

Enhanced Recovery After Surgery (ERAS) for Endovascular Aortic Aneurysm Repair (EVAR) Surgery

IMPORTANT!

Please read this booklet **BEFORE** your surgery to prepare you.

Please bring this booklet with you to the:

- Pre-Admission Clinic
- Hospital
- Family Doctor

Pre-op information at a glance

Your Surgeon: _____

Office number: _____

Your planned surgery is: _____

Check in time is: _____



- **Two business days before your surgery date, please call your surgeon's office and ask for your hospital check-in time.**

Call your surgeon's office as soon as possible if you have any of the following before surgery:

- Cold
- Flu
- Fever
- Become pregnant
- Cough
- Any new sickness
- Other infections (e.g. bladder infection)

Things to keep in mind before your surgery:

- Your surgery date depends upon various things including your medical condition, how long you have been waiting, and whether it has been postponed in the past.
- There is a possibility that your surgery date may be changed due to an emergency case in the hospital. If this happens, your surgery will be rebooked.
- During the waiting period, it is crucial that you make your family doctor aware of any changes or concerns you may have about your condition.
- Call 911 or go to the nearest Emergency Department if you have symptoms that are severe or if you are concerned and not able to see your doctor.

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Important notice - the information contained in this booklet is intended for educational purposes and describes anticipated events. Each person responds differently and your recovery may not be exactly as described. This booklet does not replace instructions or advice given by your healthcare team. If you have any questions, please ask any member of your care team.

Introduction to Surgery

In this section, you will learn about:

- ➔ Enhanced Recovery After Surgery (ERAS) program
- ➔ Patient checklists
- ➔ Your abdominal aorta - a quick review
- ➔ Endovascular Aortic Aneurysm Repair surgery

You are going to have Endovascular Aortic Aneurysm Repair surgery. This booklet will help guide you through the sequence of events and provide you with information to answer questions people commonly have.

We will be using QR codes throughout the booklet. If you have a smart phone, open the camera and hold it over the QR code image. A link will pop up to take you to the website.

Vancouver Coastal Health (VCH) is committed to delivering culturally safe and appropriate care. VCH has policies in place that respects patients from diverse cultures, and their unique gender identity.

QR code



For further information on your care while at VCH, please click the link www.vch.ca/your-care, or scan the QR code.

We will be using a program called Enhanced Recovery After Surgery (ERAS) to help plan your surgery. The ERAS program contains standardized care guidelines with specific daily goals for early eating and early mobilization. The goal of ERAS is to improve your surgical experience and outcomes of your surgery.

To find out more about ERAS and your role, click the link bit.ly/enhancedrecovery to watch a 5 minute video (if the link fails, copy and paste it directly into your web browser) or scan the QR code.



For a 4 minute video about the patient's experience with the ERAS journey, click the link bit.ly/eraspatient or scan the QR code.



Having surgery can be a stressful event. We hope this booklet will help you understand your surgery, decrease some of the stress, and provide you with tools and ideas to help speed up your recovery.

Quick facts about the ERAS program

An evidence-based care pathway that has instructions about eating and drinking, physical activity, and managing your pain and nausea.

Why use ERAS?

- Patients feel better faster
- Fewer complications
- Shorter hospital stay

When does ERAS happen?

- Before, during, and after surgery

Who takes part in ERAS?

- Patient
- Family members
- Everyone in your healthcare team

Where is it used?

- Around the world

Different parts of your ERAS journey

Pre-Operative Optimization - Getting yourself into better shape for surgery

1. Eating healthy
2. Being active
3. Deep breathing exercise
4. Stopping or reducing smoking and tobacco use
5. Stopping or reducing drinking alcohol
6. Relaxing
7. Improving anemia and iron stores
8. Controlling blood sugar

ERAS - Before surgery

1. Reading this booklet
2. Pre-admission counselling
3. Drinking juice or PREcovery® the morning of surgery
4. Planning your return home after surgery

ERAS - During surgery

1. Receiving medication to reduce pain, nausea, and the risk of blood clots
2. Keeping your body warm with blankets

ERAS – After surgery

1. Gum chewing
2. Receiving medication to reduce nausea
3. Early eating
4. Early activity
5. Early catheter removal
6. Reviewing your daily goals in this booklet

You are an important member of your care team. **You will benefit from taking an active part in preparing for your surgery and your recovery.** Your care team is here to help you and your family through your surgery.



Please feel free to ask any healthcare team member to wash their hands.

Quick Overview of the Patient Journey:

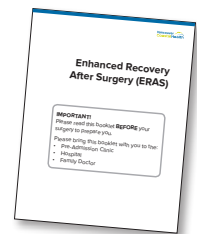
Home → Surgeon's Office → Home → Pre-Admission Clinic appointment → Home → Admitting, Pre-Operative Care Centre/Surgical Day Care, Operating Room, Post-Anesthesia Care Unit → Surgical Ward → Home → Surgeon's Office → Home

Patient checklists

Please check off each item as you complete them.

What to bring/have ready for the Pre-Admission Clinic (PAC) appointment:

- This booklet
- All of your prescription medications, supplements and herbal or traditional medications you are taking in their original containers
- A list of all your non prescription medication
- A summary of your medical history and your health problems
- Advanced directive or a living will if you have one



*Please ensure a family member, friend, or interpreter is at this appointment (in-person, over the phone or video).

Things to prepare ahead of time to prepare for discharge home:

- Arrange a ride home from the hospital for 10:00 a.m.
- Arrange accommodation for after you leave the hospital if you are from out of town (hotel, friend's place, etc.)
- Arrange for a family member or friend to help with house work for the first week after your discharge
- Shop for extra food that is easy to prepare
- Prepare and freeze some meals ahead of time so all you have to do is microwave or reheat them
- Do your laundry
- Clean the house
- Move frequently used items to places where they are easy to reach
- Pay your bills
- Register for Fair PharmaCare

What to bring to the hospital?

- This booklet**
- 2 packages of sugar-free gum** (chewing gum will help wake up your bowels after surgery)
- Your BC Service Card/Care Card and private insurance information (if applicable)
- Your Driver's License or other government-issued identification
- If you do not speak English, bring someone to assist you. If you need an interpreter, please tell your surgeon before your hospital admission.
- All your medications in original containers (including non-prescription medications, vitamins and supplements).
DO NOT bring your opioid pain medications to the hospital.
- Rubber-soled shoes and comfortable loose clothing
- Toothbrush, toothpaste, soap, deodorant, shaving equipment, earplugs
- Clothes to wear on the day of going home
- Glasses, dentures, Invisalign®, hearing aids and spare batteries (in the case with your name on it).
- Mobility aids you normally use (cane, walker)
- Noise cancelling headphones (if applicable)
- Continuous Positive Airway Pressure (CPAP) machine (if applicable)
- Remove jewelry and valuables and leave at home.

Note: We have a 'No Scent' policy. Do not bring in or wear any scented products or perfumes.

Please limit belongings to one small bag.

**The hospital is not responsible for lost or stolen valuables.
Please leave any valuables at home (including credit cards and jewelry).**

Before you leave the hospital, do you/have you:

- Know what to do or who to call if you have a problem?
- Have a prescription for your medications (if needed)?
- Know how to care for your incision?
- Know where and when you are to get your staples removed?
- Asked your surgeon when you need to make a follow-up appointment?
- Know how to manage your pain and properly dispose opioids? (information in the "Pain management" section)
- Know how to prevent constipation?
- Know how to self-inject your blood thinner? (if applicable)
- Know about your activity levels at home?
- Talked with an occupational therapist or a physiotherapist if you need equipment at home?
- Someone to stay with you for the first few days at home in case you need help?

If you have staples or stitches, you need to have these taken out by your family doctor unless you are told otherwise.

If you have discharge prescriptions, try to get a family member or a friend to fill the prescription ahead of time. This can be done prior to discharge or on the day of discharge.

Things to pack before you leave the hospital:

- All your personal belongings including any medications you brought with you
- Your house keys
- Your phone and charger
- Your prescriptions
- Discharge summary sheet
- Instruction sheet for any new medications
- This booklet
- Staple remover (if needed)



Your abdominal aorta - a quick review

Abdominal Aorta

The abdominal aorta is the largest blood vessel in the body, and is usually around 2 cm wide, roughly the width of a garden hose. It carries blood away from the heart to the abdominal and pelvic organs and the legs.

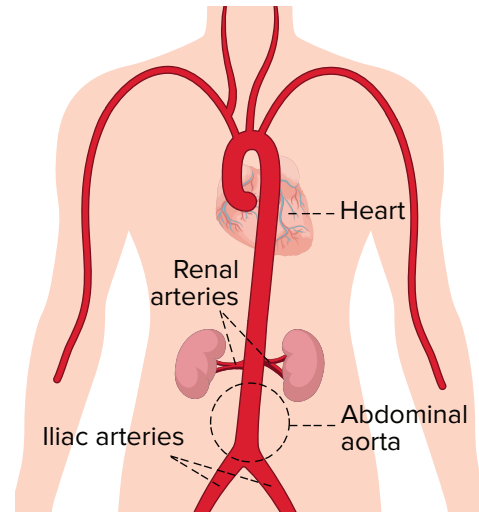


Figure 1: Normal Abdominal Aorta

An aneurysm is a weak point in a blood vessel wall most commonly found in an artery. Blood pressure can push the weakened section of the artery wall outward forming a balloon like shape.

Abdominal aortic aneurysms are the most common type of aneurysm. An abdominal aortic aneurysm can be repaired in two ways: insertion of an endovascular stent or through open abdominal surgery.

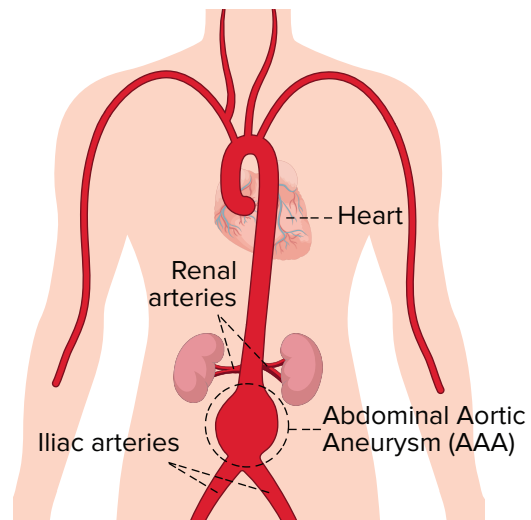


Figure 2: Abdominal Aorta Aneurysm

Endovascular Aneurysm Repair (EVAR) surgery

Endovascular aneurysm repair is a minimally invasive surgery to repair aortic aneurysms without major abdominal surgery.

It involves inserting a stent graft within the aneurysm through small groin incisions using X-ray to guide the graft in place. The **stent graft** is an expandable tube placed inside the main artery in the abdomen called the aorta. It is positioned to exclude (seal off) the aneurysm by relining the weakened and ballooned portion of the vessel. The stent graft creates the new vessel wall and decreases the potential risks associated with a leaking or ruptured aneurysm. This surgery is performed by your surgeon in an operating room equipped with advanced radiological equipment.

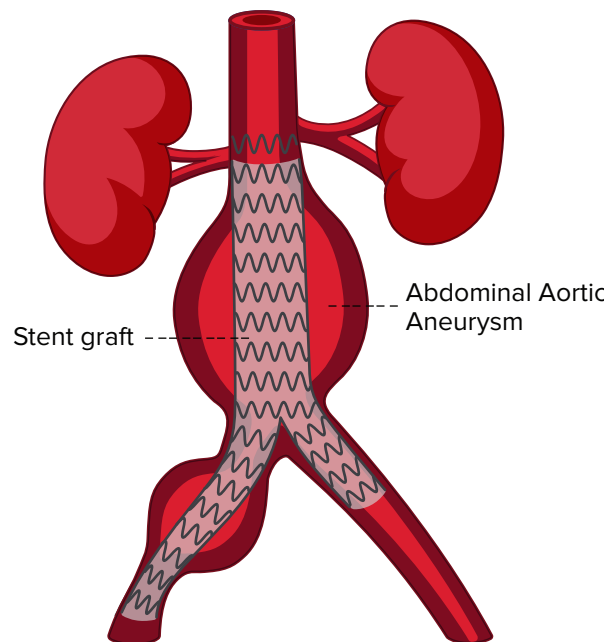


Figure 3: Endovascular Abdominal Aortic Aneurysm (AAA) repair: a stent graft is placed inside the aneurysm

Before Your Surgery

In this section, you will learn about:

- ➔ Getting yourself ready
- ➔ Planning ahead
- ➔ Pre-Admission Clinic

Getting yourself ready

It is important for you to be in the best possible condition for your surgery. This will help you recover faster and decrease the chances of any problems.

The recommendations below are things you can do to help prepare yourself for surgery.

1. Eating healthy

Food plays an important role in helping you heal. Eating enough calories, protein, vitamins, and minerals can help you get better faster.

Before your surgery, eat a healthy balanced diet to better prepare you for the procedure and your recovery. It is important to eat enough so your body has the right material to build tissue, minimize muscle loss, and help you fight infections.

If you are losing weight, you are likely not getting enough calories. Below are some tips that you may find helpful.

Improve my nutritional status before surgery

- Make the most of each bite by **choosing high protein, nutrient rich foods**. For example: chicken, beef, wild game, pork, tofu, fish, eggs, Greek yogurt, milk.
- Try to eat at least **3 meals and 1 snack** a day to help meet your calorie and protein needs.
- For **quick and easy snacks**, try items like protein bars, nut butter on toast, hummus and crackers or trail mix.
- **Choose fresh, frozen or canned fruits**. They are a good source of vitamins and minerals.
- **Limit foods** like pop, potato chips, and chocolate bars. They are low in nutrients needed for healing.
- Discuss with your doctor to see if you should take a multivitamin and mineral tablet.

It may be helpful to speak to a family doctor or a dietitian if you have had any of the following:

- Unexplained weight loss or weight gain in the past 6 weeks
- Decrease in appetite
- Nausea
- Problems with digestion
- Problems with swallowing

A dietitian can help you choose healthy foods that will help prepare you for surgery.

You can get a referral to see a dietitian from your family doctor or if you have questions about your diet, contact HealthLink BC by dialing 8-1-1 on your phone and ask to speak to a dietitian (9:00 a.m. to 5:00 p.m. Monday to Friday). Be sure to tell them you are going for surgery.

For information on the Canada Food Guide, click the link: food-guide.canada.ca/en/ or scan the QR code.



Healthy eating for your condition

For more information about healthy eating from the British Columbia government website, click the link: healthlinkbc.ca/healthy-eating-physical-activity/food-and-nutrition or scan the QR code.



Healthy Eating for Seniors handbook

For more information about nutrition for seniors from the British Columbia government website, click the link: bit.ly/HealthyEatingforSeniors or scan the QR code.



2. Being active

Exercise helps you be in the best shape possible before your surgery and being fit can help speed up your recovery. You do not need to join a gym. Just going for a walk 15 to 30 minutes per day is helpful. Talk to your doctor before starting an exercise plan. The mall is a good place to walk during the winter and summer months.

Exercising may:

- Build and maintain healthy bones, muscles, and joints
- Build and maintain balance and exercise endurance
- Reduce feelings of depression and anxiety
- Increase energy levels

Home Exercises

We suggest you start slowly with 10 minutes, 3 days a week, and gradually build up – ideally to 30 minutes, 5 days a week.

We suggest completing the exercises listed here three times a week prior to surgery.

Calf raises	10 times
Knee bends	10 times
Sit to stand (2 hands for support)	10 times
Walk up flight of stairs	1 flight

Calf Raises

- Stand facing a bench, stool, or table.
- Place your feet shoulder width apart and flat on the ground.
- Raise your heels and come on to your toes.
- Stay up for 1 second and slowly come back down so your feet are flat again.
- Repeat this 10 times.

For a video about this exercise, click the link bit.ly/CalfRaises or scan the QR code.



Knee bends

- Stand facing a bench, stool or table.
- Place your feet shoulder width apart and flat on the ground.
- Squat down as far as you can safely by bending your knees.
- Stand back up to straight position.
- Repeat 10 times.

For a video about this exercise, click the link bit.ly/KneeBends or scan the QR code.



Sit to Stand

- Sit on a chair facing forward.
- Place your feet flat on the ground and shoulders width apart.
- Lean forward and stand up straight. You can use your hands to help push off if required.
- Sit back down slowly.
- Repeat 10 times.

For a video about this exercise, click the link bit.ly/Sit2Stand or scan the QR code.



Walking up stairs

- Hold onto a hand rail for support.
- Walk up and down one flight of stairs (10-14 stairs).
- Do this just once.

For a video about this exercise, click the link bit.ly/WalkingUpStairs or scan the QR code.

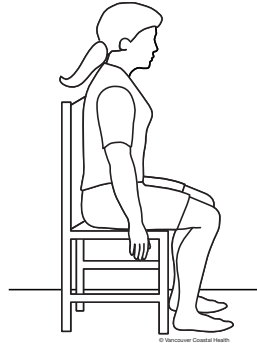


Improving Your Posture

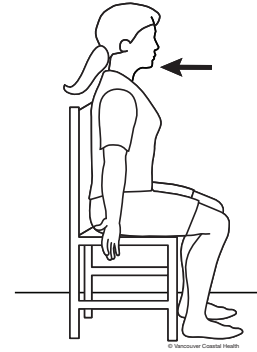
Improving your posture may also help with your recovery.

We suggest you start slowly with 3 sets of 10 reps, 3 times a day or as tolerated.

Posture Exercise (Sitting Version)

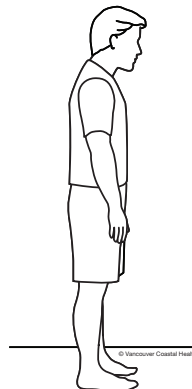


Sit with a relaxed posture

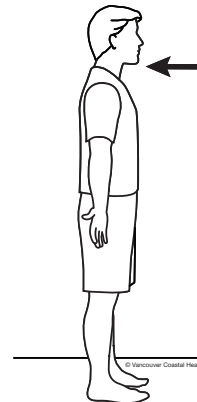


- Inhale and sit up tall.
- Rotate your hands open and bring your shoulders back and down.
- Bring your chin back and hold for 3 to 5 seconds.
- Exhale and repeat.

Posture Exercise (Standing Version)



Stand with a relaxed posture



- Inhale and stand up tall.
- Rotate your hands open and bring your shoulders back and down.
- Bring your chin back and hold for 3 to 5 seconds.
- Exhale and repeat.

3. Deep breathing exercise

Deep breathing opens up your lungs, exercises the lung muscles, and improves oxygen delivery to your body.

Doing these exercises BEFORE surgery helps speed up your recovery AFTER surgery.

Do the deep breathing exercises (as explained in the "deep breathing exercises" section later in this booklet) every hour:

- Start by placing your hands on your ribs.
- Take a deep breath slowly through your nose, expanding your lower chest until you feel your ribs push against your hands.
- Hold your breath for a count of 3.
- Breathe out slowly through your mouth.
- Repeat this 5 more times.

4. Stopping or reducing smoking and tobacco use

Studies show that people who stop smoking at least 1 month before surgery have fewer complications after surgery such as infections.

Patients concerned about the health risks related to vaping should consider refraining from using vaping products. However, if vaping nicotine-containing products is a way to quit smoking cigarettes, you should not return to smoking cigarettes.



- a. For free nicotine patches, gum, lozenges, or inhaler:
Visit your local pharmacy or call 8-1-1 (HealthLink BC). You do not need a prescription but you will need to sign a declaration form.
- b. For smoking cessation prescription drugs: ask your doctor about your options.
- c. For more information visit the website: gov.bc.ca/bcsmokingcessation or quitnow.ca
- d. To attend the Vancouver General Hospital Smoking Cessation Clinic call: 604-875-4800 (select option 2).

For a video about quitting smoking, click the link: bit.ly/DocEvansQuitSmoking or scan the QR code.



For more information about vaping, click the link: www2.gov.bc.ca/gov/content/vaping?keyword=vaping or scan the QR code.



5. Stopping or reducing drinking alcohol

Alcohol can interfere with your anesthetic and other medications given to you during and after surgery. **Do not drink any alcohol for at least 48 hours** before your surgery.

6. Relaxing

It is very normal to feel anxious or worried before surgery. Having pain or trouble moving can affect your mood and disrupt your sleep. We also know that stress increases the release of hormones that can delay healing and recovery.

Exercise, meditation, relaxation, and breathing exercises can help improve your outcomes after surgery. They can also help to reduce pain and promote sleep.

Try this focused breathing exercise:

- Sit or lie down in a quiet place.
- Relax your muscles and be aware of feeling them 'let go'.
- Take a slow deep breath in.
- When you breathe out, focus on making it long, steady, and slow.

7. Improving anemia and iron stores

Anemia is when you do not have enough healthy red blood cells (hemoglobin) to carry adequate oxygen to your body's tissue. A blood test can check your red blood cell level. Anemia is commonly caused by bleeding or low iron stores.

Anemia is the greatest risk factor for needing a blood transfusion during surgery. Both anemia and blood transfusions are associated with a greater risk of complications in the hospital.

Improving your hemoglobin will also allow you to heal better, and have more energy when you return home. If your hemoglobin or iron stores are low, you may be contacted by your doctor with suggestions to help improve your hemoglobin and iron stores.

8. Managing blood sugar

Your blood sugar may be checked with a blood test called hemoglobin A1c (HbA1c). If the result is high, you may be referred to an endocrinologist (diabetes doctor) to improve your blood sugars before surgery. Maintaining normal blood sugar is important for wound healing, especially after surgery.

Planning ahead

You are admitted to hospital on the morning of your surgery. Please check the hospital visitation guidelines for the most current information:

www.vch.ca/your-care/hospital-care/visiting-the-hospital



There may be a limited number of visitors allowed to keep our staff, patients, and communities safe and healthy.

You can expect to go home 1 to 4 days after your surgery but this varies with each person depending on the type of surgery and your health. Most people are ready to go home at 10:00 in the morning. When it is determined you are ready to go home, please arrange for a ride home.

Before you come to the hospital, think about what you will need when you go home (or where you will be staying).

Your family members can also use this resource to locate a place to stay while you are in the hospital.

You may find it helpful to get things ready in advance so they are ready when you leave the hospital. For example: you may need help with meals, laundry, bathing, etc. for the first week you will need to arrange for family and friends to help you. This will not be provided by home support.

Fair PharmaCare Plan

We encourage all British Columbians with Medical Services Plan (MSP) coverage to register for Fair PharmaCare. Coverage under this plan is based on family net income.

It is available to single people and to families. You may be eligible to get your discharge prescription medications at reduced cost with the Fair PharmaCare Plan. Ensure you have registered for Fair PharmaCare before your surgery at this link: bit.ly/FairPharmaCare

Pre-Admission Clinic

Depending on the kind of surgery and your overall health, you may require a Pre-Admission Clinic appointment in-person, over the phone or video. You may be asked to either come into the Pre-Admission Clinic for a visit or to have a telephone or video appointment. During your appointment you may speak to a nurse, anesthesiologist, and/or other healthcare team members.



If an in-person Pre-Admission Clinic appointment is required, you will be contacted by the clinic to schedule an appointment.

Since we give you a lot of information during this appointment, **we encourage you to have a family member or a friend with you.**

Your in-person Pre-Admission Clinic appointment may last between 2 to 4 hours.

During your Pre-Admission Clinic appointment, you may talk with an anesthesiologist and a nurse. The anesthesiologist will talk with you about any specific health concerns, choices for anesthesia, and options for managing your pain during surgery. You may be asked to have blood tests or other tests prior to your surgery.

The nurse may:

- Take or ask you about your blood pressure, heart rate, height, and weight.
- Ask questions about your health and medical history.
- Help guide you through the steps of your surgery.
- Start planning for when you go home after surgery.
- Tell you which medications, supplements, and herbal or traditional medications you are to take or stop taking before the surgery.
- Review what you need to do to prepare for the surgery using this booklet and other pamphlets.

Preparations for Surgery

In this section, you will learn about:

- ➔ The week before your surgery
- ➔ The day before your surgery
- ➔ The day of your surgery
- ➔ Summary of what you can eat and drink before surgery

The day before your surgery

Surgery time

- Your surgeon's office will call you to tell you what time you are having your surgery and what time you need to check into the hospital.
- Write this time on the inside cover of this booklet.
- If you have not heard from the office by 2:00 p.m., call your surgeon's office to get this information.

Contact your surgeon's office as soon as possible if:

- You feel sick (fever, cold, flu, other infection e.g. bladder infection)
- You have become pregnant
- For any reason you feel you need to cancel your surgery



Preparing your skin

To reduce the risk of infection after surgery, follow the instructions in the pamphlet "Lowering Your Risk for a Surgical Infection". This will be given to you at your Pre-Admission Clinic appointment.

- You may continue to use an **electric razor** to shave.
- Do not apply any lotions, moisturizers or makeup after washing your skin.
- Go to bed in clean pyjamas and bed linens.

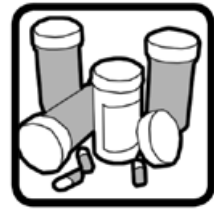
Diet

The Pre-Admission Clinic nurse will give you instructions on what to eat and drink before your surgery. Please follow the instructions the Pre-Admission Clinic team provides.

The day of your surgery

Medications

Your healthcare team from the Pre-Admission Clinic and your surgeon will tell you what medications to take on the day of surgery. You can take these medications in the morning with a small sip of water.



Carbohydrate loading instructions 1 hour before your check-in time at hospital:

People without diabetes OR people with diabetes and not on insulin:

- Choose one carbohydrate drink from the table below.

Choose one to drink:	Amount:	
Clear apple juice	250 mL	1 cup
Clear cranberry juice (red or white)	250 mL	1 cup

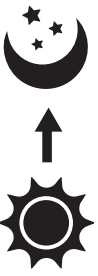

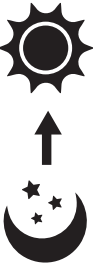

- **Stop drinking all fluids once you have finished this drink.**

Carbohydrate loading helps to keep you hydrated and helps keep your blood sugar normal during surgery.

People with diabetes on insulin:

- Drink 250 mL (1 cup) of water.
- DO NOT drink PREcovery®.
*If you feel hypoglycemic drink up to 250 mL (1 cup) of clear juice.
- **Stop drinking all fluids once you have finished this drink.**

Summary of what you can eat and drink before surgery:

	 The Day Before Surgery up to Midnight	 Evening Before Surgery	 Midnight to 1 hour Before Hospital Check-in Time	 Day of Surgery: 1 hour Before Hospital Check-in Time
<p>People <u>without diabetes</u> OR People <u>with diabetes and not on insulin</u></p>	<ul style="list-style-type: none"> Eat and drink normally. 	<p>Richmond Hospital:</p> <ul style="list-style-type: none"> Not required <p>LGH:</p> <ul style="list-style-type: none"> Drink 500 mL (2 cups) of clear juice 	<ul style="list-style-type: none"> STOP eating solid foods at midnight. You can continue to have sips of ONLY these clear fluids: water, clear apple juice or clear cranberry juice (red or white). DO NOT drink citrus juices, milk or carbonated drinks after midnight. 	<ul style="list-style-type: none"> Drink 250 mL (1 cup) of clear apple juice or clear cranberry juice (red or white). <p>STOP drinking all fluids once you have finished this drink.</p>
<p>People <u>with diabetes on insulin</u></p>	<ul style="list-style-type: none"> Eat and drink normally. 	<p>ALL SITES:</p> <ul style="list-style-type: none"> Not required 	<ul style="list-style-type: none"> STOP eating solid foods at midnight. Drink water only. DO NOT drink citrus juices, carbonated drinks or milk after midnight. <p>*If you feel hypoglycemic drink up to 250 mL (1 cup) of clear apple juice or clear cranberry juice (red or white).</p>	<ul style="list-style-type: none"> Drink 250 mL (1 cup) of water. DO NOT drink PREcovery®. <p>*If you feel hypoglycemic drink up to 250 mL (1 cup) of clear apple juice or clear cranberry juice (red or white).</p> <p>STOP drinking all fluids once you have finished this drink.</p>

During Your Hospital Stay

In this section, you will learn about:

- ➔ At the hospital
- ➔ The surgery
- ➔ Surgical waiting room/area
- ➔ Post-Anesthesia Care Unit
- ➔ Surgical Nursing Unit
- ➔ Pain management
- ➔ Nausea and vomiting
- ➔ Eating, drinking, and digestion
- ➔ Activity
- ➔ Deep breathing and coughing exercise/ICOUGH protocol
- ➔ Moving around in bed
- ➔ Leg exercises
- ➔ Preventing blood clots

At the hospital

- If you are being admitted on the day of your surgery at Lions Gate Hospital report to the Admitting Department.
- If you are being admitted on the day of your surgery at Richmond Hospital, report to the Surgical Day Care (Red Zone).
- If needed, you may be asked to wash again with the chlorhexidine wipes and then to change into a hospital gown or a warming gown.
- You may receive a treatment to reduce the bacteria in your nose.
- You can keep your glasses on, hearing aid(s), cochlear implant, Invisalign®, and dentures in until we ask you to take them out.
- We may give you some medications to help prepare you for your surgery.
- We encourage you to leave your bag of clothes and other belongings with family.
- You will meet with the anesthesiologist who will take care of you while you sleep through the surgery.
- You will also meet your surgeons and may also meet the surgical learners (e.g. fellows, residents, and medical students).
- We will attach the blood pressure cuffs and monitors and insert an intravenous (IV) into your arm to provide you with anaesthetic, medications and/or fluids during surgery.
- You will be asked some of the same questions you have already answered - this is an extra safety check.

The surgery

We will take you into the operating room about an hour before your surgery for preparation.

The anesthesiologist gives you the anesthetic and looks after you while you sleep through the surgery.



- **General Anesthesia:** The anesthesiologist gives you anesthetic drugs through your intravenous (IV) to help you sleep and manage pain during surgery. The anesthesiologist will place a breathing tube to give you oxygen through a machine to help with your breathing. The breathing tube will be removed after surgery when your health care team feels it is safe.

Surgical waiting room/area

Your family or friends can wait for you in the Surgical waiting room/area.

Your visitors will not be able to see you until you have been moved to the nursing unit.



On the day of surgery the Perioperative Care Centre/Surgical Day Care will provide your family with detailed instructions regarding meeting and speaking to the surgeon following the operation, designated waiting areas, and location and contact information for the post-surgical nursing unit.

Hand washing

Washing your hands is the most important and effective way to prevent the spread of infection and to protect yourself and your loved ones.

There are two ways to clean your hands:

1. You may wash at the sink using soap and water - put soap on your hands and rub your hands for a total of 30 seconds. Rinse with warm water.



For more information on hand hygiene click the link:

www.vch.ca/Documents/How-to-handwash-poster.pdf

2. You may use the alcohol-based hand sanitizer throughout the hospital - take one squirt and rub it over your hands for 30 seconds and allow to dry.

It is important to wash your hands:

- After using the washroom.
- Before eating.
- When entering and leaving your room.

It is okay to ask staff and visitors to wash their hands.

After surgery

Post-Anesthesia Care Unit

When your surgery is finished, we will move you to the Post-Anesthesia Care Unit (PACU), often called the '**recovery room**'.



You will wake up in the recovery room and you may be drowsy.

You may be required to lay flat for 4–6 hours. This will allow the leg wounds to start healing.

You may have some or all of the following:

- An oxygen mask
- An intravenous (IV) (this may be in your arm or neck)
- A urinary catheter to drain your bladder
- Calf compressors on your legs to prevent blood clots

The PACU nurse will:

- Check your blood pressure, pulse, and breathing rate.
- Check the pulses, blood circulation, skin color, temperature, sensation and motor function of your legs.
- Check your bandage (or dressing).
- Ask you about your pain and nausea and give you medications to help manage your pain and nausea.
- Encourage you to start your deep breathing exercises.

When instructed by your healthcare team, you can begin to have ice chips and gum to "wake up" your bowels.

When you are well enough to be cared for on the High Acuity Unit, we will move you to that unit. Your family and friends can visit once you are on the unit.

High Acuity Unit

Some people need to be monitored for a longer period of time. If this is the case, you are moved to the High Acuity Unit. This may be because of other condition you have or because of the type of surgery. When you are well enough, we move you to the surgical nursing unit.

Surgical Nursing Unit

This is where you will stay until your healthcare team feel you are safe to go home. Our goals are to manage your pain, prevent complications, increase your activity, and return you to your normal diet. Most people will stay on the unit 1 to 4 days, but this varies with each person depending on the type of surgery you have had and your health. The team will keep you informed of your progress and anticipated discharge date.

Accommodations

There are private (one-person), semi-private (two-person), and shared (up to four-person) rooms on the unit.

It is not possible to guarantee that your room mate will be of the same gender; however, your privacy is important and every bedspace has privacy curtains.

Please contact the Admitting Department to inquire about requesting a private or semi-private room for an **extra fee**. We try our best to accommodate the requests; **however, the care needs of patients take priority over room preferences**. Based on the medical needs of all patients on the unit (including yourself), you may have to move to other room(s) during your stay.

Family members or friends **may not** reside at the hospital during your stay.

Medications

Your medications will be dispensed by our pharmacy and given to you by the nursing staff while you are in the hospital.

It is important that you take only medications that have been given to you by the nursing staff. If you are using traditional medication, let your healthcare team know, in case there are any concerns.

This is to protect you from any dangerous drug interactions. Sometimes you may be taking a medication that is not supplied by our pharmacy. In this case, the pharmacy will check them and the nursing staff will give you the medications and return them to you when you are discharged.

Pain management

Many people are concerned about pain after their surgery. Some people try to “grin and bear their pain” while others do not want to take pain medication because they are afraid of becoming addicted. When you take opioid medication for acute pain, such as the pain that happens after operations or accidents, the risk of addiction is low.



Adequate pain management is important to your recovery. Having manageable pain allows you to:

- Breathe deeply to prevent lung infections
- Move to prevent blood clots
- Sleep well
- Eat better for wound healing
- Recover faster

We give you several different pain medications regularly. These pain medications will help reduce your overall opioid requirements. You will receive these pain medications even if you are not in pain at the time. If you are asleep, the nurse will wake you to take these regular medications.

- You will get acetaminophen (Tylenol®) every 4 to 6 hours throughout your stay (maximum 2-4 grams per day depending on your medical conditions).
- You will get other pain medications as needed.

Non medication therapy you can do to help ease the pain:

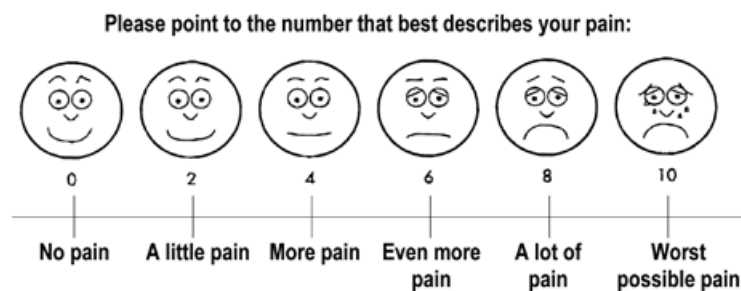
- Listening to music
- Doing slow and relaxed breathing
- Moving around and positioning
- Imagining peaceful situations

Your pain score

It is important to know that pain medication will not make your recovery completely painless. The goal is to manage your pain and to help you resume your regular activities.

An important part of managing pain is monitoring how much pain you are having. The best way to monitor your pain over time is to use something to measure the amount of pain you have.

To help us assess your pain and the effectiveness of the pain medication, we use a pain rating scale. We will ask you to rate your pain on a scale of 0 - 10, where 0 means no pain at all and 10 is the worst pain ever.



We want your pain level to be at an acceptable level that allows you to:

- Do the deep breathing and coughing exercises
- Carry out your normal activities such as washing up, sitting, and walking

Pain medication works best if it is taken regularly.

Let your nurse know if your pain does not get better with pain medication or is getting worse.

Nausea and vomiting

You may feel sick to your stomach (nauseated) or throw up (vomit) after surgery. You may get medication to prevent nausea as needed. Let your nurses know as soon as you feel sick to your stomach so we can give you medication and prevent it from getting worse. These medications work best if you take them before the nausea gets uncomfortable.

Other ways to help settle your stomach:

- Place a cool damp cloth on your face.
- Take some slow deep breaths.
- Take small sips of cold water or suck on ice chips (always check with your healthcare team).
- Try distracting yourself with music or watch TV.



Eating, drinking, and digestion

Every person's recovery is different. After surgery, your body needs healthy foods with extra calories and protein to help you heal. It is normal for your bowels to move slower than normal after surgery.

Drinking and eating as soon as you can after surgery helps your bowels return to normal.

We will ask if you are passing any gas. This is a sign that your bowels are starting to 'wake up' after the surgery.

- Chewing sugar-free gum helps wake up your bowels faster. It can also help keep your mouth moist.
- You may chew gum for 15 minutes several times a day.
- Do not swallow the gum.
- Drinking coffee may also help wake up your bowels faster.

The stress of surgery can cause high blood sugars. Your blood sugar may be tested several times after surgery. Some patients temporarily need insulin to lower their blood sugar after surgery. This is caused by your body's stress response and does not mean that you have diabetes or that you need to take insulin after you leave the hospital.

Activity

For the first 4–6 hours after surgery, you may be required to lay flat with head of the bed not higher than 20 degrees. This will allow the leg wounds to start healing.

When instructed by your healthcare team, you may start moving around in bed and getting up.

It is important for you to get up and move around as soon as you can. Lying in bed leads to muscle weakness and can cause lung infections and blood clots to form.

Activity:

- Increases strength
- Prevents complications
- Helps get your bowels moving

Remember to do your leg exercises (as explained in the "leg exercises" section later in this booklet) while you are in bed. On the day of your surgery, your nurse or physiotherapist will get you up into a chair next to your bed or dangle your legs at the edge of your bed. When you start to eat, try to sit up in the chair for all your meals.

As you improve each day, you will be able to do more for yourself. Keep your activities short and do them often rather than trying to do everything at once. We do not want you to get too tired.

We will encourage you to get up and walk around the unit as soon as you can. Most people are up and walking the day after surgery.

Deep breathing and coughing exercise/ICOUGH

After surgery, your lungs make extra mucus. Deep breathing and coughing exercises help clear this mucus from your lungs and prevent lung infections. Deep breathing opens up your lungs and helps loosen the mucus. Coughing helps remove the mucus from your lungs. Your healthcare team may ask you to refer to your ICOUGH education booklet as well for additional strategies to prevent a lung infection.

Before doing these exercises, make sure your pain score is at a level that allows you to do these exercises. If needed, ask for pain medication at least 30 minutes before doing these exercises.

Deep breathing exercise

Do **EVERY HOUR** while you are awake.

1. Start by placing your hands on your ribs.
2. Take a deep breath slowly **in through your nose**, expanding your lower chest until you feel your ribs push against your hands.
3. Hold your breath for a count of 3.
4. Breathe **out slowly through your mouth**.
5. Repeat this 5 more times.

* The nursing staff may provide you with an incentive spirometer to help you with your deep breathing exercises.



Coughing exercise

Do **EVERY 2 HOURS** while you are awake and after your deep breathing exercise.

1. Place a small pillow or blanket over your surgery area to protect or splint your incision. This helps decrease pain with coughing and allows a stronger cough.
2. Do your deep breathing exercises.
3. Cough several times.

Moving around in bed

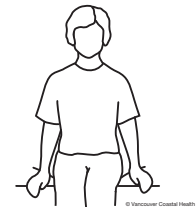
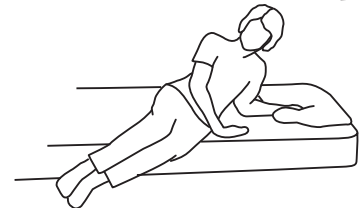
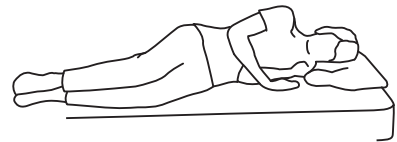
For the first 4–6 hours after surgery, you may be required to lay flat with head of the bed not higher than 20 degrees. This will allow the leg wounds to start healing.

When instructed by your healthcare team, you may start moving around in bed and getting up.

Change position in bed at least **EVERY 2 HOURS**. This helps keep you from getting stiff and gets blood flowing to your arms, legs, and skin. You may find moving difficult because of incision pain.

To move your body sideways:

1. Lie on your back.
2. Bend your knees.
3. Lift your hips and shift them sideways.
4. Then follow with your shoulders.



To roll onto your side:

1. Bend your knees.
2. Support your incision with a pillow and one hand (the hand on the side you are rolling onto).
3. With the other hand, reach across to the bed side-rail.
4. Pull yourself onto your side, rolling like a log.

To sit up on the side of the bed:

1. Lie on your back.
2. Bend the knee furthest away from the side you are rolling to.
3. Use that bent knee to help you log roll onto your side.
Roll your whole body as one, as much as possible.
4. Drop your legs over the edge of the bed.
5. Push yourself up with your arms.

Leg exercises

When instructed by your healthcare team, you may start leg exercises. These leg exercises help keep the blood flowing through your legs, keep your muscles strong, and prevent stiff joints. These leg exercises reduce the chances of you getting a blood clot.

Do all of these exercises **EVERY HOUR** while you are awake until you can get up and walk around the nursing unit.

Ankle pumps

1. Bend your foot up towards your head.
2. Bend your foot down towards the foot of the bed.
3. Repeat **5 times**.



Ankle pumps

Ankle circles

1. Move your feet around slowly in large circles.
2. Repeat **5 times** in **each direction**.



Ankle circles

Hip flexion

1. Bend your knee by sliding your heel up toward your body as shown.
2. Slide your heel back down.
3. Repeat **5 times**.



Hip flexion

Thigh muscle contraction

1. With your leg straight, tighten the muscles on the top of your thigh.
2. Press the back of your knee down.
3. Hold for **5 seconds**. Relax.
4. Repeat **5 times** then repeat this exercise with the other leg.



Thigh muscle contraction

Preventing blood clots

Hospital patients are at risk of having a blood clot form in the leg veins. This is called a **Deep Venous Thrombosis** (DVT). Sometimes, the clot can break off and “travel” to the lungs, causing a **Pulmonary Embolism** (PE) which can make breathing difficult. Although it is rare, PE can be fatal.

Risk factors for blood clots after your hospital stay:

The higher risk of DVT and PE persists for at least the first month after you go home from the hospital. The risk is particularly high if you:

- Just had surgery for cancer.
- Have had previous DVT or PE.
- Spend more than half the day in bed or sitting (when you were able to walk around before being hospitalized).
- Taking hormone drugs or chemotherapy.

If your risk of DVT/PE remains high after you go home from hospital, your doctor may prescribe a blood thinner for you to take at home to lower your risk.

Signs and symptoms of blood clots

It is important that you recognize the signs and symptoms of DVT and PE.

If you have DVT, you may experience any of these:

- Swelling, throbbing, cramping or redness in a leg or calf.
- Pain in your leg when you stand or walk.

If you have PE, you may experience any of these:

- Sudden shortness of breath that you can't explain.
- Sudden chest pain that feels sharp or gets worse when you take a deep breath.
- Coughing up blood.
- Heart palpitations or racing, especially if you also feel light-headed or faint.

How can you reduce your risk of blood clots?

Effective ways to reduce your risk of DVT/PE:

- Take the injectable blood thinner (e.g. dalteparin or enoxaparin) if it is prescribed by your doctor.
- Walk and remain as active as possible as instructed by your doctor.
- Go to bit.ly/preventingDVT for information on leg exercises that you can do.
- Avoid getting dehydrated. Drink enough water and limit drinking alcohol.
- Some medications can increase the risk of DVT or PE, such as birth control pills or hormone replacement therapy. Speak with your doctor to find out if you should stop taking these.

When to seek medical help

Diagnosis of DVT and PE requires special tests and it is important that treatment be started as soon as possible.

If you have signs or symptoms of DVT or PE, you should:

- Call your doctor and request an urgent appointment, OR
- Go to the nearest Emergency Department if your doctor's office is closed, OR
- Call 911 immediately if you are feeling faint or very short of breath.

Additional information

- Please note: Your doctor may prescribe you an injectable blood thinner (e.g. dalteparin, enoxaparin, or heparin) to take once you are at home.
- If the doctor orders the injectable blood thinner prescription on discharge, training and education will be provided in the hospital by the nursing staff.
- Please ask your healthcare team if you require any further information on self-injecting prior to going home.
- There may be an associated cost with the blood thinner (approximately \$100/week).
- Depending on the surgery you had and your overall health, you may be on the injectable blood thinner for approximately a month.

What to Expect Each Day

In this section, you will learn about:

- ➔ Surgery day
- ➔ Day 1
- ➔ Day 2
- ➔ Day 3 until you leave the hospital
- ➔ The day you go home
- ➔ Follow-up visit

Every person’s recovery is different. These next pages describe what most people can expect following your surgery. Please use the next pages as a guide only, as your recovery may be slightly different.

If you like, you can check off each item that you complete each day in the check box provided.

Most people are ready to go home in 1 to 4 days after surgery. We use the guidelines below to help us decide when you are ready to go home. You are ready to go home when you meet the 5 criteria below:

1. Your pain is managed with pills only.
2. You are able to eat food with minimal discomfort.
3. You are passing gas or have had a bowel movement.
4. You are able to do simple self care such as basic hygiene and walking short distances.
5. There is no sign of problems from your surgery.



Any time you have questions about your care and recovery, talk with your nurse, your surgeon, or other care providers.

Surgery day	
Topic	What to expect
How will I feel ?	You probably feel sleepy and need lots of rest.
What equipment do I have?	<p>You may have several pieces of equipment and tubes. These are different for everybody but can include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Oxygen mask or nasal prongs <input type="checkbox"/> Intravenous fluids <input type="checkbox"/> Catheter into your bladder to empty and to measure the amount of urine <input type="checkbox"/> Dressing or bandage over your incision <input type="checkbox"/> The nurse will check the circulation to both feet every hour. A doppler ultrasound device may be used to detect your pulse if the nurse is unable to feel them. Notify the nurse if you notice any numbness, tingling, pain, or coolness of your feet or arms. Let your nurse know if there is any bleeding from any of your incisions. They will be looking at your bandages on a regular basis.

Surgery day, *continued*

How is my **pain** treated?

If your pain score is between 4 - 10 out of 10 on the pain scale, tell your nurse.

We treat your pain in several ways:

- Acetaminophen (Tylenol®) every 4 to 6 hours
- Other pain medications

Use ways to relax and manage the pain such as deep breathing, warm blankets, or listening to music.

My **activity** goals for today

For the first 4–6 hours after surgery, you may be required to lay flat with head of the bed not higher than 20 degrees. This will allow the leg wounds to start healing.

When instructed by your healthcare team, you may start moving around in bed and getting up.

- Get up to a chair or sit on the edge of the bed with help, for 15 minutes at a time
- Every hour while awake:
 - Deep breathing and coughing exercise
 - Leg exercises when in bed
- At least every 2 hours:
 - Turn or change position in bed

What can I **eat**?

When instructed by your healthcare team, you may start drinking liquids.

Let the nurse know if you feel nausea, pass gas or have a bowel movement.

Your blood sugar may be tested regularly.

- Start chewing gum for up to 15 minutes, 3 times a day

Can I **wash**?

We may help you wash in the evening.

Can I have **visitors**?

You can have visitors but remember you will be tired. Keep visits short. We suggest only close family visit you today.

Day 1

Topic	What to expect
How will I feel ?	You should feel stronger today but may still feel tired. Rest between activities.
What equipment do I have?	You may have several pieces of equipment and tubes. <ul style="list-style-type: none"> - Intravenous – we may leave it in place if you are not drinking liquids or if we are using it to give you medications - Catheter in your bladder - Dressing over your incision
How is my pain treated? If your pain score is between 4 - 10 out of 10 on the pain scale, tell your nurse.	We will ask you for your pain score at least every 4 hours. We treat your pain in several ways: <ul style="list-style-type: none"> - Acetaminophen (Tylenol®) every 4 to 6 hours - Other pain medications if needed Use ways to relax and manage the pain such as deep breathing, warm blankets, or listening to music.
My activity goals for today	<input type="checkbox"/> Get up to walk short distances with help (minimum 2 times a day) <input type="checkbox"/> Walk to the bathroom with help <input type="checkbox"/> Sit up in a chair (minimum three times) <input type="checkbox"/> Every hour while awake: <ul style="list-style-type: none"> - Deep breathing and coughing exercise - Leg exercises when in bed <input type="checkbox"/> At least every 2 hours: <ul style="list-style-type: none"> - Turn or change position in bed

Day 1, continued

What can I eat ?	<p>When instructed by your healthcare team, you may eat and drink what you feel like.</p> <p>Tell the nurse if you pass gas or have a bowel movement. Ensure you drink enough fluids to prevent constipation. You will receive nausea medication if you need it.</p> <p><input type="checkbox"/> Chew gum for 15 minutes, three times a day</p>
Can I wash ?	<p>Wash at your bedside or in the bathroom. You may need some help to set up.</p>
Can I have visitors ?	<p>Yes, ask your family and visitors to let you rest for 2 hours during the day.</p>
When can I go home ?	<p>Plan to go home on day _____.</p> <p>Review this booklet, focusing on “The day you go home” section to help get ready for discharge.</p> <p>If you need to take injectable blood thinners when you go home, we will continue teaching you how to take it.</p>

Day 2

Topic	What to expect
How will I feel ?	You start feeling stronger today. Rest between activities.
What equipment do I have?	If not already taken out, we may remove the: <ul style="list-style-type: none"> - Intravenous - Urinary catheter
How is my pain treated? If your pain score is between 4 - 10 out of 10 on the pain scale, tell your nurse.	We treat your pain in several ways: <ul style="list-style-type: none"> - Acetaminophen (Tylenol®) every 4 to 6 hours - Other pain medications if needed Use ways to relax and manage the pain such as deep breathing, warm blankets, or listening to music.
My activity goals for today	<input type="checkbox"/> Get up to the chair without help <input type="checkbox"/> Sit up in a chair for all meals <input type="checkbox"/> Walk to the bathroom with someone standing by <input type="checkbox"/> Every hour while awake: <ul style="list-style-type: none"> - Deep breathing and coughing exercise - Leg exercises when in bed <input type="checkbox"/> At least every 2 hours when in bed: <ul style="list-style-type: none"> - Turn or change position <input type="checkbox"/> At least 2 times a day, walk one circuit around the unit with someone standing by

Day 2, continued

What can I eat ?	Eat and drink what you feel like. Tell the nurse if you pass gas or have a bowel movement. Ensure you drink enough fluids (as recommended by the dietitian) to prevent constipation. You will receive nausea medication if you need it. <input type="checkbox"/> Chew gum for 15 minutes, three times a day
Can I wash ?	Wash at your bedside or in the bathroom.
Can I have visitors ?	Yes, ask your family and visitors to let you rest for 2 hours during the day.
When can I go home ?	Plan to go home on day _____. Review this booklet, focusing on “The day you go home” section to help get ready for discharge. If you need to take injectable blood thinners when you go home, we will continue teaching you how to take it. Ensure that you are registered for Fair PharmaCare. If you need help at home you can talk to a social worker. If you need equipment at home an occupational therapist and/or a physiotherapist will help you.

Day 3 until you leave the hospital

Topic	What to expect
How will I feel ?	You feel stronger today. Continue to rest as required.
What equipment do I have?	We change the dressing over your incision. If the incision is dry and clean, we leave it uncovered. You may see staples, sutures, and/or tapes along the incision line. All other equipment and tubes may be removed or stopped.
How is my pain treated? If your pain score is between 4 - 10 out of 10 on the pain scale, tell your nurse.	We treat your pain in several ways: <ul style="list-style-type: none"> - Acetaminophen (Tylenol®) every 4 to 6 hours - Other pain medications if needed Use ways to relax and manage the pain such as deep breathing, warm blankets, or listening to music.
My activity goals for today	<input type="checkbox"/> Walk to the bathroom without help <input type="checkbox"/> Sit up in a chair for all meals <input type="checkbox"/> Every hour while awake: <ul style="list-style-type: none"> - Deep breathing and coughing exercise - Leg exercises when in bed <input type="checkbox"/> At least every 2 hours when in bed: <ul style="list-style-type: none"> - Turn or change position <input type="checkbox"/> At least 2 times a day, walk one circuit around the unit on your own <input type="checkbox"/> Change into your own clothes
What can I eat ?	Eat and drink what you feel like. Ensure you drink enough fluids (as recommended by the dietitian) to prevent constipation. <input type="checkbox"/> Chew gum for 15 minutes, three times a day.

Day 3, continued

Can I wash ?	You can have a shower today. Try not to let the water spray on your incision.
Can I have visitors ?	Yes, ask your family and visitors to let you rest for 2 hours during the day.
When can I go home ?	<p>Plan to go home on day _____.</p> <p>Arrange for someone to pick you up by 10:00 a.m. on the day you go home.</p> <p>Review this booklet, focusing on “The day you go home” section to help get ready for discharge.</p> <p>If you need to take injectable blood thinners when you go home, we will continue teaching you how to take it.</p> <p>Ensure that you are registered for Fair PharmaCare.</p>

The day you go home

How you know you are ready to go home

Everybody recovers at a different rate depending on their general health, any existing health conditions, and the type of surgery.



Generally, you are ready to leave the hospital when:

- Your blood pressure, heart rate, temperature, and blood tests are reviewed by your doctor(s) and deemed appropriate for discharge.
- Your incision is healing.
- Your abdomen is soft and not bloated.
- You have bowel activity (passing gas or having bowel movements).
- You are able to manage your pain with oral pain pills.
- You are eating well enough.
- You are able to walk short distances.
- You can look after yourself and do simple self cares at home (with help if needed).
- You can self inject your blood thinners.

Your ride home

When it is determined you are ready to go home, please arrange for a ride home.

Be ready with your prearranged ride home by 10:00 a.m. Ask the person picking you up to come and get you from the unit.

If you cannot get picked up by 10:00 a.m., we may ask you to wait in the Patient Lounge. We do this so we can get your bed cleaned and ready for the next patient.

If there is a problem getting a ride or getting home, you may need to stay in a local hotel. **You cannot continue to stay in the hospital if we feel you are well enough to leave the hospital.**

Follow-up visit

Before you go home, a member of your healthcare team will discuss your plan for follow-up with your surgeon. Call your surgeon's office as soon as possible on a weekday to make a follow-up appointment. If you go home on the weekend, call the next day the office is open.



At the appointment, your surgeon reviews how you are recovering, talks with you about any test results from your surgery, and tells you if you need any further treatment.

If you are admitted to a different hospital related to a surgical complication, we would like to ask that a family member notify your surgeon's office.

It is recommended that you make an appointment to see your family doctor within a week of going home. This will allow your family doctor to review your general health status and postoperative baseline (example: incision check, pain management, and other healthcare concerns).

Medications

Your surgeon may send you home with some medications. You will be provided with a prescription and be responsible for filling it from a drug store. Remember to take them as ordered and ask your pharmacist if you have any questions.

You will also be told whether you need to continue with your previous medications and when to re-start them. If you are not told by the time you are discharged home, ask your family doctor.

Please **do not stop or change** your medications on your own. Your family doctor may change, re-order or stop them for you.

Please ask your surgeon and/or family doctor before taking any **herbal or traditional medications** (some of them can also cause a risk of bleeding).

Alcohol can have negative side effects with certain medications. Always read and follow any instructions provided with your medications. If you have questions, discuss with your doctor or pharmacist.

Caring for Yourself at Home

In this section, you will learn about:

- ➔ Recovery
- ➔ Pain management
- ➔ Caring for your incision
- ➔ Diet - nutrition and healing
- ➔ Caring for your bowels
- ➔ Activity and exercise
- ➔ Emotions and feelings
- ➔ When to get help

Recovery

Recovery usually takes 3 to 6 weeks, but you will get better at your own rate. Many things affect how quickly you recover. Some of these are: how active people are before surgery, the kind of surgery they have, and their age. Even when you are ‘healed’, it can still be several months before you feel completely recovered.

When you get home you might be surprised by how tired you feel. This feeling is normal. Your energy level will improve over the next few weeks. Things you can do to help with your recovery include the following:

- Keep your pain manageable.
- Take care of your incision.
- Eat a balanced diet.
- Go for daily walks.
- Rest and relax.
- Take your medications as prescribed.
- Share your emotions and feelings.

Pain management

It is normal for you to have some pain for the first few weeks after you leave the hospital. It is important that you take your pain medication regularly so that you are comfortable enough to sleep, get out of bed, and participate in daily activities inside and outside of the home. Adequate pain management can help in your overall recovery. The goal is to take the least amount of medication, which will limit the side effects you may experience, but enough so that you have an acceptable level of comfort. If you are using traditional medication, let a healthcare team member know in case there are any concerns.



How to manage your pain:

Remember to take your pain medication before activity or bedtime.

1. Use a pillow for support when you do your deep breathing and coughing exercise.
2. Try non medication therapy such as: warm or cold compresses, positioning, imagining peaceful situations, listening to music.
3. First try taking acetaminophen (Tylenol®).
4. If Tylenol® alone is not enough to ease your pain, check with your doctor if taking ibuprofen (Advil®, Motrin®) or another non-steroidal anti-inflammatory medication is an option for you.
5. If you've been prescribed opioid pain medication (e.g. hydromorphone, oxycodone, morphine), take this medication if the Tylenol® and ibuprofen does not help.

Opioid pain medication

They are sometimes called “narcotics.”

Commonly prescribed opioids include:

- Codeine: Tylenol 3
- Oxycodone: Percocet
- Morphine: M-Eslon, MS Contin
- Hydromorphone: Dilaudid
- Tramacet/Tramadol

Information on opioid pain medication

Can I get addicted to opioid medications?

When you take opioid medication for acute pain, such as the pain that happens after operations or accidents, the risk of addiction is low.

Taking opioid medication for an extended time can lead to dependence.

It is important to taper off opioid medication as your pain improves.

What are the side effects of opioid pain medication?

- Sleepiness
- Confusion
- Nausea
- Vomiting
- Constipation
- Itchiness
- Inability to urinate
- Slowed breathing.

Opioid pain medication can impair driving and the ability to use power tools or operate machinery. Always read and follow any instructions provided with your medications. If you have questions, discuss with your doctor or pharmacist.

When do I start tapering off opioid medication?

When the surgical pain becomes manageable, you should start to reduce how much opioids you take.

How do I taper off opioid medication?

1. Reduce how much you are taking (the number of pills you take).

For example: If you were taking 2 pills each time, start taking 1 pill to see if the pain is managed. If it does, continue with 1 pill each time. Do this for 1 to 2 days.

2. Then reduce how often you are taking the medication.

For example: If you are taking a dose every 4 hours, then take a dose every 6 hours instead for 1 to 2 days. Then take a dose every 8 hours for 1 to 2 days. Then consider stopping.

Can I go through withdrawal?

Withdrawal symptoms are a sign that your body is used to taking opioids regularly and that you need to reduce the opioids more slowly.

Withdrawal symptoms are:

- Sweating
- Fever
- Nausea
- Vomiting
- Feeling agitated or irritable

How do I store opioid medication?

These medications should be kept out of sight and ideally in a hidden or locked area.

Make sure you keep your opioid medications safely out of reach of children and the elderly as taking these can cause harm to them.

How do I dispose of extra opioid medication?

If you have unused opioids, most pharmacies in British Columbia have a drug return program where they will properly dispose of extra medications.

Never save medications, thinking you may use them at a later date.

All medications have expiration dates and may not be safe to take later.

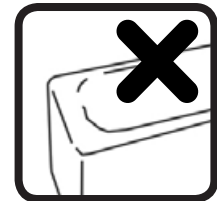
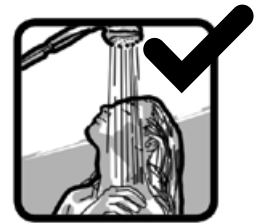
Caring for your incision

- The incision can be left open to air.
- If you have staples or sutures, these can catch on your clothing; if this happens, place a light dressing on top.
- **DO NOT** put on creams or lotions (such as Polysporin, Vitamin E) on the wound unless your surgeon tells you.

Washing:

In general, you need to keep your incision and dressings as dry and clean as possible.

- Unless told otherwise, you may shower the day after you go home (even with staples in place) if you are able to stand safely.
- Soap and water can run over the incision.
- **DO NOT** directly spray water or soap over the incision.
- **DO NOT** wash the incision.
- Pat your incision dry with an unused and clean towel (do not use the towel that you just used to dry your whole body).
- **DO NOT** rub your incision.
- **DO NOT** soak in a bath, pool, hot tub, ocean, or lake until your surgeon or family doctor says it is safe to do so.

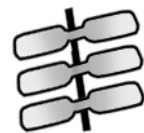


As your incision heals it may become itchy. Avoid any rubbing or scratching as the itchiness is a normal part of the healing process.

Slight numbness, swelling, tingling, bumpiness, firmness, and discoloration around the incision site are normal findings after surgery. This will improve with time. If this persists with no improvement, inform your surgeon or family doctor.

If dissolvable sutures with adhesive white paper tapes (steri-strips) were used to close your incisions:

- No additional care is required.
- These white paper tapes (steri-strips) are for extra support to your incision. Do not remove them yourself. After 5 to 7 days these tapes will start to become non-sticky and eventually peel and fall off. There is no need to replace them.



If staples were used to close your incision:

- You will be told who will remove them and when (they are usually removed by your family doctor and we will send you home with a staple remover to take to your doctor).
- Normally staples are removed 10 to 14 days after surgery.
- Your surgeon will tell you when to have your staples removed. If you cannot remember, call your surgeon's office.
- You can still take a shower with the staples in-place.

Bleeding

If you notice bleeding from the incision site or bleeding under the skin (you may see a bulging area), apply firm steady pressure over the area and call for an ambulance or go the nearest emergency department.

Please call your family doctor if you notice:

- Thick yellow-green drainage from any incision or drain site.
- A red, tender area in your incision that is warm to touch.
- New swelling or a sharp pain in your incision.
- Fever.

Diet - nutrition and healing

Good nutrition speeds up healing and lessens fatigue. It may take some time before your appetite returns to normal. Your body will need extra calories, nutrients, and especially protein to heal.

Below are general guidelines. Please follow the specific instructions, if given to you by your surgeon.

- Drink at least 6 to 8 glasses (1.5 to 2 L) of water each day (1 glass equals 250 mL).
- You need extra protein while you are recovering. Try to eat high in protein food at each meal and snack. Examples are chicken, beef, wild game, fish, eggs, tofu, lentils, nut butters, peas, and beans. Dairy products such as milk, yogurt and cheese are also good sources of protein.
- If your meals are smaller than normal, you will need to add 1 to 2 snacks daily.
- If you experience discomfort with chewing or swallowing, try taking the pain medication 30 minutes before your meals.
- If your surgeon or dietitian has recommended that you follow a specific diet, please follow this diet as directed or until you follow-up with your surgeon.
- Your dietitian will provide education and handouts if you go home on a new diet.

If you have questions about your nutrition, contact HealthLink BC by dialing 8-1-1 and ask to speak to a registered dietitian (9:00 a.m.–5:00 p.m. Monday to Friday).

Caring for your bowels

You may find your bowels do not work the same way they did before your surgery. It can take a few weeks for your bowels to work normally.

Constipation

- Constipation is when you have less bowel movements than usual and/or have hard stools like pebbles or stool that hurts to pass.
- This can be from your pain medication, especially if you are taking opioids.
- To prevent constipation:
 - Drink at least 6 to 8 glasses (1.5 to 2L) of fluid each day unless you have been told differently because of a medical condition.
 - Include fruits, vegetables, peas, beans, lentils, and whole grains in your diet each day. These foods are high in fibre.
 - Drink prune juice.
 - Keep active. Go for a walk every day.
- To treat constipation, talk to your pharmacist about a mild laxative or a stool softener.
- If you have questions about constipation management, contact HealthLink BC by dialing 8-1-1 and ask to speak with either a nurse, dietitian and/or pharmacist.

Diarrhea

- Persistent severe diarrhea is not normal and should be brought to a doctor's attention or call 8-1-1.

Activity and exercise

Rest

- Rest is important for your recovery. Your body heals when you are resting.
- Try to get at least 8 hours of sleep each night.
- Take naps or rest breaks as needed during the day.

Exercise

- **For the first 2 weeks after surgery**, do not sit for longer than 2 to 3 hours at one time (this includes riding in a car)
- Foot swelling can be decreased by elevating your feet when sitting or preferable lying with your feet higher than the level of your heart.
- Restrict strenuous activities until discussed with your doctor.
- Go for daily walks.
- Activity helps build your strength, improves your circulation, and generally makes you feel better.
- Exercise may include cultural land based activities.
- Follow the activity recommendations provided by your hospital physiotherapist.
- Be careful not to tire yourself out. Slowly increase your activity. Let pain be a general guide to what you do and how often you do it.
- When you get home you may be surprised by how tired you feel. This is a normal feeling. Your energy level will improve over the next few weeks.



Listen to your body. It will tell you if you are doing too much too soon.

These are only general guidelines. Please confirm them with your surgeon.

- Plan your day to allow time for both rest and activity.
- Continue with your deep breathing and coughing exercise.
- Begin with taking short walks, gradually increasing how far you walk.

For the first **4 to 6 weeks** after your surgery:

- Do not lift, push, or pull anything over 4 to 5 kg (10 pounds). This includes carrying children and groceries. (A 2 L milk carton weighs almost 5 pounds).
- Use your legs when you lift.
- Do not do any activities that pull on your incision such as:
 - Vacuuming
 - Raking
 - Painting walls
 - Reaching for things in high places

For at least **8 to 12 weeks** after surgery:

- Do not do anything that puts extra stress or pressure on your incision area.



These activities can delay your healing and possibly lead to a hernia (an opening in a muscle that lets a part of your bowel stick out).

Driving a car

Before you start driving, check with your doctor to make sure it is okay.

Only drive if you are able to:

- Put pressure to the brake quickly and without pain
- Safely do a shoulder-check
- Wear your seatbelt
- Focus and pay attention



Opioid pain medications can impair your driving. Always read and follow any instructions provided with your medications. If you have questions, discuss with your doctor or pharmacist.

Sports

About 8 to 10 weeks after your surgery, and if your surgeon says it is okay, you can go back to playing any sports that do not involve contact such as golf, running, and tennis. Ask your surgeon when it is safe for you to play contact sports such as hockey or football.



Sexual activity

Some people find they do not have the same interest in sex as they had before surgery. This is normal and interest usually increases as you feel stronger. You can resume sexual activity when you feel you have enough strength and your pain is well managed. Speak to your family doctor if problems continue.

Going back to work

Always check with your surgeon or family doctor before going back to work. Some people return to work 6 to 8 weeks after surgery. When you go back to work depends on the type of work you do and the type of surgery you had. Sometimes it can take longer for you to recover enough to go back to work.



Informing others

- It is important to tell other doctors, dentists, and podiatrists that you have a graft in place. They may wish to place you on antibiotics prior to any procedure.
- If you are having any medical tests, such as a MRI (Magnetic Resonance Imaging), inform medical personnel that you have had a “stent graft” inserted.
- Alert bracelet – you may wish to purchase an alert bracelet to tell medical personnel that you have an “Abdominal Aortic Stent Graft” in place.

When to get help

If you start bleeding from your incision or bleeding under the skin (you may see a bulging area), apply firm steady pressure over the area and call for an ambulance or go to the nearest Emergency Department.

Contact your surgeon, family doctor, or go to the Emergency Department if any of the following happens:

- Your pain gets worse or does not go away with pain medication.
- You have unusual flank or low back pain.
- There are changes to your legs or feet:
 - Increasing coldness in one leg compared to the other.
 - Either leg turning bluish instead of normal skin tone.
 - New numbness or tingling sensation of either leg.
 - Any weakness noted in either leg.
- You have chills and/or a fever over 38.5° C (101.3° F).
- Your incision becomes red, swollen, or hot to touch.
- You notice foul smelling liquid coming from your incision.
- You feel fatigue or fainting.
- Difficulties with swallowing resulting in a decreased appetite and constant weight loss.
- You feel sick to your stomach (nauseated) or throw up (vomit) often for more than 24 hours.
- You have diarrhea that lasts for more than 2 days.
- No bowel function for 48 hours.
- If you experience any pain, aching or redness in your calves, and/or swelling of the legs.
- You have shortness of breath.
- You have chest pain (unrelieved by cardiac prescribed medications).

If you are not able to contact your surgeon or family doctor, go to the nearest Emergency Department, or call HealthLink BC at 8-1-1 to talk to a registered nurse. Be sure to tell them about your recent surgery.

Resources

Resources

Vancouver Coastal Health

Lions Gate Hospital

231 East 15th Street
Main Floor

Admitting Department
604-984-5813

Pre-Admission Clinic
604-984-5967

Richmond Hospital

Admitting Department
7000 Westminster Hwy
Ground Floor
(Yellow Zone by Starbucks)
Monday to Friday
6:30 a.m.–3:00 p.m.

Pre-Admission Clinic
7000 Westminster Hwy
Ground Floor (Yellow Zone)
Monday to Friday
8:30 a.m.–4:00 p.m.
604-244-5178

VCH Indigenous Patient Experience Team

For pre & post surgery cultural support, advocacy, and education.
1-877-875-1131
Mon-Fri 8:00 a.m.–8:00 p.m.,
Sat, Sun & Holidays
9:00 a.m.–5:00 p.m.
info.indigenoushealth@vch.ca

Health professionals

Dietitians of Canada
dietitians.ca

HealthLinkBC
8-1-1
Non-emergency health information provided by a nurse, pharmacist or dietitian.
healthlinkbc.ca

Health Canada
1-866-225-0709
Resource for general health information.
canada.ca/en/health-canada.html

Canadian Association of Occupational Therapists - British Columbia
– to find an occupational therapist in your area.
caot.ca/site/findot

Pain BC
1-844-880-7846
Resource for pain management.
painbc.ca

Physiotherapy Association of British Columbia (PABC)
– to find a physiotherapist in your area.
bcphysio.org

QuitNow
1-877-455-2233
Resource for quitting smoking.
quitnow.ca

Accommodations

Days Inn by Wyndham Vancouver Airport
bit.ly/WyndhamDaysInn

Government of British Columbia
Hotel accommodation for patients (and accompanying family members) requiring out-of-town Medical Services.
csa.pss.gov.bc.ca/medicaltravel

Equipment

Red Cross
1-800-565-8000
or check local listings for #.
redcross.ca

Transportation

HandyDART
Provided by local bus services throughout BC. Check local listings for #. In Lower Mainland:
604-575-6600
translink.ca/rider-guide/transit-accessibility/handydart

TAP (Travel Assistance Program)
1-800-661-2668
gov.bc.ca/gov/content/health/accessing-health-care/tap-bc

Acknowledgements

Vancouver Coastal Health (2014) Endovascular Aortic Stent Grafts (EVAR). Patient Health Education Materials.

Providence Health Care (2012) Colon Surgery: Your Guide to Recovery. Patient Health Education Materials.

Vancouver Coastal Health (2018) Enhanced Recovery After Surgery (ERAS) Colon surgery. Patient Health Education Materials.

Vancouver Coastal Health (2015) Opioid Tapering. Patient Health Education Materials.

We hope you found the information in this booklet helpful.

*If you would like to provide feedback on the booklet,
please email us at: eras@vch.ca*

“Tylenol” is a registered trademark of McNeil Consumer Healthcare, a subsidiary of Johnson & Johnson, Inc.

“Voltaren” is a registered trademark of Novartis Pharmaceuticals Canada Inc.



Making better
decisions together
with patients
and families

Adapted from Colon Surgery: Your Guide to Recovery
Providence Health Care (FK.230.C719.PHC)

For more copies, go online at vch.eduhealth.ca or
email pchem@vch.ca and quote Catalogue No. **FD.811.E54**
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