

# Cardiac Surgery



## Purpose

- This pamphlet was created by the Cardiovascular Surgery Department at Nova Scotia Health to give you and your support persons information about getting heart surgery. It has information about:
  - › what you can do before your surgery to help it go well.
  - › what will happen during your hospital stay.
  - › what you can do after your surgery to have a good recovery.
- Please ask your support persons (your support person can be your family, your friends, or other loved ones) to read this pamphlet. You and your support persons play an important part in your recovery and your health.
- We want you to take an active role in choosing how to best manage your current health condition.
- If you are considering heart surgery, we have a Shared Decision-Making Aid that can help you and your health care team make a decision about surgery. Ask a member of your health care team if you would like more information.
- **We want you to take an active role in deciding the best way to manage your health.** Everyone is different. You know your values, preferences, and goals best. You are also the only one who knows how your condition affects your quality of life. Your care team can give you medical information, but we need your input so that we can work together to make the best choice for you. The Shared Decision-Making Aid will give you the information you need to make a well-informed choice. Please feel free to get opinions from other medical experts, and talk with your health care team about any questions or concerns you may have.

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# Cardiac Surgery

## Contact information

If you have a change in your symptoms or other concerns while you are waiting for your surgery, please contact your surgeon's office at 902-473-3292 between 8 a.m. and 4 p.m.

Please complete the following contact information for your personal use. We do not collect this information.

## Contact person

Name: \_\_\_\_\_ (Cell): \_\_\_\_\_

(Home): \_\_\_\_\_

## Primary health care provider (family doctor or nurse practitioner)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

## Pharmacy

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

## Cardiologist

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

## Cardiac surgeon

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

## Important dates and appointments

Surgery date: \_\_\_\_\_ Time: \_\_\_\_\_

Discharge date: \_\_\_\_\_ Time: \_\_\_\_\_

Primary health care provider follow-up appointment:  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

Cardiologist follow-up appointment:  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

Cardiac surgeon follow-up appointment:  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

## Admission checklist

- If you have trouble speaking or understanding English and need a translator:
  - › Please tell a member of your health care team as soon as possible, so we can make arrangements for your hospital stay and appointments.
- If you have a disability:
  - › Please tell a member of your health care team as soon as possible, so we can arrange for any accommodations you may need.
- If you have any cultural needs:
  - › Please tell a member of your health care team as soon as possible, so we can make any arrangements you may need.
- Please tell your health care team your preferred pronouns (like she/her, they/them).
- Bring all of your medications in their original bottles.
- Toiletries, like:
  - Toothbrush
  - Toothpaste
  - Razor
  - Shaving cream
  - Hair brush/comb
  - Deodorant

## Scent-free policy

All Nova Scotia Health buildings are scent free. Please do not use scented products.

- Special items if needed, like:
  - Ear plugs
  - Glasses and case
  - Contact lenses and case
  - Hearing aids and case
  - Dentures and case
  - Walking aids (walker, cane, prosthetics)
  - CPAP machine
- Provincial health card
- Copy of your discharge plan
- Copy of your Personal Directive (if you have one)
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1942.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1942.pdf)
- Pyjamas (that do not pull over your head) and housecoat (robe)
- Slippers (rubber non-slip sole with closed heel)
- Bra, underwear
- Leave all valuables at home (all jewelry, like wedding rings)
- Bring this pamphlet with you to the hospital

## Discharge (leaving the hospital) planning

- Where will you go after discharge?
- Who is picking you up from the hospital?
- Who will be staying with you to help you after surgery?
- Who will be driving you to your appointments and to get groceries?
- Do you have a primary health care provider (family doctor or nurse practitioner)?
  - If not, you can call 811 Monday to Friday between 10 a.m. and 6 p.m. to add your name and contact information to the provincial waitlist, or visit <http://needafamilypractice.nshealth.ca> to register online. You will be contacted directly by a primary health care provider's office when a spot becomes available.
  - For information about Virtual Care NS, visit:
    - › [www.nshealth.ca/content/virtualcarens](http://www.nshealth.ca/content/virtualcarens)
- What is the name of your pharmacy?
- Do you have drug coverage or health insurance?
- If you plan to travel by plane, ask your surgeon or a member of the Cardiovascular (CV) Team (nurse practitioner or doctor) when it is safe to travel. You may need paperwork stating it is safe for you to fly. Please check with your health insurance company about travel insurance coverage after open heart surgery.
- If you are the main caregiver for a family member or friend, who will take care of them while you are recovering in the hospital and at home?

If you need help with discharge planning, tell a member of your health care team as soon as possible so your discharge is not delayed.

### Notes:

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# Surgery timeline

This timeline shows the usual plan of care for most patients. Your plan of care can be changed to meet your needs after surgery.

## Before surgery

- The cardiovascular health care team will talk with you and your support persons about your surgery.
- You will meet your surgeon and sign a consent form.
- Your nurse will help you get ready for surgery by:
  - › doing some tests before your surgery, like blood work and an electrocardiogram (ECG or EKG).
  - › teaching you how to prep (get ready) your skin for surgery using an antiseptic solution or cloths.
  - › telling you what to expect during your hospital stay.
  - › reviewing this pamphlet with you.
- Your nurse will tell you when to stop eating and drinking before surgery.
- The doctor will tell you what medications you should take the night before and morning of your surgery.
- You and your support persons should talk about any questions or concerns with your health care team before or during your hospital stay.

## Day of surgery

- Your support persons may stay with you until you go to the Operating Room (O.R.).
- The surgeon will contact your support persons either in person or by phone right after your surgery to answer any questions.
- You will wake up in the the Cardiovascular Intensive Care Unit (CVICU) on the 5th floor of the Halifax Infirmary.

**Cardiovascular Intensive Care Unit (CVICU)**

› **Phone: 902-473-7554**

- You will have several intravenous (I.V.) lines and drainage tubes (tubes that remove fluid from your body) put in your body.
- You will be connected to a heart monitor (see page 25).
- You will have a breathing tube (see page 24). When your breathing tube is removed, you will be able to sit up. You will also be able to take small sips of fluids.
- Pain medication will be given through your I.V. or by mouth to keep you comfortable after surgery.
- You will be shown how to do deep breathing and coughing exercises while using your heart pillow for support. A heart pillow is a small red pillow that you hold across your sternum (breastbone) when you cough, breathe deeply, or move.
  - › If you are not able to do these exercises, your physiotherapist can show you other ways to do them.
- Your arterial line and chest tube will be removed before your move to the Intermediate Care Unit (IMCU).
- Your support persons may visit with you.

### **Day 1 after surgery**

- You will be moved to the Intermediate Care Unit (IMCU) on Unit 7.1.

**7.1 IMCU**

› **Phone: 902-473-7552**

- Your nurse and physiotherapist will teach you about sternal precautions (see page 27).
- Your health care team will teach you how to get in and out of your bed and chair safely.
- You will sit up in a chair for all your meals.
- Your meals will change from fluids to solids as you become able to eat solid food.
- You will take walks with a member of your health care team at least 2 times a day.
- Pain medication will be given regularly. If you need medication before your next scheduled dose, please ask your nurse.
- You will need to start your discharge plans.



### **Day 2 to 3**

- You will be moved from the IMCU to Unit 7.1.
- You will be on a portable heart monitor.
- You may still be on oxygen.
- Your catheter (hollow tube that drains urine [pee]) will be removed.
- You will sit up in a chair for all meals and your diet will change to solid food.
- You will take part in your personal care (like bathing and feeding).
- You will be asked to do deep breathing exercises several times a day.
- You will take walks with a member of your health care team 3 times a day.
- You will be given a mild laxative until your bowels move (you are able to poop).
- Regular pain medication will be available. Please tell your nurse if your pain is not well controlled.

### **Day 3 to 5**

- You will walk on your own and take longer walks more often each day.
- Your health care team will talk to you about your discharge plan.
- Your health care team will talk to you to make sure your discharge plan is ready.

### **Day 4 until discharge**

- You will recover from surgery at your own pace. Please do not compare yourself to other patients.
- Your health care team will tell you where you are in your recovery and what goals you need to meet so you can be discharged.
- You will be discharged from the hospital when it is safe for you to go home.

- It is safe for you to go home when:
  - › Your heart rate is stable.
  - › Your heart rhythm is stable.
  - › Your blood pressure is stable.
  - › You are off oxygen or use the same amount of oxygen that you did before surgery.
  - › Your bowels are moving.
  - › You can get in and out of a chair and bed on your own (if you were able to do so before surgery).
  - › You can walk in the hallways on your own (if you were able to do so before surgery).
- Your physiotherapist will teach you exercises and give you a walking program to follow at home.
  - › [www.nshealth.ca/service-details/Physiotherapy](http://www.nshealth.ca/service-details/Physiotherapy)
- If needed, you will walk up and down stairs with your physiotherapist to get ready for when you go home.
- You will get instructions about your care at home. We encourage your support persons to be present.
- Your nurse will teach you and your support persons about your discharge and medications on the morning you are discharged.

## **Your health care team**

There are many members of the Heart Health Program who will take care of you before and during your hospital stay. You and your support persons are an important part of your care team.

### **Your health care team includes:**

- |                       |                           |
|-----------------------|---------------------------|
| › Surgeons            | › Dietitians              |
| › Resident surgeons   | › Social workers          |
| › Cardiologists       | › Physiotherapists        |
| › Nurse practitioners | › Occupational therapists |
| › Nurses              | › Respiratory therapists  |
| › Anesthesiologists   | › Unit clerks and aides   |
| › Perfusionists       | › Many others             |
| › Pharmacists         |                           |

## About the heart

Your heart is a muscular organ that is about the same size as your fist. It is between your lungs, just to the left of your sternum (the long, flat bone in the middle of your chest).

Your heart works like a pump to move blood through your blood vessels (arteries, veins, and capillaries) to the rest of your body.

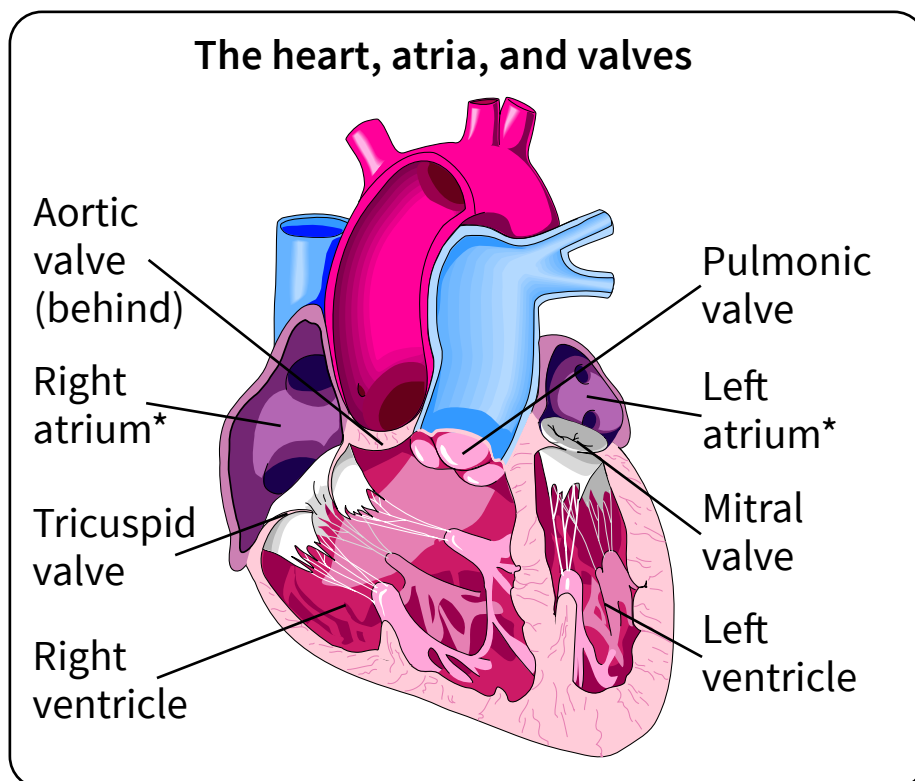
Blood pumped from your heart delivers oxygen and nutrients to every cell and takes away waste products made by those cells.

## Chambers

- The heart has 4 **chambers** (sections). The 2 top chambers are called the right and left **atria**. The 2 bottom chambers are called the right and left **ventricles**.
  - › The 2 chambers on the right side of the heart pump blood from the heart to the lungs to pick up oxygen.
  - › The 2 chambers on the left side of the heart pump oxygen-rich blood from the heart to the rest of the body.

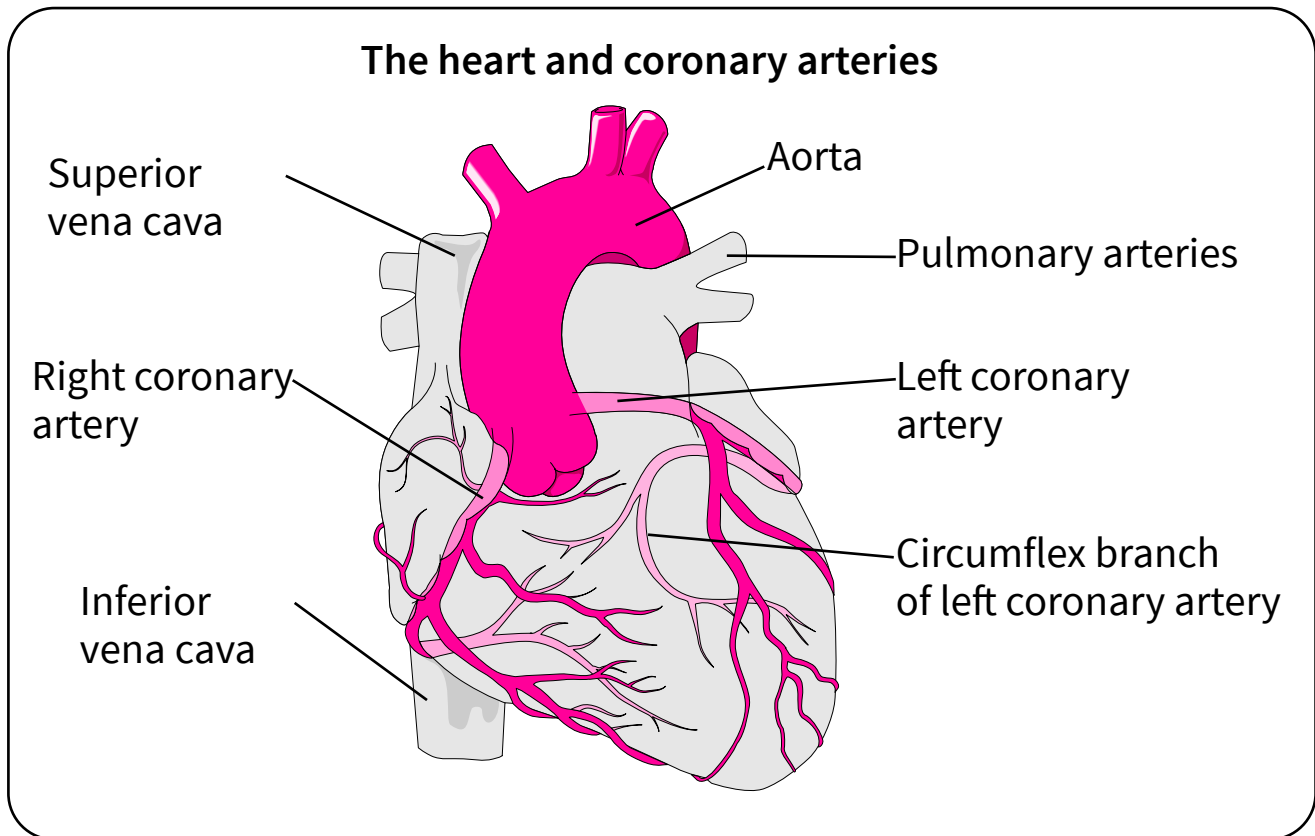
## Valves

The 4 chambers are connected to the rest of the body and to each other by 4 one-way **valves**. The 4 valves keep blood flowing through the 4 chambers of the heart. The valves open to let blood flow through them and then close to stop blood from flowing backwards.



## Coronary arteries

The **coronary arteries** bring blood full of oxygen and nutrients to the heart. The heart has a right and left coronary artery. The left coronary artery further divides into the circumflex and left anterior descending arteries.



## Coronary Artery Disease (CAD)

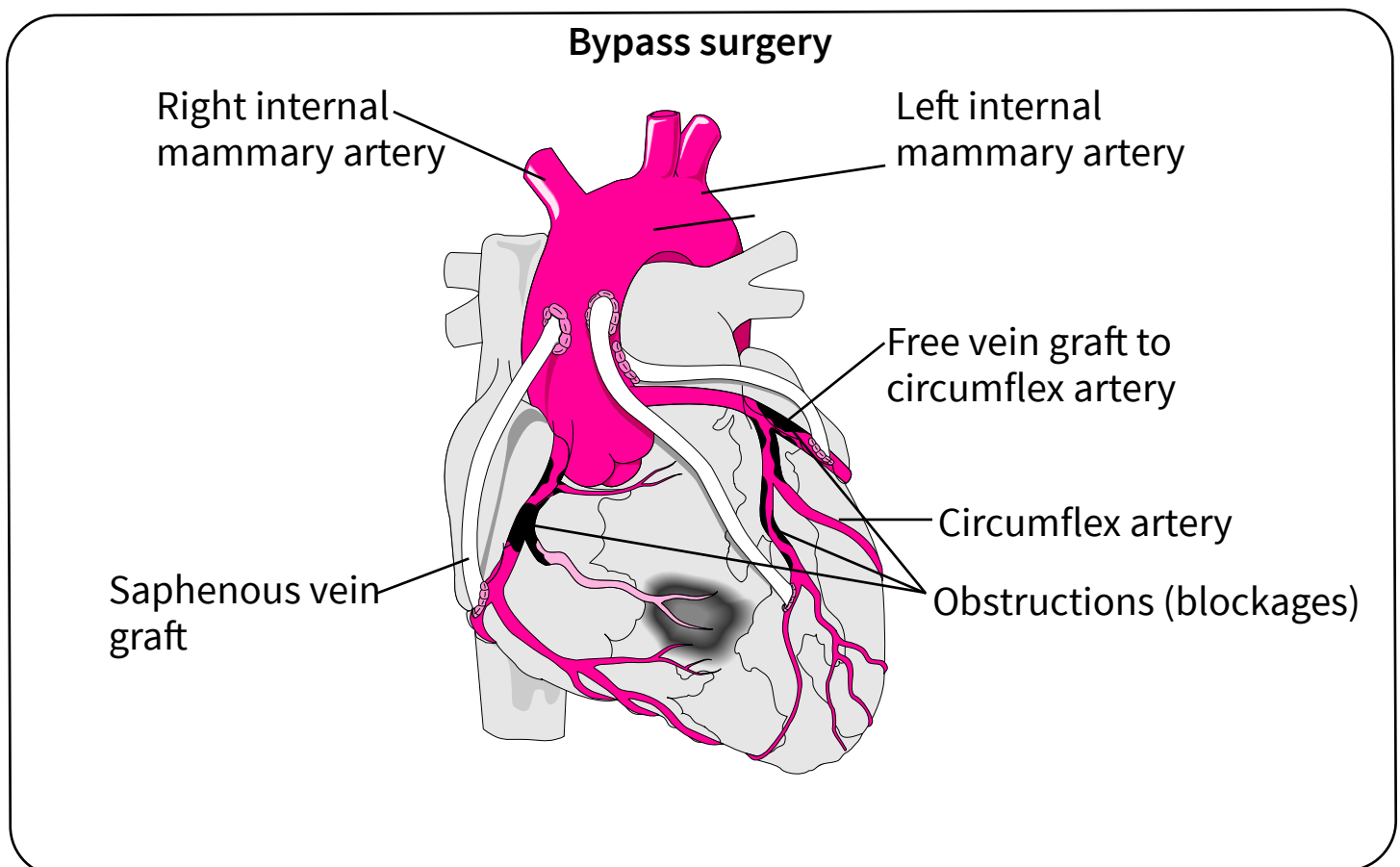
The most common form of heart disease is coronary artery disease (CAD). CAD happens when the arteries of the heart become narrowed or blocked with plaque (a mix of fat, cholesterol, and other substances).

If the coronary arteries are narrowed or blocked, they cannot bring as much blood to the heart. Angina (chest pain) and/or a heart attack are complications of coronary artery disease.

## About your surgery

### Coronary artery bypass graft surgery

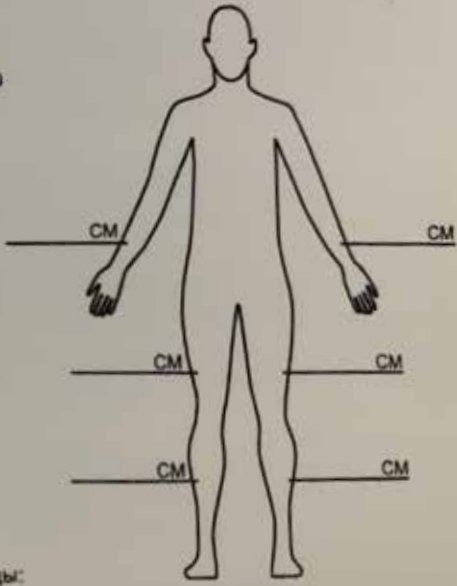
- Coronary artery bypass graft surgery improves the blood flow to the heart.
- A piece of a healthy blood vessel is taken from another part of your body to make a bypass (detour) around the narrowed or blocked part of the coronary artery. This bypass is called a **graft**.
- The bypass can be made with a blood vessel taken from your chest wall (internal mammary), your leg (saphenous vein), and/or your arm (radial).
- Depending on how many narrowed or blocked arteries you have, more than one bypass may need to be created.
- After surgery you will have an incision (cut) on your chest and possibly one on your leg or arm, depending on where your surgeon took the graft from.
- Bypass surgery does not cure your heart disease, but it should help or stop your angina and lower your risk of a heart attack. This should help you feel better and be more physically active.



## Bypass card

- You will be given a bypass card when you are discharged. The card includes information about the type of bypass that you had. **Carry your bypass card with you at all times.**

An endoscopic technique was used to remove the vessel from: (circle one.)  
Er is een endoscopische techniek gebruikt om het vat te verwijderen uit: (één omcirkelen.)  
Une technique endoscopique a été utilisée pour extraire le vaisseau de : (entourer)  
Ein endoskopisches Verfahren wurde verwendet zur Gefäßentnahme von: (eine Stelle einkreisen)  
È stata utilizzata una tecnica endoscopica per rimuovere il vaso da (tracciare un cerchio attorno alla voce interessata):  
已使用内窥镜技术将血管从以下部位移除: (请圈出一个部位)  
Se utilizó una técnica endoscópica para quitar el vaso de: (marcar con un círculo).  
Foi utilizada uma técnica endoscópica para remover o vaso de: (assinalar uma das opções com um círculo.)  
Der blev anvendt en endoskopisk teknik til fjernelse af karret fra: (sæt ring om svaret).  
Endoskopisk teknik har använts för att avlägsna kärlet från: (ringa in ett alternativ)  
Byla použitá endoskopická technika na odstranění cévy z: (zakroužkujte jednu možnost)  
Bola použitá endoskopická technika na odstránenie cievy z: (zakružkujte jednu možnosť)  
Za pomocą techniki endoskopowej usunięto naczynie z: (zakreśl jedno miejsce)  
Damarı şu konumdan çıkarmak için endoskopik teknik kullanılmıştır: (daire içine alınız.)  
Χρησιμοποιήθηκε ενδοσκοπική τεχνική για την αφαίρεση του αγγείου από: (σημειώστε με κύκλο ένα.)  
Эндоскопический метод применялся для извлечения сосуда из: (обведите одну область)  
Тамырды төмендегінің біреуінен алу үшін эндоскопиялық әдіс пайдаланылды: (біреуін шеңбермен белгілеңіз)  
تم استخدام طريقة للتظير الداخلي لإزالة الوعاء من: (الدائرة واحد)



- You may wish to wear a MedicAlert® bracelet to let your health care providers and others know about your medical condition. For more information on MedicAlert®, talk to your pharmacist.



## Heart valve surgery – repair or replacement

- Valves control the flow of blood through the different chambers of the heart by moving it in one direction.
- If a heart valve is not working the way it should, your heart might not get as much blood as it needs or the blood flow through your heart might be affected in another way. These issues can make your heart work harder than normal.
- A damaged heart valve can lead to:
  - › Dizzy spells
  - › Shortness of breath
  - › Fainting
  - › Irregular pulse

- A valve may need to be repaired or replaced if it has been damaged by:
  - › Infection (endocarditis)
  - › Rheumatic heart disease
  - › Congenital heart defect
  - › Mitral and/or aortic valve disease
  - › Normal wear and tear (as some people get older, their heart valves may become damaged or stiff even if they do not have an infection, heart disease, or another condition)

### Valve repair surgery

Surgery is done to repair the damaged valve or to insert (put in) a ring into the valve to hold it in place. This surgery allows the valve to open and close correctly.

### Valve replacement surgery

- Surgery is done to remove the damaged valve and replace it with either a mechanical (made of metal and plastic) valve or a bioprosthetic (made from human or animal tissue) valve.
  - › **Mechanical valves** - Mechanical valves are made of very long-lasting metals and plastics. They make a clicking noise, like the ticking of a watch. This is the sound of the valve opening and closing. A mechanical valve can lead to blood clots which can cause a heart attack or stroke. To prevent blood clots from forming, you must take a blood-thinning medication every day and have regular blood tests for the rest of your life.
  - › **Bioprosthetic (tissue) valves** - Bioprosthetic valves are made from specially treated natural valves from animal sources or human organ donors. They are like those found in the human heart. You will **not** need to take medication to prevent blood clots for this type of valve replacement. Tissue valves do not last as long as mechanical valves.

Your surgeon will talk to you about your options for valve replacement.

### Valve card

- You will be given a valve card when you are discharged. The card includes information about the type of valve that was inserted. A valve card looks similar to a bypass card (see image on page 10). **Carry your valve card with you at all times.**
- You may wish to wear a MedicAlert® bracelet to let your health care providers and others know about your medical condition. For more information on MedicAlert®, talk to your pharmacist.

## Anticoagulants

You may need to take an anticoagulant (blood thinner) medication like warfarin. A pharmacist will teach you how this medication works and how to take it before you are discharged from the hospital.

### When taking an anticoagulant, it is important to:

- Take it at the same time every day.
- Be very careful not to cut yourself when you do activities and chores (like working in the kitchen, gardening, using tools, sewing, and cleaning).
- Have regular blood work done, as told by your primary health care provider.
- Tell your primary health care provider about any signs of bleeding, like:
  - › Bruising
  - › Frequent nose bleeds
  - › More bleeding than normal from a cut
  - › More bleeding than normal from your gums after dental care
  - › Bowel movements (poops) that are red, black, or dark wine coloured
  - › Blood in your phlegm when you cough
- **Call your cardiologist or your surgeon if you have chest pain or palpitations (fast or irregular heartbeat).** If you cannot reach your cardiologist or your surgeon, go to the nearest Emergency Department right away.



# Before your surgery

## Getting ready for your heart surgery

While waiting at home or in the hospital, you can get ready for your surgery by doing these exercises.

If you are in the hospital before your surgery, your nurse or physiotherapist will talk about these exercises with you.

## Deep breathing and coughing exercises

- You will do these exercises after your surgery.
- For the first few days after your surgery, you will have more mucus (phlegm) in your lungs than normal. These exercises will help to clear your lungs and make breathing easier.
- They will also help prevent you from getting pneumonia (lung infection).
- Your chest will be sore after surgery – this is normal. You will be given a heart pillow. This is a pillow to hold against your chest to protect it when you cough and when you go from sitting to standing.
- You should do these exercises every hour.
- The best time to do these exercises is about 20 minutes after you take your pain medication.

**To practice deep breathing and coughing, follow these steps:**

### Deep breathing:

1. Take a deep breath in through your nose.
2. Hold your breath for 2 to 3 seconds, by counting “1, 2, 3” in your head.
3. Blow the air out through your mouth.

Repeat breathing in and out 2 to 3 times.

### Coughing

1. Hold your heart pillow in front of your chest. This will help make coughing more comfortable and prevent strain on your chest.
2. Take a deep breath in through your nose.
3. Cough 2 or 3 times in a row as you breathe out.

## Moving around

Practice these ways of moving around **before** your surgery. You will need to do them after your surgery.

### Getting out of bed:

- Hold your heart pillow in front of your chest.
- Bend your knees and roll to one side.
- Slide your legs over the edge of the bed and hook them under the bed.
- **Do not use your arms.** Pull with your legs and use your stomach (belly) muscles to sit up.
- The weight of your legs will help to pull you up.

A member of your health care team or your support persons will help you do this after surgery until you can safely do it yourself.

### Getting up from a chair:

- Hold your heart pillow in front of your chest.
- Lean forward and stand up using **only** your legs. You will not be able to push through with your arms until your sternum heals (6 to 8 weeks).

A member of your health care team will help you with this after surgery until you can safely do it yourself.

## Leg exercises

Moving your legs in bed after surgery will help blood circulate (move) better and keep blood clots from forming.

### Before your surgery, practice these exercises twice a day:

- Move each foot up and down 5 times.
- Move each foot around in a circle 5 times.
- Bend and straighten each knee 5 times. If you have had a graft taken from your leg, this leg may be stiff and painful. This exercise will help with the stiffness and pain.
- After your surgery, do these exercises at least 5 times every hour.
- **Do not** stay in bed for a long time without moving your legs.

## Stopping medications before your surgery

- If you are taking any of the following medications, please check with your surgeon about when to stop taking them before your surgery:
  - › Anticoagulants (like warfarin, clopidogrel)
  - › All anti-inflammatories (like ASA, naproxen, ibuprofen)
  - › Aspirin® may be continued until the day of surgery unless you are told otherwise.
- Take all of your other medications unless told otherwise.
- During your Pre-admission Clinic appointment, the anesthesiologist (a doctor who gives you medication to put you to sleep or to numb [freeze] a part of your body so you do not feel pain) will tell you which medications you should take the night before and morning of your surgery. Make sure you have this information before leaving your appointment.

## Stop smoking before your surgery

- Smoking can increase your risk for heart disease.
- Smoking narrows the arteries in your heart.
- Smoking increases your blood pressure and pulse rate.
- If you stop smoking before your surgery, the results of your surgery will be better.
- If you start smoking again after your surgery, you are at a higher risk for a blocked graft.
- It is best if you can stop smoking for 2 weeks leading up to your surgery date. If you are not able to stop smoking for 2 weeks, **do not** smoke after your evening meal on the night before your surgery.
- Smoking can cause more secretions (mucous) in your lungs, and you could have problems breathing after your surgery.



## Smokers' helpline

- › Phone (toll-free): 1-877-513-5333
- › [www.smokershelpline.ca/home](http://www.smokershelpline.ca/home)

Nova Scotia Health is smoke-free. Ask a member of your health care team about the Smoking Cessation Program while you are in the hospital.

## Alcohol and substance use



- Alcohol can slow the recovery process by raising your risk of:
  - › Delirium while you are in the CVICU
  - › Having to stay in the hospital longer
- **Do not** drink alcohol (liquor, beer, wine) for at least 48 hours (2 days) before your surgery.
- If you drink alcohol regularly (often or daily) and being asked to not drink it for 48 hours makes you worried or concerned, please talk to your surgeon before your surgery. They will talk with you about your concerns and help you plan for before and after your surgery.
- Please be honest about your alcohol and substance use (including cannabis). This will help your health care team to safely provide care.

### Before your surgery you will:

- have an appointment to go over your medical history and do a physical exam. You will meet with your surgeon and they will explain your surgery and ask you to sign a consent form.
- get several calls from the Pre-admission Clinic. You will not get these calls if you are admitted to the hospital before your surgery.

### The Pre-admission Clinic

- The Pre-admission Clinic provides outpatient services before your admission to the hospital, so you can stay at home until the day of your surgery.

### Pre-admission Clinic location, hours, and phone:

- The Clinic is located on the 5th floor of the Halifax Infirmary (use Robie Street entrance).
- The Clinic is open **Monday to Friday, 7 a.m. to 3 p.m.**
  - › Phone: **902-473-3120**

## **Your Pre-admission Clinic appointment**

- Please bring all your medications in their original bottles from the pharmacy with you.
- Please plan to be at the Clinic for a few hours.
- At your appointment, you will:
  - › be given a pamphlets about your surgery and hospital admission.
  - › be taught about your care before and after your surgery.
  - › start early discharge planning and find out what services you might need when you go home.
  - › meet with an anesthesiologist. They will tell you which medications should be taken the night before and the morning of your surgery.
  - › have blood work, an ECG or EKG, and any other tests you might need. You can eat and drink as normal before your blood work.

## **Your surgery date**

- After your Pre-admission Clinic appointment, the cardiac surgery booking clerk will call you with your surgery date.
- Sometimes there is a long wait for heart surgery. There is also a chance that your surgery will be delayed, even on the day it is scheduled. We do everything we can to prevent this from happening.
- If your surgery is delayed, you will be rescheduled for the next open date. The cardiac surgery booking clerk will contact you with your new date and time.
- If your symptoms get worse, contact your primary health care provider or your cardiologist. They will assess you and contact your surgeon, if needed.

## **Discharge planning**

- Before you come to the hospital, you should think about your discharge plans.
- By the time you are discharged, you should be able to walk by yourself and manage your own personal care (washing, going to the bathroom, getting dressed) (if you were able to before surgery).
- You must plan to have someone help you with housework and get groceries, as you will not be able to drive for 6 to 8 weeks after surgery.
- **You must have someone pick you up from the hospital when you are discharged.**

- **You should plan to have someone stay with you for the first week (7 days).**
- If you need help planning for your discharge, such as arranging transportation or medication coverage, please tell a member of your health care team. A social worker would be happy to help you.

## **Waiting in the hospital for your surgery**

### **If you are admitted to the hospital to wait for your surgery, you will:**

- › go over the information in this pamphlet with a nurse and other health care providers, as needed.
- › be taught about your surgery by your nurse and physiotherapist, as needed.
- › meet with your surgeon to talk about your surgery and sign the informed consent form.
- › meet with your anesthesiologist (doctor who puts you to sleep for surgery).
- › have pre-operative tests, like blood work, an ECG or EKG, and a chest X-ray.
- › start preparing your discharge plan with help from your nurse and physiotherapist.

## **Night before your surgery**

- Take a bath or shower and shampoo your hair the evening before your surgery.
- **Do not** shave any part of your body, including your face.
- Complete your skin prep using the antiseptic solution or cloths, as directed by your nurse.
- **Do not** eat or drink after midnight, including water, unless told otherwise by your health care team.
- **Do not** eat candy or chew gum after midnight.
- You may take your medications with sips of water as told by the anesthesiologist at your Pre-admission Clinic appointment.
- If you live out of town, the Department of Health will cover the cost of your overnight stay at a local hotel the night before your surgery. There is an extra cost for any support persons who may come with you.
- The booking clerk will call to tell you where you will be staying.

## Day of your surgery

- Call your booking clerk before coming to the hospital if you have:
  - › A fever (temperature over 38° C/100.4° F)
  - › Cold symptoms (like a runny nose, new cough, tiredness)
  - › Flu-like symptoms (like aches, chills, fever, loss of appetite, tiredness)
- Only take medications as directed by your primary health care provider.
- Repeat your skin prep as you were told by your health care provider.
- Come to the hospital 3 hours before your scheduled surgery, or at the time you were asked to arrive (if different).
  - › Go to Same Day Surgery, 5th floor of the Halifax Infirmary (use Robie Street entrance elevators), to be admitted.
- Your support persons can stay with you until you go to the O.R. on the 5th floor.
- Your support persons should take any of your valuable items home. Your personal items (like toiletries, dentures, hearing aids, glasses or contact lenses, and walking aids) will follow you throughout your stay in the hospital.
- **All jewelry must be removed** (like your wedding ring and all body piercings).
- If your surgery is later in the day, you may be able to have a liquid breakfast.
- You will be taken to the O.R. on a stretcher.
- Your anesthesiologist will start an intravenous (I.V.) in a vein in your arm to give you medication to put you to sleep.
- When you wake up, you will be in the Cardiovascular Intensive Care Unit (CVICU) on Unit 5.1.

## Your support persons

### Wait time

- The amount of time you will spend in the O.R. depends on what has to be done during your surgery. It may be 4 hours or longer.
- We know this is a stressful time for your support persons. The family room on 5.1 is open for them during this time.
- The surgeon will look for your support persons in the family room after the surgery.

- The surgeon will contact your support persons right after your surgery to answer any questions. If your support persons will not be in the hospital when your surgery is over, please leave a phone number where they can be reached.
- A Surgical Liaison Nurse (SLN) is available Monday to Friday from 9 a.m. to 5 p.m. Before your surgery, you will be asked for your support person's contact information. The SLN will call them during your surgery, if needed. Your support person can contact the SLN at any time during your surgery, if they have questions:
  - › Phone: 902-717-7953
- Outside of these hours and on weekends, your support person will be contacted by a member of your surgical team.
- After your surgery, you will be taken to the CVICU.
- It may take an hour or more to get you settled in the CVICU before the nurses will be ready to have your support persons in to see you.
- Visitors **must** call the CVICU before entering at all times.
- There is a phone outside the CVICU doors that your support persons can use to talk with CVICU staff.
- Please tell your support persons to call the CVICU and/or 7.1 to ask about visiting policies before visiting.

## Visiting

- Your support persons is encouraged to visit you during your stay in the CVICU and recovery on 7.1.
- Your nurse will talk to your support persons about visiting. Your needs and the needs of your support persons are important factors when making decisions about visiting.
- Your support persons should remember that your rest is important for your recovery.
- Visiting hours will be decided by the patient and their health care team. Generally, the patient rest period is 2:30 to 3:30 p.m.
- Visitors are reminded of our no-smoking and scent-free policies.
- **Your support persons should not visit when they are sick.**



## Hand hygiene for patients, families, and visitors

- Everyone who works in, visits, or is cared for in health care settings like hospitals or long-term care facilities has a role to play in preventing infections.
- Infection control starts with clean hands.
- **Hand hygiene is the number one way to stop the spread of germs in health care settings, the community, and at home.**
- Hand hygiene methods include:
  - › cleaning hands with an alcohol-based hand rub. Look for dispensers throughout health care settings.
  - › washing with soap and water.



## Clinical trials

- At your Pre-admission Clinic appointment, you may meet with a researcher who is working on a **clinical trial**.
- Clinical trials help scientists and health care providers make new health care treatments or improve treatments that already exist.
- In a clinical trial, people volunteer to receive a new health care treatment. The researcher's job is to find out:
  - › if the treatment works.
  - › if the treatment is safe.
  - › how the treatment compares to other treatments.
- Information from clinical trials can improve the care of all patients.
- Clinical trials are tested by other scientists and health care providers to make sure they are safe.
- **If a researcher asks if you want to volunteer for a clinical trial, you are allowed to say no. You will receive the same care whether or not you choose to volunteer for the trial.**

# After your surgery

## 5.1 Cardiovascular Intensive Care Unit (CVICU)

- The CVICU is on Unit 5.1 on the 5th floor of the Halifax Infirmary. The phone number is 902-473-7554.
- After your surgery, you will be taken to the CVICU.
- When you wake up, you will see several tubes (see page 24). Your surgeon and anesthesiologist will talk about these with you before your surgery.
- When your vital signs (temperature, blood pressure, pulse, and breathing) are stable and you begin to wake from the anesthetic, your nurse and respiratory therapist will start getting you ready to have your breathing tube taken out.
- Your breathing tube is taken out when:
  - › you are alert and can follow directions from your health care team.
  - › tests show that you are ready to breathe on your own.

This may be as soon as 4 to 6 hours after your surgery or may take several days.

- Soon after the breathing tube is taken out, a member of your health care team will help you sit at the side of your bed to do deep breathing and coughing exercises.
- Moving after surgery and doing deep breathing and coughing exercises will help:
  - › get rid of any secretions that might have built up in your lungs after your surgery.
  - › lower your risk of getting pneumonia.
  - › lower your risk of having a blood clot.

**It is very important that you do these exercises.**

- It is important that you ask for pain medication for any pain or discomfort. Having your pain well-controlled will help you to move and do your exercises more easily.
- Your health care team will help you to get moving as soon and as often as possible after your surgery. The sooner you move after surgery, the faster your recovery will be.
- This will be a team effort, with your nurse and/or physiotherapist and, most importantly, **you**.

# Tubes and wires in the CVICU

## Breathing tube

- After you are asleep, a tube will be placed in your windpipe (the tube in your body that connects your mouth to your lungs). This is called a **breathing tube**.
- This tube is connected to a **breathing machine** (a machine that helps your lungs work).
- The breathing machine will breathe for you during your surgery and the early part of your recovery.
- When you wake up, the breathing tube will still be in your windpipe.
- You will not be able to talk or drink while the breathing tube is in place. The nurse will ask questions that you can answer by nodding your head “yes” or “no”.
- You might have a sore or rough feeling in your throat after the tube is taken out. This will go away over time.
- The breathing tube will be taken out when:
  - › you are awake enough to follow commands.
  - › you can breathe and cough on your own.

## Oxygen tube

- When the breathing tube is taken out, you will be given oxygen through nasal prongs (small plastic tubes that go in your nostrils) or a face mask.
- It is normal to need oxygen for the first few days after surgery.

## Chest tube

- One or two tubes will be placed through a small incision (cut) in your chest area, below your sternal incision. These are for draining fluid and old blood from around your heart.
- These tubes will be taken out when there is only a small amount of drainage and you have been able to sit up on the side of your bed at least 2 times.

## Intravenous (I.V.) tubes

- Fluids, medications, and blood (if needed) are given through I.V. tubes. These tubes will be placed in veins in your neck and arms.
- There will be a small tube in your wrist to take blood and measure your blood pressure.

## **Catheter (hollow tube)**

- A small rubber tube will be placed in your bladder to drain urine and help check how your kidneys are working.
- Your catheter will usually stay in place for 2 to 3 days after your surgery.

## **Heart monitor**

Small pads are placed on your chest to monitor and record your heart rate and rhythm.

## **Pacing wires**

- One or two pacing wires are connected to your heart during surgery. These wires allow your health care team to control the electrical activity of your heart, if needed.
- These will be taken out before you go home.

## **Noises in the CVICU**

The CVICU can be noisy. The heart monitor and breathing machine make loud noises to check on your breathing and heart rate often. Do not be scared of these noises. You are not in danger.

## **Pain control after surgery**

- After your surgery, you will be given medication to help you manage your pain.
- It is normal to have pain after your surgery. We will do our best to help you manage your pain so that you can take part in your recovery.
- Your nurse will check your pain often.
- Pain management is important for:
  - › deep breathing and coughing.
  - › being able to move around.
  - › getting the rest you need for recovery.
- You may feel sleepy from the medication, but you should be awake enough to follow directions and know your support persons. If your support persons is concerned about how much medication you are taking or how you are reacting to it, they should tell a member of your health care team.

## Transfer from the CVICU to 7.1

- After your CVICU stay, you will be moved to the Intermediate Care Unit (IMCU) on 7.1. The phone number is 902-473-7552.
- **During recovery, it is very important to:**
  - › Walk regularly
  - › Exercise regularly (strength exercises)
  - › Do your deep breathing exercises (see page 14)
  - › Do your coughing exercises (see page 14)
- Deep breathing and coughing helps to open up your air passages and move secretions out of your lungs.
- Use your heart pillow to support your incision when coughing, as shown by nursing staff. This will help make you more comfortable and stabilize your breastbone.
- You will be sore after surgery.
- Your pain will be assessed every 3 to 6 hours, as needed. Please ask for pain medication when you need it.
- Pain should not limit your breathing or moving.
- Doing these things will also help you manage your pain:
  - › Relaxing and taking time to rest
  - › Changing your position regularly
  - › Avoid holding your breath when moving
  - › Using your heart pillow to support your chest incision
- Tell your support persons to contact the unit to ask about their visiting policy. Keep visits short. Having visitors can be tiring.
- Flowers are not allowed in the IMCU because the scent can bother patients.
- The rest period is from 2:30 to 3:30 p.m. Visitors may be asked to leave so you can rest.
- Your health care team will teach you about exercise and nutrition. This is a chance to learn ways to stay healthy.
- Any support persons who will be helping with your care at home should attend these teaching sessions so they can help give you the best care.

## Sternal precautions

- You will be on sternal precautions for 6 to 8 weeks after your surgery.
- Sternal precautions are **the rules you must follow that will help you get the best healing of your breastbone (sternum) after surgery.**
- During surgery, your sternum is broken to give access to your heart. Once your heart is repaired, your sternum is wired back together. The wires help hold your sternum in place while it heals. They will stay inside your breastbone after your surgery.
- It usually takes 6 to 8 weeks for your sternum to heal (if you do not have diabetes). If you have diabetes, it can take up to 8 weeks for your sternum to heal.
- Following sternal precautions will lower the stress on your bones while they heal and prevent the wires from coming through your sternum.

### The precautions are:

- For the next 6 to 8 weeks, **do not** lift, push, or pull more than 10 pounds (5 pounds per arm).
    - › You can use your arms for other kinds of movement.
  - For the next 6 weeks, **do not** put any body weight on your hands or elbows.
  - Hug your “heart pillow” to your chest when you cough or sneeze to support your sternum.
- 
- **Do not:**
    - › lean on your arms.
    - › use your arms or hands to push yourself up in bed or out of a chair.
    - › lift a heavy or full pot, pan, or dish.
    - › lift a baby or small child.
    - › move furniture.
    - › carry groceries.
    - › use large, heavy appliances (like a vacuum cleaner or a lawn mower).
    - › change bed linens.
    - › carry laundry.
    - › drive a vehicle.
    - › ride a bike.
  - After 6 to 8 weeks, you can start to do more activities that you did before your surgery. At this time, you can slowly start using your arms and chest more.
  - Slowly using your arms and chest move over time will help you heal and build strength in your sternum.

# Common concerns after surgery

## Dry mouth and sore throat

- This happens because of the breathing tube used during your surgery.
- Cough drops and ice chips will help. Your mouth and throat will also feel better over time.

## Nausea (feeling sick to your stomach) or vomiting (throwing up)

- This is common after surgery. It can be caused by your medications.
- It may help to:
  - › sip fluids.
  - › suck on ice chips for the first few hours after your breathing tube is removed.
  - › eat and drink only liquids for at least 24 hours after surgery.
- Please tell your nurses if you have nausea after surgery. They can give you medication in your I.V. to help with this.

## Poor appetite (not feeling hungry)

- This is common after surgery.
- As the effects of the anesthetic used during your surgery wear off, your hospital eating plan will slowly be changed from liquids to solids.
- Proper nutrition is very important for your healing.
- If you do not feel like eating, it may help to talk with the dietitian about your menu choices. You may be able to choose some foods that you want to eat more.
- Follow a heart-healthy eating plan to help lower your chance of future heart problems.

## Constipation

- You will be given a laxative (medication to help you poop) starting on day 2 after your surgery. You will keep taking the laxative until you have a bowel movement.

- Getting enough liquids can also help you have a bowel movement. Try to drink lots of water.
- It may take a while before you feel like eating, but try to start as soon as you can.
- Regular walks will help get your bladder and bowels moving.
- If you are constipated and have not received a laxative, please ask your nurse.

## **Numbness and pain**

- You may have some numbness and tingling in your hands. This will get better over time.
- You may also have tingling over your chest if a graft has been taken from the chest wall.
- If you have an incision on your forearm or leg, the skin around the incision may also feel numb.
- Aches and pains between your shoulders, on the back of your neck, and around your chest, arm, or leg incision are common.
- These aches and pains may last several weeks.
- The physiotherapist will teach you stretching exercises to help with this pain.
- Please ask your nurse for medication if you are in pain.
- People with breasts may find it helpful to wear a bra after surgery. A bra will support the breasts and the incision line. A sports bra with a back closure may be the most comfortable.

## **Swelling**

- You may have swelling in your leg where the graft was taken.
- You may also have swelling in your hands, legs, and feet.
- To help bring down the swelling:
  - › Keep your legs up when sitting in a chair.
  - › Wear support stockings, if told by your primary health care provider.
  - › Do the leg exercises in this pamphlet as often as you can.
  - › Walk regularly to help your body remove the buildup of fluids.



## **Mood changes**

- You may have mood changes while recovering from surgery. You may feel happy and cheerful one day, and cranky and sad the next day. This should change as you become more active.
- Remember to stick with the exercise and a walking schedule whether you feel like it or not.
- Please talk to your primary health care provider if you are experiencing more cranky or sad days than good days.
- We want your recovery to be successful. Your mental health is just as important as your physical health.

## **Poor memory and bad dreams**

- You may notice that your memory is bad and that you have bad dreams after your surgery. This is often caused by the medication you were given in the hospital after your surgery. Over time, these symptoms will go away.
- Tell a member of your health care team how you are feeling.

## **Sweating**

- Sweating during sleep is common after heart surgery and may even happen after discharge from the hospital.
- Over time, you will sweat less during sleep.

## **Fast heart rate**

- You might have a fast heart rate and/or irregular (uneven) heart rhythm after your surgery.
- One in three patients after heart surgery will have an irregular heart rhythm known as **atrial fibrillation**.
- Atrial fibrillation can be controlled with medication, but this may take several days and may delay your discharge.
- If your heart rate stays irregular, a blood thinner medication may also be prescribed.

## Pressure injury (bed sore)

- A nurse will assess (check) your skin to see if you are at risk for a pressure injury (also called a bed sore).
- To help lower your risk for a pressure injury:
  - › Change position often while in bed.
  - › Get out of bed to sit or walk.
- We will help you move if you cannot do this by yourself.
- Doing these things also helps with your recovery in other ways.
- Dietitians, occupational therapists, and/or physiotherapists may also be involved in making a care plan to lower your risk of a pressure injury.
- Please tell a member of your health care team if you see or feel any of these things where there is pressure on your skin:
  - › Redness over bony parts of your body
  - › Pain
  - › Itchiness
  - › Numbness
  - › Tingling

## Falls

- A nurse will assess your risk for falls after surgery.
- This information will be shared with the members of your health care team, which includes you and your support persons.
- This information will help lower your chances of falling while in the hospital.
- Ask for the pamphlet *Preventing Falls and Injuries During Your Hospital Stay* for tips on preventing falls while in the hospital.
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1643.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1643.pdf)

## Pleural effusion

- After surgery, fluid can collect in the space between the lining on the outside of the lungs (pleura) and the chest wall.
- Normally, there is only a very small amount of fluid in this space. Extra fluid between the layers of the pleura is called a pleural effusion.
- A large amount of fluid in this space may cause these symptoms:
  - › Chest pain
  - › Shortness of breath
  - › Trouble breathing
  - › Coughing

- These symptoms are caused by the extra fluid in this space that is compressing (pushing on) the lung.
- A doctor may need to drain this fluid to help with the symptoms. This can be done at the bedside. You will not need to go to the O.R. for this procedure.
- If you need to have this procedure, a member of your health care team will explain it to you and answer any questions you have.

### **Delirium after surgery**

- Delirium can be common after heart surgery. This can be stressful for you and your support persons.
- Delirium is a medical condition that causes problems with mental function (like confusion, trouble thinking clearly or remembering). It is not the same as dementia.
- People with dementia have a higher risk of having delirium if they become physically ill.

### **Causes of delirium after surgery:**

- › General anesthesia
- › Complication from the surgery
- › Low oxygen levels
- › Stress of surgery
- › Infection, like a bladder or lung infection
- › Suddenly stopping the use of certain drugs, like alcohol or tobacco
- › Chronic (ongoing) health problems getting worse, like heart failure or obstructive lung disease
- › Dehydration (not getting enough fluids)
- › Uncontrolled diabetes
- › Taking many medications
- › The effects of certain medications

- Symptoms of delirium often start suddenly. They can come and go quickly, and may get worse at night. Some symptoms are:
  - › Having trouble concentrating or focusing
  - › Confused thinking and actions
  - › Sleepiness or drowsiness
  - › Restlessness or agitation
  - › Picking at or seeing things that are not there
- Symptoms may change from drowsiness to agitation and back.
- Delirium is often caused by an underlying illness.

### **Delirium treatment and recovery**

- Your health care team will try to find the underlying causes of this condition by doing a careful assessment, including a number of tests.
- The goal is to keep you safe and from harming yourself or others.
- Medication may be given to improve the symptoms.
- At times, restraints may be needed. If restraints are needed, staff will talk about this with you. For more information, see the pamphlet *Restraint Considerations for Patients and Families*:
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/0599.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/0599.pdf)
- Having your support persons present is helpful. Recovery may take days or months.
- For more information, ask your nurse or see the pamphlet *Delirium After Cardiac Surgery*:
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1480.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1480.pdf)


# Discharge and follow-up

## Discharge

- The usual discharge time is between 10 and 11 a.m.
- Please arrange your own transportation home from the hospital before your surgery. You will not need to take an ambulance home.
- If possible, arrange for someone to be at home with you or to stay with someone after you are discharged from the hospital.
- To avoid delays in your discharge, make a plan for who will pick you up from the hospital on the day of discharge. If you need help finding transportation, please tell your nurse **before** your planned day of discharge.
- Your nurse, physiotherapist, and other members of your health care team will give you and your support persons discharge instructions.
- Make sure you understand what medications you need to take and when. You may want to have a support persons review this information as well, so that all your questions are answered before you leave.
- If you think you may not be able to afford your medications, please tell your nurse as soon as possible. There may be help available.
- A pharmacist can help answer any questions about your medications.
- Plan to be discharged home following your hospital admission for cardiac surgery. You might need a longer hospital stay. In this case, you may be transferred to either your home hospital (closest to where you live) or to another unit where you can get the care you need. Your heart surgeon must decide that you are stable enough for a transfer before you are transferred to another unit or hospital.
- The Restorative Care Unit (Veterans' Memorial Building) and Progressive Care Unit (Abbie. J. Lane Building) are 2 units in the QEII that you might transfer to. On these units, you will get care that focuses on helping you be independent so you can continue living in your community and avoid readmission (coming back) to the hospital.

**Please do not leave the hospital without the following:**

- Your interim report to give to your doctor within 1 week of discharge from the hospital
- Your prescriptions for your medications
- A list of your discharge medications
- This pamphlet, including your discharge instructions
- The 5.1 and/or 7.1 Cardiovascular Patient Experience Survey (filled out and returned)
  - › You do not have to fill out these surveys, but they help us to better understand your experience so we can improve our health care service.
- Your physiotherapy plan
- Your wound care discharge instruction sheet
- Your follow-up appointment card (see image below)



Phone (902) 473-8531

Patient's Name: \_\_\_\_\_

HI Unit #: \_\_\_\_\_

An appointment has been made for you with:

Dr. \_\_\_\_\_

in the Cardiovascular area of the Halifax Infirmary.

You should report to the 2<sup>nd</sup> floor, Summer Street on:

\_\_\_\_\_ at \_\_\_\_\_ am/pm

**Please bring this card with you.**

Signed: \_\_\_\_\_

Department: \_\_\_\_\_

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## Follow-up

- You may find it helpful to keep a daily diary to record your weight and temperature. You can also write down any questions about your medications, activity, eating plan, or anything else. Bring your diary when you visit your primary health care provider, cardiologist, and surgeon.
- You will have a follow-up appointment with your surgeon 6 to 8 weeks after discharge. You will get a letter from your surgeon's office with the date of this appointment.
- Your appointment may be:
  - › In Halifax
  - › At an outreach clinic in Amherst, Sydney, Yarmouth, or Charlottetown (if you live near these areas)
  - › By phone
- You should also see your cardiologist in 3 to 4 months. We will arrange an appointment for you before you are discharged. You will get a letter in the mail with your appointment date.

## Check your temperature

- Take your temperature at the same time every day for 1 month after surgery. Write your temperature down every day.
- A normal temperature is about **37° C** or **98.6° F**.
- If your temperature is around **38° C** or **100.4° F** for 2 days in a row, contact your primary health care provider. Fever can be an early sign of infection.

## Incisions and home care

- Look at your incisions before leaving the hospital. They may be numb, sore, or have some swelling. This will get better over time.

**Contact your primary health care provider if you notice any of the following symptoms:**

- › More redness
- › More swelling
- › A bad smell from your incisions
- › Drainage from your incisions

- The staples will be taken out by your primary health care provider 10 to 14 days after surgery. If you do not have a primary health care provider, tell your nurse right away so they can make arrangements.
- If home care is needed to care for your incisions at home, this will be arranged before discharge.

## Antibiotics

- If you have any dental procedures, tell the dentist that you have had a valve replacement. They must give you antibiotics before and after any dental procedures, including routine teeth cleanings.
- If you have any kind of surgery or minor procedure, tell the surgeon that you have had a valve replacement. They must give you antibiotics before and after any surgeries and procedures.
- Taking antibiotics before and after these procedures will help prevent possible infection.

## Weight

- Keep a record of your weight for 1 month.
- Weigh yourself at the same time each morning, after you go to the bathroom, and wearing the same amount of clothing.
- If you gain 2 to 3 pounds in 1 day, you may be retaining (holding onto) fluid.
- Call your primary health care provider if you gain 4 to 5 pounds in 2 days.



## Healing time

- For the next 6 to 8 weeks, **do not** lift, pull, or push more than 10 pounds (5 pounds per arm).
- You can slowly start going back to your daily activities after 6 to 8 weeks.
- At your follow-up visit with your surgeon, ask when you can go back to doing strenuous (hard) activities (like shovelling snow, mowing the grass).
- Tell your surgeon if you hear a pop or clicking noise coming from your chest. This can be a sign of a broken surgical wire.

**If you would like to be a Patient Representative for our Cardiovascular Surgery Quality Committee, please call the Maritime Heart Centre:**

› Phone: 902-473-7890

## Monitoring your blood sugars

- If you have diabetes, it is very important to control your blood sugar. You must:
  - › follow your diabetic nutrition plan.
  - › take your medication.
  - › check your blood sugars.
- High blood sugars can raise blood pressure and cholesterol, slow your healing, and put you at a higher risk of an infection.

## Stable blood pressure

- It is important to keep track of your blood pressure. Talk with your primary health care provider about what levels are best for you. Take your blood pressure medication as prescribed.

## Know your cholesterol level

- Tell your primary health care provider if you have not had a recent cholesterol level test. A cholesterol level test should **not** be done until 6 weeks after your surgery. If you do not have a primary health care provider, talk with your cardiologist or use Virtual Care NS (see page 3).

## **Smoking and secondhand smoke**

- **Do not** enter rooms where people are smoking. Your support persons should not smoke near you.
- If you smoke and need help stopping, talk to your primary health care provider or the Heart and Stroke Foundation (see link below). You can also ask your nurses for information before discharge.

## **Heart and Stroke Foundation**

- › [www.heartandstroke.ca](http://www.heartandstroke.ca)

## **Smokers' Helpline**

- › Phone (toll-free): 1-877-513-5333
- › [www.smokershelpline.ca/home](http://www.smokershelpline.ca/home)

## **Stress**

- Stress can strain your heart, making it pump harder and faster, and raise your blood pressure. You may find these activities helpful for dealing with stress:
  - › Deep breathing
  - › Meditation
  - › Yoga
  - › Listening to relaxing music
- Please talk to your nurse if you have any concerns about stress before your discharge.

**Call your primary health care provider if you have any of the following:**

- › More redness or drainage around your incision
- › Swelling of your incision or the area around it
- › Pain in or around your incision
- › A bad smell coming from your incision
- › Fever (temperature over 38° C/100.4° F) for more than 2 to 3 days in a row
- › Flu-like symptoms (like aches, chills, fever, loss of appetite, tiredness) that last for 2 to 3 days
- › Weight gain of 4 to 5 pounds over 2 to 3 days
- › A pop or clicking noise from your chest

**If you do not have a primary health care provider:**

- › Contact Virtual Care NS (see page 3).
- › Go to a walk-in clinic.
- › Go to the nearest Emergency Department.

**Call 911 or go to the nearest Emergency Department right away if you have any of the following:**

- › Angina symptoms, like those before your surgery (try NITRO spray first, if you have it)
- › Pain in your chest, neck, or shoulders that gets worse with deep breathing
- › Shortness of breath that does not go away with rest
- › Your heart is racing and does not settle down after half an hour (30 minutes) of rest, or you have pain or shortness of breath with a fast heart rate

If you have any of the above symptoms and are not sure whether you should see your primary health care provider or go to the Emergency Department, call 811 to talk to a nurse.

- › Phone: 811

The risk of having a stroke after discharge is low, but it is important to be aware of the signs.

# Learn the signs of stroke

**F**ace is it drooping?

**A**rms can you raise both?

**S**peech is it slurred or jumbled?

**T**ime to call 9-1-1 right away.

Act **F A S T** because the quicker you act, the more of the person you save.

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## A stroke is an emergency.

- Knowing the signs above and acting quickly could mean the difference between life and death, or between a full recovery and a lasting disability.
- If you have any of the above signs of stroke, **CALL 911. DO NOT DRIVE** yourself or have a support person(s) drive you to the hospital. An ambulance will take you to the right hospital for stroke care, and will tell the hospital you are on the way, so staff are ready.
- Knowing the exact time that the stroke signs began is important because it can help decide which treatment is right for you.

# Cardiac Rehabilitation Program

- We strongly suggest that you take part in the Cardiac Rehabilitation Program if there is a program in your area or in an area that you can travel to.
- The Cardiac Rehabilitation Program is a 3-month program that combines:
  - › Exercise
  - › Education
  - › Support
  - › Lowering your risk factors
  - › And more tips to improve your heart health
- The Cardiac Rehabilitation health care team includes:
  - › Nurses
  - › Dietitians
  - › Physiotherapists
  - › A cardiologist
- We will make a referral to a rehab program in your area if you do not receive a call before your first follow-up with your surgeon.

## What are the benefits of cardiac rehabilitation?

- Cardiac rehabilitation may help to:
  - › improve your energy.
  - › increase your fitness level.
  - › strengthen your heart.
  - › control your diabetes.
  - › control or lower your blood pressure.
  - › control or lower your weight.
  - › control or lower your cholesterol level.
  - › help you stop smoking.
  - › lower anxiety and depression.
- Cardiac Rehabilitation is a standard of care for all heart surgery patients. You will be referred to a Cardiac Rehabilitation Program when you are discharged from the hospital after your surgery.
  - › If you live within a 1-hour drive from the Halifax Cardiac Rehabilitation sites, you will automatically be referred. Rehabilitation staff will contact you to talk about when and where you will start your Cardiac Rehabilitation.
  - › For those living longer than a 1-hour drive from Halifax, your primary health care provider will refer you. They will talk with you about Cardiac Rehabilitation programs in your community.
- These programs are not mandatory, but are highly encouraged for the best recovery.

# Cardiac Rehabilitation Programs in Nova Scotia

<p><b>Halifax/Dartmouth/Lower Sackville</b> Hearts and Health in Motion › 902-473-3846</p> <p>Hearts In Motion also offers <b>mobile programs</b> in the Guysborough, Antigonish, and Richmond Counties, and the southern part of Inverness County. It is offered in one community at a time, throughout the region. › 902-863-7192 or 902-863-7193</p>	<p><b>Truro</b> Cardiac Maintenance Program › 902-893-5528</p> <p><b>New Glasgow</b> Pictou County Cardiac Rehabilitation Program › 902-752-7600 ext. 4700 › 902-752-0202 (YMCA)</p>
<p><b>Kentville</b> Extended Warranty II Cardiac Rehabilitation › 902-679-2657 ext. 2621</p> <p><b>Yarmouth</b> Yarmouth Cardiac Rehabilitation Program › 902-742-3542 ext. 1460</p> <p><b>Bridgewater</b> Cardiac Rehabilitation › 902-527-2417</p>	<p><b>Cape Breton</b> <b>Sydney</b> › 902-563-8566</p> <p><b>Inverness</b> › 902-258-1905</p>

**For information about cardiac and/or exercise programs and support groups in your area, please contact:**

**Cardiovascular and Pulmonary Health in Motion/Hearts in Motion**

6969 Mumford Road, Halifax

- › Phone: 902-473-3846
- › [www.nshealth.ca/content/cardiac-rehabilitation-program](http://www.nshealth.ca/content/cardiac-rehabilitation-program)

**Enhanced Recovery After Surgery (ERAS)**

These videos explain things you can do to speed up your recovery.

- › [www.youtube.com/channel/UCWiXucS6KG\\_qi6MeJAclRGQ](http://www.youtube.com/channel/UCWiXucS6KG_qi6MeJAclRGQ)

## **The Heart and Stroke Foundation of Nova Scotia**

Call or visit the Heart and Stroke Foundation website for information, resources, and programs.

- › Phone: 902-423-7530
- › Phone (toll-free): 1-800-423-4432
- › [www.heartandstroke.ca](http://www.heartandstroke.ca)

## **Complete list of cardiovascular services available throughout Nova Scotia:**

- › [www.cdha.nshealth.ca/cardiovascular-health-nova-scotia](http://www.cdha.nshealth.ca/cardiovascular-health-nova-scotia)
- › Some programs may require a referral from a doctor or other health care provider.

## **Heart healthy eating guidelines**

- Some heart-healthy ways of eating are:
  - › Adding more fibre to your eating plan
  - › Cutting down on unhealthy fats
  - › Cutting down on salt
- Healthy eating can lower your risk of heart disease by helping you manage your:
  - › Weight
  - › Blood pressure
  - › Cholesterol
  - › Diabetes
- This is a great time to start looking at what you eat and decide what changes you can make to help your heart. Your lifestyle, including what you eat, is one of the risk factors for heart disease that is most within your control.
- Eat regular (the same amount of food at the same time every day) meals.
- Try to follow the Canada's Food Guide guidelines:
  - › <https://food-guide.canada.ca/en/>
- For more information, visit the Heart and Stroke Foundation's web page about healthy eating:
  - › [www.heartandstroke.ca/healthy-living/healthy-eating](http://www.heartandstroke.ca/healthy-living/healthy-eating)

## Fibre

- Adding more fibre can:
  - › help lower your cholesterol.
  - › help your bowels work better.
- Foods that can help lower cholesterol include:
  - › Oatmeal
  - › Vegetables
  - › Fruit
- Foods that can help your bowels work include:
  - › Whole grain breads
  - › Whole grain cereals
- When you start to eat more fibre, remember to drink plenty of fluids, especially water.

## Fat

Your body can use extra unhealthy fats to make extra cholesterol, which can block your arteries.

Eating too much fat will make you overweight, which makes your heart work harder. You can help your heart by eating less fat:

- Cut the fat off meat and the skin off chicken before cooking.
- Avoid processed meats (like hot dogs, sausages, bacon, pepperoni, salami, and bologna).
- Bake, broil, grill, BBQ, or roast meat, fish, or chicken instead of frying it.
- Avoid deep fried, pan fried, or creamed foods.
- Add less fat to food. Butter, margarine, mayonnaise, salad dressing, and salad oil (like canola or vegetable oil) all add fat to food.
  - › Try sandwiches with low fat mayonnaise, mustard, or horseradish instead of regular mayonnaise.
  - › Use jam on toast instead of butter or margarine.
  - › Use flavoured vinegars on salads instead of creamy dressings.
- Skim milk or 1% milk are the best choices in your coffee or tea. Use 2% milk only occasionally.
- If you eat dessert, choose fresh fruit, angel food cake, frozen fruit, or fruit crisps. Most pies, cakes, cookies, and squares are too high in fat to eat often.
- Try eating one evening meal each week without meat, fish, or chicken. Meat and animal protein can be a very big source of fat.



- You do not have to become a vegetarian to eat heart healthy, but meatless meals can be good for your heart. A great example of a meatless meal is:
  - › Beans and whole grain bread
  - › A salad
  - › Some fruit for dessert
- Other ideas are:
  - › Chili
  - › Casseroles
  - › Thick soups with lots of foods like vegetables, pasta, lentils, and peas
- Vegetarian cookbooks are full of delicious, low fat recipes. Try a low fat or vegetarian cookbook from your local library or bookstore.

### **Helpful hints for choosing low fat foods**

- “Cholesterol free” does not mean fat free or low in fat. For example, cholesterol free french fries never had any cholesterol in the first place, but they have a lot of fat.
- “Light” does not always mean low in fat or calories. It may mean the food is light in colour, flavour, or texture. Read the label closely to see why it is marked “light”.

### **Salt**

Too much salt can make your blood pressure go up. Higher blood pressure makes your heart work harder.

- Try to use less salt. Add flavour to foods by using herbs and spices.
- Look for foods labeled “salt free”, “no added salt/sodium”, or “low sodium”.
- Eat fewer salty snack foods (like chips, salted nuts, and pretzels). Try these foods for a snack instead:
  - › Popcorn (the “light” microwave kind or air popped)
  - › Fresh fruit and vegetables
  - › Low fat cheese with crackers
- Avoid:
  - › Regular canned soups
  - › Bouillon
  - › Dried soup mixes
  - › Split pea soup made with ham bone
  - › OXO®

## Sugar

Sugary foods and drinks are high in calories and can cause weight gain. Try to limit sugar, candy, pop, and desserts.

- Try not to add sugar to tea, coffee, and breakfast cereals. Your taste for sweetness will change over time.
- Use artificial sweeteners only if needed.
- If you eat dessert, try to eat only a small amount.
- Drink water instead of pop, diet pop, or juice.

## Alcohol

- Check with your primary health care provider to see if there is any reason why you should not drink alcohol.
- Drinking too much alcohol can lead to serious health problems. Alcohol can change how some medications work, so talk to your primary health care provider or pharmacist before drinking alcohol.
- If you have been given the OK from your primary health care provider to drink alcohol, drink it in moderation. **Moderation means no more than 2 drinks a week.**
- 1 drink is:
  - › 12 oz (340 ml) of beer

**OR**

- › 4 oz (110 ml) of wine

**OR**

- › 1 oz (30 ml) of hard liquor (rum, whiskey, gin, vodka)

## **Making healthy choices at restaurants**

You can make healthy choices when eating out.

- Choose a restaurant that cooks food in many ways, not just deep-fried.
- Ask how foods are cooked.
  - › “Crispy” often means deep-fried.
  - › Pan-fried or sautéed usually mean cooked in fat.
  - › Ask for fish to be poached instead of fried as a healthy alternative.
- Ask for sauces and dressings on the side and just use a little, or none at all. Sauces like béchamel, béarnaise, and hollandaise have a lot of fat.
- Watch out for salads. Caesar salad and “salad items” at a salad bar (like chicken salad, potato salad, and pasta salad) are high in fat. If you add chicken or seafood to a salad, make sure it is grilled instead of deep-fried. Ask for light salad dressing and use small amounts. You can also try lemon juice and olive oil instead of packaged dressing.

## **Eat heart healthy! It’s up to you!**

If you have any questions about heart healthy eating, write them down in the space at the end of this pamphlet and ask to talk with a dietitian.

## **Useful tips**

Visit the dietitian at your local grocery store for free tips and classes on heart healthy eating.

## **Canada’s Food Guide**

- Canada’s Food Guide can be a helpful tool for choosing foods.
- Visit their website for information about food, recipes, tips, and other resources that may be helpful:
  - › <http://healthycanadians.gc.ca/eating-nutrition/healthy-eating-saine-alimentation/food-guide-aliment/index-eng.php>

## Resources

For some patient information starting points, visit:

- › <http://library.nshealth.ca/PatientEducation>

Below is a list of a few pamphlets that you and your loved ones might like to review before or during your hospital admission:

- Welcome to the QEII
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/0603.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/0603.pdf)
- Hand Hygiene
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1036.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1036.pdf)
- How to Avoid Safety Risks During Your Hospital Stay
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1696.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1696.pdf)
- Preventing Falls and Injuries During Your Hospital Stay
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1643.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1643.pdf)
- Fall Prevention Checklist
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1649.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1649.pdf)
- Patients First: Inpatients
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1381.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1381.pdf)
- Pressure Injury (Ulcer) Prevention
  - › [www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1582.pdf](http://www.nshealth.ca/sites/nshealth.ca/files/patientinformation/1582.pdf)

# Questions you may have

## **Do I still take my old medications after surgery?**

- You will get a prescription for all the medications you will need before you are discharged from the hospital.
- There may be changes to the medications that you were taking before surgery. You will probably be prescribed some new medications. Your nurse will review your medications with you and your support persons.
- Only take the medications that are prescribed for you on discharge.

## **Who makes changes to my prescriptions?**

- Your primary health care provider or cardiologist may make changes to your prescriptions.
- It may be helpful to keep a current list of all your medications with you and bring it to all your follow-up appointments.

## **Can I hurt myself by doing too much activity?**

- Pace yourself. You will get tired easily.
- Follow the exercise plan that your physiotherapist has made for you. You will increase your strength by following the exercises in this pamphlet.

## **Why am I coughing so much?**

- Coughing is normal after surgery. You may have fluids or secretions in your lungs. Coughing helps to remove them.
- If coughing continues, talk to your primary health care provider. They may order a chest X-ray or a change in your medications.

## **How long will I probably stay at the hospital?**

- Most people stay in the hospital after heart surgery for between 5 and 10 days.
- If your stay is longer, your health care team will meet with you to talk about your plan of care. You and your support persons will have the chance to ask questions at this meeting.

## **Do I have to sleep on my back after surgery?**

- You **do not** have to sleep on your back after surgery. You can sleep on your right or left side if it does not cause you pain or discomfort.
- For 6 to 8 weeks after surgery, **do not** use your arms to pull yourself onto your side. You must use your legs to roll over.

## **How do I care for my incision at home?**

- You will have a dressing in place until your primary health care provider removes your staples. It is usually OK to shower with this dressing. Before going home, your nurse will go over this with you.
- It is normal for your incision to be tender, sore, and numb.
- The chest incision may be swollen at the top. This should get better over time.

### **Tell your primary health care provider if you notice any of the following:**

- › More redness
- › More swelling
- › More pain
- › More drainage
- › More or larger open areas in your incision

- If you need a nurse to change your dressing at home, home care will be arranged before you leave the hospital.

## **Do I need a hospital bed or a special chair after surgery?**

- You should not need a hospital bed or a special chair after surgery.
- Before you are discharged from the hospital, your nurse and physiotherapist will teach you how to safely get in and out of a chair and a bed.

## When can I...?

### Shower?

- You may shower at home and get your dressing wet. This is OK. Stand with your back facing the shower. Try not to let the water spray directly on the dressing for too long.
- **Do not** use very hot water. Very hot water may make you feel dizzy.
- Before you are discharged, your nurse will explain how to care for your dressing.
  - › If there is drainage, change your dressing.
  - › If there is too much drainage, you may need to see your primary health care provider. If you do not have a primary health care provider, call the Cardiovascular Surgery Clinic. Your nurse will give you the phone number when you are discharged.
- If you no longer need a dressing, pat your incisions dry with a clean towel after showering. Leave them open to the air unless there is drainage (fluid).

### Take a bath?

- **Do not** have a bath for 6 to 8 weeks. It will be hard to get in and out of the tub safely.
- It is not good to let your incisions soak in bath water. Soaking your incision can increase your risk of infection.

### Do housework?

- When you get home, you may do light housework, like setting the table or drying dishes.
- **Do not** lift anything heavier than 5 pounds per arm (10 pounds total).
- **Do not** do heavy work (like vacuuming or laundry) for 6 to 8 weeks.

### Go back to doing my hobbies?

- **Do not** do activities like hunting, fishing, golfing, swimming, and bowling for at least 6 to 8 weeks.

## **Drive?**

- **Do not** drive for 6 to 8 weeks.
- Always use a seat belt when you are a passenger. If you are a passenger and there is an airbag, please make sure your seat is pushed all the way back.
- On a long trip, stop every 2 hours so you can stretch your legs. Do the leg exercises in this pamphlet often when in the car.

## **Have sex?**

- You may have sex once you can climb 18 stairs with little problem.
- **Do not** bear any weight through your arms for 8 weeks. Lie on your back or side.

## **Go back to work?**

- Ask your surgeon or primary health care provider.
- This will likely be in 6 to 8 weeks, and once you can climb stairs with little problem.

## **Medication**

- Your primary health care provider will tell you what medications you will need to take when you go home.
- Your nurse and pharmacist will review this medications with you.
- Make sure that you understand what medications you need to take.
- You may want to have your support persons review your medications with your nurse and pharmacist, so they can help you through your recovery.

**What are your questions? Please ask.  
We are here to help you.**

**In Nova Scotia you can call 811 to talk with  
a registered nurse about your health care  
questions 24/7.**





## Give from the heart, for heart health at the QEII.

Every year, thousands of Atlantic Canadians receive life-saving cardiac and vascular care at the QEII Health Sciences Centre. As the advanced heart health centre for Atlantic Canada, the QEII is here for patients and families in the moments they need it most.

The Maritime Heart Centre and the QEII Foundation are working together on a shared vision to transform health care. You and your loved ones deserve the best care – and donor support has a direct impact on the care we receive.

**Your gift matters. When a community comes together, transformational change is possible. Thank you for advancing care for hearts across Atlantic Canada.**

**I will help advance cardiac and vascular care at the QEII Health Sciences Centre.**

Mr.     Mrs.     Miss     Ms     Dr.     Other: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Prov: \_\_\_\_\_ Postal code: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### MY GIFT

Please accept my gift of \$ \_\_\_\_\_

I would like my gift to remain anonymous.

The QEII Foundation respects your privacy. We do not rent, sell or otherwise share your information with anyone. Receipts for income tax purposes are issued promptly for all eligible gifts.

Charitable Business No. 88646 3496 RR0001

### PAYMENT INFORMATION

I have enclosed a cheque made payable to the QEII Foundation.

I prefer to donate with:

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PHONE



5657 Spring Garden Road, Park Lane Mall, Box 231, Halifax, Nova Scotia B3J 3R4  
TEL 902 334 1546  
info@qe2foundation.ca

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[QE2Foundation.ca](http://QE2Foundation.ca)



**Looking for more health information?**

Find this pamphlet and all our patient resources here: <https://library.nshealth.ca/PatientEducation>

Contact your local public library for books, videos, magazines, and other resources.

For more information, go to <http://library.novascotia.ca>

Connect with a registered nurse in Nova Scotia any time: call 811 or visit <https://811.novascotia.ca>

Learn about other programs and services in your community: call 211 or visit <http://ns.211.ca>

*Nova Scotia Health promotes a smoke-free, vape-free, and scent-free environment.*

*Please do not use perfumed products. Thank you!*

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

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The information in this pamphlet is for informational and educational purposes only.

The information is not intended to be and does not constitute health care or medical advice.

If you have any questions, please ask your health care provider.