your doctor will advise which medications you need to stop taking.**
- + If you are currently taking angina medication, you should continue with this. If you have not taken angina medications before, ask your doctor if you need them. Staff will teach you how to use them.
- + If your angina worsens or if you have more frequent attacks, or attacks take longer to go, contact your doctor or return to your local Emergency Centre.

Two days before your operation you should start using:

- + Antiseptic soap to wash with (this will be given to you after your angiogram).
- + A nasal ointment three times a day.

When you come back to hospital please bring the following with you:

- + all of your current x-rays
- + this booklet
- + your medications
- + toiletries
- + 4 sets of sleepwear
- + small amounts of loose change for incidentals.

Please do not bring large sums of money or valuables with you.



Your healthcare team

There are several people who will visit you during your stay. Each will explain their role in caring for you and answer any questions you may have. Support services are available if you should require them. Below is an outline of the people you will meet during your stay in hospital and some of the support services available. If you would like to talk to any of the support staff, please tell your nurse who can arrange this.

- + Your **cardiologist** will discuss with you the findings of your angiogram and other tests. They may visit you before you go home to check on your progress.
- + Your **cardiac surgeon** will talk to you about your operation and the risks and benefits involved. They will visit you daily and confirm your date of discharge.
- + An **intensive care doctor** will speak to you about the operation and your care in the Cardiac Post-Operative Unit.
- + The **anaesthetist** will visit you before your surgery to discuss your medical history and help you to understand their role in your operation. Medications will be ordered to keep you calm and comfortable before the operation. This is called a "premed".
- + The **perfusionist** who operates the heart-lung bypass machine may visit to explain their role.
- + A **cardiac nurse** will be assigned to care for you each shift. Your nurse will be aware of the doctor's plan of care and will provide all the nursing care you need. This nurse will explain the care you will receive before, during and after your operation. If your family are unable to be with you at this time, a suitable time can be arranged for the nurse to talk to them or the nurse may be able to talk to them on the telephone.

Prior to your surgery, you and your family will be able to visit the Cardiac Post-Operative Unit if you wish.

The **cardiac nurses** there will explain their role in your care. Your family will have the chance to meet the nurses and find out about visiting times in both your ward and the post-operative area. There is a video which explains what happens in cardiac post-op for you and your family to view.

Your **physiotherapist** will visit regularly before and after your operation to review your progress with your exercises.

- + **Cardiac rehabilitation nurses** from HeartWise will visit and are available to spend time with you and your family. They will play a big role in answering your questions about recovery and talking to you about reducing your risk of further heart disease.
- + A **BraveHeart** may visit you and your family. They are a group of volunteers who have been patients or are family members of patients who are able to talk with you and share their experiences.
- + A **pharmacist** will call regularly to review your medications and to explain your discharge medications to you.

If you have diabetes

People with diabetes need special care when admitted for surgery. The stress and trauma of having an operation can cause your blood glucose levels to rise. People with diabetes may heal more slowly and have a higher risk of wound infections.

Each person's body responds to surgery in different ways. It is often unclear what type of diabetic treatment will be required before and after surgery. Occasionally insulin injections or an insulin drip may be necessary.

On the day of your operation, your diabetic tablets or insulin will be given as ordered by your doctor. You may be started on an insulin drip to help control your blood glucose levels while you are not eating or drinking.

Your blood glucose level will be monitored regularly by the nursing staff. A **Diabetes Educator** is available for individual consultation if you have any concerns.



Emotional support

Coming into hospital can be stressful for you and your family and friends. Admission to hospital can be frightening and you might experience a range of emotions and concerns. There are many different reactions to, and ways of coping with heart surgery. Each of us is different. Upsetting thoughts and feelings such as anger, guilt, fear and sadness are common. They are part of the process of coming to terms with your illness.

You may benefit from:

- + keeping informed, keeping things in perspective and challenging negative thoughts
- + maintaining support by keeping close contact with family and friends
- + talking about feelings and concerns, and expressing emotions in their own way
- + doing things they enjoy such as: listening to music, relaxing, reading, doing crosswords, or pursuing any other enjoyable pastimes
- + seeking counselling for emotional and spiritual distress.

Your doctors and nurses are here to support you and your family at this time. **Counsellors** are also a part of the ward team and can provide extra support if needed. The hospital cares for the whole person.

Our **Chaplains** are trained to work in the medical setting and are available for patients and their families 24 hours a day. Should you or your family wish to see a chaplain, please ask your nurse to arrange this.

Activity

Before your surgery there are no activity restrictions unless specified by your doctor. There is a rest period between 2pm and 4pm daily in the cardiac ward. Visiting is not allowed during this time.

Tests and procedures

You will require a number of tests before your operation. Once again, if you have any questions, please ask your nurse or doctor.

To gather information about your health, your doctor may order a chest x-ray, an electrocardiograph (E.C.G.) and blood tests. As you may need to have a blood transfusion during or after your operation, special "grouping" and "cross-matching" blood tests will be taken. Some of these tests may not be needed if they have been done recently.

Your nurse will take swabs of your nose and groin with a cotton bud to check the normal bacteria which live on your skin.

Iodine is used in the operating theatre to clean bacteria from your skin. To ensure you are not allergic to iodine, a skin patch test will be done on your left inner arm.

Hygiene

Personal hygiene is extremely important before any hospital procedure, as there is always a slight risk of infection. Simple measures such as washing your hands well with soap after going to the toilet or blowing your nose can help to prevent infection.

Food and drink

If you have any special dietary needs, please let your nurse know when you arrive. If you have coronary artery disease, your doctors request you select the modified fat choices on your menu (noted by the heart symbol ♥).

Planning for home

While it is safe for you to be alone after you go home, you will need some support. Most people prefer someone to stay with them for a short time, however you may feel "pop-in" visits from family, neighbours or friends are enough.

Give some thought to any special help or services you may need when you go home. For example, community nurses, meals on wheels, home help, blood collection, a veteran's car or an airline flight home may be required. Please let us know as soon as possible if you think you may require any assistance after your discharge from hospital.

Bladder and bowels

You will be asked for a urine sample, which will be tested. After this, unless you are advised otherwise, you may go to the toilet as usual.

Some heart medications can make you constipated. If you are concerned about constipation, your nurse can give you medication to relieve this before your operation.

Medications

You will also be asked whether you are allergic to any medication, surgical tapes or foods.

Keep taking your regular medications unless directed otherwise by your doctor.

All your medications will be stored in a safe place and given to you by your nurse according to your doctor's instructions.

You will be given an ointment for your nose called Bactroban. This is to be put inside your nose three times a day to prevent bacteria from your nose infecting your wounds.

The night before your operation, you may be prescribed a tablet to help you sleep.

Please let us know immediately, by pressing the nurse call button, if you experience any angina, shortness of breath or feel faint.

Getting ready for theatre

In the Cardiac Post-Operative Unit, you will need:

- + 2 sets of night garments
- + your medications
- + your visual and hearing aids
- + your triflo and heart huggie pillow
- + slippers
- + toiletries.

Excess luggage should be taken home by your family. If this is not possible, it will be taken to the cardiac intensive care unit with you.

Physiotherapy

Physiotherapy is a very important part of your recovery. Your physiotherapist will visit you to demonstrate and explain your exercise program. You will need to start these exercises in the Cardiac Post-Operative Unit.

Physiotherapy will help to increase your independence and mobility as well as prevent complications after your operation. Your physiotherapist will provide you with a personal program, which will include advice on specific arm and leg exercises, deep breathing and walking. A summary sheet, with easy-to-follow instructions and guidelines for safe exercises to protect your healing breastbone, will be given to you by your physiotherapist. The triflo, deep breathing and coughing exercises help to improve the amount of air entering your lungs and will reduce the likelihood of your getting a chest infection after your operation.

You need to pace yourself and do these activities throughout the day. Don't leave them all until the end of the day as you may be quite tired and unable to complete them.

Your physiotherapist may assess how you manage on the stairs and will teach you a series of new exercises to continue when you go home. You will be provided with a written sheet of these exercises before discharge.

Shower and shave

We will ask you to shower with an antiseptic lotion twice on the day before your operation and again on the day of surgery before you are given your pre-medication. The antiseptic lotion is designed to kill the normal germs which live on your skin and reduce the risk of infection. Please lather well using generous amounts of lotion, especially in the procedure areas – your nurse will explain these to you. Avoid getting lotion in your eyes.

Please trim your fingernails and toenails and scrub them with the scrubbing brush provided. Do not use any moisturisers, deodorant, aftershave or talcum powder after your shower. We ask that you wear clean nightwear after each shower.

The hair on your chest, lower arms, groin and the inner side of your legs will be clipped to help prevent infection.

Fasting

You **will not be able to eat or drink for 8 hours** before your operation. You may have a small amount of water with your tablets.

Immediately before your operation

You will shower again just before your operation and be given a theatre gown and hat to wear. Underwear is not to be worn. Dentures, glasses, jewellery and any prostheses should be removed, if possible. **Please remove any rings at this time.** If you can't remove your wedding ring it may be taped on, however in the case of extreme emergency, rings may need to be cut off.

After your shower, you will have a "premed" to help you relax. For safety reasons it is important to stay in bed after the "premed" is given, so please go to the toilet before you take your tablets. You will also be given oxygen through a mask. You can press the nurse call button if you need assistance. Your family is welcome to sit quietly with you at this time.

The operation

Most standard heart operations take three to four hours. The Cardiac Surgeon will phone your family or speak to them in the waiting area outside the Cardiac Intensive Care Unit when the operation is over. Prior to surgery, please tell the staff which option your family would prefer.

A volunteer is in the waiting area most weekdays. They are there to assist with information and support and will direct the surgeon to your family. If your family leaves the waiting area before your operation is over they will need to tell the volunteer where they can be found.

Once you have arrived in intensive care, the staff will need approximately half to one hour to settle you into the unit before allowing visitors.

Visiting hours for the cardiac intensive care unit are:

11am – 2pm and 4pm – 8pm

What happens after surgery?



Cardiac Post-Operative Unit

Following your operation you will return to the Cardiac Post-Operative Unit. You will be asleep from the anaesthetic for several (4-6) hours.

You will have a tube in your mouth connected to a ventilator to help you breathe. As you wake up you will start breathing on your own and the breathing tube will be removed.

The drips and drains, including a urinary catheter, will be removed over the next few days as your condition improves.

You will spend 1-2 days in Cardiac Post-Op. Once you are well enough you will be moved to the Cardiac Ward. You may remember very little about your stay in the Post-Op, particularly the day of your operation. It is common to lose track of time and sometimes people feel a little confused after surgery. This is not something that should concern you or your family.

Test and procedures

Your nurse will take regular blood tests painlessly from a special drip in your arm. As part of routine care, you will have chest x-rays and ECG's taken.

Checking your progress

It is normal after surgery to be connected to monitoring equipment. The nursing and medical staff will be taking observations continuously. Most observations will be taken electronically without you being aware. The monitoring equipment will be removed before you return to the Cardiac Ward.

Medications

While you are in the Post-Op you will receive continuous pain relief medication through your drip. If you have pain at any time during your stay, let your nurse know and they can adjust your pain relief medication. It is important to us that you are comfortable.

Many of your normal medications will not be given when you first return from theatre. Any medications that you need will be given through your drip. Your regular medications will be resumed gradually. Your doctor may also commence new medication.

Physiotherapy

When you wake up from your anaesthetic your nurse will commence gentle physiotherapy. This includes deep breathing, coughing exercises and use of the triflo. You will be visited by the physiotherapist three times each day. Your exercises will increase gradually and will include gentle arm and leg movements. You will find your "heart huggie" pillow a great help with your exercises.

On the day after your surgery, you may sit out of bed and go for a short walk. The physiotherapist, nurse and orderly will be there to help you.

Personal hygiene

The nurse caring for you will give you a sponge in your bed until you are more mobile and able to shower. The nurses will also assist you to clean your teeth and shave.

Food and drink

You may sip water after the breathing tube has been removed. At first you may not feel like eating. The next day you will be able to eat and drink as you wish. The nurse caring for you will encourage you to drink fluids.

Bladder and bowels

The catheter in your bladder will drain your urine until it is removed on the second day after your surgery. This is for your comfort and convenience and to help the nurses and doctors monitor how your kidneys are working. After the catheter is removed you will pass urine normally.

Because of the anaesthetic and less eating, you may feel wind pains. Most people do not have bowel motions for a couple of days.

Visitors

Visiting is restricted in Cardiac Post-Op to promote rest and healing. However, we encourage telephone calls at any time, day or night, by a family member. Telephone (07) 3232 7978.

No visiting is allowed before 11am and between 2pm and 4pm. Only two visitors should visit at one time and visits should be kept short, under 15 minutes. Children under 10 years of age should not visit during this time.

As flowers pose an infection and electrical safety risk, we ask that they not be delivered during the time in Post-Op.

The cardiac ward

Congratulations, you are one step closer to home.

The Cardiac Ward is where you begin the next phase of your recovery. Here the nurses will help you as needed but you no longer need constant monitoring and close attention. A nurse call bell will allow you, if necessary to alert the staff if they are not in your room.

Getting about

When you first reach the ward the nurses will assist you with most activities. Sitting out of bed, walking to the toilet, showering and getting dressed will be done with their help. As you become stronger you will be able to manage all these tasks without help. This is important, as you need to be able to do most things for yourself by the time you go home.

After heart surgery, you may feel very tired and lethargic. This tiredness is due to a lack of sleep, medications, the operation, anaemia and your reduced activity level. You should not let these feelings stop you from maintaining a level of exercise. The more activity you are able to do within the guidelines, the more energy you will have and the better you will ultimately feel.

A rope may be tied to the end of your bed. This will help you to sit up in bed. It will help reduce any strain on your chest wound. Your nurse or physiotherapist will show you how to use this.

The physiotherapist will continue to visit you daily and assist with your deep breathing exercises and walking. You will also attend group exercise classes each day. Your nurse will also assist and encourage you until you become more independent. Your trifle and deep breathing exercises will need to be continued every hour while you are awake.

You may be given stockings to wear after your operation. The "anti-embolic" stockings will help improve the circulation in your legs and prevent clots from forming after your operation. These should be worn at all times while in hospital and be removed and washed while you are in the shower.

It is important for you to rest between activities.

Increase your activities gradually. While it is enjoyable to have visitors, you will find that this can be quite tiring also. We advise you to restrict visitors to close family while you are in hospital. Cardiac ward visiting hours are 8am to 8pm, with a rest period between 2pm and 4pm when no visitors are allowed. Visiting at other times may be negotiated.

Checking your progress

Your blood pressure, heart rate, temperature and oxygen levels will be checked every 4 – 6 hours. Some people require oxygen via a mask or nose prongs for a few days.

You will be weighed every morning to ensure any fluid retained during surgery is reducing.

Tests and procedures

After your operation your surgeon will order regular tests to check your progress. These tests will include chest x-rays, blood tests and ECG's.

Your personal hygiene

You will need to continue using the antiseptic lotion in your daily shower. If your wound is left uncovered please wash it first with a clean washer using the antiseptic lotion. Wear clean nightwear each day.

Do not use talcum powder, deodorant, perfumes or soap while your wounds still have a scab.

Reducing the risk of infection

There are a number of ways you and your visitors can help reduce any risk of infection. Wash your hands thoroughly after going to the toilet, coughing or blowing your nose and do not touch your wounds. We ask that your visitors wash their hands before and after visiting you and do not sit on your bed during the visit.

Care of your wounds

You will have a wound on your chest where your surgeon has opened your breastbone. You may also have wounds on your legs and arms.

Special wires are used to repair your sternum, while internal stitches or metal clips will close your chest and leg wounds. If you have internal stitches, these will dissolve after the wound has healed. If you have metal clips in your wounds, half these clips will be removed about 5 days after your operation and the rest on the day you go home.

Your wounds will be kept clean by your nurse and may or may not be covered. This will depend on your doctor's preference or if there is any ooze coming from them.

Please remember that if your wound is left open, it is important not to touch it.

Pacing wires are put on the outer layer of your heart during your operation and remain in place for about 5 days. If your heart beats either too fast or too slow, you may need a temporary pacemaker to keep your heart beat at the correct rate. If this is necessary, a temporary pacemaker will be attached to the pacing wires.

The wires are plastic covered with metal probes at the end. The metal probes have protective rubber tubing over them. It is important not to touch the probes with your bare hands. They are attached to your skin with a stitch and will be removed in the ward.

Medications

After your operation some of your heart or blood pressure tablets may have been changed or stopped. You will be given pain relief tablets 4 or 5 times a day.

You will also be given extra pain-relieving injections for breakthrough pain, before you settle for the night and again in the morning before you get up. This will continue for as long as you feel you need them.

If you are unable to perform your physiotherapy exercises, walk or move about due to pain, please tell your nurse.

A good night's sleep is also an important part of your recovery. Sleeping tablets are prescribed for you and it is a good idea to have them to help you sleep properly.

You will still need to use the nasal ointment three times a day if you have been prescribed it.

If you have a mechanical heart valve

Your Doctor will prescribe blood-thinning tablets called warfarin for you to take daily. Warfarin helps to prevent clots forming around the valve. Your doctor needs the results of the blood tests to decide the amount of warfarin you need. The dose may vary daily. At first, these blood tests may need to be taken every day or two. Your nurse or pharmacist will give you a booklet about warfarin and talk to you and your family about it. When you go home you will need to continue the blood tests. Your nurse will discuss this with you before you leave hospital.

If you have diabetes

If you have diabetes, your nurse will check your blood glucose level regularly. Your insulin or diabetic tablets may be altered for a short time as the stress of the operation on your body may make your blood glucose higher than normal. You may have an insulin drip or injections to help control your blood glucose levels during and after your operation. Your diabetic tablets or normal insulin regime may restart when you are eating and drinking normally again. Please ask your doctor or nurse if you have any concerns.

If you have any questions about your medications, please feel free to ask your doctor, nurse or pharmacist.

Planning for home

There will be a number of things you will have to avoid after you go home. If there is no one at home who can help you with these, it will be necessary to organise some form of home help. Outlined further on in this book is a list of tasks you will not be able to do for some time. As you read through this list, please think about what assistance you will need to maintain your daily routine and talk to your nurse about this. They will assist with organising any help you require.

Transport arrangements will need to be finalised. If you are flying home, your doctor will complete a Medical Certificate for Air Travel, which informs the airline of any special needs you may have. You will receive a copy of this form and one will be sent to the airline with which you are flying.

What is normal after surgery?

Heart palpitations

After your heart surgery you may find your heart rate changes. You may notice your heart racing or feel a fluttering feeling in your chest. You need to tell your nurse if you notice this. It can usually be treated simply with medications.

If this occurs while you are at home you should consult your local doctor. Palpitations are usually not life threatening, however, they can cause further complications if not dealt with promptly.

Breathlessness

It is usual over the first few weeks to be a little breathless when you do things. Should the breathlessness not improve, increase or become distressing see your doctor. A persisting cough, particularly at night, or a change in breathing generally, should also be reported to your doctor.

Tiring quickly

You will find this happens early on with some of the simplest tasks such as showering. As you become stronger this will improve. Remember to increase your activity slowly, rest when you feel tired, and then try that activity again. Pace your activities throughout the day and gradually your tolerance will improve.

Pain

It is normal to feel discomfort for some time after your operation. You have been ordered regular pain medication to help relieve your pain as much as possible and enable you to improve your activity levels. If pain is well controlled it actually improves the healing process. Pain medication can be altered to meet your needs. Please talk to your nurse if your pain is not relieved by what you are given.

Concentrate on maintaining good posture for your breastbone healing. The exercises your physiotherapist has given you will help you do this and improve your ability to move around and feel more comfortable.

Often the sites your grafts were taken from seem to cause more discomfort than chest wounds. This is because wound swelling causes muscle and tissue tension at these sites. This will settle down and be less uncomfortable as the weeks go by.

Numbness

You may find this happens in your fingers, toes, wrists or legs. Numbness occurs because of stretching and pressure on the nerves after your operation and will take a few months to subside.

It is also quite common to feel numbness on the chest, when the internal mammary/thoracic artery has been used for your bypass grafts. Normally this will recover over a number of months but in some cases reduced sensation persists.

In a few cases increased sensation may be noticed in the chest wall. This will settle in a month or so.

Constipation

Constipation is quite common after any operation. Drink plenty of fluids, unless you are on a fluid restriction and choose high fibre foods such as fruit, vegetables and cereals to help relieve this.

Exercise is already part of your recovery and may also assist you to become regular again.

Some mild laxatives can be given to you if diet and exercise are not enough. If you have any concerns please talk to your nurse.

Leg swelling

You may have a leg wound after your bypass operation. Swelling in the ankles and feet is common. To help reduce this elevate your feet on a pillow or stool.

Travelling may make swelling worse. Keep your legs moving or slightly elevated. We suggest you stop every hour or so to walk around. If possible try to avoid extended trips until you see your surgeon or cardiologist again.

Profuse perspiration

This is a common complaint after a heart operation, often occurring at night and wetting bedclothes. It is important to maintain a good fluid intake. Perspiration will lessen over time.

Be alert for any fever - if you feel hot to touch or unwell see your doctor.

Poor appetite

It is common to lose your appetite after an operation but it is important to try to eat and drink regularly. If you feel sick, please tell your nurse or doctor. Medications may be given to relieve this.

When you can drink liquids without feeling sick, you will be given a light diet. This will be a modified fat diet. Eating frequent, small, nutritious snacks can help you regain your strength.

If you have any special dietary needs, a nutritionist is available to assess and advise about your nutritional needs. Talk to your nurse who can organise this.

Group sessions, which promote healthy eating, are held regularly for you and your family. These sessions are led by a Nutrition Consultant and provide the latest information on healthy eating for heart disease. The sessions consist of a talk by the nutritionist, with written information available for you to take away and read at your leisure. Check the poster on your ward for latest session times.

Emotional ups and downs

After any major operation it is usual to experience emotional changes. You may use a lot of energy coping with change, leaving you feeling depressed and lethargic.

It is common to feel down or depressed about four days after your surgery. This is because your body has been through a lot both physically and emotionally. You may not want to see visitors or take telephone calls. You may "have a good cry". It is important to remember this is common and happens to nearly everyone. Trying to avoid these emotions will not make them go away. Talk about how you feel with your family or nursing staff.

There are other people to help you if you are finding this time difficult to manage. Talk to your nurse who can introduce you to our counsellors or chaplains.

Memory loss and poor concentration

This is also common and can continue when you go home. Although these experiences may seem frightening or unfamiliar to you, they are normal after this type of operation. You should try not to let them interfere with your progress. Usually these unpleasant sensations go away within 4 to 6 weeks. If they continue, please report them to your doctor.

What to avoid after your operation

You need to allow your breastbone time to heal. This may take eight to twelve weeks. Any extra pressure on the chest can slow your healing and recovery. During this period, there are some day-to-day activities you need to avoid.

Driving

You shouldn't drive a car for about 4 to 6 weeks after your operation. Your breastbone has not healed properly and this will impair your ability to handle the steering wheel of your car which in turn may delay healing and cause pain. In addition to problems with unhealed bone, reaction times can be slower due to fatigue, weakness and medication.

When the surgeon has checked the breastbone healing (usually at the four week visit) and your concentration and flexibility has returned, you could start driving your car for short periods in non-peak times.

You need to keep wearing your seatbelt whether you are a passenger or driving. Not wearing one could cause more damage to the breastbone if you are involved in an accident.

It may be worth checking with your car insurer that you have cover before you resume driving. Some companies do not give insurance cover for a period of time after heart surgery.

Lifting

Avoid lifting or picking up anything heavier than 2½ kilograms (5 pounds) for the first six weeks.

This includes:

- + suitcases
- + groceries
- + wet laundry
- + children and
- + pets.

Think twice before:

- + opening stuck windows
- + unscrewing jar lids
- + pushing heavy doors
- + moving heavy furniture.

Housework and hobbies

Try not to assume responsibility for household duties, care of children or meal preparation for the first month after your surgery.

Do not:

- + vacuum
- + move furniture
- + weed
- + rake
- + mow the lawn
- + mop
- + hang out washing

These activities require greater energy and put extra stress on your breastbone. Resume them only when healing is complete and energy levels normal. Avoid anything that you find very tiring or the cause of discomfort.

Information and support

During your stay in hospital, you will be seen by one of the HeartWise Health Services team. They provide cardiac rehabilitation education and will teach you more about your cardiac risk factors and help with ideas on how you can change some of these factors to reduce your risk of heart problems in the future.

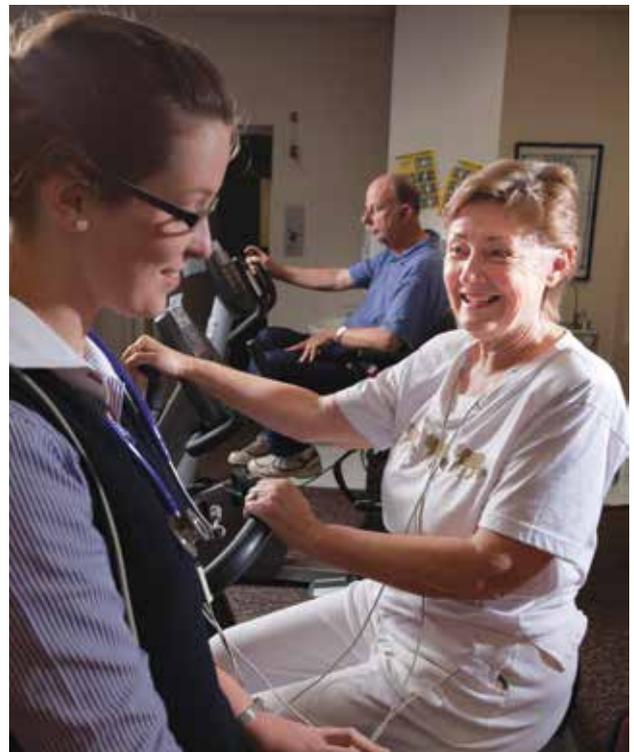
Cardiac rehabilitation programs assist patients after heart surgery. The programs support you as you resume daily life. Sharing with others who have had similar experiences is reassuring.

Your nurse will arrange times for you and your family to attend a number of education classes. Please let us know if your family has any trouble making these times so alternative arrangements can be made. If you have any questions in relation to these sessions please ask your nurse or the HeartWise nurse and they will be happy to explain them to you.

The following classes are available to attend Monday to Friday. Please check the poster in your room for up to date class times.

- + Good Food Facts - Nutrition Class
- + Going Home After Surgery

HeartWise staff can give you information on the cardiac rehabilitation program closest to your home.



On the road to recovery

Going home

Your nurse will make appointments for you to see your cardiologist and cardiac surgeon after you are discharged. If you live locally your appointments will be made for your cardiologist in 6 weeks and cardiac surgeon in 4 weeks. Please tell us if the appointments are inconvenient. If you don't live locally alternative arrangements may be made. Your nurse will discuss this with you.

Your valuables, x-rays and medications will be returned to you on the day you are discharged. The pharmacist will talk to you and provide you with written information about your medications.

It is important to time your departure so you have some energy available.

Caring for yourself at home

On the day you go home you will find the effort of leaving hospital and the trip tiring. Plan to have a nap when you arrive home. You can travel safely home in a car. If the trip is longer than an hour it helps to stop the car every now and then for a stretch, short walk or rest. If you are flying home, let staff know so arrangements can be made for help with your luggage and transport at the airport. The staff will also organise a medical certificate for flying.

Recovery from heart surgery takes 8 to 12 weeks. Once home you will slowly get stronger. Activities should be increased gradually. It is important that you pace yourself. "Overdoing" things will not injure your heart, but will cause greater fatigue. You should try to rest between activities.

For the first week at home, try to continue the activity level reached in hospital. The following week, increase activity around the house without pushing to the point of fatigue. Try an activity. If you find it is too much, making you feel tired or short of breath, stop and rest.

Walking is the best form of daily exercise during your early weeks at home. It will help improve your sense of well being, and your circulation and muscle tone. Initially choose a flat surface to walk and avoid very cold

or hot weather. Walk after you have rested and at least an hour after eating. When you feel stronger, hills can be tried by taking shorter steps and slowing down.

The following walking plan gives a guide to progressing exercise safely. Where to start on the plan and how fast to progress will depend on several factors including your health and fitness before your operation and your recovery. If you feel comfortable, you may walk twice or more in the one day rather than increase the length of time for one walk. You may stay at one stage for a couple of days to a week or more. Progress to the next stage when you are able to do the current level with ease.

Please refer to the physiotherapy guide on Pages 24 – 26

Checking your progress

When you leave hospital you are in the care of your GP – make an appointment to see him/her during the first week you are at home. You will also have appointments made to see your cardiologist and cardiac surgeon made by your nurse.

Consult your doctor if you experience any new or worsening symptoms.

When to call the doctor

You should call your doctor if you notice any of the following:

- + palpitations that last longer than 15 minutes
- + increasing shortness of breath
- + excessive tiredness or weakness
- + fainting or recurrent dizziness
- + redness, swelling or drainage from wound sites
- + leg pain and unusual swelling of the legs or ankles
- + inadequate pain relief
- + fever, nausea or vomiting
- + sudden unexplained chest pain.

Don't be discouraged

Major surgery takes a lot out of you. You may find yourself feeling very tired for the next few months. Try to take one day at a time. You can expect to have both good and bad days. Progress slowly and you will see improvement over the coming months.

Stairs

You will be able to climb stairs when you return home but should begin slowly. If you become tired and short of breath, sit down and rest before you start again.

Wound care

Keep your wounds clean and dry. Wash them with normal soap and gently pat them dry. You may expose them to light sunshine for a few minutes each day to encourage healing. Patients with diabetes, who are taking steroid treatment, or with slow healing wounds will benefit from continuing to use their antiseptic lotion at home. Inspect your wounds daily. Report any redness, tenderness, ooze or swelling to your doctor.

Thorough personal hygiene such as washing your hands after using the toilet or blowing your nose will also reduce the risk of infection. Also, use clean towels after showering. Assistance with dressings will be organised if needed.

Some people have problems with their scars.

They may be:

- + dry and itchy
- + purple/red in colour
- + thick and raised
- + numb or tingly
- + very sensitive.

Techniques such as scar massage or desensitisation may help reduce these effects. **Always clean your hands before touching your scars.**

Scar massage softens scars. Once staples are out you can massage over any scabs. Avoid any areas that are weeping or bleeding.

You will need:

- + A greasy cream such as sorbolene or aqueous cream in a "no-touch" dispenser such as a pump pack.
- + Tissues to wipe of any excess cream when finished.

Massage:

- + in small circular motions
- + using gentle pressure with your fingers
- + up and down your scar
- + for 5-10 minutes
- + at least three times a day.

Desensitisation helps you tolerate your scars being touched without discomfort.

- + Rub your whole scar with a soft item such as a tissue for 10 minutes, 3 or 4 times a day.
- + As you feel more comfortable try firmer textures such as a towel.
- + When it is less sensitive, gently tap your scar with your fingers.

If your scar stays hard, raised or very sensitive despite your efforts consult your local doctor.

Some women find putting on or wearing a bra causes discomfort. It is safe not to wear a bra however this can cause other discomfort such as back pain. An old, wire free or 'sleep' bra may be useful, giving support without firm pressure. If this is a major concern, specialist bra shops may be able to assist.

Stockings

If you have been given stockings, continue to use them for two to three weeks after hospital to aid blood flow in the legs. They should be worn during the day when up and about and hand-washed at night. If swelling persists in the legs, use the stockings for longer.

Pain

Each person's experience of pain after cardiac surgery is unique. It can range from easy to ignore to severe. You may have pain or discomfort in your chest, shoulders, back, neck, arms and legs, depending on where your grafts were taken from.

Pain is due to damage to tissues - bone, cartilage, nerves and muscle, and swelling around them. Healing time varies, most people notice pain or discomfort for a month or two. Those who have had arteries from within their chest used to form grafts may experience discomfort even longer.

Any discomfort that limits or restricts your movement, activity or sleep can slow healing and lengthen recovery.

You should feel comfortable enough to move freely, breathe deeply and exercise to the level advised by your physiotherapist.

During your time in hospital your pain has been managed by having regular medication, before it became severe. You are advised continue this pattern.

Pain medications work better when taken spaced out over the day. Simple pain killers such as paracetamol are readily available. Paracetamol comes in many forms (capsules, tablets and soluble) and brand names. You can choose which you take.

When you first go home we advise you to take your pain medication when you wake each morning, before you go to bed and at two other times during the day.

For example:

- + 2 paracetamol at 6am on waking
- + 2 paracetamol at 11am
- + 2 paracetamol at 4pm
- + 2 paracetamol at 9pm before bed.

After a week or so as your discomfort eases you can drop a dose. However, if you become sore or your shoulders and neck ache you will need to return to 4 doses a day for several more days.

- + Stronger tablets require scripts - your local doctor will need to review this. If you are taking stronger medication when you are discharged from hospital, when you believe it is time to reduce your dose you may substitute simple pain killers instead and wean your dose from there.

Once you are totally on simple pain killers you can start dropping a dose.

If at any time your pain is severe or restricts you despite the medication being taken often, you must see your local doctor.

Medications

A pharmacist will instruct you on your medications before you leave hospital. You will be given a list of what you are to take.

Apart from your pain medication, do not increase, decrease or stop taking your medications without discussing this with your doctor.

Avoid over the counter medications.

Consult your doctor with any questions about your medications.

If you have been taking warfarin, your blood tests will need to continue regularly. When you go home, a pathology company will take your blood and advise you what dose of warfarin to take. Please let us know which pathology company is nearest to your home. If you are unable to travel to the pathology company we will arrange for them to visit you at home.

Sexual activity

There are no strict rules on when you and your partner can resume sex. The thought of resuming sex may cause anxiety for one or both partners however.

Physically your heart can handle sexual activity when you leave hospital. Sex is no different to your heart than any other form of exercise, such as climbing stairs or walking briskly. You are able to do whatever feels comfortable for you and your partner. To reduce the strain on your incision and breastbone consider varying positions.

If you or your partner is uncomfortable about sex, try sharing affection in non-sexual ways. It is important to talk to each other about how you feel. Try not to feel pressured.

Rest

You will tire easily for a while. **Rest is just as important for your recovery as exercise.**

After you go home try to increase your activity in stages and rest as you feel you need to. Take time between activities to relax. Don't fall into the trap of avoiding your afternoon nap when you go home as a way of promoting sleeping at night. Plan your day to include two rest periods. When you regain a normal sleeping pattern, you will need this rest time less and less.

Trouble sleeping at night is common – ask your doctor for something to help you sleep.

Visitors

The support of your family and friends is very important after your operation, however you may find visits tiring. Remember your body needs to rest. If you are tiring easily, let your visitors know how long you would like them to stay.

Work

Timing your return to work depends on the type of work you do. If your job is physically demanding it may be up to twelve weeks before you can return. Those with office jobs may be able to resume work within six weeks.

Remember that it isn't just physical recovery that may impede your ability to return to work sooner. Many people find they have a poor memory and are unable to concentrate while they are recovering. Sometimes after physical recovery, time is needed to come to terms emotionally with what has happened. Check with your doctor before returning to your work.

Healthy eating

Healthy eating is an important part of recovery from heart surgery because it assists with improving appetite, energy levels and wound healing while reducing constipation.

Following a modified fat diet after your operation will help to control cholesterol and reduce the progress of blockages in your arteries.

Your sense of smell and taste may be different after the operation. Food may not appeal initially. This may be due to medications used during and after your operation. Usually these senses, and your appetite, will return to normal within a few weeks. Eating small amounts regularly can help improve your appetite.

The Nutrition Services offer a number of resources to assist you in your lifestyle changes. These include a wide range of nutritional literature and individual consultations.

Alcohol

Some medications react with alcohol so you should check with your doctor or pharmacist whether this applies to you. Most people can safely consume two standard drinks a day. You are advised to have two alcohol free days each week.

Standard drinks

- + wine 125mls
- + light beer 250mls
- + spirits 30mls.

Further reading

The Insulted Heart (1996)

April Hershey

Bypass (1995)

Dr Ian Hamilton Craig

Heart Therapy – Regaining Your Heart Health (1997)

A. Maximin, L. Stevic- Rust, L. White Kenyon

Cardiac Rehabilitation Risk Factor Series (1996)

Sydney Adventist Hospital

Follow-up appointments

To keep a record of all your appointments, you may like to fill in this section in before you leave hospital.

Family doctor _____

Appointment Date / Time ____ / ____ / ____ _____ am/pm

Cardiac surgeon _____

Appointment Date / Time ____ / ____ / ____ _____ am/pm

Cardiologist _____

Appointment Date / Time ____ / ____ / ____ _____ am/pm

Cardiac rehabilitation _____

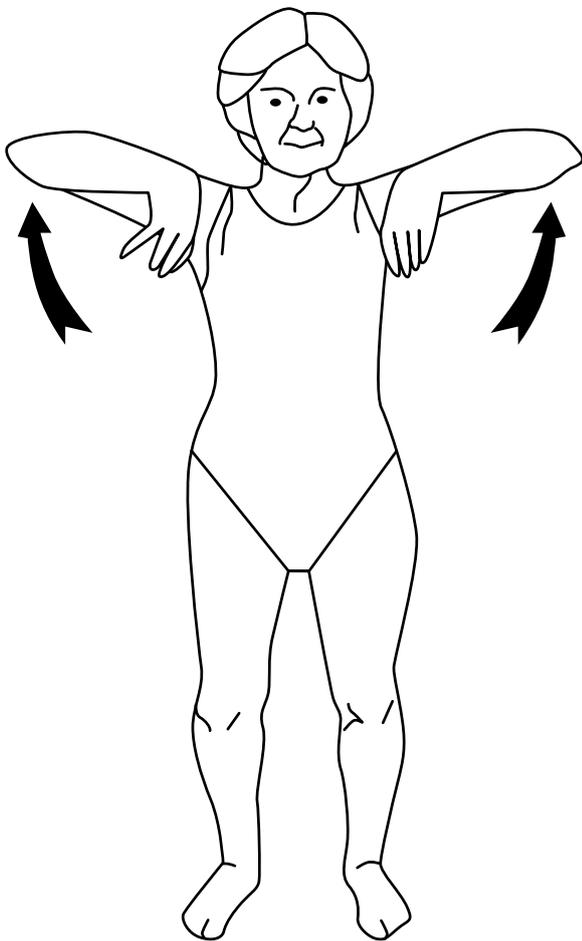
I can start rehabilitation ____ / ____ / ____

Appointment Date / Time ____ / ____ / ____ _____ am/pm

Home Exercises

These exercises should be performed three (3) times a day. Start with five (5) repetitions and build up to ten (10). The exercises should not cause pain, shortness of breath or sternal clicking. Some can be done while sitting or standing. Your physiotherapist may modify your program to suit your individual needs.

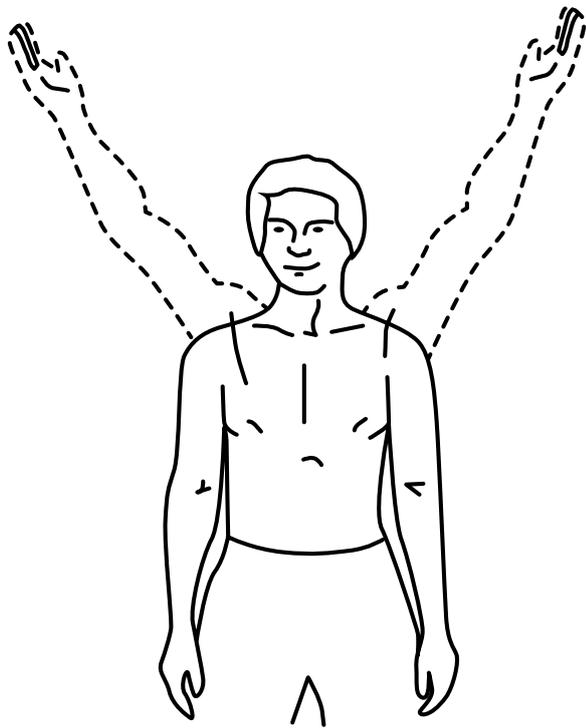
1. Feet apart with hands on shoulders and elbows bent. Raise elbows to shoulder height and lower.



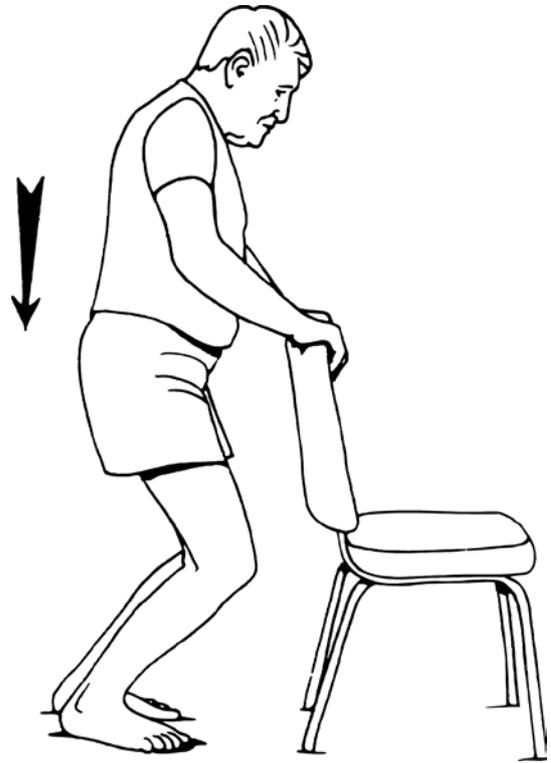
2. Feet apart with hands on shoulders and elbows bent. Rotate your shoulders slowly by making small circles with your elbows.



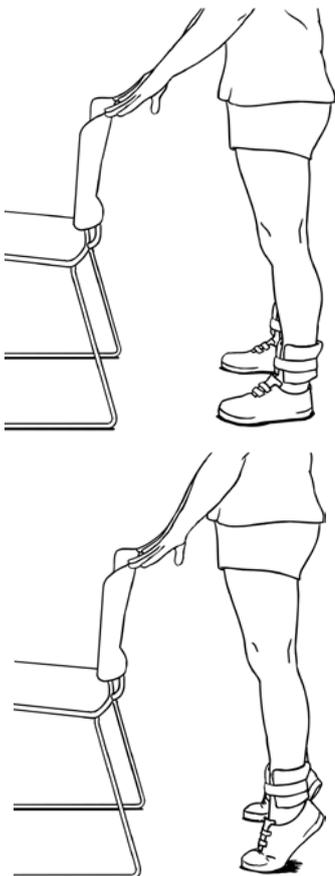
3. Feet apart with arms by your side. Raise both arms to shoulder height, breathing in as you raise your arms and lower.



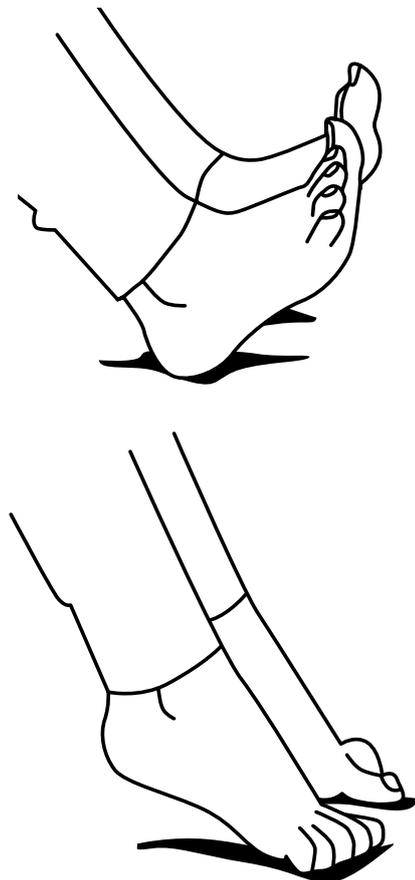
4. Hold onto a firm support. Gently bend your knees. Only go down a short way.



5. Toe raises should be done in sitting position initially then progress to standing. Raise up and down on your toes.



6. Move your feet up and down, pumping your ankles.



7. Seated, extend one leg at a time, straightening the knee fully. Repeat on the other leg.



8. Breathe in deeply aiming to raise up 2 balls and hold them up for 3-5 seconds.



Remember the most important part of physiotherapy after cardiac surgery is walking

This is a guideline only. Your physiotherapist will advise you on how far and how often you must walk each day. Walks should be on flat ground initially.

After each walk you should feel comfortable, not short of breath or tired.

Week 1 short walks, similar to last few days in hospital, 5 mins duration

Week 2 10 mins/2-3 times per day

Week 3 15 minutes/1-2 times per day

Week 4 20 minutes/day

Week 5 25 minutes/day

Week 6 30 minutes/day

Reference list

- A Practitioner's Guide to Cardiac Rehabilitation (1999)** *Australian Cardiac Rehabilitation Association*
- Bypass (1995)** *Dr I. Hamilton Craig*
- Cardiac Rehabilitation Risk Factor Series (1996)** *Sydney Adventist Hospital*
- Cardiac Surgery Information 1st edition (1994)** *The Wesley Hospital*
- Coronary Artery Bypass Graft Surgery 1st Edition (2002)** *Royal College of Surgeons*
- Heart Surgery (1996)** *Heart Foundation*
- Heart Valve Surgery (1996)** *Heart Foundation*
- Heart Therapy – Regaining Your Heart Health (1997)** *A. Maximin, L. Stevic- Rust, L. White Kenyon*
- Looking After Your Scars (1999)** *St George Hospital*
- The Insulted Heart (1996)** *A Hershey*
- Your Life after Coronary Bypass Surgery (1996)** *Dr M. Worcester and Dr A Goble*
- Reducing Risk in Heart Disease (2007) National Heart Foundation of Australia & Cardiac Society of Australia and New Zealand** *G Smith, H Callum, 1993 Reviewed: G Smith, H Callum, C Sullivan, L Smith, S McKellar, J Wilson, C Battley 1999, 2004, 2008 Revised: H.Callum November 2013.*

Disclaimer

This information is intended as a guideline only and reflects the consensus of the authors, at the time of publication. The sources used are believed to be reliable and in no way replace consultation with a Health Professional.

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