Patient Guide to Heart Surgery
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INTRODUCTION

So you are having heart surgery. This booklet will help you and your family learn more about what will happen before and after your heart surgery. It has facts about what your heart looks like, heart surgery and things that can cause disease in the blood vessels of your heart. It will tell you about what will happen to you in the hospital, medications you might take, exercises and foods to help you get better. This booklet has ideas of what you and your family can do to help you get better after your surgery.

The two most common kinds of heart surgery are coronary artery bypass graft(s) (CABG) and heart valve surgery.

Use this booklet to learn more about your heart surgery. If you or your family have any questions or need more information, please ask any member of your health care team.

This booklet is dedicated to all of the patients and their families. They have kindly allowed us to care for them at this point in their lives and from whom we have and continue to learn from each day.
YOUR HEART

Your heart is a muscle that pumps blood and oxygen to all parts of your body. Your heart beats between 60 and 100 beats per minute. It is about the size of your fist.

The heart is divided into two parts: the right side and the left side. Each side has 2 chambers (like rooms). The top chamber is called the atrium. The bottom chamber is called the ventricle. There are 4 valves in your heart that open and close when your heart beats.
The main blood vessels of your heart are the right and left coronary arteries. These blood vessels bring blood and oxygen to your heart. This keeps your heart alive and helps it to pump blood through your body.
Your heart has 4 heart valves. They act like doors. They open and close with each heart beat. If one or more of your heart valves does not open or close right, it may need to be fixed or replaced.
HEART DISEASE AND RISK FACTORS

Heart Disease, also called coronary artery disease, happens when one or more blood vessels of your heart is narrowed or blocked. This is caused by a build up of fat and cholesterol in the heart arteries. It is known as atherosclerosis.

Risk Factors can lead to heart disease.
Risk factors you can change or control are:

♥ Smoking
♥ Exercise
♥ Eating Habits
♥ High Blood Pressure
♥ Stress
♥ Diabetes

Risk Factors you cannot change are your:

♥ Age
♥ Family history
♥ Gender
You can reduce your risk of heart disease if you:

- **Stop Smoking**
  Cigarette smoking is strongly linked with heart disease. The benefits of stopping begin right away. It is the **most powerful change** you can make. Talk with your doctor about how to stop smoking.

- **Exercise Daily**
  Daily exercise helps your heart. It can help control your weight, decrease your cholesterol level and make you feel better. Choose an exercise you enjoy. Talk to your doctor about joining a cardiac rehabilitation program.

- **Eat Healthy**
  Refer to Appendix B: Nutritional Guidelines (page 34) for more information.

- **Take your Medications** as ordered by your doctor

- **Manage Your Stress**
  Understanding and dealing with stress is important to keep your heart healthy. Take time to relax. Try relaxation exercises (page 15). Ask for support from your family and friends. Contact the Heart and Stroke Foundation for information on how to handle your stress better. Ask your doctor for help if your stress is too much to handle.

- **Manage your Diabetes**
  Adults who have diabetes are at a greater risk for heart disease. If you have diabetes, work with your doctor to control your condition.
CORONARY ARTERY BYPASS GRAFT (CABG)

This surgery allows blood to flow to your heart where blood flow is decreased. A bridge is made for your blood to bypass a narrowed or blocked artery. A blood vessel from your leg, your chest or your arm is used to make this bridge. You may need more than one bypass.

The heart - lung (bypass) machine may be used during your surgery. It is used to pump blood while your surgeon is working on your heart.
VALVE SURGERY

The heart valves are like one-way doors. They open and close with each heart beat. If the valves are not working right they may need to be fixed or replaced. There are different types of valves used for a valve replacement [mechanical or tissue]. You and your surgeon need to discuss what type of valve is right for you.

The heart - lung (bypass) machine may be used during your surgery. It is used to pump blood while your surgeon is working on your heart.
WHAT TO EXPECT BEFORE YOUR SURGERY

Waiting For Your Surgery

While you are waiting for your heart surgery, here are some ideas to help you get ready:

- **Eat Well**
  Eat a variety of healthy foods each day, even if you are not very hungry. Your body needs the vitamins and proteins to help you heal after your surgery.

- **Rest and Exercise**
  DO NOT let yourself get too tired before your surgery. Do exercises that do not cause pain or shortness of breath. Exercise helps you to relax and strengthens your muscles. Plan some quiet time 2 to 3 times each day.

- **Stop Smoking**
  Smoking raises your blood pressure. It makes the blood vessels of your heart smaller and makes your heart beat faster. This makes your heart work harder and can cause more damage. Please seek help to stop smoking from your doctor, pharmacist or someone from the list of phone numbers at the back of this booklet.

**Emotions**

Waiting for your surgery and recovering from it can be stressful. You may feel worried, frustrated or sad. Many people are nervous about having surgery. It is common to wonder whether you can handle all the changes you will be asked to make. These concerns are normal. It prepares you emotionally for your surgery and your recovery.

What you have to watch out for is if these concerns make it difficult for you to:
- do or enjoy your daily activities
- be around people
- get to or stay asleep
- concentrate or
- do not seem to get better over time

When this happens, talk to your family, friends or any member of your health care team. You can get more information on how people cope with heart surgery and heart disease from the Cardiac Psychology Service at St. Boniface General Hospital.
Preparing for Your Surgery

- You may have an appointment at the Pre-Assessment Clinic (PAC) before your surgery. Some of the people you will meet at the hospital are: nurses, anaesthetist (sleep doctor), physiotherapist and your surgeon.

- Tests will be done such as EKG (heart tracing), chest x-ray, blood and urine tests. Other tests may be done that your surgeon thinks are necessary.

- Please bring all your medications with you to the hospital. This includes vitamins, herbs and any other medications you are taking.

- You and your family will watch a video about what to expect before and after your surgery. The video does NOT show the surgery, but lets you see what care will be given after your surgery.

- You will be given soap sponges to clean your body before your surgery. Your nurse will instruct you how to use these soap sponges.

- You will be admitted to the hospital either the day before or the day of your surgery.

- A health care aide will use a clipper to remove hair from your chest and legs. Do not shave this hair yourself.

- Do not drink or eat anything after midnight the night before your surgery.

- You will be told which pills you need to take before your surgery. Take these pills with a sip of water the morning of your surgery.

- Your belongings will be locked up safely on the Cardiac Surgery ward. Your family can wait in the Waiting Room of the ICU (Intensive Care Unit).
Planning Ahead for Going Home

You can expect to stay in the hospital for about 4 to 5 days after a CABG. For valve surgery, your stay will be about 6 to 7 days.

- Before you come to the hospital, you should make plans with your family and friends to have someone help you at home after your surgery

You will need help to:

- prepare meals
- shop
- house clean
- do laundry
- snow shovel
- mow your lawn.

You can go home by car, plane, bus or train. Remember, you cannot drive for 4 to 6 weeks after your surgery. You will need someone to drive you on errands or for your appointments.

You should arrange for someone to stay with you for your first few days at home or you should stay with someone overnight.

You may want to get information about LIFELINE (see page 28)

If you have any questions or concerns about going home, let your health care team know as soon as possible.
**After Your Surgery**

Your surgery will last 3 to 5 hours. You will be moved to the ICU. You will be monitored at all times. When you wake up, you will hear noises from the machines around you. You may not be able to talk, because of a tube in your throat to help you breathe. When the tube is out, you can speak again. Other tubes and machines that may be used are:

- intravenous (IV) lines in your arms and neck
- a tube into your bladder to drain your urine
- tubes into your chest to drain fluid from around your heart and lungs
- pacemaker wires
- heart monitor

In ICU, only family or close friends can visit you - two people at a time for short visits.

Your stay here is usually from 6 to 24 hours.

**Moving to the Ward**

After your stay in ICU, you will be moved to the Cardiac Surgery Inpatient Unit.

At this time you will:

- be kept on a heart monitor
- have your remaining tubes removed
- be helped out of bed into a chair for meals
- be helped to walk 3 times a day
WHAT TO EXPECT AFTER YOUR SURGERY

**Pain**
You will feel soreness/pain around your incisions (cuts) on your chest, arm or leg. Your shoulders and back may be sore too. Your nurse will check with you to see how much pain you are having. Pain medication will be given to you as often as you need it. **Do not try to stand the pain.** Ask your nurse for pain medication when you feel your pain getting worse and before you walk. Tell your nurse if your pain medication is not working for you.

It is better to take your pain medicine regularly for 3 to 4 days. This will make it less painful for you to move around and do your exercises.

**Moving and Walking**
The day after your surgery, you will sit up in a chair for your meals. You will be helped to walk a short distance 2 to 3 times that day.

When you are transferred to the ward, walking in the hallway is to be done every 2 to 3 hours. You may need help to walk until you are strong enough to do it on your own. Try to increase the distance you walk a little each time. Walking helps you heal faster by improving the blood flow to your heart, lungs, bowels and muscles.

Please wear shoes or slippers with non-slip soles when you are out of bed.

**Breathing Exercises**
You will learn how to deep breathe and cough to keep your lungs clear. Squeeze your pillow over your chest when coughing. This helps to relieve your pain. You should do your breathing exercises at least 10 times each hour when you are awake.

**Arm and Leg Exercises**
Do your arm and leg exercises as shown in Appendix A: Home Exercise and Education (page 31).

**Diet**
When you can begin to eat and drink, you will be given ice chips, liquids and then a heart healthy diet.

**Appetite**
At first, you may not feel like eating. This is normal. Your loss of appetite may last for 2 to 3 weeks.
**Constipation**
This is a common problem after surgery. You should drink 6 to 8 glasses of fluids each day unless you are told not to.

Eat a high fiber diet, refer to Appendix B: Nutritional Guidelines (page 33).

Walking helps keep your bowels regular.

**Leg Swelling**
Your ankle and/or leg may be swollen. If a vein was taken from your leg, the swelling may last for up to 12 weeks.

To help decrease your swelling:
♥ Do your exercises and keep walking
♥ Raise your legs on pillows or a foot stool when you are lying down or sitting
♥ Do not cross your legs
♥ Avoid wearing tight clothing

**Energy and Sleeping**
It is normal to feel tired and weak. You may have trouble sleeping. It may take many weeks to feel like yourself again. Stay active but make time for rest. Walking is the best exercise to keep up your energy and strength.

**Relaxation Exercises**
Feeling anxious or scared before and after your surgery is common. Learning to relax your mind and body will help you get better.

Controlled breathing is one of the best relaxation exercises to do. By focusing on your breathing, you will stop focusing on other things. You need to practice this before your surgery. Once you have learned the exercise, you can use it all the time.

To practice controlled breathing:

♥ Find a quiet place where you will not be disturbed.
♥ Choose a comfortable position.
♥ Close your eyes and think of yourself in a place where you feel safe and secure.
♥ Breathe in slow and easy - through your nose to the count of 4. Hold for a few seconds and breathe out through you mouth to the count of 6.
♥ As you breathe out, let your muscles relax.
♥ Repeat 6 to 10 times.
THE DAY YOU LEAVE THE HOSPITAL

Your surgeon will order your discharge. It is important that you let your family know of your discharge ahead of time. You can go home by car, plane, bus or train. Remember, you cannot drive for 4 to 6 weeks.

You and your family will see a video about how to recover at home. If you are going home on Coumadin®, we have a video for you to see.

You will receive:
- A Cardiac Surgery Discharge form.
- Prescriptions for your medications.
- If you go home on Coumadin®, you will be given a sheet with your INR levels and the Coumadin® doses you were given. You will receive a Medic Alert application form.

When you see your family doctor and cardiologist (heart doctor) after your surgery, take this printed information with you.
GOING HOME

Rest and Sleep
Getting enough rest is important. For your first week or two at home, rest for about an hour in the morning and afternoon. As you get better, you will need less time to rest.

You should take your pain pills every 4 to 5 hours as needed. It is best to take your pain pills before rest periods or any physical activity. Everyone’s pain is different. You may need to take pain pills only for a few days or up to a few weeks.

Sleep problems are common for 1 to 6 months after your surgery. You may:
♥ have trouble getting to sleep
♥ have trouble staying asleep
♥ have nightmares
♥ sleep a lot

To help you sleep, try:
♥ Going to bed at the same time each night and getting up at the same time each morning.
♥ Rest only ½ - 1 hour once or twice a day.
♥ Walk/exercise each day in the morning and afternoon.
♥ Take something for pain before you go to bed for the first 1 to 2 weeks.
♥ If you cannot sleep, then get out of bed and read a book, watch TV or listen to music.

Hygiene and Incision(s) care
You can shower every day with warm water and mild soap. Do not have a tub bath for 4 to 6 weeks if you have a full leg incision. Gently wash your incision(s) and rinse them well. Do not scrub them. Pat your incisions dry with a towel.

Your incision may be Itchy and dry. Put a cool wet facecloth on the incision to decrease any itchy feeling. You can use any non-perfumed skin lotion like Vaseline® or Vitamin E lotion, if you find your incision feeling tight and dry.
Care of your incision(s) means:

♥ Leave the incision(s) uncovered. If it is draining, cover it with a loose, clean dressing. Change it when it gets wet. A home care nurse may come to your home to do this.

♥ If steri-strip bandages (small tapes) were put on your incision(s) - these can be soaked off with warm water after 7 days. Sometimes they will fall off sooner. This is Okay.

♥ Many women find that there is pulling on their chest incision. For large-breasted women, wearing a loose-fitting or sports bra may help. You need to start wearing your bra 2 to 3 days after your surgery.

♥ An infection can happen days or weeks after your surgery. You should look at your incision(s) each day and check for any signs of infection. Please call your family doctor if you have any signs of:
  ♥ Redness, warmth or swelling
  ♥ Drainage - especially if yellow or green in colour
  ♥ Pain or tenderness that is not helped with your pain pills
  ♥ Chills or fever (38.0°C or 100°F by mouth)

If you have any of the above problems and cannot reach your doctor, report to the Emergency Department.

Care of Your Breast Bone
For most heart surgery, your breastbone (sternum) has been cut. If your breastbone was cut, think of this as a broken bone that has been put back together with wires. From time to time ‘clicking’ is felt with some movement or activity. If this happens, stop the movement or activity.

It takes 6 to 8 weeks for your breastbone to heal. Do Not:

♥ lift more than 5 to 10 lbs (2.5 to 5 kg). About as much as a jug of milk.

♥ push, pull or strain such as, open a heavy door, a stuck jar lid or strain while having a bowel movement.

♥ lie on your stomach.

♥ push or pull with one hand.

♥ do heavy house or yard work, like raking, mowing the lawn, vacuuming, and handling wet laundry.

♥ use your arms to get out of a chair. Use your legs to push-off.

After 6 to 8 weeks, you can do any activity that does not cause pain.
Leg Swelling
For the first few months after your surgery, your leg with the incision may be swollen. This is normal especially at your foot and ankle. Remember to:

♥  Keep your legs uncrossed
♥  Keep your legs and feet up when you are sitting or lying. Raise your legs on pillows or use the arm rest on the couch when lying down
♥  Do your leg and ankle exercises
♥  Walk
♥  Avoid wearing tight clothing

Constipation
Constipation may happen 1 to 2 weeks after your surgery. Straining can be hard on your healing breastbone and on your heart. To relieve constipation:

♥  Be active - walk and do your exercises.
♥  Eat high fibre foods. Refer to Appendix B (page 34).
♥  Drink lots of fluids especially water unless you have been told not to.

Memory and Concentration
You might find that you are forgetful and have trouble concentrating after your surgery. This is normal. It should get better over the next 6 months.

Getting In and Out of Bed
The log rolling method of getting in and out of bed should be used while in hospital and when you go home.

Getting Into Bed
♥  Sit on the side of the bed and cross your arms over your chest.
♥  Lean down on your elbow and shoulder closest to the head of the bed. Put your opposite hand on the mattress to steady yourself.
♥  Stay on your side as you bring both legs up onto the bed and roll onto your back.
♥  While on your back, bend your knees. Dig your heels into the mattress to lift your bottom off the mattress. Now move yourself into a comfortable position.

Getting Out of Bed
♥  Cross your arms over your chest.
♥  Roll onto your side (facing the side you will get out on).
♥  Stay on your side – put both legs over the side of the bed. Dig in your elbow closest to the mattress. Steady yourself by putting your opposite hand onto the mattress by your elbow.
♥  While pushing with the hand on the mattress, sit up in one motion.
Sexual Activity
Sexual activity will not hurt your heart. You may not feel like having sex soon after your surgery. Remember to:

♥ Make sure you are rested and relaxed.
♥ Give yourself the time you need.
♥ Wait at least 1 hour after a meal or exercise.
♥ NOT support your body weight on your arms for the first 8 weeks.
♥ Try different positions. This may help you and your partner.
♥ Check with your doctor/pharmacist before restarting any medications related to your sexual activity.

Taking Your Pulse
Learn to take your pulse (page 31). You should check it before and after you exercise, before taking your heart medication and/or if you feel your heart racing. If you had your blood vessel in your arm used for a bypass graft, you will not feel a pulse in that arm.

Tingling or Numb Fingers
Your ring and little fingers may feel numb and tingle. This can happen if your arm nerves were stretched during surgery. Normal feeling should return in about 4 months.

Driving
Do not drive for at least 4 to 6 weeks after your surgery. This is because:

♥ Your co-ordination, concentration and reaction time are slower. This means you are at greater risk of having an accident.
♥ As a driver, you may have to stop suddenly to avoid an accident. This means you could inflate the air bag or hit the steering wheel. This will hurt your healing breastbone.
♥ It is safer to have someone drive you - family, friends, taxicab or bus until you are fully healed.

Always wear your seatbelt. Put a small pillow over your breastbone before doing up your seatbelt. This will be more comfortable for you.

Traveling
Some points to remember about traveling:

♥ You can travel right away once you have been discharged from the hospital. Many patients from Manitoba travel home by commercial airlines.
♥ You should get up and walk around each hour on plane rides.
♥ You should stop the car every 45 to 60 minutes and walk around.
Returning to Work
You can usually go back to work 2 to 3 months after your surgery. This will depend on:

♥ your doctor’s opinion
♥ the type of work you do
♥ how your recovery has been

You may think about retiring, quitting or getting a new job while you recover at home. It’s best to make a decision like this when you are fully recovered. Talk it over with your spouse/partner, family or doctor. If your job is taking care of your family, your home or yard, the 2 to 3 month rule off work applies as well.

Cardiac Rehabilitation (Cardiac Rehab)
Cardiac rehab will help you heal after your heart surgery. The program is open to anyone with heart disease. It will help you to:

♥ heal faster with fever symptoms
♥ learn a safe level of activity for you
♥ increase your muscle strength and movement with exercise
♥ improve your diet, lifestyle and health
♥ reduce your risk of further heart disease and live longer
♥ increase your confidence and desire to be healthy
♥ deal with any feelings of sadness and fears you might have

The program has individual and group sessions. You will be involved in making your own program. Then the health care team will help you create a program to fit your needs. Your health care team may include nurses, doctors, physiotherapists, dieticians, social workers, psychologists and physical trainers. Your health care team will report your progress to your doctor. You can bring a family member or a friend with you to the sessions.

Cardiac rehab will help reduce your risk factors for heart disease by helping you to:

♥ become more active
♥ stop smoking
♥ lose weight
♥ lower your cholesterol
♥ control your blood pressure
♥ control your diabetes
♥ reduce your stress

For further information about cardiac rehab programs close to you, please ask your health care team or call:
Wellness Institute at Seven Oaks General Hospital: 204-632-3907
Kinsmen Reh-Fit Centre: 204-488-8023
SPECIAL INSTRUCTIONS AFTER VALVE SURGERY

Bacteria can enter your blood stream during procedures like dental work and examinations of your bladder or colon. These bacteria can then stick onto your new heart valve.

If you have a new heart valve, check your temperature if you:

♥ feel hot (feverish)
♥ feel not well
♥ have the shakes or chills
♥ have night sweats.

Call your Family Doctor if you think you have an infection such as, a cough or sore throat that lasts 2 to 3 days, wound infection, or if you have a fever.

When making ANY appointment for your health care (doctor, dentist, dental hygienist, etc.), you MUST tell the secretary that you have had valve surgery. Tell the doctor or dental hygienist, before any procedure, that you have had a heart valve replaced. You may be given an antibiotic pill 1 hour before your procedure to prevent infection.

If you have a mechanical valve, you will need to take a pill to thin your blood for the rest of your life. This pill is called Coumadin® (Warfarin). Patients who have had tissue valves are sometimes put on Coumadin® for 3 months. Your doctor will decide if this is needed.

You will need frequent blood tests (INR). Your doctor needs these tests results to prescribe the correct amount of Coumadin®.

You should wear a MedicAlert bracelet or necklace. This will let people know you have had valve surgery and if you are taking Coumadin®. You will be given a card to carry with you that has the information about your new valve.
MEDICATIONS

Before going home, you will be given prescriptions for the medications your surgeon wants you to take. These may **NOT** be the same as the medications you took before your surgery. You will be given a **Discharge Sheet** when you go home. This will list the medications you are to take at home. You will need to make an appointment to see your family doctor 5 to 10 days after your discharge. Take this **Discharge Sheet** with you to that appointment. Your Family Doctor is responsible for renewing any medications you need.

The pharmacist or nurse will explain your medications to you. Before you go home, feel free to ask any questions you may have. It is important for you to know why you need to take these medications. After you go home, check with your pharmacist if you have any questions about your medications.

![Medication Bottle](image)

**Important Rules**

Keep a list of all the medications you take with you at all times. The name of the medication, the dose, the time you take it and the reason for taking it should be on this list.

Take your medications as told to you by your doctor. Never increase, decrease, or stop taking your medications on your own. Always check with your doctor/pharmacist.

Pick a certain time of day to take each of your medications. Always try to take your medications at the same time each day.

If you forget to take a medication, **DO NOT** take 2 doses at one time. Skip the pill you missed and get back to your normal routine. If you are unsure, check with your pharmacist.

Certain medications can cause problems when given with other medications. Always check with your pharmacist before you begin any new medications, even those you buy “over-the-counter” such as, cough and cold medications, antacids and herbal medicines.
Medications Most Often Prescribed

Enteric Coated ASA – ECASA, Entrophen®
This medication helps keep clots from forming in your blood vessels. It is important in helping to prevent heart attacks and strokes. It can upset your stomach and you should take it with food.

‘Beta’ Blockers – Metoprolol®, Atenolol®
These medications slow your pulse and lower your blood pressure. This helps lessen the workload of your heart. These medications can lower your blood pressure. This may make you feel dizzy if you stand up too quickly. If you are sitting or lying, stand up slowly. They may also make you feel tired at first. Over the next 1 to 2 weeks your body will adjust and this should get better.

Ace Inhibitors – Enalapril (Vasotec ®), Ramipril (Altace ®), Fosinopril (Monopril ®)
These medications lower your blood pressure. This helps lessen the workload of your heart. By lowering your blood pressure, these may make you feel dizzy if you stand up too quickly. If you are sitting or lying, stand up slowly. If you get a dry cough that seems to last longer than it should (weeks to months) and you do not have a cold, check with your doctor.

Statins - Atorvastatin (Lipitor ®), Simvastatin (Zocor ®), Pravastatin (Pravachol ®)
These medications lower the amount of cholesterol in your blood. This helps to stop atherosclerosis from blocking blood vessels. Most of these medications work best when taken in the evening. Check with your doctor/pharmacist. These drugs may be ordered after heart surgery even if your cholesterol level is normal.

Digoxin - Lanoxin ®
This medication can be used to slow down your heart rate or correct an irregular heart beat. Blurred eyesight, weakness, feeling or getting sick to your stomach and/or diarrhea are signs that your dose may be too high for you. Check with your doctor or pharmacist if you have these signs.

Sotalol
This medication can be used to slow your heart rate or correct an irregular heart beat. It can make you feel dizzy, especially at first. If you are sitting or lying, stand up slowly.

Furosemide - Lasix®
This medication is a water pill to help get rid of extra fluid in your body. It will make you pass your water more often.

Potassium - Slow-K ®
This medication is used to keep your potassium level normal. Often people on water pills have low potassium. Low potassium levels can be fixed by taking this medication. Eating foods high in potassium, such as bananas, oranges, kiwis, dried fruit (dates, prunes) can help. This medication can upset your stomach, so take it with food.

Docusate - Colace ®
This medication is a stool softener. It helps prevent constipation and makes it easier to pass stool without straining.
**Warfarin - Coumadin®**

This medication is known as a blood thinner. It helps stop blood clots from forming. It is ordered for you if you have a mechanical heart valve or an irregular heart beat.

The main side effect is an increased chance of bleeding. You will bruise more easily than you did before. You will notice that it takes a little longer for minor cuts to stop bleeding.

To prevent bleeding, you should:

- Brush your teeth carefully. Use a soft toothbrush.
- Take your time and be careful shaving. Using an electric razor will lower the chance of cutting yourself.
- Be very careful handling sharp objects.
- Avoid rough or contact sports.

**Notify your doctor right away if you have any of the following:**

- Pink, red, or brown coloured urine that looks different from normal.
- Stools that have blood in them, reddish-coloured stools, or black, tarry-looking stools.
- Reddish-brown specks or coffee ground looking vomit when you throw up.
- Nosebleeds that occur more often than usual and last for a long time.
- Bleeding from your mouth.
- Bleeding from cuts that cannot be stopped by pressing on it with a clean cloth.
- Large black and blue bruises on your body that were not caused by anything.
Important guidelines for taking Coumadin®:

♥ The dose of your Coumadin® will be based on regular blood tests (INR). **Do not** miss these blood test appointments.

♥ If you forget to take your Coumadin® on time, but remember that day, take it as soon as you remember. If you forget to take it for a whole day, **SKIP** the dose you missed and just go back to your regular time. **DO NOT** take 2 doses of Coumadin® on the same day.

♥ Tell your doctor right away if you **have not** taken your Coumadin® for 2 days or more.

♥ Tell all of your doctors, dentists, pharmacists and nurses that you are taking Coumadin®.

♥ Many medicines can affect how your Coumadin® is working. Never begin taking any new medicines without checking with you doctor or pharmacist.

♥ Aspirin® or products with Aspirin® in them should only be taken if your doctor tells you it is OK.

♥ Wear a MedicAlert bracelet or necklace and carry a card that tells others that you take Coumadin®.

♥ Foods that are high in Vitamin K can affect how well your Coumadin® works. This is not usually a problem. Your dose of Coumadin® is based on regular blood tests. Please check with your dietician or doctor before you **change** your diet.
WHO AND WHEN TO SEE

Please report to the Emergency Department if you have any of these problems:

♥ A rapid pounding heart (palpitations)
♥ Chest pain (Angina) just like the kind you had before your surgery
♥ Breathing that becomes more difficult and painful, that your pain medication has not helped.
♥ Increased swelling and pain in either of your lower legs

Please call your family doctor if you have any of these problems:

♥ Chills or fever (38.0°C or 100°F by mouth)
♥ Pain that is not helped by your pain pills
♥ Redness and swelling of your incision(s)
♥ Yellow/green drainage from your incision(s)
♥ Swelling of your feet or ankles that gets worse over 2 days or remains the same after 8 weeks.
♥ Sudden weight gain or you gain more than 5 pounds (2.5 Kg) in 5 days.
♥ Black or tarry looking stool or rectal bleeding, especially if you are on Coumadin®.
♥ Burning pain when you pass your water.

If you have any of the above problems and cannot reach your doctor, report to the Emergency Department.
PHONE NUMBERS:

Canadian Diabetes Association
Phone: 925-3800

Cardiac Psychology Service
St. Boniface General Hospital
Phone: 237-2979

Cardiac Surgery Inpatient Unit
St. Boniface General Hospital
Phone: 237-2801

Health Links
Phone: 788-8200
Toll Free: 1-888-315-9257

Heart & Stroke Foundation – Manitoba
Phone: 949-2000
Toll Free: 1-888-473-4636

Lifeline (Victoria General Hospital)
Phone: 477-3447

Manitoba Lung Association
Phone: 774-5501
Toll Free: 1-888-566-5864

Reh-Fit Centre
Phone: 204-488-8023

Wellness Institute
Phone: 204-632-8907
LEARNING MORE

Suggested Cookbooks:

The Light-hearted Cookbook by Ann Lindsay, Canadian Heart and Stroke Foundation, 1989.

Light-hearted Everyday Cooking by Ann Lindsay, Canadian Heart and Stroke Foundation, 1994.

Simply Heart Smart Cooking by Bonnie Stern, Canadian Heart and Stroke Foundation, 1997.

These cookbooks are available at local bookstores, libraries and the Heart and Stroke Foundation of Manitoba.

Internet Addresses

♥ Heart & Stroke Foundation of Manitoba
   www.heartandstroke.ca

♥ Canadian Diabetes Association
   www.diabetes.ca

♥ Mayo Clinic Heart Oasis
   www.mayohealth.org

♥ The Franklin Institute – The Heart: An Online Exploration
   www.fi.edu/biosci/heart.html

♥ Dieticians of Canada
   www.dieticians.ca
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* Nutrition Guidelines section from Heart Attack... and Back provided courtesy of the Heart and Stroke Foundation of Manitoba.

Many thanks to all the staff in the Cardiac Sciences Program for their help and assistance with this project.
APPENDIX A

Home Exercises and Education

These exercises will help you feel better. They are breathing exercises and gentle stretching exercises. Sit in a chair when you do these exercises.

Do each exercise 3 to 5 times in a row, once or twice daily for at least 3 weeks after you go home.

1. Take your pulse. (Is it regular or irregular?)

   **If it is regular**, count the number of beats in 15 seconds and multiply by 4 to find your heart rate for 1 minute.

   **If it is irregular**, count the number of beats for 1 minute.

2. Put your hands on your belly. Take a deep breath in then breathe out.

3. With your arms relaxed at your sides, move your shoulders up to your ears and slowly count **OUT LOUD** to 3. Then slowly lower your shoulders and relax for 3 to 5 seconds before repeating the exercise.

4. Put your fingertips on your shoulders, then slowly circle your elbows back, up, forward and down.
5. Cross arms in front of your chest. Face forward, breathe in. Turn your **head and shoulders** to the right and breathe out. Repeat this exercise while turning to the left side.

6. Breathe in as you lift one arm up, and breathe out as you lower your arm. Repeat with other arm.

7. Sit straight, breathe in, then bend to the right and breathe out. Repeat this exercise bending to the left side.

8. Straighten one knee and hold for the count of 3 then lower it. Repeat with your other leg.

9. Bend your feet up and down at ankles.
10. Take your pulse again. (See exercise #1)

WALKING PROGRAM

♥ Do your resting heart rate when you have been sitting or lying for 5 minutes. You can walk 2 to 3 minutes longer every third day, as long as your heart rate stays within ________ beats from your resting heart rate.

♥ In about 5 weeks, you can go for a 30-minute walk each day.

♥ Discuss the use of a stationary bike or treadmill with a member of your health care team.

OTHER THINGS TO KNOW:

♥ If you are a diabetic, have juice, cheese or crackers before you exercise.

♥ Avoid movements that cause clicking or movement in your breastbone. Tell your doctor if this happens.

♥ Also tell your doctor if you have oozing, swelling, tenderness at your incision.

GUIDELINES FOR GETTING MORE ACTIVE:

After you leave the Hospital, GRADUALLY get more active. When you do this, think about the following:

How do you feel? Listen to your body’s signals. Check your heart rate. Stop or do not start an activity if you have any of the following:

• dizziness
• feel tired
• pain - in your shoulder, elbow, wrist joints or jaw or muscles
• unusual sweating

• trouble breathing
• nausea
• feel your heart is beating fast
• angina - not enough oxygen to the heart
Heart Healthy Eating

Healthy eating is good for everyone. It can make you feel better and help reduce your risk of another heart attack.

How much food you eat depends on your size, weight, and age and how active you are. What you eat is as important as how much you eat. Canada's Food Guide to Healthy Eating is an easy-to-follow resource that explains the different food groups and the recommended daily servings.
Choosing foods that are low in fat, particularly those that are lower in saturated fat, trans fat and dietary cholesterol will help to reduce cholesterol levels and help to maintain a healthy heart.

Note: Low Fat means no more than 3 grams of fat per serving

There are different types of fat:
Saturated fats raise blood cholesterol levels. They are usually solid at room temperature and are found mainly in animal-based foods, such as meat and dairy products, as well as in tropical oils, such as coconut and palm oil.

Choose Low Fat Foods
Trans fat/trans fatty acids raise blood cholesterol levels. They are created when unsaturated fats (healthier choices) go through a process called hydrogenation to turn them into a more saturated fat (not as healthy). Trans fat is found in foods that contain hydrogenated or partially hydrogenated fats such as store-bought cakes, cookies, crackers, deep fried foods, shortening and some margarine.

Dietary cholesterol also increases your blood cholesterol, but not as much as saturated fat and trans fats do. It is found only in animal products such as meats, poultry, fish, eggs and dairy products.

Unsaturated fats are typically liquid at room temperature and are found mainly in plant foods. There are 2 types of unsaturated fats:

- Monounsaturated fats help to lower “bad” cholesterol (LDL cholesterol) levels and are found mainly in olive and canola oil, nuts and seeds.

- Polyunsaturated fats lower “bad” cholesterol (LDL cholesterol), but they also lower “good” cholesterol (HDL cholesterol). They are found mainly in vegetable oils such as safflower, sunflower, corn and soybean.

Omega-3 fats are a type of polyunsaturated fat commonly found in fatty fish (salmon, mackerel, herring, sardines), ground flaxseed, canola oil and walnuts. This type of fat helps to lower the “bad” cholesterol and triglycerides.

Tip: Although unsaturated fats are a good replacement for saturated fats, remember it’s important to reduce your total fat intake.

Choose Low Sodium/Salt Foods

Sodium is found in large amounts in salt and is added to many processed foods. Sodium is essential for maintaining the water balance of all tissues and fluids in our bodies. Sodium causes the body to retain water. Usually, excess sodium is excreted in the urine so that water balance stays normal. However, too much sodium on a regular basis can lead
to water retention in the blood and tissues. Some of this excess water ends up in the blood stream, and increases the volume of blood that must be carried through the blood vessels. When blood volume gets so big that our vessels can’t expand enough to compensate, blood pressure rises.

Tips to cut back on salt:

- Do not use salt in cooking and take the salt shaker off the table.
- Choose foods labeled “low in sodium” (140 mg or less per serving) or “no added salt” (no salt added during processing). Beware, “sodium-reduced” (at least 25% less salt than regular) does not mean salt-free.
- Choose fresh or frozen vegetables. Avoid canned or pickled vegetables.
- When using canned legumes (beans, lentils, chickpeas, etc.) rinse under cold water to reduce the salt.
- Choose roasted chicken or beef in sandwiches instead of processed/deli meats.
- Limit/avoid salted, processed, or canned foods.
- Avoid foods that contain large mounts of baking soda, baking powder, brine, MSG (monosodium glutamate). These ingredients are all high in sodium.
- Use seasonings such as herbs, spices, lemon juice or garlic instead of salt.
- Limit pre-packaged convenience foods.

Note: • 1 teaspoon of salt = 2400 mg of sodium
  • Sea salt does contain sodium and needs to be limited.

A healthy diet should include 25-35 grams of fibre a day. “High fibre” foods have more than 4 grams of fibre per serving.

Choose High Fibre Foods

There are 2 types of fibre:

- **Soluble Fibre** can help lower cholesterol and control glucose levels. It is found mainly in fruits, dried peas, beans, lentils, oats and flaxseed.
- **Insoluble Fibre** helps to keep your bowels regular and may protect against some types of cancer. It is found mainly in whole grains, cereals and vegetables.
Increase the fibre in your diet slowly to prevent gas, bloating and diarrhea. Include fibre-containing foods throughout the day. You will also need to drink 6-8 cups (1.5L-2L) of fluid each day to prevent side effects.

Tips to increase your fibre intake:
- Eat more vegetables and fruit (eat the peels whenever possible for added fibre).
- Eat fruit instead of drinking juice.
- Choose whole wheat bread for toast and sandwiches.
- Choose whole wheat flour instead of white flour for baking.
- Add 1-2 tablespoons of bran, very high fibre cereal or ground flaxseed to your favorite cereal.
- Add barley, beans, peas or lentils to soups and casseroles.

<table>
<thead>
<tr>
<th>Choose more often...</th>
<th>Use less...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grain Products</strong></td>
<td><strong>Grain Products</strong></td>
</tr>
<tr>
<td>• bran, whole-grain, high fibre</td>
<td>• white breads, rice and pasta</td>
</tr>
<tr>
<td>breads, cereals, pasta and rice</td>
<td>• butter, oils, margarine, high fat</td>
</tr>
<tr>
<td>• low fat crackers like soda,</td>
<td>cream sauces</td>
</tr>
<tr>
<td>melba toast, graham and low</td>
<td>• pre-packaged pasta and rice</td>
</tr>
<tr>
<td>fat animal crackers</td>
<td>with sauces</td>
</tr>
<tr>
<td><strong>Vegetables and Fruit</strong></td>
<td><strong>Vegetables and Fruit</strong></td>
</tr>
<tr>
<td>• citrus fruits, dark green, red</td>
<td>• canned or bottled vegetables</td>
</tr>
<tr>
<td>and orange vegetables and fruit</td>
<td>and vegetable juices</td>
</tr>
<tr>
<td>(these are high in antioxidants*)</td>
<td>• cheese sauces</td>
</tr>
<tr>
<td>• fresh or frozen vegetables</td>
<td>• french fries</td>
</tr>
<tr>
<td>and fruit</td>
<td></td>
</tr>
<tr>
<td><strong>Milk Products</strong></td>
<td><strong>Milk Products</strong></td>
</tr>
<tr>
<td>• skim or 1% milk, low fat</td>
<td>• whole or 2% milk (fluid,</td>
</tr>
<tr>
<td>yogurt (1% MF/BF or less)</td>
<td>evaporated or condensed)</td>
</tr>
<tr>
<td>• light/low fat cheeses (less</td>
<td>• cream, whipping cream, non dairy</td>
</tr>
<tr>
<td>than 20% MF)</td>
<td>creamer, half and half</td>
</tr>
<tr>
<td>• no fat, low fat or dry curd</td>
<td>• regular cheese products or</td>
</tr>
<tr>
<td>cottage cheese</td>
<td>regular cream cheese</td>
</tr>
</tbody>
</table>

* A diet rich in antioxidants has been linked to a decreased risk of heart disease.
<table>
<thead>
<tr>
<th>Choose more often...</th>
<th>Use less...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meat and Alternatives</strong></td>
<td><strong>Meat and Alternatives</strong></td>
</tr>
<tr>
<td>• fish at least 2-3 times per week</td>
<td>• gravies or cream sauces</td>
</tr>
<tr>
<td>• baked, broiled, poached, roasted or barbeque meats, poultry, fish and shellfish</td>
<td>• processed meats like salami, sausages, bacon, bologna, wieners</td>
</tr>
<tr>
<td>• skinless poultry and well-trimmed meat</td>
<td>• pan fried or deep fried meats, poultry, fish or shellfish</td>
</tr>
<tr>
<td>• beans, peas, lentils to replace meat at meals</td>
<td>• regular ground meats, spare ribs and organ meats</td>
</tr>
<tr>
<td>• light or non-hydrogenated peanut butter</td>
<td>• store-bought breaded meat and poultry products</td>
</tr>
<tr>
<td>• tofu</td>
<td></td>
</tr>
<tr>
<td><strong>Soups</strong></td>
<td><strong>Soups</strong></td>
</tr>
<tr>
<td>• low fat and reduced sodium varieties</td>
<td>• cream soup made with whole milk, cream, meat fat, poultry fat or poultry skin</td>
</tr>
<tr>
<td>• those made with skim or 1% milk</td>
<td>• packaged soups</td>
</tr>
<tr>
<td><strong>Fats, oils and spreads</strong></td>
<td><strong>Fats, oils and spreads</strong></td>
</tr>
<tr>
<td>• non-hydrogenated margarine</td>
<td>• coconut, palm kernel, palm oil, butter, lard shortening, bacon fat, block or stick margarine</td>
</tr>
<tr>
<td>• olive, canola, peanut, safflower, or sunflower oils in small amounts</td>
<td></td>
</tr>
<tr>
<td>• low fat salad dressings and low fat mayonnaise</td>
<td></td>
</tr>
<tr>
<td>• jams, jellies and honey</td>
<td></td>
</tr>
<tr>
<td><strong>Other foods</strong></td>
<td><strong>Other foods</strong></td>
</tr>
<tr>
<td>• angel food cake, low fat frozen yogurt, plain low fat cookies, low fat muffins, popsicles or sherbet</td>
<td>• candy made with milk chocolate, chocolate, coconut oil, palm kernel oil or palm oil</td>
</tr>
<tr>
<td>• homemade loaves and muffins using no more than 1/4 cup of oil or margarine per loaf or dozen muffins</td>
<td>• commercially baked pies, cakes, doughnuts, croissants, high fat cookies, cream pies, regular ice cream</td>
</tr>
<tr>
<td>• unbuttered popcorn, low salt pretzels</td>
<td>• potato chips, cheezies</td>
</tr>
<tr>
<td></td>
<td>• alcohol</td>
</tr>
</tbody>
</table>
Healthy Tips for Dining Out

Look for phrases that signal low fat (such as steamed, au jus or in its own juice, broiled, roasted, poached).

Be aware of foods that might be higher in salt (such as pickled, smoked, in cocktail sauce, broth or soya sauce).

Avoid menu items that say:
- buttery, buttered, in butter cream sauce
- creamed, in cream sauce, creamy, hollandaise sauce, béarnaise sauce, alfredo
- in its own gravy
- sautéed, fried, crispy, pan fried, scaloppini, battered, breaded
- au gratin, parmesan, in cheese sauce
- in a casserole

When ordering ask for:
- dressings, gravies and sauces served on the side
- skim or 1% milk instead of whole milk or cream
- meat, fish or poultry that is broiled, baked, steamed or poached (not sautéed or deep fried)
- fresh fruit, fruit packed in its own juice, or sherbet for dessert

Food Labeling

When making heart healthy food choices, some of the important things to look for on the label are:
- the serving size (is this the same amount of food that you are eating? If not, you will need to adjust the calories and nutrient levels according to how much you are eating)
- the amount of fat AND the amount of saturated and trans fat
- the amount of dietary cholesterol
- the amount of sodium
- the amount of fibre (foods that are a “source” of fibre will have at least 2 g of fibre per serving)

The % Daily Value for each nutrient tells you if the food has a little or a lot of a certain nutrient.

An ingredient list is present on all food labels to allow you to see exactly what is in a food product.
Health claims, such as “a healthy diet low in saturated and trans fat may reduce the risk of heart disease” may also appear. It is important not to choose foods based only on these claims, but to look at the overall picture of how a food fits into healthy eating.

**Look for the Health Check™ logo:** The logo on the package means that the product’s nutrition information has been reviewed by the Heart and Stroke Foundation of Canada and that it meets specific nutrient criteria based on Canada’s Food Guide to Healthy Eating. Visit www.healthcheck.org.

If you have any other questions or concerns, please contact a dietitian in your area or the Heart and Stroke Foundation of Manitoba at 949-2000 or www.heartandstroke.mb.ca.