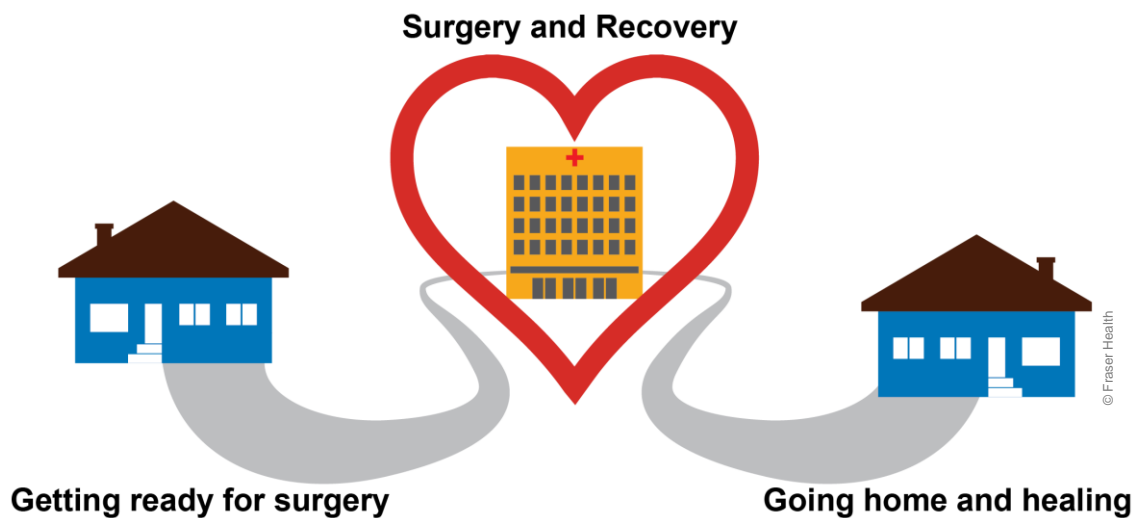


# Your Heart Surgery Journey

## Your Surgery and Hospital Stay

Royal Columbian Hospital



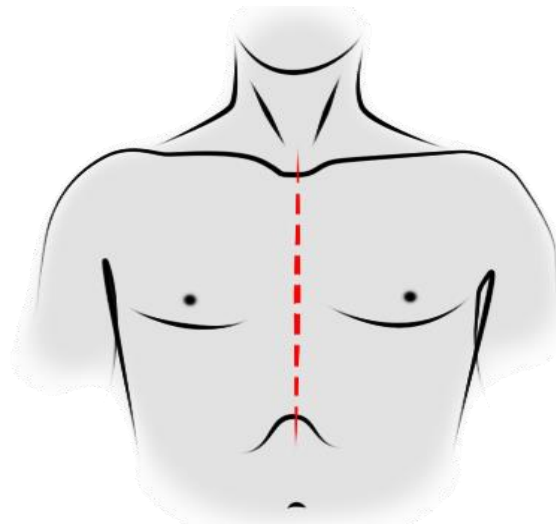
***Be involved in your journey...***

I am having:

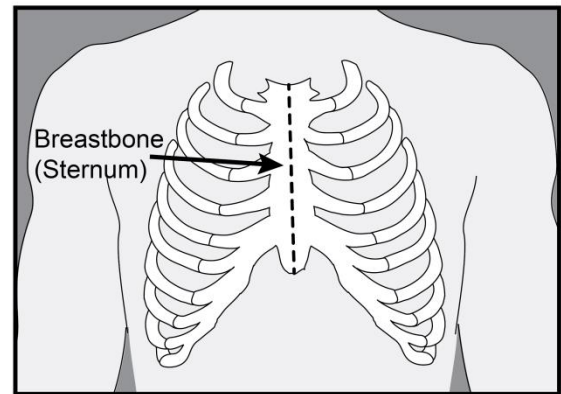
- ☐ Coronary Artery Bypass Surgery
- ☐ Valve Surgery
- ☐ Aortic Aneurysm Surgery

## How is heart surgery done?

The surgeon makes one long cut through the skin (an incision) on your chest and does the surgery through that opening. Your breastbone is split down the centre. The surgeon then opens your chest and exposes your heart.



CC BY-SA 4.0 / Stockholm / WikiMedia Commons



© Fraser Health

Breastbone cut along the dotted line

To do the surgery, your heart must be stopped. To make sure your body continues to get the oxygen it needs, we connect you to a heart-lung machine. This machine does the pumping work of the heart and adds oxygen to the blood.

After the surgery is finished, the surgeon repairs your breastbone by wiring the two pieces together. The surgeon then places chest tubes in your chest to drain any blood that collects in your chest. Nurses remove these tubes a day or so after your surgery. The surgeon closes your skin with staples. Your doctor removes these after you have gone home.

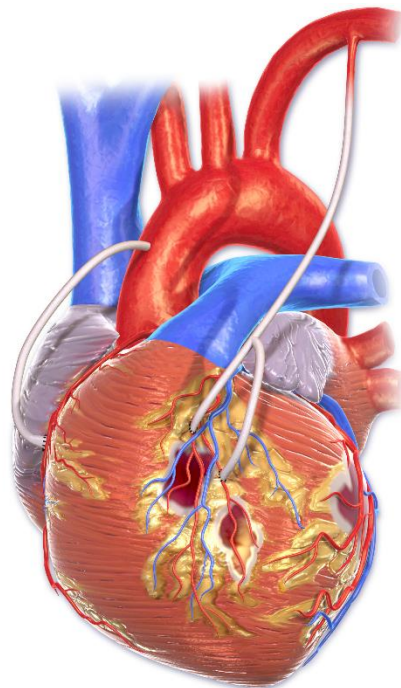
If you are having bypass surgery you might also have a long incision down one or both legs where veins were taken to bypass your blockages.

## Bypass Surgery

Coronary Artery Bypass Graft Surgery (CABG) treats blocked heart arteries by creating new passages for blood to flow to your heart muscle. It works by taking arteries or veins from other parts of your body - called grafts - and using them to reroute the blood around the clogged artery.

You might be scheduled to have 1, 2, 3, or more bypass grafts, depending on how many coronary arteries are blocked.

This surgery is one of the most common and effective procedures to manage blockage of blood to the heart muscle. It improves the supply of blood and oxygen to the heart, relieves chest pain, reduces risk of heart attack, and improves your ability to do physical activity.



**Coronary Artery Bypass Graft (CABG)**  
*Triple Bypass*

CC BY 3.0 / Blausen.com staff (2014). "Medical gallery of Blausen Medical 2014". *WikiJournal of Medicine*

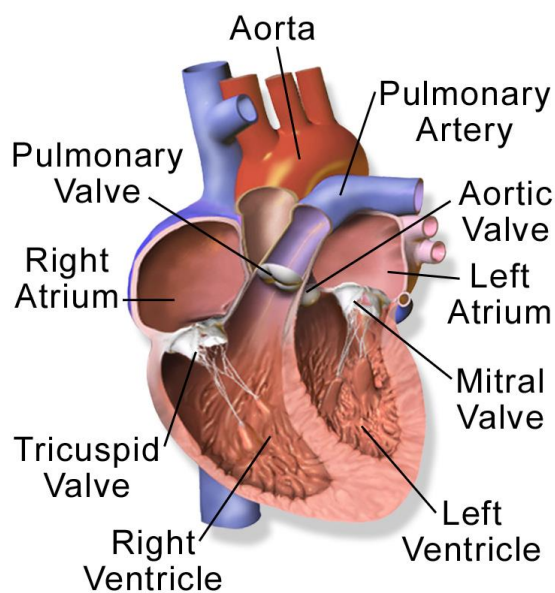
## Valve Surgery

Your heart has 2 sides and 4 chambers. There are 4 one-way valves between the chambers. These valves help control the flow of blood through the heart. If a valve does not open or close properly, blood does not flow as it should.

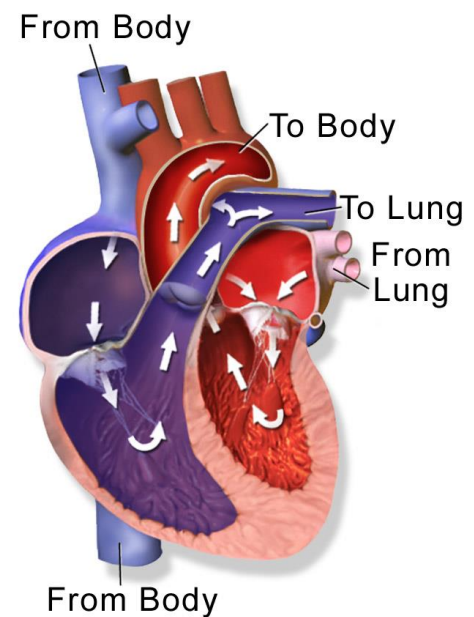
The goal of heart valve surgery is to restore the function of your heart valves, whether they are diseased or damaged. If a valve cannot be repaired, it is replaced with an artificial valve.

Surgical options for valve replacement include:

- Mechanical valve (a long-lasting valve made of durable materials)
- Tissue valve (which could include human or animal tissue)



**Anatomy of the Heart**



**Normal Blood Flow**

CC BY 3.0 / Blausen.com staff (2014). "Medical gallery of Blausen Medical 2014". WikiJournal of Medicine

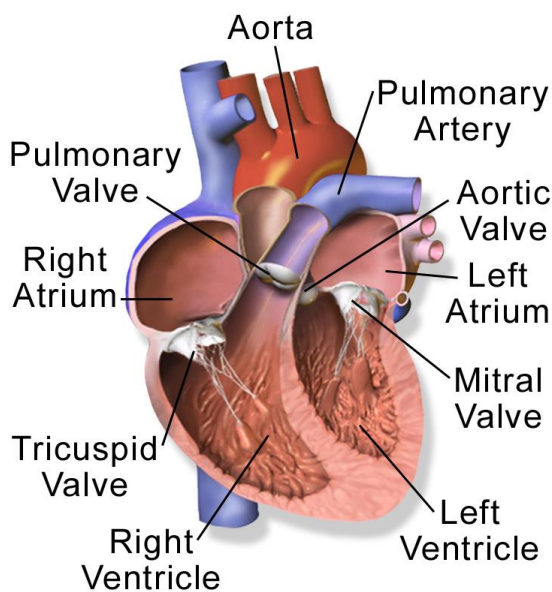
## Aortic Surgery

The aorta is the main artery that carries blood away from your heart to the rest of your body. After the blood leaves the heart through the aortic valve, it travels through the aorta. The aorta makes a cane-shaped curve over and behind the heart. It connects with other major arteries to deliver oxygen-rich blood to the brain, muscles, and other cells.

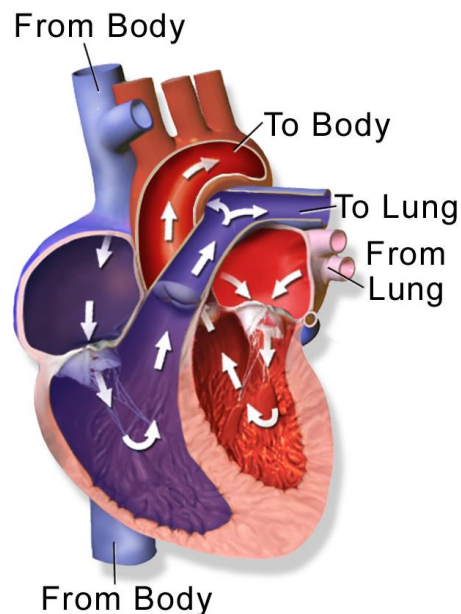
When a problem occurs with the aorta, the heart and the entire body's blood supply can be put at risk. An aortic aneurysm is a weakened or bulging area on the wall of the aorta. It can happen anywhere along the length of the aorta. Sometimes blood leaks in between the tissue layers of the aorta, called an aortic dissection.

There are 2 main options for treating aortic aneurysms and dissections:

- Surgery to repair or replace the injured section of the aorta.
- Medication to lower blood pressure and lessen the chances of the aorta splitting open or rupturing (not an option in an emergency).



**Anatomy of the Heart**



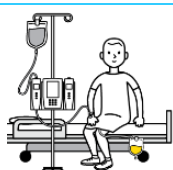


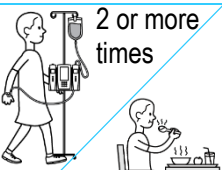
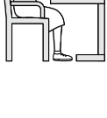
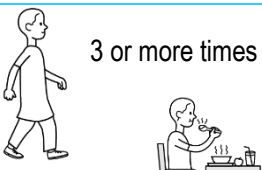


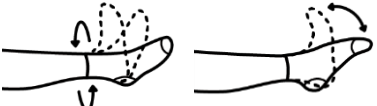

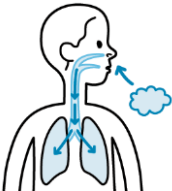





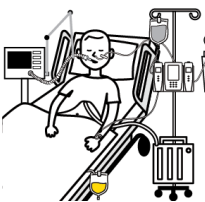
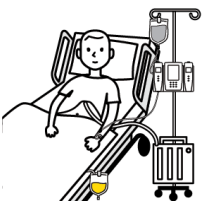
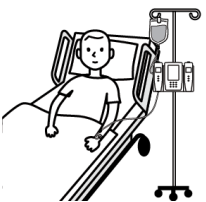

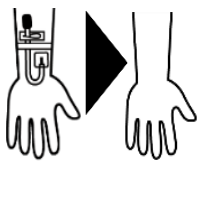


**Normal Blood Flow**

CC BY 3.0 / Blausen.com staff (2014). "Medical gallery of Blausen Medical 2014". WikiJournal of Medicine

## Path to Home Guide: Heart Surgery

This gives you an example of a person's recovery in hospital after surgery.

Category	After Surgery				
	Surgery Day	Day 1	Day 2	Day 3	Day 4 to home
<b>Nutrition</b>	 Light diet	 Heart healthy diet			
<b>Activity</b>	 Sit or stand at bedside	 Walk short distance  Sit for meals	 2 or more times  Exercise class	 3 or more times  Exercise class	 Climb stairs
	Leg exercises every day 				
<b>Deep Breathing Exercises</b>	Every day  10 times per hour		 Hold 5 sec		
<b>Pain Control</b>	By intravenous 	Pills  Pain is at a level comfortable for you			
<b>Tubes and lines</b>	 Breathing tube Stomach tube Intravenous Chest tubes Urinary catheter	 Intravenous Chest tubes Urinary catheter	 Intravenous	 Intravenous capped	



# After Your Surgery

## Surgery Day - In the Cardiac Surgical Intensive Care Unit

- You are still asleep when we move you from the Operating Room to the Cardiac Surgical Intensive Care Unit (CSICU).
- You sleep for several hours. When you wake up, you might feel confused at first. The Unit might be noisy and the lights are often on. It is normal to lose track of time. Because of the medicines we give you, you won't remember much about this time.
- You have a tube in your mouth and down into your windpipe (trachea) called an endotracheal (or ET) tube. This is connected to a breathing machine to help you breathe. The tube can be uncomfortable and you cannot talk. We help you communicate with us in other ways. This breathing tube stays in until you can breathe on your own. Usually, the tube comes out after a few hours. We give you medicine while the tube is in place to help you relax. Most of this time you will be asleep.
- We leave in place the tubes and lines put in before and during surgery until you no longer need them.



Intravenous – a tiny flexible tube inserted through your skin into a vein. We use this to give you fluids, medications, and blood (if needed).

Chest tube(s) – put into the chest to take away any fluid that builds up in your chest from the surgery.

Stomach tube (nasogastric tube) – a flexible tube that goes in through your nose, down into your stomach. It keeps your stomach empty until your digestive system wakes up.

Urinary catheter – a flexible tube that goes into your bladder to drain urine (pee).



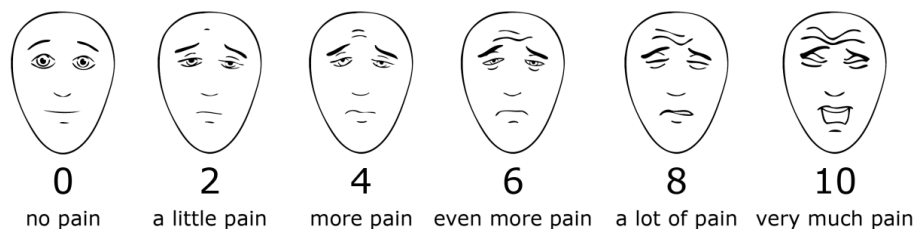
- We connect you to machines that monitor your heart rate, blood pressure, and oxygen levels. All the machines have lights and make sounds.
- You can have visitors here. Because of space, we might limit how many people can visit you at one time.

## Day 1 to 2 - In the Cardiac Surgery Unit

We move you to a hospital room on our Cardiac Surgery Unit, usually after an overnight stay in the CSICU.

### Managing pain

- You will be sore after your surgery. We give you pain medication regularly to help keep your pain under control.
- Your pain should be at a comfortable level that allows you to move, deep breathe, cough, and move around.
- We might ask you to rate your pain using a pain scale like this one here. The faces show how much something can hurt (not what your face looks like when in pain). From left to right, the faces show more and more pain. You can point to the face that shows how much you hurt, or tell how much you hurt using words or a number from 0 to 10.<sup>1</sup>



Tell us:

- when your pain reaches a 4 or more
- when the pain medicine is not helping ease the pain

<sup>1</sup> Faces Pain Scale – Revised (FPS-R). [www.iiasp-pain.org/fpsr](http://www.iiasp-pain.org/fpsr). Copyright © 2001, International Association for the Study of Pain®. Reproduced with permission.



## Drinking and eating

- You can begin to drink fluids as soon as we take the breathing tube out. Once we remove the stomach tube, you can start to eat.
- Your body needs healthy foods with extra calories and protein to help you heal.
- Passing gas is a sign your bowels are starting to 'wake up' after surgery. Your nurse asks you often if you are passing gas or if your bowels have moved (had a poop).



## Keeping clean

- To begin with, you wash yourself at your bedside, then in the bathroom. Depending on how you feel, you might be able to have a shower before you go home.
- We provide hand sanitizer (alcohol-based hand rub).  
Clean your hands using hand sanitizer (alcohol-based hand rub):
  - before eating or drinking
  - before you leave your room
  - after sneezing, coughing or blowing your nose
- Clean your hands with soap and water after using the toilet and any time they are visible dirty.
- Wear underpants (and bra for women) at all times.
- Clean your mouth and teeth at least 2 times a day.  
This removes germs that can cause chest and mouth infections.





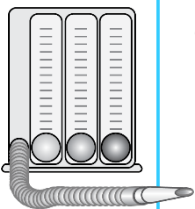
## Caring for your incision

- You have a bandage covering the incision on your chest. We clean your incision and change the bandage as needed.
- **Always** wash your hands before and after touching around your incision site(s).
- Before you leave the hospital, your nurse will teach you how to care for your incision at home.

## Getting moving



- Expect us to ask you to move about soon after surgery. We start you with sitting on the edge of the bed, then standing beside the bed. We walk you short distances to start and increase slowly as you regain your strength.
- We ask you to do deep breathing and coughing exercises to help clear your throat and lungs of any fluids or mucus.
- To protect your chest, we give you a pillow or blanket to hold. You hold it against your chest when you cough or do anything that strains your chest.
- While in bed and sitting, do some leg exercises such as point your toes, do ankle circles, and bend and straighten your legs.
- A physiotherapist shows you how to move about while protecting your chest and breastbone.
- You might also get a device that helps you do your deep breathing, called an incentive spirometer.



## Going Home

- Most people go home 4 to 6 days after surgery.
- While in hospital, we give you lots of information on what to do after leaving the hospital.



## My Notes and Questions

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## For More Information Visit These Websites

---

Fraser Health

[fraserhealth.ca/heart](https://fraserhealth.ca/heart)



Pacific Open Heart Association

[pacificopenheart.org](https://pacificopenheart.org)



Cardiac Services British Columbia

[cardiacbc.ca/health-info](https://cardiacbc.ca/health-info)



Along with web addresses, we have included QR codes here.

A QR code (short for 'quick response' code) is a type of barcode that you scan with your smart device's camera. Once scanned, it takes you to that web page.

[www.fraserhealth.ca](https://www.fraserhealth.ca)

This information does not replace the advice given to you by your healthcare provider.

Catalogue #266194 (March 2021)

To order: [patienteduc@fraserhealth.ca](mailto:patienteduc@fraserhealth.ca)

