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## GUIDELINES FOR WALKING HOME PROGRAMME

Walking is one of the best forms of exercise. Generally the first week at home you are advised to walk the same distance daily that you did during the last day or two of your hospital stay, i.e.

Gradually increase your total walking time by 5 minutes per couple of days if possible. At the end of six weeks you should manage one hour or 3 miles walking per day.

### THERE ARE A FEW DO'S AND DON'TS TO REMEMBER:

- N.B. Walk at a comfortable pace, i.e. a conversational pace.
- Pace your activities to avoid fatigue. Do not over-do it.
- When walking outdoors, avoid hilly areas and uneven surfaces. If possible walk on firm surfaces - e.g. cement not sand.
- Avoid isolated areas when walking. It is advisable to walk with someone rather than walking alone and helps to make the walk a daily discipline. Do not bring a dog on the lead.
- Don't walk or exercise directly after a meal. Digestion requires an increase in blood flow to the stomach. This in return requires an increase in heart rate and an increase in the amount of oxygen your heart needs. You can avoid placing further demands of your heart by avoiding exercises at these times. Allow one hour for digestion.
- If you begin to feel tired, stop walking and find a place to rest.
- Wear comfortable and supportive shoes.
- If you develop chest pain, shortness of breath or an unusual discomfort, stop, take a rest and return home.
- A number of activities which are restricted now may be allowed at a later time. Ask your Doctor specific questions regarding your concerns.



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Information for Patients

**BEFORE AND AFTER  
YOUR OPEN HEART SURGERY**

## BEFORE YOUR HEART SURGERY

Following your admission to the cardiac ward the day before your surgery is scheduled you will have various tests completed and be given information re-your surgery. You will be either in a single or shared room pre your surgery depending on Bed availability.

All patients returning from Intensive Care following their surgery will be allocated a room near the nurses station for closer observations. Therefore to facilitate patients returning on a daily basis from Intensive Care we tend to move people to different rooms as they are getting better. So it is not unusual to move rooms a few times during your stay.

The nurse looking after you on admission will go through details of your medical/social history for the nursing records. This will include getting contact numbers for emergency contact of family or friends. The phlebotomist or House Doctor will take some blood samples from you. You will also be required to have a Chest X-Ray and an ECG. A hospital attendant will accompany you to the Departments for these procedures. If you are transferred from another hospital - some of these tests may not need to be repeated.

Your nurse will need to check your weight, height, temperature, blood pressure and pulse rate. These are all used as base levels prior to your surgery. A urine sample is also checked to make sure there is no infection present. A nasal and throat swab are also taken to ensure that no infection is present.

We check a blood oxygen level to ensure that the same level is achieved post-op. This is done by placing a probe on the tip of your finger. These levels will be done quite frequently after your surgery. We measure your legs for anti-embolic stockings as they may be required post surgery. The leg that the vein is taken from sometimes becomes very swollen and may remain so for a few weeks. If so it is advised to wear a stocking on the leg



## PHYSIOTHERAPIST:

The physiotherapist will talk to you about your surgery and your time in intensive care. She will identify any pre-existing or potential chest or mobility problems. Instruction will be given in breathing exercises, coughing techniques and chest wound support, in an effort to prevent chest infections after the operation. She will demonstrate how to get in and out of, and move around the bed. Initially, you will see the physiotherapist twice a day, but this will reduce to once a day as your mobility improves. Prior to discharge she will do the stairs with you and discuss your home walking programme and some general “do’s and don’t’s”.

## RELIGION

If you wish to be seen by a minister of religion, you will have the opportunity prior to your surgery.

## SHAVING/SHOWER

Gentlemen for bypass surgery need to have their chest, arms and legs shaved prior to surgery. This will be carried out by the attendant on duty. For heart valve surgery - the chest only requires shaving.

Ladies need their legs only done. Your nurse will help you with this if unable to do so yourself.

The leg shaving is required to facilitate removal of some vein to use for the bypass grafting. If you have varicose veins in either legs it may not always be possible to get suitable vein from legs. Often it is necessary to take some vein from one of your arms. This is generally decided on the evening prior to surgery by the doctor.

Once the shaving procedure is completed you are required to have a shower using a special antiseptic lotion called Hibiscrub which must be used as a soap and shampoo. Once your shower is completed your nurse will “paint” your chest, arms and legs with the hibiscrub lotion. This is left to dry on your skin. You then put on your pyjamas/nightdress. The shower and skin painting is repeated the morning of your surgery and then you put on a theatre gown.

## ANAESTHETIST

The Anaesthetist that will be putting you to sleep will visit you the evening prior to your surgery. He/she will ask you about any previous anaesthetics you may have had. Also tell him/her of any allergies that you may have. He will chart you for some night sedation to ensure you get a good nights sleep prior to surgery, also for a premedication which will help relax you the morning of surgery.

Do not be afraid to discuss any fears you may have with the anaesthetist.

## HEART VALVE SURGERY

When possible, your own heart valve is repaired. More often, it is necessary to replace the damaged valve. This is done with an artificial or tissue valve. Some people feel better right after surgery since their symptoms are relieved. For most, however, it is several months before they feel the benefits of heart valve surgery. It takes time for the heart to recover from the extra work it was doing before surgery. For this reason, your doctor may ask you to keep taking medications, follow a special diet and limit your activity.

Have your nurse or physician fill in the type of valve used in your surgery and circle its placement in the heart.

You have a \_\_\_\_\_ valve placed in the  
(type)

\_\_\_\_\_ position.  
(location in the heart)

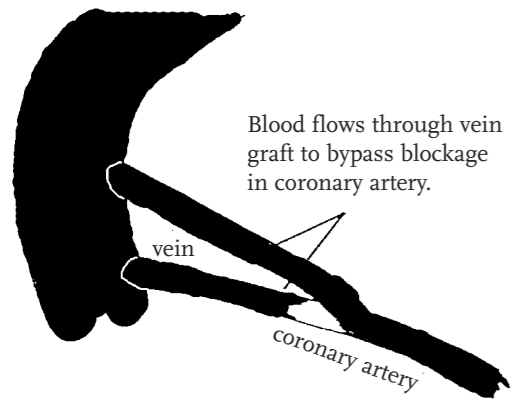
## PREVENTION OF BACTERIAL ENDOCARDITIS

Infection of the inner heart lining (endocardium) or valves is called bacterial endocarditis. It can occur when bacteria enter the bloodstream during dental work, surgery, procedures, infections or through self-injection of drugs.

Some people seem to be in a high risk group for this infection. They are people with congenital heart defects, heart structures altered by rheumatic fever or infection, and those who have had heart valve replacement or repair. Since bacterial endocarditis can scar or destroy heart valves, care should be taken to avoid it. Taking antibiotics before and often after certain procedures may reduce your risks. Ask your doctor about antibiotics before having any of these:

- All dental work  
routine cleaning; filling or removing teeth; gum work; root canals or treatment of mouth ulcers;  
Oral infections and dental work are common sources of bacterial endocarditis. To reduce bacteria in your mouth, clean and floss your teeth daily.
- Any major surgery
- Minor surgeries such as;  
drainage of abscesses, tonsillectomy, appendectomy, prostate surgery and, in some cases, childbirth.  
procedures which cause trauma to body tissues:  
bladder exams; some rectal exams

Call your doctor if any symptoms of an infection appear. These can be fever, sweating, loss of appetite, weight loss or an overall lack of energy.



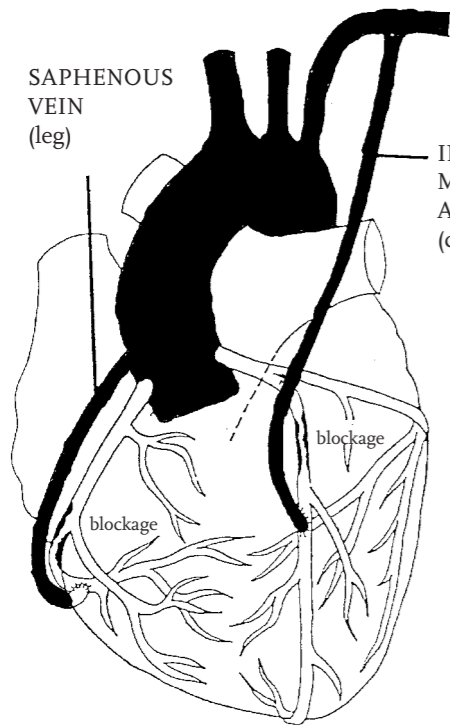
Blood flows through vein graft to bypass blockage in coronary artery.

## OPEN HEART SURGERY

When normal heart function is upset either by coronary artery disease, valvular heart disease, or an atrial septal defect, "open heart surgery" may be necessary to correct the problem.

The term "open heart surgery" refers to any surgery in which the heart-lung or bypass machine is used. This machine acts for the heart and lungs during surgery on the heart. It allows the heart to be at rest, blood goes from the heart to the machine where it is cleaned, oxygenated and pumped back to the body. When this part of the surgery is finished, the heart gradually resumes the work of pumping blood throughout the body.

Although one or more bypass grafts have been used to improve blood flow to the heart muscle, you still need to reduce your risks for coronary artery disease. This will be important until we know the exact causes of fatty buildup in the arteries.



Ask your nurse or doctor to fill in the location of your bypass graft(s)



## CORONARY ARTERY SURGERY

Coronary artery surgery is done to bypass a blockage in one or more coronary arteries. The bypass restores blood flow to the heart muscle to relieve angina and improve heart function. Part of a leg vein (saphenous vein) and in some cases an artery from the chest (internal mammary artery) can be used for the bypass graft. The type of graft used depends on many things such as the number and location of your blockages.

When a leg vein is used, one end is sewn to the aorta and the other end to the coronary artery below the blockage. removing part of a leg vein will not change the circulation in that leg or your ability to walk.

If an internal mammary artery is used, one end is left attached to a branch of the aorta. The other end is sewn to the coronary artery below the blockage. With either bypass, oxygen-rich blood flows from the aorta (main artery) through the graft to the heart muscle.

Although one or more bypass grafts have been used to improve blood flow to the heart muscle, you still need to reduce your risks for coronary artery disease. This will be important until we know the exact causes of fatty buildup in the arteries.

## VALVULAR HEART DISEASE

Heart valves are normally thin, smooth structures which direct blood flow through the heart's chambers. These valves can be changed by such things as birth defects, infection, rheumatic fever, or scarlet fever which can lead to scarring or thickening. This scarring or thickening makes opening of the valve more difficult (stenosis) or prevents closure (insufficiency). When valves fail to open and close properly, the heart has to work harder to pump blood to the body. After a number of years, this extra work may produce heart strain or failure.

Problems are more severe if the defective valves are on the left side of the heart (aortic and mitral valves) since these valves regulate blood flow through the main pumping chamber. Occasionally, medications improve the heart's efficiency and relieve the strain or failure; however, heart surgery is frequently necessary to improve the situation.

## SURGEON

Your surgeon will visit you also on the evening prior to your surgery. He/she will talk to you about the time of your surgery and will also answer any questions. He/she will usually talk to a member of your family following your surgery either in person if they are in the clinic or by telephone.

Your surgery normally takes between four and six hours from the time you leave the ward until you return to ICU.

The average time spent in Intensive Care is about 2 days. Depending on your progress it may be less or may be more. Some of the commoner things that can delay your progress in ICU or on the ward are;



- a) **Chest infections** - these are common in people that have smoked in the past or still are smoking at the time of surgery. The advice you get from the physio is very important in this situation as it can be very sore trying to do deep breathing. Adequate pain relief is always given. Intravenous antibiotics are given for the first few days and where necessary are continued in tablet form.
- b) **Confusion** - this can be a problem with elderly people post anaesthetic or more often we see it with people that are accustomed to taking a drink or two on a regular basis or those that have a history of heavy drinking. Alcohol related confusion is fairly specific to open heart surgery because of the length of anaesthetic and time on bypass. It is very important to be clear and truthful to the anaesthetist about the amount of alcohol you have per week/night as then specific drugs may be used to prevent confusion occurring. This type of confusion can be very frightening for both patients and relatives so you can imagine the importance of relating the relevant information to the anaesthetist.
- c) **Clots** - can be a problem following surgery if mobility is not good. Therefore we encourage early mobility. You are normally taken for a short walk on your 2nd day after surgery. From the time you are back on the ward you are mobilised several times per day with the physio or nurse for the 1st few days. You will then be mobilising on your own more and more.
- d) **Wound infections** - some people are more susceptible to getting wound infections than others. People in this category would be
  - i) Diabetics
  - ii) Elderly people
  - iii) People that have been hospitalised for a longer time
  - iv) Smokers
  - v) People with circulatory problems
  - vi) Poor nutrition.
  - vii) We do our best to prevent any type of infections. If it does occur we commence immediate treatment and try not to delay your hospital stay. Steroids - if you are on long-term steroids.
- e) **Atrial Fibrillation** - Fast heart rate - this is quite common following heart surgery. It usually settles with medication after a few days and this medication is usually discontinued at your six week check with your surgeon. A - fib can be a very frightening experience for the patient as they feel their heart pounding so fast - so be re-assured it is not an unusual happening.
- f) **Nausea** - This is not unusual in the first couple of days post-operatively. This is treated with medication and usually settles fairly quickly.
- g) **Constipation** - This is treated at an early stage.
- h) **Nightmares** - "Bad Dreams" can occur following surgery for up to a week before disappearing.

## WOUNDS

The sternum (breast bone) is wired together. These wires remain in place indefinitely. Stitching is also done internally so there are no sutures to be removed prior to discharge. It is the same for the leg/arm wound - the stitches dissolve.

If you are having your surgery for the second time you will have sternal sutures for removal.

## HOSPITAL STAY

The average hospital stay is between seven and ten days depending on the consultant and the progress you make.

Convalescing may be an option for you. Your insurance will cover you for up to two weeks in a nursing home. Please ask your nurse to give you a list of them if you are considering it as an option as bookings need to be made several days in advance of your discharge date. It is also valuable to have enquiries made re: convalescing prior to your admission.

## AFTER YOUR HEART SURGERY

Now that you have had your heart surgery, your recovery is well under way. You may be thinking about going home, and have many questions: "When can I drive?", "Will I be on a special diet?" or "When can I have sex?" This book will answer some of your questions. It will tell you what you can do after open heart surgery. Also, it will review many of the things you learned about your heart and the surgery itself.

Talking about your surgery with others can be helpful. Just remember that each person's experience is different. The medicines, activities and rate of recovery depends on the type of surgery you had and how active you were before surgery. It also depends on your progress since surgery.

The information your doctors and nurses give you and this book can help you towards a smooth recovery.



THE HEART TEAM

## GETTING HOME

On the day of discharge, plan your activities to include as much rest as possible. Since the excitement of going home can be very tiring, you may even need to plan for a nap when you arrive home. In addition, you may want to ask a nurse for pain medication just before you leave the hospital.

## CAR

There is no need to go home in an ambulance. Travelling by car is best because you can stop frequently to take a walk or rest. Your family may want to bring a pillow and blanket so that you can lie down in the back seat. In addition, loose clothing is more comfortable to travel in than pyjamas.

## AIRPLANE

If you go home in an airplane, it must have a pressurised cabin, and you should make prior arrangements for assistance with your luggage and transportation at the airport.

## GETTING BACK TO NORMAL

After major surgery, such as heart surgery, the time for recovery may seem to pass slowly. Your body has been slowed down by the decrease in activity, lack of good sleep, medications and surgery itself. You may feel drained, physically and emotionally.

## YOUR BODY

Normal recovery from heart surgery is 4 to 6 weeks. During this time, you begin to strengthen your muscles and return to your usual activities.

Once you are home, start your activities at the same pace you started them in the hospital. Increase them gradually each day. Others in your family may want to overprotect you and keep you from doing what you can do. You can help them by sharing this book and letting them know how much activity you can pursue.

Use common sense. Set realistic goals for yourself. You don't want to overdo it, but you don't want to be totally inactive either. Rest when you are tired, and change an activity if it is making you very tired. Doing too much at this time will not injure the heart. It will, however, cause a lot of fatigue.

## CORONARY ARTERY DISEASE

As the years go by, the coronary arteries may be affected by atherosclerosis, commonly called "hardening of the arteries". In atherosclerosis the inner lining of an artery is thickened and made rough by deposits of cholesterol and other body fats. The passageway is narrowed like rust buildup in a pipe, and blood flow beyond the blockage is decreased.

Cardiac catheterization is a special dye test to study the coronary arteries. It shows the severity and exact location of the blockage. If the test shows critical narrowing of these arteries or if the symptoms of angina cannot be controlled with medical therapy, the physician may recommend coronary artery bypass surgery.

## ANGINA

When blood flow to the heart is less than the demand, angina can develop. Angina is the heart muscle's complaint of inadequate oxygen, and it occurs when the work of the heart is increased by:

- excitement
- exercise
- walking fast
- or eating a large meal.

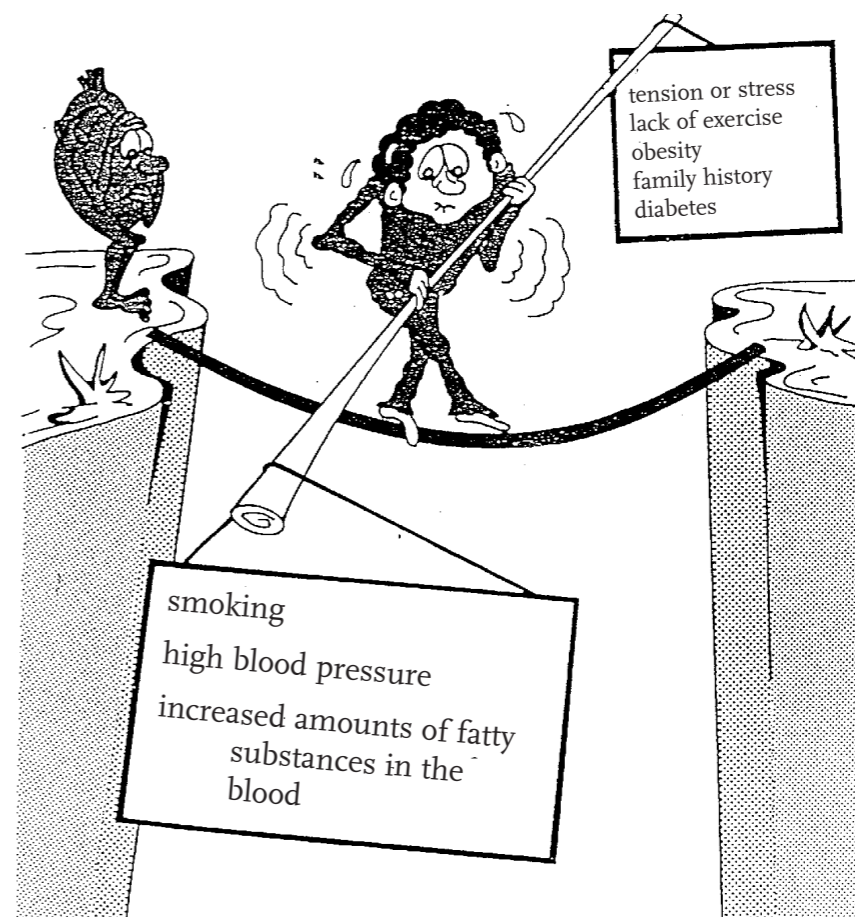
Angina may also occur when you are at rest. The feelings that go with poor circulation are passed along the spinal column to the brain and may trigger any nerve along the path. Therefore, the feelings of angina vary greatly from person to person. They may be described as:

- indigestion
- tightness
- fullness
- numbness or tingling in any part of the arm
- choking
- pains in the jaw, teeth, ear lobes
- discomfort in the neck, or between the shoulder blades

Many people have angina that is well controlled by medications and modification of certain activities. When angina cannot be controlled by medications or modification of activities, coronary bypass surgery may be recommended.

## RISK FACTORS

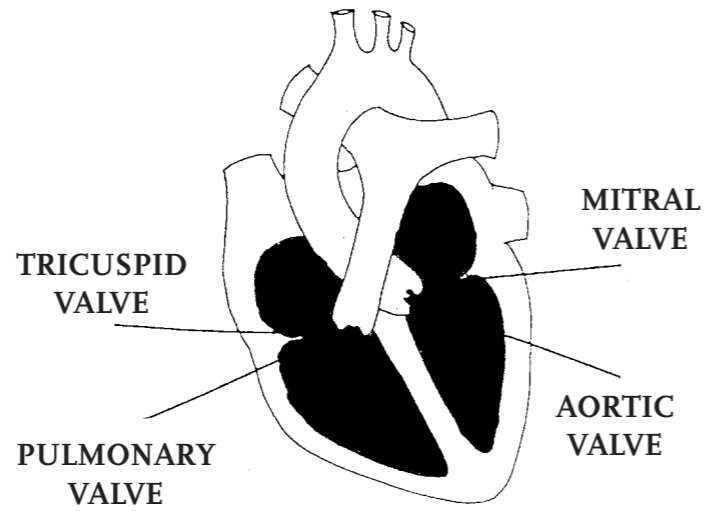
We do not yet understand the cause of coronary artery disease and why atherosclerosis develops in the coronary arteries. However, the following risk factors do seem to increase the chance a person has of getting coronary artery disease.



## MORE ABOUT YOUR HEART

Now that you have reviewed the various recovery activities, this section will give you a review of normal heart function.

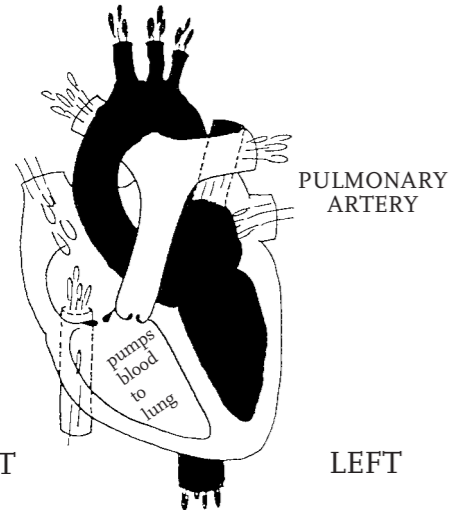
In addition, it will help you understand what happens when disease conditions affect or damage the heart and the various types of heart surgery that are recommended to improve heart function. With this understanding, it then makes sense to take medications as prescribed, follow a special diet if necessary, and get the proper amount of rest and exercise.



## THE HEART AND ITS CHAMBERS

The heart is a hollow, muscular organ that pumps blood, rich with oxygen and nutrients, to all parts of the body. It lies in the centre of the chest, slightly to the left and is protected by the breastbone (sternum) and rib cage.

The heart is divided into four chambers. Two upper chambers (atria) receive blood from the veins. Two lower chambers (ventricles) pump blood out of the heart. Four valves in the heart act as one-way doors to direct blood in a specific pattern. A wall (septum) divides the heart into a right and left side.

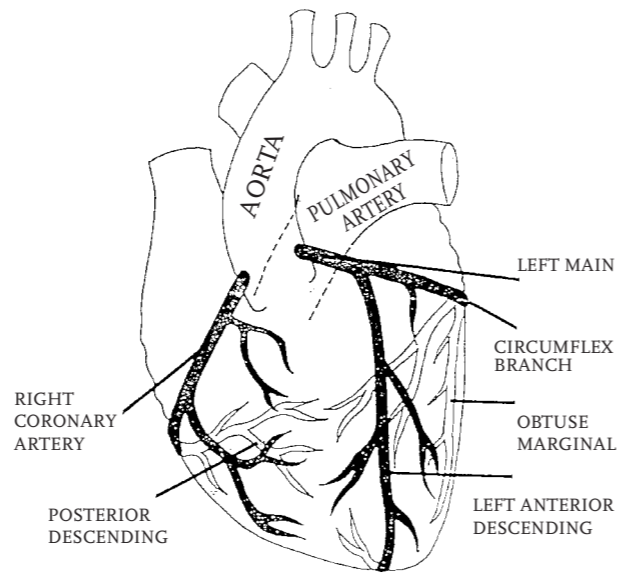


## THE RIGHT AND LEFT SIDES OF THE HEART

The **RIGHT SIDE** of the heart receives blood from the body and pumps it to the lungs. This is the path the blood follows: veins ' right atrium ' tricuspid valve ' right ventricle ' pulmonary valve ' pulmonary artery ' lungs.

The **LEFT SIDE** of the heart receives oxygen-rich blood from the lungs and pumps it throughout the body. This is the path the blood follows: lungs ' left atrium ' mitral valve ' left ventricle ' aortic valve ' aorta ' to all parts of the body.

This cycle is repeated about 70 times per minute and is counted as a pulse.

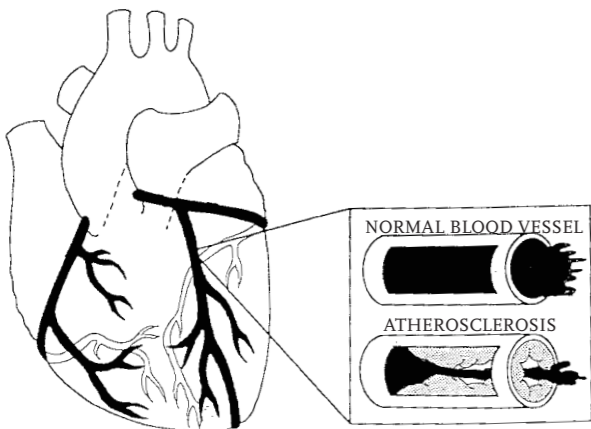


## THE CORONARY ARTERIES

The heart, like all other organs, requires energy and oxygen to perform its work. The heart muscle is nourished by a system of arteries which originate from the aorta: the right and left coronary arteries.

These two main arteries lie on the surface of the heart and divide into smaller branches so that every portion of the heart is supplied with nutrients.

The left coronary artery has a short beginning portion called the left main. It divides into the left anterior descending branch which nourishes the front of the heart muscle and the circumflex which carries blood to the back of the heart. The right coronary artery nourishes the right side of the heart and has branches which extend to the back.



## YOUR EMOTIONS

Your emotions are also affected by major surgery. A lot of energy is used to cope with fear and anxiety. Then, after surgery you sometimes have a "let down" or depressed feeling.

You may express your emotions more than usual. You may become tearful or cry. Sometimes you may be irritable. Some people have the same dream over and over. Others experience a loss of memory or concentration.

These may go on after you get home, but they usually go away by the end of your recovery (4 to 6 weeks). Try not to let these emotions or events embarrass or worry you. They are normal after surgery and should not interfere with your progress.

## BATHING

Tub baths and showers are permitted when the incision is healed.

## TUB

At first you may be weak and getting in and out of a tub may be difficult; therefore, have someone nearby to help you if necessary.

## SHOWERS

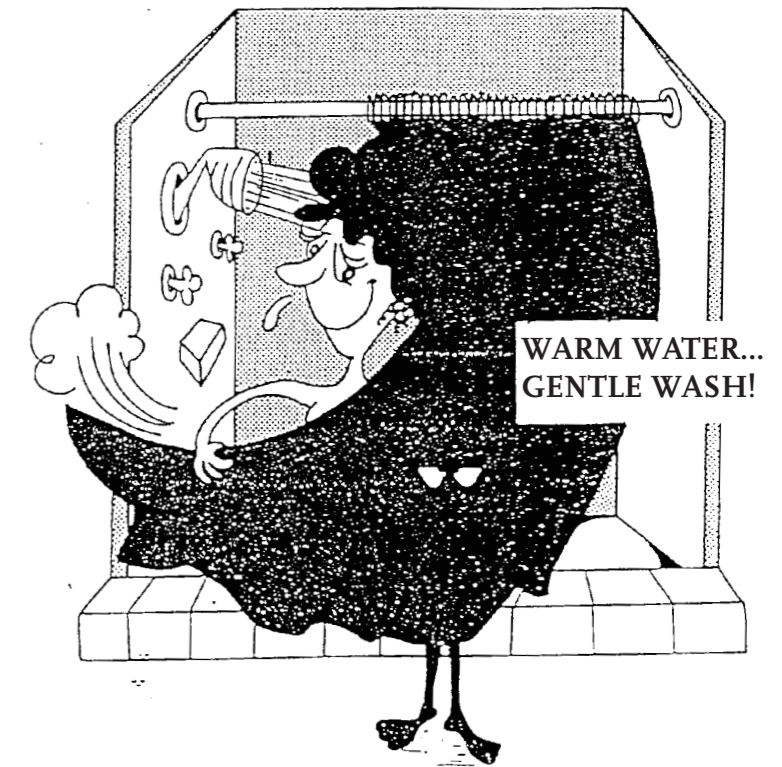
If you prefer a shower, you may want to place a well-secured stool in the shower stall until you feel stronger.

In either tub or shower, avoid extremely hot water. It may cause you to feel dizzy or weak. Wash your incision gently with soap, but do not scrub it. If adhesive strips have been placed on your wound, you should remove them 4 to 5 days after discharge from the hospital.

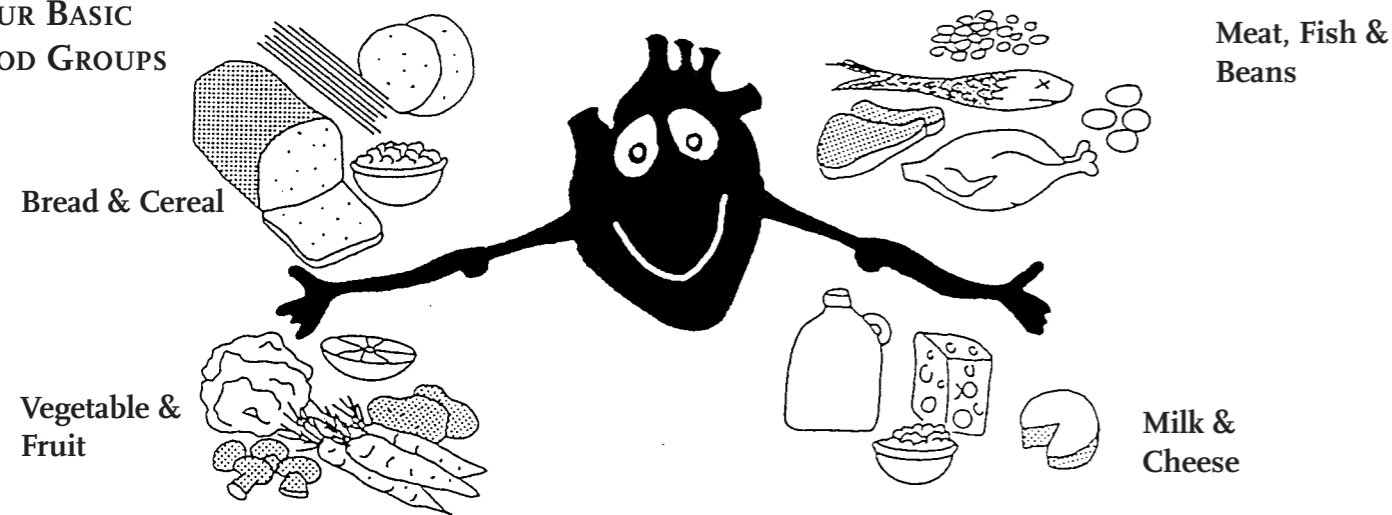
## DIET

It is normal for your appetite to be down after surgery. It will pick up as you begin to recover. If a special diet has been recommended by your doctor, talk with your nurse or dietitian about it before you go home. The name of your special diet can be written here: \_\_\_\_\_

Not everyone is placed on a special diet after open heart surgery. If no special diet has been ordered for you, the information here can guide you to balanced eating which speeds healing and lessens fatigue. In addition, the practice of weight control is important in reducing the work of your heart even after recovery.



## FOUR BASIC FOOD GROUPS



## BALANCED EATING

No one food provides all the nutrients needed by the body; therefore, each day you should eat a variety of fruits, vegetables, whole grains, breads, meats, and dairy products. Unfortunately, there are many opinions about what to eat. However, it's commonly thought that cardiovascular fitness is improved if you combine a diet of the following with your doctor's recommendations about exercise and weight control.

<b>Eat more:</b>	fresh fruits and vegetables	<b>Eat less:</b>	saturated fats
	whole grains		sugar
	low-fat foods		salt and sodium
			alcohol

Reducing undesirable foods in your diet is easier if you do not buy foods containing large amounts of fats, sugar, salt, and sodium and by changing the way you prepare your foods.

Changing the way you cook and eat:

- Bake or broil. Don't fry.
- Steam vegetables. Season after cooking.
- Season foods with dried or fresh herbs, fresh lemons, garlic, onion, or ginger.
- Limit servings of red meats and egg yolks to 3 or less a week.
- Skin all meat and trim away excess fat before cooking.
- Don't add salt at the table.
- Drink skim milk instead of whole or 2%.
- Cook with vegetable oils\* instead of butter or animal fats.
- Drink alcohol in moderation.
- Read all food labels for sugar, salt, sodium, or hydrogenated fats.

For some people, caffeine in coffee, tea, and colas causes the heart to beat faster. If you experience this, change to a brand of caffeine-free coffee, tea, or cola. For additional help in planning balanced, low-fat, or low-salt meals, there are cookbooks available at major bookstores.

## DRINKING



If you enjoy a drink or two before or during your evening meal or at bedtime, you may continue to do so after surgery. However, during your recovery period you should limit the amount of alcohol to 1 1/2 to 2 oz. a day. This amount would include: two 12 oz. beers or 2 oz. of whiskey or 6 oz. of wine.

Alcohol increases the effect of tranquilizers, sleeping pills, or pain medications; therefore, if you are taking these types of medications, do not drink. Avoid brandy during this period as it may cause palpitations.

## VISITORS

### *"And after my last surgery..."*

Visitors mean well. They care about you and want to see how you are doing. However, too much "visiting" can be very exhausting and interfere with your recovery.

Therefore, during your first 2 weeks at home, discourage visits from your relatives and friends. Generally, two visits per day is enough. Let them know that rest is an important part of your recovery, and do not hesitate to excuse yourself from company when you feel tired and need to rest.

## VISITS TO YOUR PHYSICIAN

Call your local physician when you get home. A report of your operation and progress will be sent to him, and he will usually make an appointment to see you within 2 weeks.

An appointment may be made for you to see your surgeon or cardiologist in approximately 6 weeks. If any symptoms return that concern you, call your local physician. If you cannot reach him, do not hesitate to contact your surgeon or cardiologist.

## WALKING

Immobility or bed rest can cause such things as low back pain, shoulder pain, stiffness, and depression. Walking can help you get rid of these feelings by improving your circulation, muscle tone, strength, and the way you feel about yourself. Walking is a form of reconditioning, and it should be done daily with a gradual increase in distance and speed.

- Take several short walks with rest periods in between rather than one long walk.
- At first, avoid temperature extremes such as hot summer afternoons or rainy, winter days. These can increase your fatigue.
- It is easier to begin walking on flat surfaces such as those found in shopping malls, on athletic tracks, or perhaps in your neighbourhood.

## WEIGHT

Weigh yourself daily if you have had a problem with fluid retention since surgery or if you are discharged on a low-salt diet or diuretic (water pill) such as Lasix. A weight gain of 2 to 3 pounds in one day is due to fluid rather than fat.

- Weigh first thing in the morning after you urinate
- Wear the same amount of clothing each time you weigh
- Keep a daily record of your weight

## WORK

Usually the decision of when to return to work is made after your 6 weeks checkup. This decision depends on the type of work, the demands of your particular job, your level of physical stamina, and other medical information obtained from your check-up. It would be wise not to make any major changes in your work or plans for retirement until your recovery is complete.

- Don't set yourself up for failure by dwelling on thoughts of never smoking again or thinking that one little smoke won't matter. Take one day at a time.
- Get plenty of rest. People are more likely to smoke when tired.
- Learn to do things with your hands, like puzzles or needlepoint. Learn relaxation techniques.
- When you go into situations in which you are tempted to smoke, chew sugarless gum or play with a paper clip or marble. If your hands and mouth are busy, you will be less likely to light up.
- Watch out for high calorie nibbles. People often gain weight when they quit smoking because they eat to fill the oral needs once satisfied by a smoke. In addition, don't linger at the table after a meal.
- Don't talk about quitting so much that you begin to crave a smoke.
- Encourage family members who smoke to quit with you. If they don't want to quit, ask them to step outside or into another room when smoking. Ask friends not to smoke in your house.
- Maintain a clean mouth taste by brushing your teeth after eating and using mouthwash.
- Avoid coffee, alcohol, or other beverages associated with smoking.
- If you can't quit alone, there may be community groups in your area such as cancer, lung or heart associations which are designed to help people quit smoking.

## STAIRS

There is no reason to avoid stairs; however, climbing stairs does require more energy than walking. Take your time and go slowly. Initially, it may be less if you organize your day so that you go up and down stairs less frequently. However, if you have an upstairs, bedroom, there is no need to change where you sleep.

If you become tired, short of breath or dizzy, sit down and rest.

## STERNUM

Your primary restrictions after surgery relate to the healing of the sternum. This bone is held together by wires. You can't feel these wires, and they do not have to be removed; however, they do show up on X-rays.

As mentioned, it takes 4 to 6 weeks for the sternum to completely heal which is similar to the healing of a broken arm or leg. During this healing period, you may notice a slight clicking or movement on the breastbone when you breathe or turn. This is because the sternum is slightly unstable; however, this sensation should disappear in 4 to 12 weeks.

## SUPPORT STOCKINGS

Support stockings may be recommended to improve circulation and to minimize fluid accumulation in your legs during the initial recovery period when you are less active.

Continue to wear them your first few weeks at home or until your activity is back to normal.

A family member should help you put them on to avoid unnecessary strain or discomfort to your incision. The stockings will go on easier if powder is put on the leg.

Be sure to get all wrinkles out of the stockings so that pressure areas are avoided.

When sitting, avoid crossing your legs. Crossed legs put pressure on the areas behind your knees and decrease blood flow in the legs.

If you have a problem with swelling of the legs,

- continue to wear stockings
- elevate your legs when sitting
- try to avoid standing for long periods of time

## DRIVING

Avoid driving a car for approximately 4 to 6 weeks after surgery, since your reaction time will be slowed due to weakness, fatigue, or medication.

It takes 4 to 6 weeks for the sternum (breast - bone) to completely heal together. If you were in an accident, there would be a chance of hitting the steering wheel and reinjuring the sternum. Other activities which could cause reinjury include riding bicycles, motorcycles, horses, lawn mowers, and tractors. These activities should also be delayed for 4 to 6 weeks until the breastbone heals.

You can travel in a car but extended automobile trips should be delayed until your return visit to the surgeon. When travelling, stop every one to two hours and walk around. This will improve circulation in your legs and help prevent swelling.\*

**N.B.** Wearing a seatbelt is a must at this time.

## HOUSEHOLD CHORES

You should not expect to resume total responsibility for household duties, care of children, or meal preparation until after your 4 to 6 weeks medical checkup or your physician gives you permission.

During the first 2 weeks at home, when you are stronger, you may feel like:

- setting and clearing the table
- minor household repairs
- dusting furniture
- potting plants

Activities such as vacuuming, moving furniture, weeding, raking or mowing the lawn, gardening, mopping, lifting, and carrying items weighing more than 10 lbs. put stress on the breast bone and require more energy. Therefore, these activities should be avoided until healing has occurred and energy levels are normal, or until allowed by your physician. In addition, any activities that are extremely tiring or cause discomfort to your incision should be delayed during recovery.

## INCISIONS

In just a few weeks your incision will look better than it does now. During the first weeks after surgery, however, you may notice some itching, redness, numbness, or soreness. Things like changes in the weather, too much or too little activity, and sleeping in one position too long can cause this soreness. Sometimes soreness is felt in the back and shoulders. In addition, you may notice a swelling or lump at the top of your chest incision which could take several months to disappear. These things are not uncommon, and they gradually disappear.

For relief from incisional discomfort, many people apply a heating pad on LOW for 20 minutes 4 times a day and take a medication like panadol/solpadeine to relieve soreness. In addition, you should move your head and neck muscles normally and maintain good posture without letting your shoulders slump forward.

**Excessive swelling?  
Tenderness? Drainage from any incision?  
CALL YOUR DOCTOR**

## LIFTING

It is best not to lift anything heavier than 10 pounds since this puts strain on your sternum. This includes carrying things such as:

- |              |  |
|--------------|--|
| ■ suitcases  | ■ groceries                                  |
| ■ children   | ■ large pocketbooks                          |
| ■ briefcases | ■ for 4 to 6 weeks from the time of surgery. |

In addition, do not:

- |                         |                        |
|-------------------------|------------------------|
| ■ open stuck windows    | ■ unscrew jar lids     |
| ■ push open heavy doors | ■ move heavy furniture |

**YOU WILL FEEL IT IF YOU TRY.**

## MEDICATIONS

Most patients need medication while they are recovering from open heart surgery.

In addition, you will receive prescriptions for pain and sleep. It is best to have these prescriptions filled at your local pharmacy so that you can have them easily refilled if necessary.

Know the following about your medications:

- their name
- purpose
- side effects
- amount to take
- when and how to take

If, after you leave the hospital, you need to have these explained again, ask your pharmacist when you have the prescription filled.

Do not increase, decrease, or stop the amount of your medication without your physician's advice.

If you happen to skip a pill, don't take two the next time. Your medications are especially prescribed for you and may be harmful to someone else. Do not offer them to anyone. Medicine may produce an allergic or unanticipated reaction. Rash, fever, jaundice, severe bruising, vomiting, and diarrhoea are some of the possible reactions. Contact your physician if you develop any of these.

Keep all medicines away from children.

Some medications become outdated and may be useless or even harmful. If your medicine is more than several months old, ask your pharmacist if it is still good.

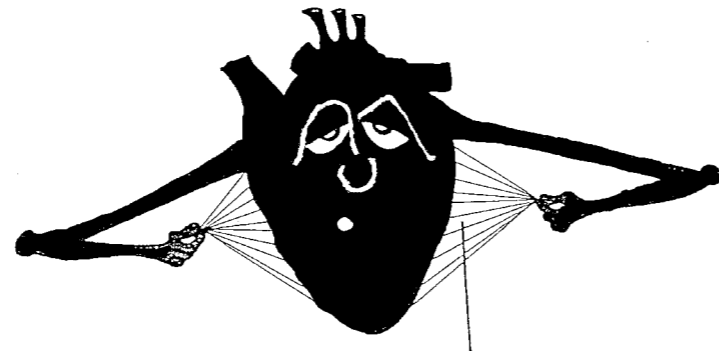
Keep your medicine labelled and in its own container. Include the name and dosage.

**TAKE MEDICINE ONLY AS PRESCRIBED.**

## PERICARDITIS

The heart has a thin lining (sac) around it called the **pericardium**. Normally, a small amount of fluid is present in the pericardial sac, and the heart moves easily within it. Frequently after heart surgery, the thin sac around the heart becomes inflamed or sore. This is called **pericarditis**. You may notice discomfort in your chest, shoulder, or neck which may vary from mild to severe soreness. It is usually increased by deep breathing, coughing, or lying down; however, this only represents irritation to the sac. Sometimes a "rub" or "squeak" can be heard while the doctor or nurse is listening to your heart sounds. This does not mean that the heart muscle is damaged or that there is an infection.

The usual treatment for pericarditis is Aspirin, anti-inflammatory drugs, or steroids to reduce irritation and relieve symptoms. Usually the discomfort goes away in a few days, and the medication can be discontinued within several weeks when the inflammation disappears.



PERICARDIUM

## RECREATION

Once you are home and feeling stronger, you may enjoy dining out, going to a movie, getting your hair styled, or making short shopping trips. Remember, however, that you have been less active for some time, and as with any exercise or work, you must **recondition yourself gradually**. Pay attention to how you feel. You will be the best judge of when it is time to rest or engage in the activities your doctor recommends.

When you first get home, you may enjoy activities such as:

- playing cards
- attending the theatre
- fishing from a bank or bridge
- golf - putting practice

- wading - lake, pool, or calm ocean
- needlework
- oil painting
- sunbathing - avoid overexposure
- croquet
- photography
- spectator sports - when you realize that you don't get tired in large crowds

After you have returned for a 4 to 6 weeks checkup, your doctor may recommend more physically demanding activities such as:

- playing a full game of golf
- playing tennis
- fishing from a boat
- hunting
- swimming
- horseback riding
- jogging

## REST

During the initial recovery period, your body considers all activity as "work". Therefore, routine activities such as bathing, shaving, or brushing your hair can be tiring. This simply means you need more rest during this time. For example:

Plan two 20-30 minute rest periods each day during the first week or two at home. It isn't necessary to go to bed, just rest. Space your activities with rest periods to avoid extreme fatigue.

Try to get 8 to 10 hours of sleep each night. Avoid staying up late one night and trying to "catch up" the next. If you must stay up late, take a nap earlier in the evening. Look at your improvements one day at a time, and try not to get discouraged during this initial period of recovery.

## SEX

Just about everybody worries about having sex after open heart surgery. This includes both the person who had the surgery and the partner who did not. Will we injure the chest or breastbone during sex? Will sex leave me exhausted, and is this good for my heart? These are normal things to consider but not worry about. If you feel good and are rested, then sex should be possible and enjoyable after surgery as it was before. Therefore:

- If you are tired and tense, treat sex as you would activities. Wait until you feel better.
- If you find that certain positions cause discomfort to the chest area, try different ones.
- If you feel uneasy about resuming sex, allow more time for hugging, caressing, and getting to know each other again. You may simply need to overcome the physical distance created at times by the surgery.

**CAUTION: Pregnancy should be avoided until recovery from surgery is complete. Since pregnancy puts an added stress on all body systems, some physicians advise waiting at least 1 year. In some cases, it should be avoided altogether. Because certain contraceptives are not advised for heart patients and because pregnancy is not advised for some patients, all family planning should be discussed with your physician before you leave the hospital.**

## SMOKING

For a few, your surgery forced you to stop smoking. Now, it's very important to continue NOT SMOKING. Studies have shown that smoking increases heart rate, narrows blood vessels, raises blood pressure, scars the lungs, and causes spasms of the coronary arteries. If you have smoked for years, it will be difficult to stop; however, even if you have smoked for years, quitting now is more beneficial to your heart than not quitting.

The following guidelines may help you achieve this important goal.

- Identify why and when you smoke. Sometimes this helps you develop a plan for quitting.

