

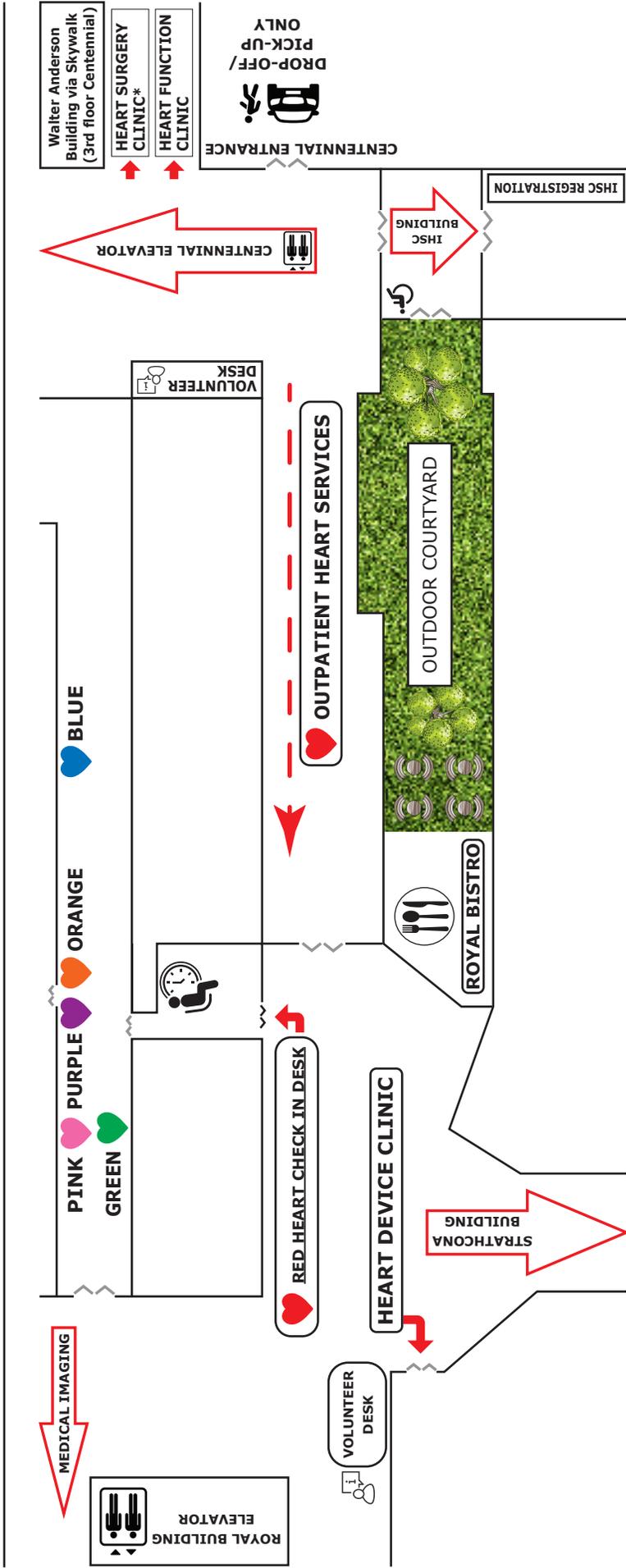
# Your Heart Surgery Journey

A Patient and Family Guide



**Bring this booklet with you to all appointments and when you come to the hospital for heart surgery.**

The information in this booklet is intended solely for the person to whom it was given by the healthcare team. It does not replace the advice or directions provided to you by your heart surgeon or physician.



# LEGEND

 (Red Heart) Check-In Desk for the following services:

-  (Orange Heart) Catheterization, T.A.V.I, & Electrophysiology
-  (Blue Heart) Echo
-  (Green Heart) R.A.C.E
-  (Pink Heart) Heart Rhythm
-  (Purple Heart) ECG/Holter

## Important Phone Numbers

Interior Health Cardiovascular Surgery Associates  
 2251 Pandosy Street  
 Kelowna, B.C. V1Y 1T1

The offices are located on the second floor of the Dr. Walter Anderson Building

<b>Cardiac Surgeons</b>	• Dr. A. Poostizadeh	Office: 250-862-4336
	• Dr. C. Schulze	Fax: 250-862-4366
	• Dr. C. Wan	
	• Dr. J.L Soon	

<b>Questions BEFORE Surgery</b>	Cardiac Surgery Triage Coordinator	250-862-4009
	Cardiac Pre-Surgical Screening	250-862-4144
	Cardiac Surgery Intensive Care Unit (CSICU) Located 2nd floor IHSC	250-862-4006
	Cardiac Surgery Inpatient Unit 2 West Located 2nd Floor Strathcona	250-862-4327

<b>Questions AFTER Surgery</b>	Discharge Follow-up Program Phone Line	250-862-4144
	Cardiology Associates Inc. Kelowna	250-762-9211

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## Introduction

Learning that you or your loved one needs heart surgery can be a stressful time filled with many questions. This booklet is a guide to prepare you for heart surgery and your recovery at home following your discharge from the hospital.

Learning about heart disease, lowering cardiac risk factors, and understanding what to expect after surgery will help reduce anxiety. The Heart and Stroke Foundation's **Living Well With Heart Disease: A guide for people with coronary artery disease** ([www.heartandstroke.ca](http://www.heartandstroke.ca)) is another resource to help you prepare for heart surgery, your discharge from hospital and recovery at home.

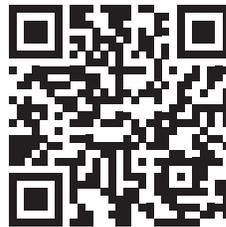
Take your time reading each section of this booklet.

### **If you have any questions:**

- **Before Surgery:** call the Cardiac Surgery Triage Coordinator at 250-862-4009.
- **After Surgery:** Call the Cardiac Surgery Discharge Follow-Up Program Phone Line at 250-862-4144.

If you are not feeling well, you should call your family doctor or call 911 if it is an emergency.

To prepare yourself for heart surgery, please **watch the Before Heart Surgery video**. Link: <https://bit.ly/BeforeHeartSurgery>



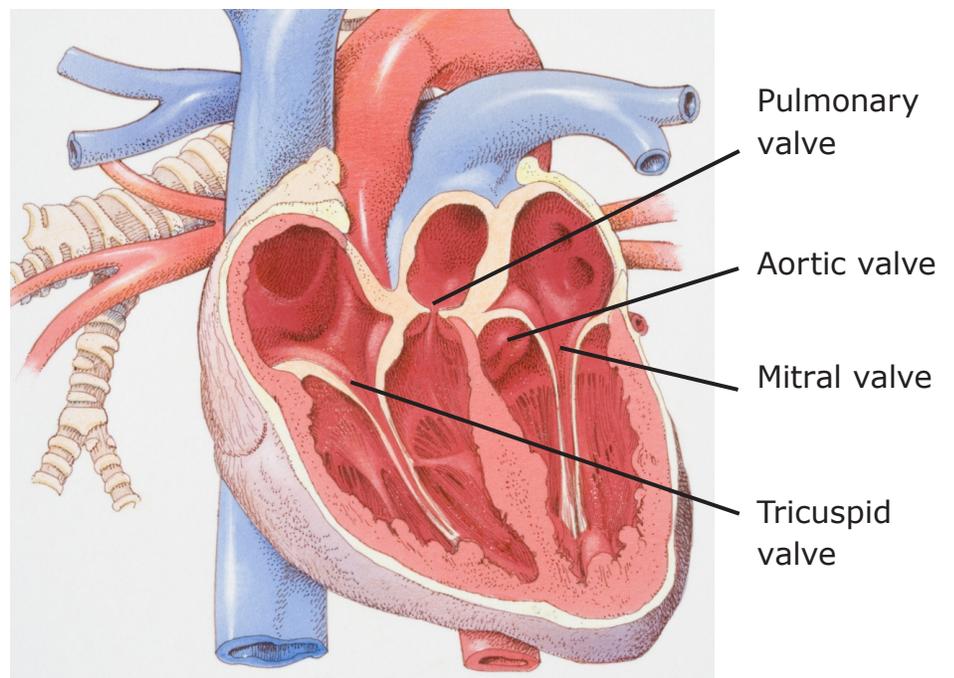
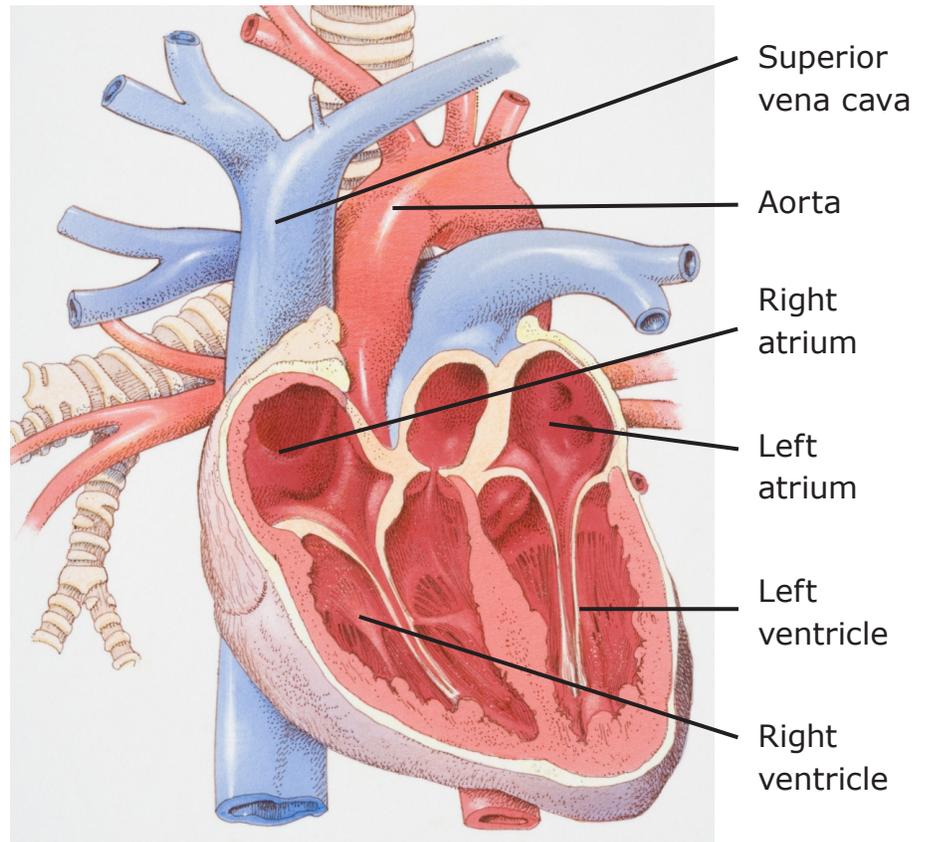
# Section 1: Preparing For Your Surgery

## Your Heart and How It Works

The heart is a muscle that pumps blood through your lungs, and then to the body. It is located behind your breast bone. The heart is divided into the right and left side, with each side made up of an atrium (top chamber) and a ventricle (bottom chamber).

The right side of the heart pumps blood to the lungs, where it picks up oxygen. The left side of the heart collects the blood with oxygen from the lungs and pumps it to the rest of the body.

The heart also has four valves. They open when blood is pumped out of the heart and then close to prevent blood from flowing backwards.

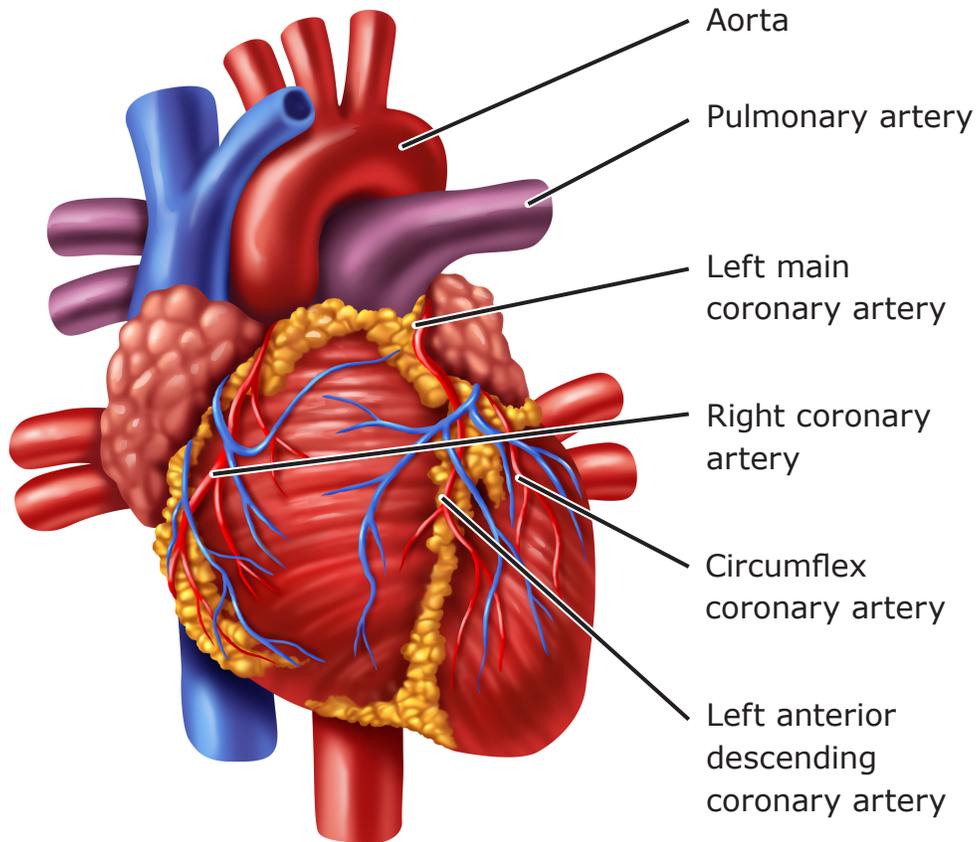


## The Coronary Arteries

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The heart gets its supply of blood and oxygen from the Coronary Arteries. These arteries are wrapped around the outside of the heart muscle.

The major coronary arteries can be seen below:



## Coronary Artery Disease (CAD)

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Coronary Artery Disease is a general term that refers to the build-up of fatty material inside the arteries. This build-up can cause narrowing, or a “blockage”, which may decrease the flow of blood and oxygen through the coronary arteries to the heart.

### Heart Surgery May Be Required If:

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- medication or other procedures such as a stent (a small metal tube permanently placed in the artery to keep the artery open) are not able to improve your symptoms

OR

- the blockage is more complicated

## Coronary Artery Bypass Graft (CABG) Surgery

This is an operation that re-routes blood flow around one or more blockages in the heart. The bypass is done using a piece of an artery taken from your arm or chest or a vein from your leg. The artery or vein is then attached above and below the blockages to restore blood flow to the heart muscle.



## What Is Heart Valve Surgery?

Valve surgery involves repairing or replacing one or more valves inside the heart that are not working properly. Valves may be repaired using rings or can be replaced using a tissue or mechanical valve.

### What is a tissue valve?

An animal valve that is similar to your natural heart valves.



Tissue valve

### What is a mechanical valve?

A mechanical valve is made of durable metal and plastic. They last longer than tissue valves. Patients who receive mechanical valves will require 'blood thinner' pills for the rest of their lives to prevent a clot from forming on the valve.



Mechanical valve

## What Happens After I See the Heart Surgeon?

### Preoperative Teaching

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The surgeon will explain the surgical procedure during your office visit. This may be in-person or over telehealth. You will receive a prescription from the office with some medications you will need to purchase and take to prepare for surgery. Education about your upcoming surgery will be provided to you by a nurse either by telephone or in person (depending on if you are waiting at home or in hospital for your operation).

### Cardiac Pre-Surgical Screening (PSS) Program

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Pre-Surgical Screening is a process to make sure you are properly informed and fully prepared for your heart surgery. The Pre-surgical Screening Registered Nurse will call you to do a health history, review your medications and give you instructions. You may need blood work, an electrocardiogram or a chest xray.

After your appointment with the Pre-Surgical Screening Nurse, you will have an over the phone consultation with Cardiac Anesthesiologist. He/She will provide you with instructions on when to take your medication prior to your surgery.

When waitlisted for surgery, you will receive an email with a PDF version of this booklet, a waitlist letter and an info sheet for what to expect on the day you are admitted. Leg exercises and information to help avoid Deep Vein Thrombosis or Pulmonary Embolism post operatively. The RN will make sure you have all the supplies you need after surgery for at home. You may need to purchase some supplies. If you do not have access to a computer or email, please ask a friend or family member to borrow theirs. If that is not an option, please let our staff know so that we may find another option for you.

### Surgery Date

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Once all your workup has been completed, you will be placed on the Cardiac Surgery Waitlist. **You will be called by the Cardiac Surgery Triage Coordinator with a surgery date as soon as a date is known.** Anticipate a call from the Pre-Surgical Screening Team on Wednesday, the week prior to your tentative surgical date. During this conversation, the Pre-Surgical Screening nurse will optimize your medication in preparation for the upcoming tentative surgery. Additionally, they will provide you with details on the location and timing for your arrival. If you live in Northern Health, you will need to arrive in Kelowna **two days before your surgical date** to obtain blood work.

### Same Day Admission for Your Heart Surgery

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On the day of your surgery, you will need to register at the **Surgical Services Reception Desk on the ground floor of the Interior Heart and Surgical Center.** You will be prepared for surgery in this area.

## Surgery Re-Scheduling

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This can be upsetting for you and your family. Surgeries can be postponed or cancelled if there is an emergency or unexpected issue. If this should happen, every effort will be made to reschedule your heart surgery as soon as possible.

## What If My Medical Condition Changes?

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### Call 9-1-1 (Do not drive yourself!) if you have:

- new or worsening chest pain not relieved by Nitroglycerin
- new or worsening shortness of breath
- dizziness or fainting spells
- a fast or irregular heart beat that concerns you

### Contact your family doctor if you have:

- swelling in your feet or ankles that is new or worse
- frequent or increased use of Nitroglycerin to relieve chest pain
- Signs and Symptoms of an infection (e.g., UTI, dental, respiratory)

**Contact the Cardiac Surgery Coordinator** at 250-862-4009 to inform them of changes in your medical condition.

**Contact the Cardiac Pre-Surgical Screening Team** at 250-862-4144 with changes in your medication.

## What Should I Do to Get Ready at Home?

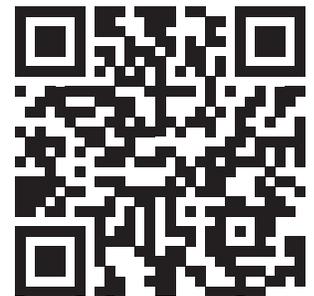
### Watch the Before Heart Surgery video.

Link: <https://bit.ly/BeforeHeartSurgery>

**Plan ahead for your heart surgery.** This will decrease the anxiety you and your family may experience during your recovery period.

### Here is a list of things to do to help you prepare:

- Make arrangements for someone to:
  - bring you to the hospital on the day of your surgery
  - pick you up **by 9:00 am** the day you go home
  - pick up your prescriptions after discharge home
  - stay with you for the first few nights after surgery
  - assist with your meals, groceries, laundry, housekeeping, gardening, pet care, etc... for the first few weeks
  - drive you to your doctor visits **(you cannot drive at all for a minimum of 6 weeks after surgery)**
  - walk with you when you exercise
- Complete necessary paperwork (e.g. Medical Employment Insurance, Special Insurance) as you will be unable to work for 6–12 weeks after your surgery.



- Consider Advance Care Planning. This begins by thinking about your beliefs, values and wishes regarding future health care treatment. It is important to have conversations with your close family, friends and health care providers so that they know the health care treatment you would agree to or refuse if you became incapable of expressing your own decisions. ([www.gov.bc.ca/advancecare](http://www.gov.bc.ca/advancecare))
- We recommend that you do not refill large quantities of your home medications (ex. 90 day supply) prior to your operation, as medications may change during your stay.
- A Cardiac Social Worker is available in hospital if you require support with any of the above items.

## What If I Have to Travel to Kelowna for Surgery?

- Consider making arrangements to stay in Kelowna the night before your surgery.
- Bring government issued photo picture ID and enough money to pay for your travel home.
- **Arrange for your own transportation home.** Interior Health does not pay for return to your home, even if you came to the hospital by ambulance. A Cardiac Social Worker may be able to assist you in securing transportation arrangements.
- **Do not drive your personal vehicle to the hospital without a plan for someone else to drive it home. You cannot drive at all for a minimum of 6 weeks after surgery.**

## What If I Am Already Waiting in Hospital?

- If you are in your community hospital, you will be transferred via ambulance to Kelowna General Hospital (KGH), **a day or two before your surgery.** If you are already at KGH, the cardiac surgery team will prepare you for surgery.

## Should I Stop Smoking?

**YES, QUIT NOW!** It is important to stop smoking! Smoking raises your risk of serious breathing complications after surgery. For help to quit, talk to your family doctor and contact QuitNow.



## How Can I Stay Healthy?

It is important to be as healthy as possible before your heart surgery. You can improve your health by:

- Eating low-fat, high fibre meals
- Monitoring your sugars/diet closely if you have diabetes
- Continuing to safely stay active as directed by your health care team
- Avoiding alcohol and street drugs for at least 3 weeks before your surgery. **If you have not stopped, please tell your Surgeon and Cardiac Surgery Triage Coordinator.**



## What Personal Items Do I Need For My Hospital Stay?

- Non-slip, easy on, **flat** shoes or slippers with a closed-in heel. No flip flops
- Toothbrush, toothpaste and other personal items such as deodorant
- Several pairs of clean undergarments
- Glasses and dentures labelled with your name
- Hearing aids and mobility aids
- Electric shaver
- Charging cords for your phone and electronic devices
- KGH will provide your medications while you are in the hospital. If there are any medications we do not provide, you will be advised to bring them with you.
- Loose, comfortable clothes to wear when you go home
- **Women Only:** A comfortable, fitted bra that is easy for you to put on after surgery. We strongly recommend a front closure bra.



**We ask that you keep your belongings with you until you are taken in for your surgery. Your family or friends may take your belongings home once you are taken to the OR.** They can bring them back when you are moved to the Cardiac Surgery Inpatient Unit (ward). You are responsible for the care and safety of your personal belongings while you are in the hospital. You are encouraged to leave valuable items at home.

## What Do I Do The Night Before Heart Surgery?

1. Remove ALL jewelry and body piercing items. For safety, please leave all jewelry at home.
2. Remove all nail polish, artificial nails and make-up
3. Shower/bathe and wash your hair – allow skin to dry thoroughly
4. Use Antiseptic Body Sponges, following the instruction sheet provided
5. Apply antibiotic cream using a Q-Tip to the inside of both nostrils, if you have been told by the surgeon's office to do so
6. Use antiseptic mouth wash, as instructed by the surgeon's office
7. Take your pills as directed by Pre-Surgical Screening
8. Follow instructions for eating and drinking
9. **DO NOT shave or use hair removal cream on your chest, arms or legs**

## What Do I Do The Day of Heart Surgery?

- **Bring this booklet to the hospital!**
- Take any medications as directed by Pre-Surgical Screening
- Follow instructions for eating and drinking
- Clean skin again with Antiseptic Body Sponges and follow the instruction sheet provided
- Do not wear any make-up, perfume or jewelry of any kind
- Remove any religious or cultural items
- Bring your BC Services Card (with your personal health number)
- Bring someone who can interpret, if you have difficulty understanding English
- Bring a telephone number of your contact person for the Surgeon to call after surgery

At the hospital, you will report in and register at the **Surgical Services Reception Desk on the ground floor of the Interior Heart and Surgical Center**. Volunteers are located at each entrance to help you find your way. Please allow ample time to find parking. You will be prepared for surgery in this area. Family/friends can stay with you until you are ready to go to the Operating Room.



## What Happens Next?

You will be taken from Surgical Services on the first floor of the Interior Heart and Surgical Center directly to the Operating Room on the second floor of this building. Your heart surgery will take 3 to 6 hours, which can be a long wait for your family and friends. Family and friends are encouraged to wait in the comfort of their own surroundings (e.g. home or hotel, shopping area).

When your surgery is over, you will be moved from the Operating Room to the Cardiac Surgery Intensive Care Unit (CSICU). The heart surgeon will contact your family at the telephone number you have provided.

When family return to the hospital, they should go to the Cardiac Surgery Intensive Care Waiting Room located on the second floor of the Interior Heart and Surgical Center. There is a phone you may use to call into the CSICU. There may be restrictions on the number of visitors in CSICU, please discuss with your CSICU nurse.

## Who Is on The Healthcare Team?

**Cardiac Surgeon:** performs your heart surgery and oversees your recovery

**Cardiac Surgical Assistant:** a doctor who assists the surgeon to perform the operation

**Cardiac Anaesthesiologist:** puts you to sleep during the surgery and is involved in your care in the Cardiac Surgery Intensive Care Unit

**Cardiac Pre-Surgical Screening Nurse:** optimizes you for your surgery

**Perfusionist:** supports the team in the Operating Room by running the heart/lung machine during the operation

**Cardiac Surgery Triage Coordinator:** is the nurse working with your cardiac surgeons to help facilitate your surgery. The coordinator can answer any questions you may have as you prepare for surgery.

**Nurse Practitioner (NP):** follows your progress after your heart surgery and works with the team to manage your care

**Registered Nurse (RN):** cares for you 24 hours a day while you are in hospital

**Registered Respiratory Therapist (RRT):** manages the breathing machines in the CSICU and monitors your breathing once the breathing tube comes out

**Pharmacist:** works closely with healthcare team to make recommendations around your medications and provide medication teaching prior to discharge

**Cardiology Technologist:** performs tests before and after surgery

**Physiotherapist (PT):** supports you with breathing exercises and physical activity to build up your strength after surgery. The

PT will work with you to design a home exercise program

**Occupational Therapist (OT):** provides information and recommendations for your recovery and safety in your own home

**Dietitian:** assesses your dietary needs after surgery and provides information about heart healthy food choices

**Social Worker:** assists with discharge planning, provides information on community resources and/or counselling if you need it

**Aboriginal Patient Navigator:** assists and supports in providing culturally safe health care

**Patient Care Aide:** works with the nurses to provide care

**Chaplain:** offers spiritual and mental support for you and your family

**Volunteers:** are available throughout KGH in a variety of roles

**Health Care Students:** You may encounter a variety of students throughout your stay.



It is important to have all of your questions and concerns addressed while you are in hospital. Feel free to talk to any member of your healthcare team.

**Talk to Us!**

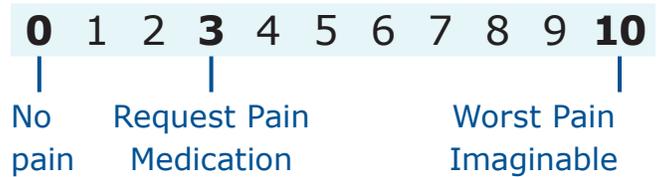
## Section 2: Recovery in Hospital After Your Surgery

### Recovering in the Cardiac Surgery Intensive Care Unit (CSICU)

After your operation you will be moved to the CSICU (2nd floor IHSC). Depending on your surgery and recovery time, you can expect to be in the CSICU for approximately 24 hours.

- You may be asleep for the first few hours after your surgery. When you first wake up you may feel disorientated from the anesthetic and pain medications. This is normal and the feeling will pass.
- As you begin to wake up, you may have a tube in your throat attached to a machine that helps you breathe. While you wake up your nurse or respiratory therapist will instruct you to “take nice easy breaths with the ventilator” and to keep your hands at your side. When you are able to breathe on your own, this tube will be removed and an oxygen mask may be placed over your nose and mouth. You may have a sore throat or a dry mouth for a few days because of the breathing tube.
- A couple of hours after your breathing tube is removed, your nurse will allow you to have some ice chips. You may feel thirsty for a couple of days which is common after surgery. Most patients are placed on a fluid restriction of 1.5 L a day after surgery. That fluid is a combination of what is provided on your meal trays and 1 glass of water during the day and 1 at night. Please be aware of your fluid consumption and do not exceed the limit. These restrictions are placed for your cardiac benefit and will aid in your recovery.
- Nausea and vomiting is common after having an anesthetic and receiving pain medication. Please avoid taking large amounts of water or ice chips as this will result in increased discomfort and vomiting.
- Dizziness can sometimes occur. This is a result of fluid shifting and having your blood pressure lower than usual. Keep your eyes open and breathe.
- Speak with your nurse if you are experiencing any of the above symptoms. Your nurse will help you through these experiences.
- You will be attached to several different monitors.
- You may be attached to a temporary pacemaker for the first few days of your recovery.
- Drainage tubes will be in place. They will be removed as quickly as possible. A catheter will be placed in your bladder so you do not need to worry about going to the bathroom.
- It is common after surgery for you to be swollen in your hands, feet and face. This is because you are given extra fluid during your surgery. This will gradually go away.
- All of the above points can often make the first few visits in CSICU stressful for your family.

- Around 6 hours after having surgery, the nurse will provide a post op wash. At this time if you are stable, the nurse will move you into a seated position in the bed. The CSICU beds can turn into large “lazy boy” chair. If you tolerate this position change, 2 nurses will then help you to stand up.
- Your nurse sits outside your room and will come to check your IV pump, monitors and tubes at least every hour.
- During your first night you may not sleep very much even if a sleeping pill is provided.
- The first morning after surgery your bloodwork will be drawn and you will sit in a seated position for a bedside chest x-ray. Following your x-ray your nurse will assist you to stand.
- The pain is often experienced in the shoulder blades or back, which is usually due to the drainage tubes. You may also experience pain in your sternum or in your incisions.
- The nurse will ask you to rate your pain using a scale of 0 to 10. A rating of 0 means you feel no pain and 10 means you are experiencing the worst pain you can imagine.
- Your pain level should be **less than 3** on the rating scale. If your level is greater than 3, tell your nurse.



## Will I Have Pain?

It is common to have pain after surgery. The health care team will work with you to ensure you remain as comfortable as possible throughout your recovery.

Information about pain control:

- Pain medication will be given to you before you wake up and on a regular basis. It will be given in different ways. Examples include: into an intravenous (IV) line, rectal suppositories, by mouth or a combination of the above.
- Pain is different for everyone. Treating pain early is more effective than waiting until pain becomes intolerable. Don't wait until the pain gets intolerable.
- You should be comfortable enough to move, sleep, take deep breaths and cough.

## Transferring to the Cardiac Surgery Inpatient Unit (2W)

- The usual length of stay in the CSICU is 12–24 hours. Once it is safe to transfer you out, we will do so.
- Transfers out to the Cardiac Surgery Inpatient Unit (2W) occur in the morning and afternoon.
- Before you are transferred from the CSICU some of your tubes will be removed.
- Sometimes 2W has no physical bed for you to be transferred to, so you will remain in the CSICU for another night. This will not hinder your planned recovery pathway or discharge.
- Everyone responds to cardiac surgery differently. On occasion a patient may require a longer stay in the CSICU for closer monitoring.

## What About Deep Breathing and Coughing?

It is essential to do deep breathing and coughing every hour while awake to prevent lung complications (e.g. infection, pneumonia). Pain medication and supporting your sternum reduces the discomfort associated with deep breathing and coughing. This is one of the most important things you will do for your recovery.

### Protecting Your Sternum

Using both hands press the pillow over your sternum while deep breathing and coughing

### What About Activity?

Activity helps you recover faster. You will gradually increase your activity from sitting on the edge of the bed to walking in the halls. See "Recovery Pathway" on page 19.



## What Is the Safest Way to Get Out of Bed?



1. Bend one leg at a time, then roll onto your side.



2. Hang your legs over the side of the bed



3. Push yourself up the rest of the way using minimal assistance with your uppermost arm.



4. Sit for a few seconds and catch your breath. To get back into bed, reverse the process.

## What Is the Safest Way To Get Up From a Chair?



1. Slide to the edge of the chair, position your feet under your knees



2. Lean forward to position your shoulders over your knees, "nose over toes"

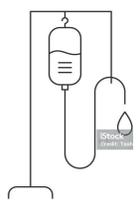
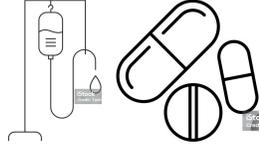


3. Use your legs to stand up – **DO NOT** use your arms



4. To sit down, reverse the process

# Recovery Pathway

Timeline	Activity	Tubes and Lines	Pain Medication	Food and Nutrition
Admission Day of Surgery	Sit on edge of bed 	Heart Monitor  Tubes and lines out when ready	IV 	No Fluids No Solid Food 
Day 1 After Surgery	Sit up and take a short walk with help 	Heart Monitor 	IV/Oral 	Fluids and food as tolerated 
Day 2	Sitting in a chair for meals and walking with help 	Heart Monitor 	Less IV/Oral 	Solid food, fluids 
Day 3 Plan for home	Walking in hallway 	Heart Monitor 	Oral 	Solid food, fluids 
Day 4 Possible discharge home	Practice small flight of stairs 	Heart Monitor 	Oral 	Solid food, fluids 
Day 5 Discharge Home	Going Home 	Heart Monitor Removed 	Oral 	Solid food, fluids 

## Recovering in the Cardiac Surgery Inpatient Unit (2 West)

Once you are ready to leave the CSICU, you will go to the Cardiac Surgery Inpatient Unit on the second floor of the Strathcona Building to continue your recovery along the Recovery Pathway described on "Recovery Pathway" on page 19.

**The usual length of stay after surgery is 4 to 5 days.** During this time your recovery will focus on wound healing, mobility, gaining independence, managing pain and preparing for going home. We will continue to monitor your heart for a few days using a portable heart monitor. Most patients will continue to be on a fluid restriction. This includes the fluids that are on your meal tray, 1 glass of water during the day, and 1 glass at night.

Your experience on the Inpatient Unit will be different than in the Intensive Care Unit. Some of the differences include:

- Sharing your nurse with other patients
- Following the Recovery Pathway guidelines

Remember, everyone recovers at their own pace.

### How Can I Expect to Feel?

It is common to feel tired and not quite yourself. Your rest and sleep may be disturbed by changes in your normal routine, unfamiliar surroundings and constant activity in the hospital. This may temporarily affect your memory or your ability to keep track of time. If you have concerns please talk to your nurse.



## What Can Happen After Surgery?

### Delirium

Delirium or confusion is a temporary condition that can occur after heart surgery. It is most common in the older adult, those who have had a prior episode of delirium and those who have signs of memory loss. Family members are in a good position to notice small changes that staff may not recognize because they don't know you as well. We encourage patients and family members to talk to staff regarding any concerns. Tell your nurse or doctor if you have experienced delirium in the past.

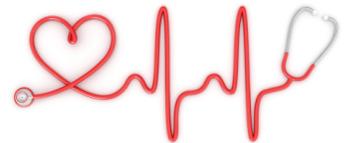
### Fluid Collections

It is not unusual to have a small amount of fluid collect inside or outside of the lung after heart surgery. Sometimes you may feel a bit short of breath. Fluid may also collect in your lower legs, hand or face. This fluid usually goes away on its own over time.

### Atrial Fibrillation

Atrial fibrillation is a common fast irregular heart beat after surgery. It occurs in 40% of patients and may delay your discharge by a few days. This can make you feel:

- palpitations
- sweaty
- nauseated
- short of breath
- dizzy or weak



The patients at risk are usually those who are older, have heart valve disease or who have had atrial fibrillation in the past. This heart rhythm is not life threatening. It often can correct itself or it can be treated with a variety of medications.

## How Will I Protect My Sternum While Doing My Daily Activities?

Doing your daily activities will be a little different following your surgery. The team will work with you in the hospital to help you learn how to remain independent while protecting your sternum.

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### Getting Dressed

- Keep your arms in front of you
- Slow down and think about your movements
- Larger short sleeve shirts will be easier to put on and take off
- Sit down to put your underwear and pants on over your feet, then stand up to pull over hips
- Put your belt through the pants loops before putting your pants on

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### Having a Shower

- You may need help to wash your back or you can use a long handled sponge
- Please avoid pushing or pulling on grab bars
- Do not stay in the shower too long, it may make you feel tired
- When moving arms above shoulder height (ex. to wash or comb hair), always raise and lower both arms at the same time

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### Using the Toilet

- Do not reach behind you to flush the toilet
- You should stand up and face the toilet to flush
- Wipe from the side or front
- Do not hold your breath when having a bowel movement

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### Riding in a Vehicle

- Use a stool to access large pick-up trucks
- With your left hand reach across your body to put on your seatbelt
- Sit on the seat first, then swing your legs in

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You may need a raised toilet seat or a bath transfer bench at home for a short time after surgery. The Occupational Therapist will assess this following your surgery.

## When Will I Be Ready To Go Home?

You are ready to go home when:

- heart rate, blood pressure, and temperature are stable
- pain is well controlled
- able to get in and out of bed on your own
- able to wash/shower, walk and dress on your own
- your bowels have moved
- you have a place to go, a ride to get you there and someone to stay with you for the first few nights
- discharge teaching is complete

## Section 3: Recovery at Home

You have made great progress! It may take 3 to 6 months to fully recover from your surgery. Patients have told us it takes about two weeks to start feeling like yourself again. This will depend on your age, health condition before surgery and whether or not you had any complications.



### Important Points About Recovering at Home:

- If you had CABG surgery you will receive a diagram of your heart vessels that shows where the bypass grafts were placed
- If you had valve surgery you will receive a temporary valve card, please keep this in your wallet. A permanent card will be mailed to your home in a few months.
- If you had valve surgery you will need to take antibiotics prior to any dental procedures
- Take pain medication regularly for the first few weeks, if needed
- Continue your walking program
- Shower a minimum of every 2 to 3 days
- When sitting, raise your feet up if you have leg or ankle swelling
- Balance rest and activity
- Energy level and mood may vary
- Be patient with your recovery
- Go to your follow-up appointments

## What About My Incisions?

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You may notice a small amount of drainage from your incision(s) or chest tube sites ranging in color from clear yellow to reddish brown. This should stop within the first week or two after you get home.

Most patients will go home with their incision open to air (no dressing). If you do require a dressing at home your nurse will provide you and your family with individualized teaching prior to going home.

Some patients will have a special coating on their leg incision. This is called a "Prineo Dermabond" dressing. Do not peel or remove this dressing. If it starts to peel please contact your health care provider. Your nurse will provide you with an information handout on the Prineo Dermabond dressing.

It is normal for your incision to feel itchy as it heals. **Do not:**

- Rub or scrub your incision
- Use lotions or powders on your incision until the skin has completely healed
- Expose your incision(s) to the sun as the scar may discolour
- Sit in a bath tub, hot tub or public swimming pool for at least 8 weeks
- Apply any lotions, ointments, or vitamin E on your incisions

## When Should I See My Family Doctor? If:

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- Incision drainage increases or turns yellowy green
- The incision becomes red, tender or warm to the touch
- You develop a fever
- You have new or increased swelling
- Please refer to your "Caring for your Incisions" pamphlet in your discharge package for more information

## How Do I Protect My Sternum?

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Your sternum will take 8 to 12 weeks to heal. It is important to continue using both of your hands to support your sternum when coughing or sneezing. You may sleep on either side but not your stomach.

During this time **avoid:**

- Using only one arm to push or pull (e.g. using a cane, opening heavy doors, car doors, or pulling handle on chair recliner)
- Lifting, pushing or pulling anything heavier than 5 pounds (e.g. grocery bags, children, garbage or pets)
- Activities reaching behind your back or above your head
- Activities that involve reaching or stretching your arms out to the side
- Vigorous sports/activities for 3 months, (e.g. golfing, tennis, skiing or swimming). Check with your doctor first.

These activities can strain your sternum causing pain or affect the healing process. If you are having trouble remembering to use sternal precautions at home, try using brightly colored post-its notes or signs around the house in areas where you automatically go to use your hands.

## What About My Medications?

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Follow the medication instructions you received. Check with your doctor before stopping or starting any medications. Please check with your doctor or pharmacist before taking any herbal supplements or vitamins.

## What Can I Eat And Drink at Home?

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Try to eat a balanced heart healthy diet. Fluids may have been limited while in hospital, but you may drink normally once you return home, unless otherwise instructed.

It is common to have a loss of appetite after surgery. This will improve as you begin to feel better. Often small meals are more tolerable.

## Tips for Heart Healthy Eating

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### Eat more:

- Vegetables and Fruits
- Whole grains
- Beans and legumes
- Nuts and seeds
- Fish
- Herbs and Spices
- Healthful Oils – Avocado, Olives, Olive Oil

### Eat Less:

- Processed foods (such as fast foods, hot dogs, chips, cookies, frozen pizzas, deli meats, white rice, white bread).
- Salt
- Sugar
- Alcohol

## What Activities Can I Do at Home?

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Begin with light activities: setting the table, preparing light meals, dusting, tidying up or indoor gardening. Increase to heavier activities over the next 3 months as you feel able.

### Avoid:

- vacuuming
- heavy lifting
- weeding the garden, raking or mowing grass
- shovelling snow



## When Can I Drive?

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You are not permitted to drive a personal or commercial vehicle **at all** for 6 to 8 weeks after surgery and you have permission from your doctor. This includes ATVs, tractors or recreational vehicles. Your reaction time may be slower due to fatigue, weakness or new pills and **you will not be covered by your insurance.**

Remember to ALWAYS wear a seatbelt. You may find it more comfortable to place a pillow between your chest incision and the seatbelt.

## **When Can I Return to Work?**

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You can return to work 6 to 12 weeks after your surgery depending on the type of work. Ask your doctor about your return to work.

## **What About Visitors?**

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It is OK to limit the number of visitors and the length of visit if you are tired or feeling unwell. Try to discourage visitors during your first few days at home. When you feel rested ask friends and family to visit for short periods.

## **What May Families / Caregivers Experience?**

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It is common for caregivers to get tired and run-down during your recovery. Caregivers need to pay attention to their own needs.

Your caregiver should:

- continue to eat a proper diet
- get a good night's sleep
- continue their own activities and recreation
- talk about their own feelings
- be able leave you home alone for a few hours

## **How Will I Feel Emotionally?**

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Feelings of fear, sadness, anxiety, frustration, mood swings, depression or "just feeling blue" can happen before or after surgery. This is normal and can last for a few days to weeks. Talking about your feelings may help you and your family cope during the recovery period. If these feelings concern you, or last longer than two weeks, speak with your family doctor.

## **When Can I Have Sex?**

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Some people worry about having sex after surgery. If you are feeling well and can climb stairs without any discomfort or shortness of breath, then you can return to sexual activity. Sternal precautions still apply.

## **When Can I Travel?**

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You will be able to fly home when you are ready to be discharged. It is recommended that you not travel alone. If you are travelling alone you will need assistance from the airline staff to carry your luggage or to transport you from the check in desk to the gate. Just in case you are wondering, the sternal wires will not beep when going through airport security.

If you are driving home and your journey is longer than two hours, you should get out, stretch your legs, and walk around the car every hour to prevent blood clots from forming.

Check with your doctor and insurance company before making any international travel plans once you have recovered.

## Exercise Program After Heart Surgery

For the first 12 weeks following your surgery, your body is in the process of healing. During this time, exercise is important in preventing the complications of inactivity. Walking will be your main form of exercise to improve your general strength and endurance. You must increase the work of your heart slowly.

Your exercise program consists of warm up and cool down exercises, a slow walk followed by a "Cardiac Walk" on page 27. You begin with seated exercises and a slow walk then ease into your cardiac walk, then slow walk and end with cool down exercise. The following pages will describe this exercise program.

### Instructions for Seated Exercises:

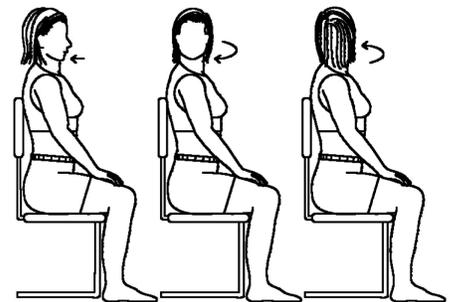
1. Do 5 to 10 repetitions of each exercise one to two times daily.
2. Sit tall on a firm chair with your feet flat on the floor.
3. The warm up exercises should be done slowly and they should be comfortable. Do not force any movements. Breathe normally. NEVER HOLD YOUR BREATH!
4. Good posture is important. Try to keep your shoulders back and relaxed. Avoid slumping forward.

### Seated Exercises

#### Neck

- Sit in chair with back support
- Perform chin tuck by moving head backward, but not allowing chin to lift upward
- While in chin tuck position, turn head to left, then turn to right. Repeat

Perform 5 to 10 repetitions, twice a day

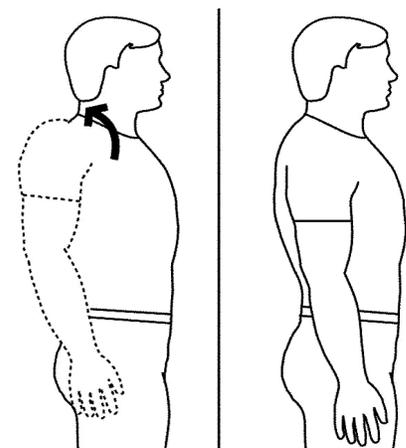


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#### Shoulder

- Stand or sit, raise shoulders upward toward ears, and roll backwards
- Return to start position

Perform 5 to 10 repetitions, twice a day



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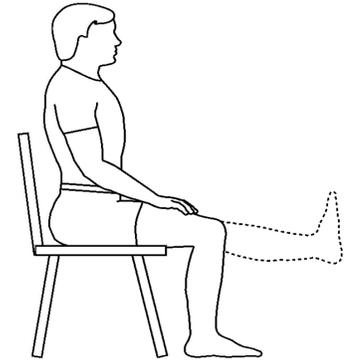
## Hamstring

Sit on chair, knee bent.

- Keep a proper curve in low back, as shown
- Flex left foot upward, while straightening knee
- Repeat stretch with other leg

### Special Instructions:

Do not allow low back to lose the curve. It is common to experience shaking in the leg. Perform 5 to 10 repetitions, twice a day Hold exercises for 10 seconds

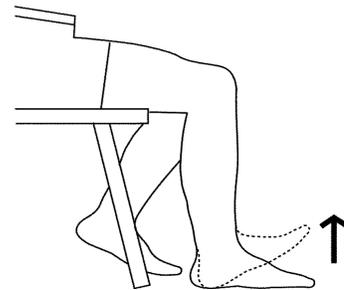


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## Ankle

- Sit in chair, feet flat on floor
- Raise one foot up on heel of foot
- Lower and repeat with other foot

Perform 5 to 10 repetitions, twice a day



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## Shoulder Raises

- Begin with arms at side, palms facing in, sitting or standing
- Raise arms together; upward in front
- Return to start position



## Slow Walk

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A slow walk consists of approximately 2 to 5 minutes of an easy stroll.

## Cardiac Walk

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A CARDIAC WALK is for the benefit of your heart and circulation.

- Continue the Cardiac Walking Program you started in hospital
- Walks should begin on flat, level ground until reaching 30 to 60 min. Flat area alternatives include shopping malls, grocery stores, walking tracks, within your house if weather does not permit outdoor walking
- As a guide, increase your walking by 2 minutes per walk to reach a goal of 30 to 60 minutes most days of the week

- Take short rest breaks when needed during the walk
- It is normal to have fatigued after surgery. If you're feeling more fatigue than normal, you may be overdoing it with your activity. Try breaking walks up more throughout the day (eg. two 15 min walks with breaks between) or decrease walking time by a few minutes and slowly begin to increase it again over time
- When you attend a community exercise/cardiac rehabilitation program, you will receive further guidelines about exercise

Note: A stationary exercise bike can be used instead of walking when the weather is poor. You should avoid stationary bikes with high seats requiring you to climb up. Start with 5 minutes and gradually progress similar to your walking program. Do not use any resistance until you can cycle comfortably for at least 20 minutes. Please also avoid treadmills.

## Stairs and Hills

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Climbing stairs or hills requires more energy than walking on the level. You should be able to talk comfortably while you walk. How hard you exercise is determined by the "Talk Test". If you are... finding... that you... have to... breathe... between... words, you should slow down:

- Plan your day so that you do not have to climb stairs too often
- Choose walking routes that are not hilly
- Avoid uneven ground and beach walking until your balance and endurance improves
- Gradually incorporate "hilly challenges" into your program as your strength and endurance improves
- Start slow by walking ¼ to 1/2 way up the hill. If the next day your energy level remains the same, try to go a bit further.
- Don't try to walk to the top of a large hill on your first try

## Important Points to Remember

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- Book and attend your follow-up appointments as listed "Discharge Instructions" on page 32
- Your **top priorities** are getting dressed every morning, eating balanced meals and following your walking program "Cardiac Walk" on page 27
- Look at your incisions everyday
- A day working in your house or garden DOES NOT replace your cardiac walks
- Avoid extended sleep periods during the day; short naps are okay
- Slow your pace and dress appropriately if outdoors in extreme weather conditions
- Avoid sitting for longer than 1 to 1½ hours (e.g. long distance traveling, T.V., computers). Get up and walk around to help the circulation in your legs, and to avoid blood clots
- Pace yourself as all "on your feet activity" is work for your heart

## Signs to Stop and Rest while Exercising

- Pain or discomfort in the chest, neck, jaw, arms, back
- Excessive sweating
- Nausea and/or dizziness
- Extreme shortness of breath
- Feeling cold or clammy
- Unusual fear or apprehension

If any of these symptoms have not settled within 15 to 20 min, CALL 911.

## Cardiac Rehabilitation

**Cardiac Rehabilitation** (Cardiac Rehab) is a program of exercise sessions, education and counseling designed to help you recover after a heart attack, surgery or other heart condition. Research shows it can help you regain strength, prevent your condition from getting worse and reduce your risk of having heart problems in the future. Along with education sessions, some programs offer a series of guided exercise sessions to build fitness, endurance and confidence.

After discharge from hospital you will be referred to Cardiac Rehab. You should expect to receive a call to book an appointment with Cardiac Rehab in your area within one month after your discharge home. You may also talk to your doctor, physiotherapist or nurse about programs available in your community. If you do not receive a call or want to learn more about programs in your area, please call the **COACH office at (250) 763-3433 or local programs** below.

### The following communities within Interior Health offer Cardiac Rehab Programs:

Cranbrook Wellness Centre	(250) 489-6414
Kamloops (VIP)	(250) 314-2727
Kelowna (COACH)	(250) 763-3433
Nelson Chronic Disease Management	(250) 354-2397
Oliver, Osoyoos, Penticton Wellness Program	(250) 770-3530
Vernon Cardiac Rehab	(250) 503-3712

For more information, visit [www.interiorhealth.ca](http://www.interiorhealth.ca)

For other communities, Cardiac Education Series is offered via video conference linkage from COACH, Kelowna every Monday at 10:00 a.m. (Pacific time), 11:00 a.m. (Mountain time)

<ul style="list-style-type: none"><li>• Creston</li><li>• Fernie</li><li>• Golden</li><li>• Grand Forks</li><li>• Invermere</li><li>• Kimberley</li></ul>	<ul style="list-style-type: none"><li>• Merritt</li><li>• Salmon Arm</li><li>• Trail</li><li>• Williams Lake</li><li>• Future sites coming...</li></ul>	<b>*Cardiac Education Series</b> Eat Smart Stress Management Anatomy & Procedures Exercise Guidelines Medications Atrial Fibrillation
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For more information, call COACH Kelowna 250-763-3433 or visit [www.coachkelowna.com](http://www.coachkelowna.com)

## What To Do If You Have Concerns

If you notice the following...	What you should do...
<p>New or worsening shortness of breath. This can be caused by fluid inside the lung or fluid in the space outside the lung "Fluid Collections" on page 20.</p>	<p>Call your family doctor or if symptoms are sudden or causing distress, call 911 (do not drive yourself).</p>
<p>Fast and/or irregular pounding of your heart and feeling dizzy or faint. Atrial fibrillation is common after heart surgery "Atrial Fibrillation" on page 20.</p>	<p>Go to Emergency Department (do not drive yourself). If there is no one to drive you, call 911.</p>
<p>Chest pain not related to your chest incision or angina pain similar to the pain you had prior to surgery.</p>	<p>Stop what you are doing and sit down. If prescribed, take your nitroglycerin spray every 5 minutes until the pain is gone. If you still have pain after a total of 3 sprays call 911. DO NOT drive yourself to the hospital.</p>
<p>Redness, tenderness, or drainage from your incision.</p> <p>Increasing swelling in your leg incision or swelling in both legs.</p> <p>New or worsening cough with thick greenish phlegm.</p> <p>Fever above 38°C or 101°F</p>	<p>Call your family doctor.</p> <p>See "Caring for your Incision after Cardiac Surgery" pamphlet for more information.</p>
<p>No bowel movement for a few days.</p>	<p>Increase your fluids and fibre.</p> <p>Exercise.</p> <p>Talk to your doctor or pharmacist.</p>
<p>If you have <b>any</b> warning signs of stroke:</p> <ul style="list-style-type: none"> <li>• sudden weakness or numbness in arm, leg or face</li> <li>• sudden severe headache</li> <li>• visual problems (e.g. double, blurred, cloudy or total loss of vision)</li> <li>• sudden confusion, difficulty speaking or understanding</li> <li>• sudden dizziness or loss of balance especially with any of the above</li> </ul>	<p>Call 911.</p> <p>Do not drive yourself or have any one else drive you.</p>

## Resources

### Cardiac Education

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- Heart and Stroke Foundation of Canada  
[www.heartandstroke.bc.ca](http://www.heartandstroke.bc.ca)
  - > Health Information
  - > Patient Programs
  - > Resources for Heart PatientsTel: 1-888-473-4636
- Interior Health  
[www.interiorhealth.ca](http://www.interiorhealth.ca)  
Click on "Your Care"
  - > Heart (Cardiac) Health
  - > Health Education or Heart Services for further information

### Stop Smoking

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- **Quit Now** by Phone/Online Support  
[www.quitnow.ca](http://www.quitnow.ca)  
Tel: 1-877-455-2233  
24 hours/day, 100 languages spoken.

### Cardiac Rehabilitation

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- COACH Kelowna  
[www.coachkelowna.com](http://www.coachkelowna.com)  
Tel: 250-763-3433

### Healthlink BC

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#### Dial 8-1-1

[www.healthlinkbc.ca](http://www.healthlinkbc.ca)

- Nurse available daily  
24 hours/day
- Pharmacist available daily  
between 5 p.m. and 9 a.m.
- Dietitian available Monday to Friday  
between 9 a.m and 5 p.m.

### Diabetes Education

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- Canadian Diabetes Association  
[www.diabetes.ca](http://www.diabetes.ca)
- Refer yourself: Contact Central Okanagan Diabetes Program  
250-980-1406
- To find a diabetes program in your area, go to:  
[www.healthlinkbc.ca](http://www.healthlinkbc.ca)
  - click on "Services and Resources" and search "Diabetes" for your community  
[www.interiorhealth.ca](http://www.interiorhealth.ca)
  - click on "Your Care"
    - > Chronic Disease Management
    - > Diabetes

### Stress Management

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- Mental Health Information Line  
24-hour semi-automated mental health resources in B.C.  
Tel: 604-669-7600  
Toll-free: 1-800-661-2121
- Canadian Mental Health Association  
[www.cmha.ca](http://www.cmha.ca)  
Kelowna Branch Tel: 250-861-3644  
B.C. Division Office Tel: 1-800-555-8222

## Discharge Instructions

Discharge teaching will be provided to you and your family throughout your hospital stay. If you have questions about a particular item please ask your nurse. You will receive a discharge package at your time of discharge. This package will be reviewed with you as it contains some important documents you will need at home.

### What Do You Need to Do?

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#### Make your own follow-up appointments to see the:

- Family Doctor/Nurse Practitioner in 1 week \_\_\_\_\_
- Cardiologist/Internal Medicine in 4 weeks \_\_\_\_\_  
Your family doctor will refer you to a cardiologist or internist nearest to your home community
- Surgeon in 8 weeks or earlier if concerns: \_\_\_\_\_  
You need to call the Surgeon's office to book your appointment **when you know the date of your cardiologist appointment.** The number is **250-862-4336.**
- Please bring your "Cardiac Surgery Discharge summary" to every appointment

### What Are We Going to Do?

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As part of our **Cardiac Surgery Discharge Follow-Up Phone Line**, we will call you at home (or elsewhere if you provide the number) within the first few weeks after you go home. The purpose of our call is to find out how you are doing and to answer any questions you or your family may have. You do not have to wait for us to call you if you have questions. The phone number is **250-862-4300 ext. 23367**. You may leave a message after business hours and we will return your call the next day. **If it is an emergency, call 911.**

Please see your family doctor for any medical questions or non emergent concerns. If it is an emergency call 911.

## Patient Cardiac Surgery Passport

As a patient there are some items you will need to complete before going home. Please discuss with the health care team on how to complete the following (only check off once completed and reviewed with your health care team):

- Sitting up in chair for all meals (with assistance until cleared to do so on your own)
- Participate in 3–4 walks per day (with assistance until cleared to walk on your own)
- Have a Bowel Movement
- Review “How do I care for my Incision” poster
- Review “Heart Healthy Eating” poster
- Review “How do I protect my sternum?” poster
- Review “Progressing Activity” poster
- Review “Recovering at Home” poster
- Review “Cardiac Rehab” poster
- Review “Follow-up Appointments” poster
- Complete stairs with Physiotherapist
- Shower (ask your nurse first)
- Review how to get dressed with Occupational Therapist (OT)
- Review Section 3: Recovery at home, in “Your Heart Surgery Journey: A Patient and Family Guide”
- Watch cardiac surgery discharge video: <https://bit.ly/AfterHeartSurgery>



## Patient at Home Checklist

Use this checklist to help with your recovery at home. Check off items as you complete them.

- Book appointment to see family doctor in 1 week
- Book appointment to see Cardiology in 4 weeks
- Book appointment to see Cardiac Surgery in 8 weeks (call 250-862-4336 to make this appointment 2 weeks before your follow-up appointment is due)
- Cardiac Rehab: If I haven't heard from them by 4 weeks, call COACH Kelowna at 250-763-3433
- Eat heart healthy meals
- Complete Cardiac Walk most days of the week
- Look at my incisions every day and watch for signs of infection (page 23).
  - If you suspect you have an infection please call your family doctor.
  - If you are told you have an infection or are started on antibiotics please notify the cardiac surgery team 250-862-4327
- Follow sternal precautions for 8 to 12 weeks
- No driving until cleared by my nurse practitioner or doctor (6 to 8 weeks)
- Review discharge video if needed. Link:  
<https://bit.ly/AfterHeartSurgery>





**“To set new standards of excellence in the delivery of Health Services in the Province of British Columbia”**

**IH / KGH Cardiac Surgery Program Core Values**



This booklet was developed by the Kelowna General Hospital Cardiac Surgery Patient Education Committee and reviewed by the Cardiac Surgery team, as well as patient, family, community and regional partners.