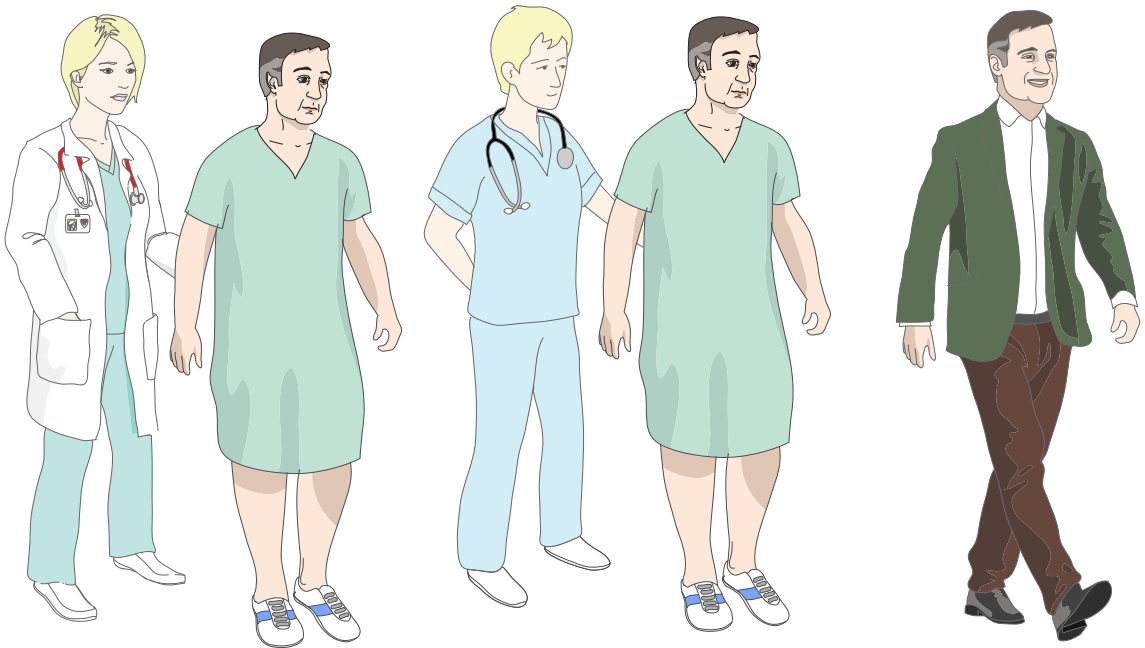


# A Guide to Kidney Surgery



Centre universitaire  
de santé McGill



McGill University  
Health Centre

**Office d'éducation des patients  
Patient Education Office**

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

This booklet was created by The MUHC Surgical Recovery Program working group and reviewed by the surgeons.

We would like to thank the MUHC Patient Education Office for their support throughout the development of this document, including the design, layout and creation of all the images.

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## Important

Information provided by this booklet is for educational purposes. It is not intended to replace the advice or instruction of a professional healthcare practitioner, or to substitute medical care. Contact a qualified healthcare practitioner if you have any questions concerning your care.



This material is also available through the

**MUHC Patient Education Office** website

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

Centre universitaire  
de santé McGill



McGill University  
Health Centre

Office d'éducation des patients  
Patient Education Office

PRET SURE

Parcours de rétablissement chirurgical du CUSM  
MUHC Surgery Recovery Program

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# What is a care pathway?

When you are admitted to the hospital for kidney surgery, you will be part of a fast recovery program called a Clinical Care Pathway. The goal of this program is to help you recover quickly and safely. Your health care team worked together to create this pathway.

This booklet will:

- Help you understand and prepare for your surgery
- Explain how you can play an active part in your recovery
- Give you daily goals to achieve

Research shows that you will recover faster if you do the things explained in this booklet. There are instructions about your diet, physical activity, and controlling your pain. These things will help you to feel better faster and go home sooner.

**Please bring this booklet with you on the day of surgery.** Use it as a guide during your hospital stay. Hospital staff may refer to it as you recover, and review it with you when you go home.

Having surgery can be stressful for patients and their families. The good news is that you are not alone. We will support you each step of the way. Please ask us if you have questions about your care.

*Your MUHC surgery team*

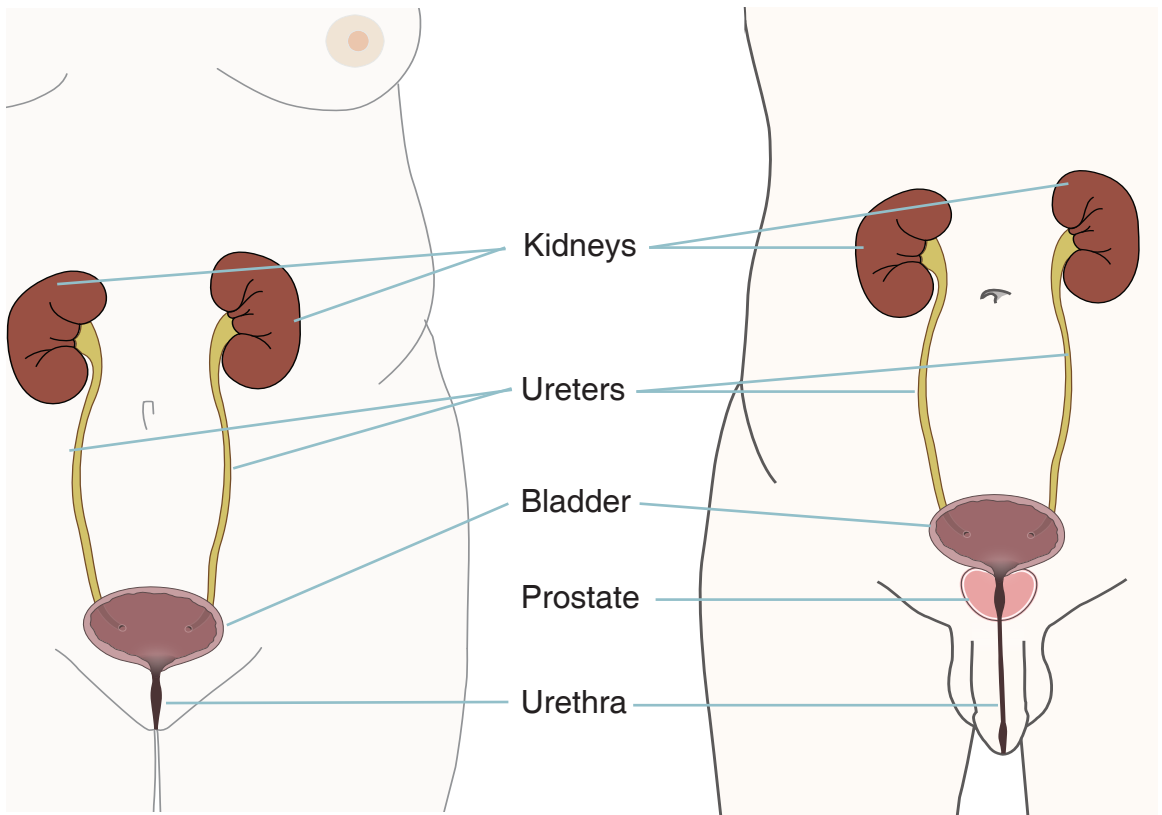
If you do not speak French or English, please bring someone to translate for you.



# What are kidneys?

We have two kidneys, one on the left and one on the right side of your spine. Each kidney is the size of a fist, about 10 cm or 4 inches long.

Kidneys remove extra fluid and waste from your blood. They help to produce red blood cells, form new bone, and control your blood pressure. Their most important job is to make urine.



Urine travels from your kidneys to your bladder through narrow tubes called ureters. The urine is stored in your bladder until you urinate (pee), when it leaves your body through your urethra.

A kidney may be removed for various reasons. A single kidney is able to keep you healthy.

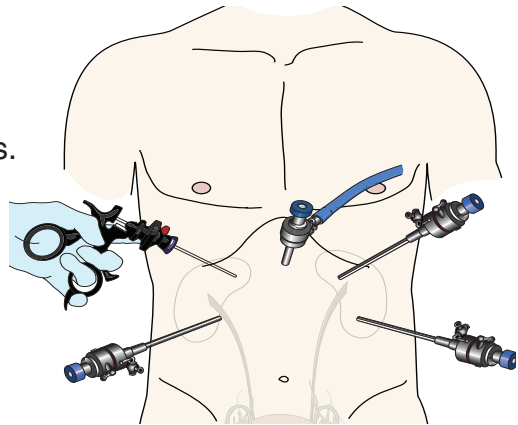
# What is kidney surgery?

The removal of a kidney is called a nephrectomy. This is done under general anesthesia. This booklet explains 2 types of surgery: a partial nephrectomy and a total nephrectomy.

The surgery may be done 2 ways. Your surgeon will talk with you about the kind of surgery you need.

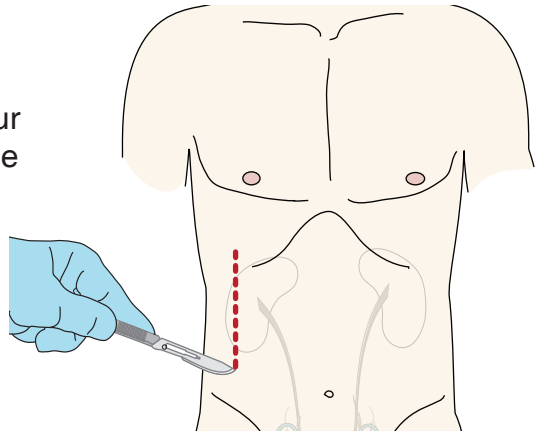
## 1. Laparoscopic/Robotic

The surgeon works through 5 small cuts in your belly, using a camera and instruments. One of the cuts is used to remove the diseased part or your whole kidney.



## 2. Open

The surgeon works through 1 cut on your side, measuring 10-20 cm, to remove the diseased part or your whole kidney.



**Partial Nephrectomy** means that only a part of the kidney is removed.

**Total Nephrectomy** means that the whole kidney is removed.

# Preparing for your surgery

## Be active

Exercise will help your body to be as fit as possible and keep your weight under control. If you are already active, keep up the good work. If you are not, start adding activity into your day. Exercise does not need to be strenuous to make a difference. A 15-minute walk is better than no exercise at all.



## Stop smoking

If you smoke, try to stop before your surgery to reduce your risk for lung problems. Your doctor can help you stop smoking by prescribing medication. See page 30 to learn more.



## Restrict alcohol

Do not drink alcohol for 24 hours before your surgery. Alcohol can interact with the medicine you will receive in the hospital. Please tell us if you need help decreasing your alcohol use before surgery.



# Preparing for your surgery

## Plan ahead

You may need help with meals, laundry, bathing or cleaning, when you go home from the hospital. Stock your fridge and freezer with food that is easy to reheat. Make plans with your family and friends so you will have the help you need.



## Arrange transportation

The day of surgery is called Day 0. You may go home from the hospital on Day 2 or 3 after your surgery. Tell your nurse if you have concerns about going home. Remember to arrange a ride.



# Pre-operative Clinic visit

When you visit the Pre-op Clinic, you will:

- Have blood tests
- Have an ECG (electrocardiogram), if you are over the age of 50
- Meet with a nurse who will explain how to get ready for surgery and what to expect while you are in the hospital
- Meet with a doctor who will review your medication and ask you questions about your health. If you have medical problems, you may be referred to another doctor (a specialist) before surgery.

You may need to stop taking some medicines and herbal products before surgery. The Pre-op Clinic doctor will explain which medicines you should stop and which ones you should keep taking.



If you have any questions, you may contact the Pre-op Clinic nurses at (514) 934-1934, extension 34916, Monday to Friday from 7:30 am to 3:30 pm.

**RVH Pre-op Clinic: Located near the cafeteria on DS1.2428 (Block D, level S1).**

# Phone call from Admitting

The day before your surgery, the Admitting Department will phone you, to tell you when to come to the hospital. They will ask you to arrive 2 hours before your planned surgery time. **Exception:** If your surgery is planned for 7:30 am, they will ask you to arrive at 6:30 am.

The time of surgery is not exact. It may happen earlier or later than planned.



Date of surgery: .....



Time of arrival at the hospital: .....

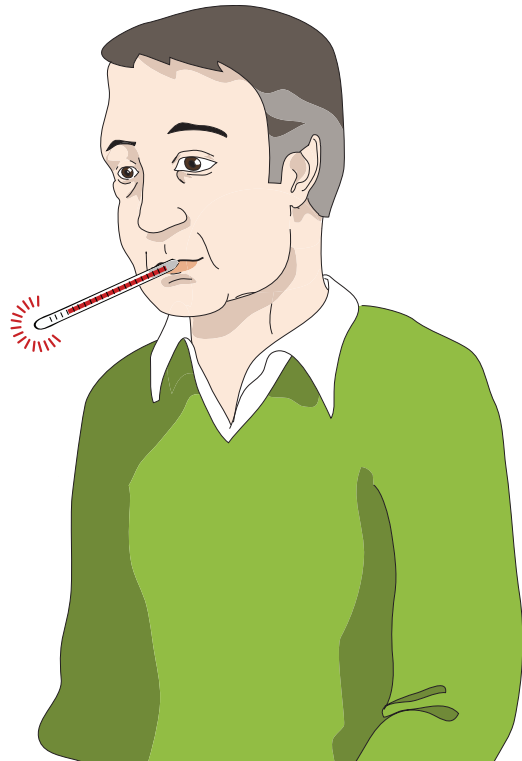
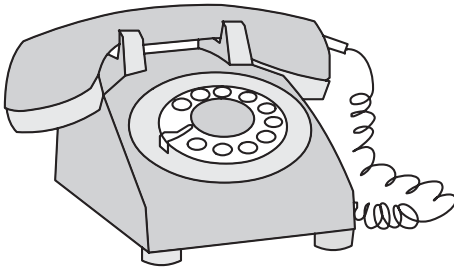
Room: **Registration, Surgery and Intervention Centre**, Block C, level 3 (C03.7055). Enter the building through the Royal Victoria Hospital main entrance. Take the first bank of elevators (North) and go to the 3rd floor.



If you do not receive a call from Admitting by 2:00 pm, you may call them at (514) 934-1934, ext. 31557.

# Cancelling your surgery

If you get sick or pregnant, please call your surgeon's office as soon as possible. If you cannot reach your surgeon, call the Admitting Department (514) 934-1934 ext. 31557.



**The Royal Victoria Hospital is a Transplant and Cardiac Centre. This means your surgery may be delayed or cancelled because of an emergency. If this happens, your surgeon will rebook your surgery as soon as possible.**

### The night before surgery:

1. Use regular soap and shampoo for your face and hair
2. Take a shower or bath by using 1 of the 2 antibacterial sponges you were given
3. Wash your body from the neck down, including your belly button
4. Wear clean clothes to bed



### The morning of surgery:

1. Take a shower or bath using the 2<sup>nd</sup> sponge
2. Do not wear lotion, perfume, makeup, nail polish, jewelry or piercings
3. Do not shave the area where the operation will be done
4. Put on clean clothes















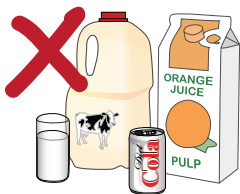
The nurse in the Pre-op Clinic will explain what to eat and drink before your surgery.



### The evening before your surgery:

- Eat and drink normally until midnight
- Choose a carbohydrate drink from this list. Drink it as quickly as possible (not over several hours).

| Carbohydrate drinks:<br>Choose only 1   | Amount<br>in mL | Amount in cups<br>(1 cup = 250 mL)  |
|---|-----------------|---|
|  Apple juice                 | 850 mL          |    |
|  Commercial iced tea         | 1100 mL         |   |
|  Cranberry cocktail          | 650 mL          |    |
|  Lemonade without pulp     | 1000 mL         |  |
|  Orange juice without pulp | 1000 mL         |  |













**After midnight, do not have any food, dairy products, diet drinks, or juice with pulp.**

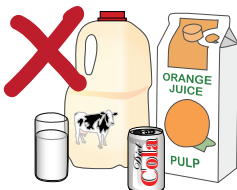


### The morning of surgery:

- Do not eat any food
- Choose a carbohydrate drink from this list. Again, drink it as quickly as possible. Drink this 2 hours before surgery (this is usually the time you are asked to arrive at the hospital). Then, **stop drinking**.

**Exception:** If you are asked to arrive between 6:00am and 6:30 a.m., stop drinking at 5:30 a.m.

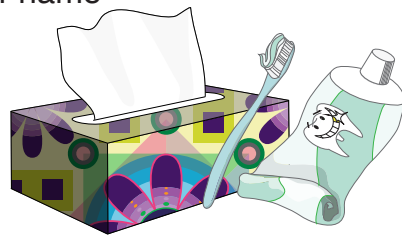
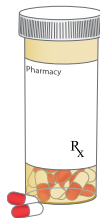
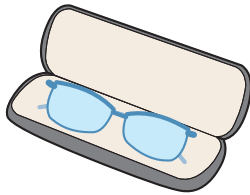
| Carbohydrate drinks:<br>Choose only 1   | Amount<br>in mL | Amount in cups<br>(1 cup = 250 mL)  |
|---|-----------------|---|
|  Apple juice                 | 425 mL          |    |
|  Commercial iced tea         | 550 mL          |    |
|  Cranberry cocktail         | 325 mL          |   |
|  Lemonade without pulp     | 500 mL          |  |
|  Orange juice without pulp | 500 mL          |  |



**Do not have any dairy products, diet drinks, or juice with pulp.**

# What to bring to the hospital

- ☐ This booklet
- ☐ Medicare and hospital cards
- ☐ Private insurance information, if you have any
- ☐ List of medications that you take at home (ask your pharmacist to give you one)
- ☐ 2 packages of your favourite gum
- ☐ Bathrobe, slippers, pajamas, loose comfortable clothing
- ☐ Toothbrush, toothpaste, mouthwash, comb, deodorant, soap, shaving supplies, tissues, and perhaps earplugs
- ☐ Glasses, contact lenses, hearing aids, dentures, and their storage containers labeled with your name
- ☐ Cane, crutches, walker, labeled with your name



Please do not bring anything of value, including credit cards and jewelry. The hospital is not responsible for lost or stolen items.

# At the hospital

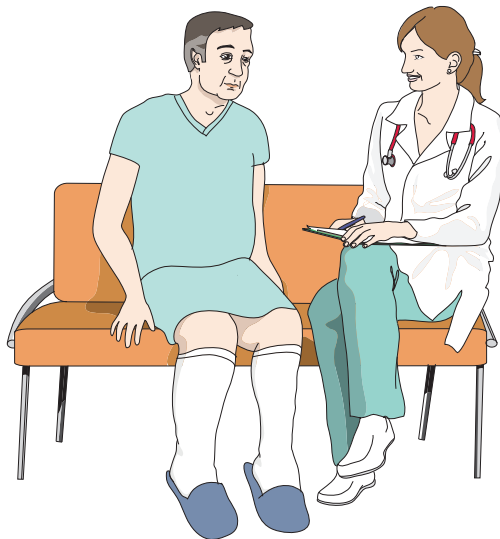
## Admitting area

Report to Registration, Surgery and Intervention Centre, Block C, level 3 (C03.7055), at the time you were given.

Enter the building through the Royal Victoria Hospital main entrance. Take the first bank of elevators on your right or left (North) and go to the 3rd floor.

## Pre-operative area

The nurse will ask you to change into a hospital gown and will complete a preoperative checklist with you. You may be asked to put on tight elastic stockings to help your circulation and prevent blood clots from forming. You should wear them until the nurse says you may take them off.



## Operating room

An orderly will take you to the operating room. You will meet your anesthetist (the doctor who will put you to sleep) and other members of your surgical team. You will be asleep and pain-free during your surgery.

# At the hospital

## Waiting room

Family or friends may wait for you in the registration area in Block C, level 3. It will be several hours before they will be able to visit you in your room. There are no visitors in the Post-Anesthesia Care Unit (PACU) unless you are staying there overnight.

## Other resources

- Cafeteria – Located off the Adult Atrium on the level S1
- Vending machines – Block C, level S1
- Stores – Galleria, Rez-de-chausée level; Atrium, level S1
- Bank machines – Blocks C & D, Rez-de-chausée level
- Adult Resource Centre (library) – Block B, Rez-de-chausée level
- Prayer and meditation room – Between blocks C & D, level 2, Room 1178
- Internet access

Network: CUSM-MUHC-PUBLIC

Username: public

Password: wifi

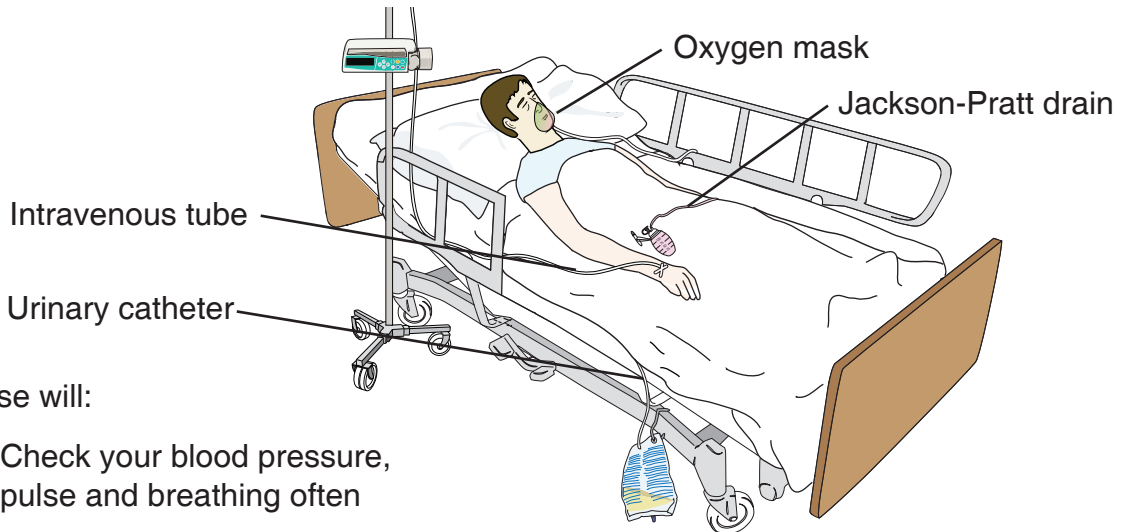


# In the Post-Anesthesia Care Unit (PACU)

After your surgery, you will wake up in the Post-Anesthesia Care Unit (PACU), also called the Recovery Room. This is a quiet area where patients are watched closely. You will be there for several hours.

You will have:

- A mask, giving you oxygen
- An intravenous (IV), giving you fluids
- A urinary catheter (tube), draining urine out of your bladder.
- If you have a partial nephrectomy, you may have a Jackson-Pratt drain. This is a small tube coming out of your side to drain fluid. It is usually removed before you go home.



A nurse will:

- Check your blood pressure, pulse and breathing often
- Check your bandage(s)
- Make sure you are comfortable

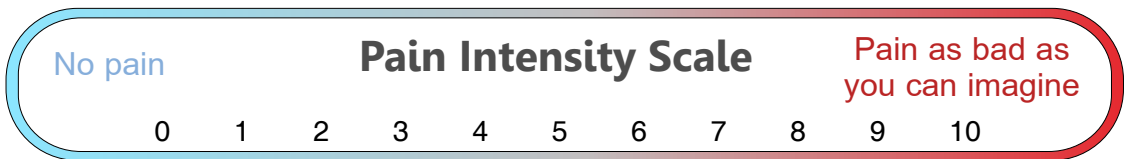
When you are ready, you will go to your room on the in-patient unit. Your family may visit you once you are in your room.

# Pain control

It is important to control your pain because it will help you to:

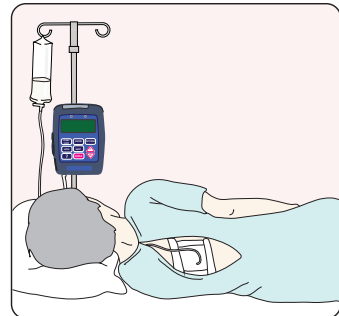
- Take deep breaths
- Sleep well
- Move more easily
- Recover faster
- Eat better

Your nurse may ask you to describe your pain using a number between 0 and 10. 0 means no pain and 10 is the worst pain you can imagine. We want to keep your pain below 4/10. Please tell us if you have pain. We will help you.



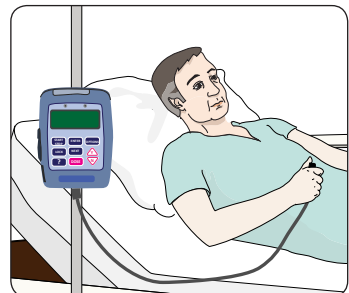
## Epidural infusion

Your anesthetist may place a small catheter (tube) in your back to give you continuous pain medicine. This is called an epidural infusion. It is usually started in the operating room before you go to sleep. It is removed on Day 3 after surgery.



## Patient-Controlled Analgesia (PCA)

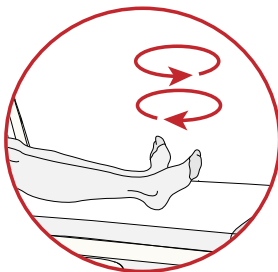
Instead of an epidural infusion, a few patients have a medicine pump attached to their IV. When you push a hand-held button, the pump gives you a safe dose of pain medicine.



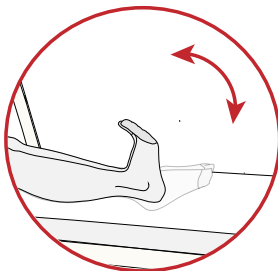
It is important to move around in bed to prevent pneumonia, blood clots, and muscle weakness. Start these exercises when you wake up and continue them while you are in the hospital.

### Leg exercises

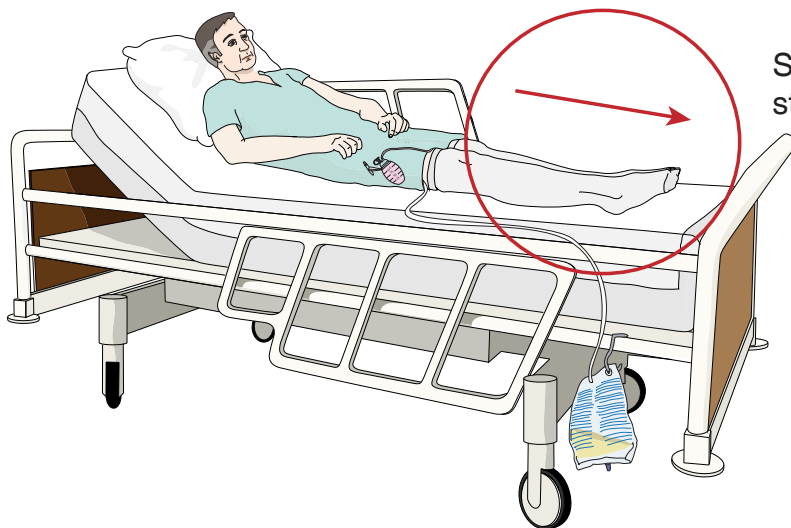
These exercises help your blood to circulate in your legs. Repeat each exercise 4 to 5 times every half hour while you are awake.



Rotate your feet to the right and left.



Wiggle your toes and bend your feet up and down.



Stretch your legs out straight.



## Deep breathing and coughing exercises

An inspiriometer is a device that helps you breathe deeply to prevent lung problems

To use your inspiriometer:

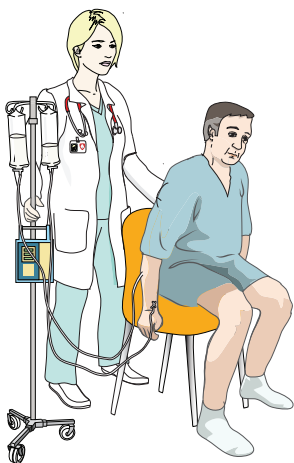
- Put your lips around the mouthpiece, breathe in deeply, and try to hold the red ball up for 2 to 4 seconds
- Remove the mouthpiece, breathe out, and rest for a few seconds
- Repeat this exercise 10 times every hour while you are awake
- Take a deep breath and cough. If you have some secretions, cough them up.



# To do the evening of your surgery

After your surgery

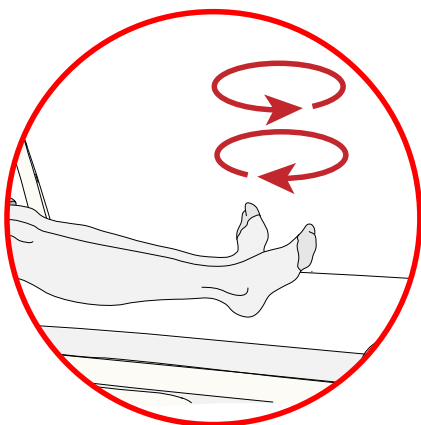
## Goals for the evening of surgery



Get up and sit in a chair with your nurse's help.



Drink clear liquids, including a protein drink like Ensure or Boost. Chew gum for 30 minutes to help your bowels start to work.



Do your leg exercises (see page 19).



Do your breathing exercises (see page 20).

# Goals for Day 1

## Breathing

Do your breathing exercises

## Activities

Sit in a chair for meals

Walk in the hallway 3 times, with help

Be out of bed, off and on, for a total of 6 hours, as tolerated

## Pain control

Tell your nurse if your pain reaches 4/10 on the pain scale



## Diet

Drink liquids, including protein drinks like Ensure or Boost

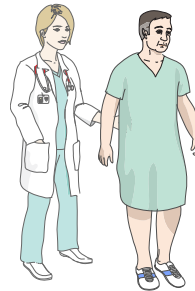
If you tolerate liquids, you may begin to eat regular food

Chew gum for 30 minutes 3 times/day

## Tubes and lines

Your urinary catheter may be removed today

Your IV will be removed when you are drinking well



**After laparoscopic surgery - Plan to go home on Day 2.**  
**After open surgery - Plan to go home on Day 3.**

# Goals for Days 2 and 3: Going home

## Breathing

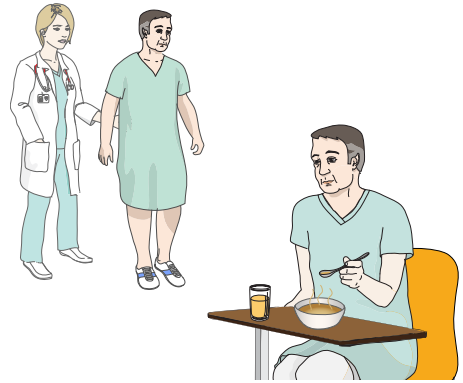
Do your breathing exercises

## Activities

Sit in a chair for meals

Walk in the hallway 3 times, with help

Be out of bed, off and on, for a total of 6 hours



## Pain control

If you have a PCA pump, it will be removed today and you will take pills to control your pain.

If you have an epidural, you will have a “stop test” today, to see if your pain can be controlled with pills.

This is how a stop test is done:

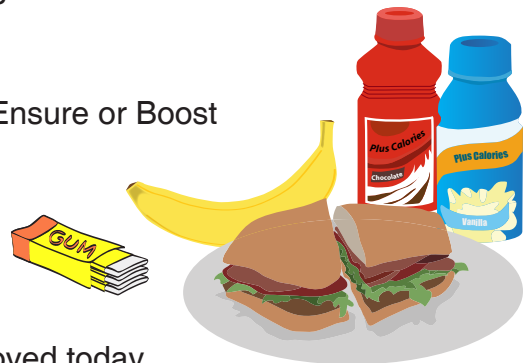
- We will turn off your epidural pump and leave the catheter in place
- You will take the first dose of pain pills
- If the pills control your pain, your epidural catheter will be removed
- Please tell your nurse if your pain is higher than 4/10

## Diet

Drink liquids, including protein drinks like Ensure or Boost

Eat regular food as tolerated

Chew gum for 30 minutes 3 times/day



## Tubes and lines

If you still have a urine tube, it will be removed today

If you have a Jackson-Pratt drain, it will be removed before you go home

# Pain

You may have pain for a few weeks after surgery. Follow the instructions your doctor and nurse give you for treating your pain.

If you have severe pain that is not relieved with medicine, call your surgeon or go to the emergency room.

Please keep track of your pain at home using the Pain Diary found on page 30.

Pain medicine may cause constipation. To help your bowels stay regular:

- Drink more liquids
- Eat more whole grains, fruits and vegetables
- Get regular exercise (a 15-minute walk is a good start)
- Take stool softeners your doctor ordered

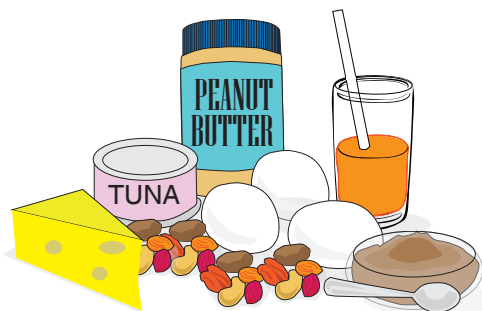


## Diet

You may eat anything you want, unless your doctor, nurse, or nutritionist, tell you not to.

Include foods that contain protein to help your body heal. Meat, fish, poultry and dairy products are good sources of protein.

If you find it hard to eat enough calories, try eating smaller amounts at each meal. Add nutritious snacks between meals. Try high protein, high calorie shakes, or commercial supplements like Ensure or Boost.



**If you cannot drink fluids or keep them down, call your surgeon.**

# Incisions

Your incision(s) may be slightly red and uncomfortable for 1-2 weeks after surgery.

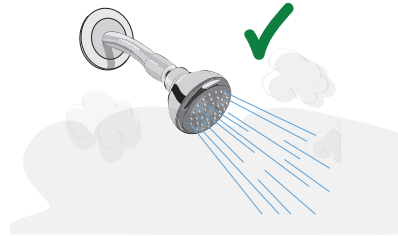
You may take a shower:

- 3 days after laparoscopic surgery

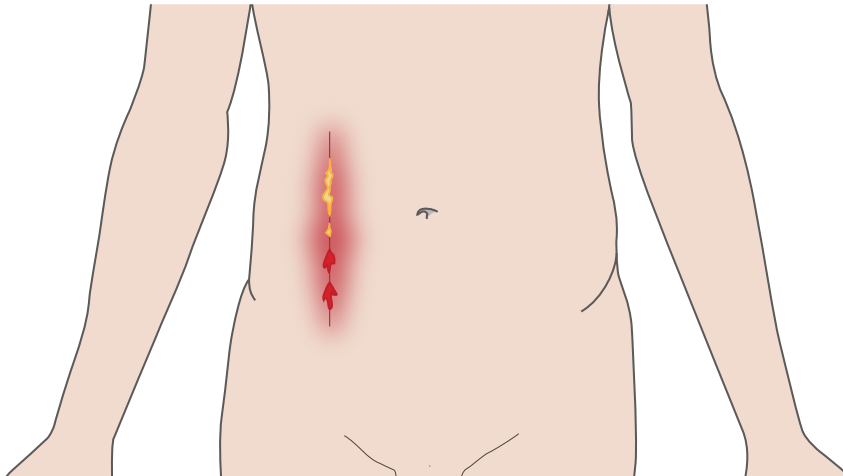
OR

- 5 days after open surgery

Let the water run softly over your incision(s) and wash the area gently. Do not scrub.



Your nurse from the hospital will arrange for the CLSC to remove your clips or stitches 7-10 days after your surgery. The CLSC will contact you at home.



**Tell your surgeon if your incision becomes warm, red, and hard, or if you see pus or drainage coming from it.**

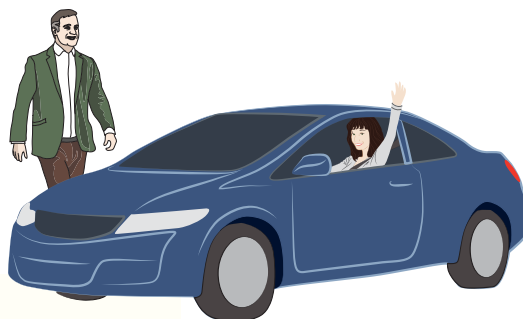
After you go home:

- Continue to walk several times each day. Gradually increase the distance until you reach your usual level of activity.
- Ask your surgeon when it is safe for you to drive. Do not drive while you are taking narcotic pain medication.
- Ask your surgeon when you may return to work. It will depend on your recovery and your type of work.
- When you are pain free, you may resume most activities, including sexual activities.

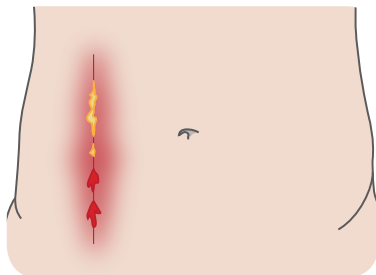


Ask your family and friends for help with:

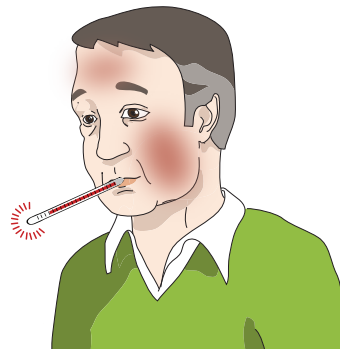
- Transportation
- Meal preparation
- Laundry
- Grocery shopping
- House cleaning



# When to call your doctor



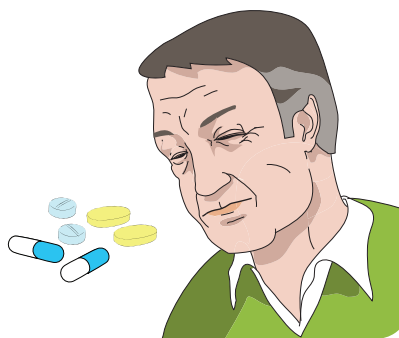
Your incision(s) become warm, red or you see any drainage coming from the incision.



You have a temperature higher than 38°C/100.4°F.



You have nausea or vomiting when drinking fluids.



You have more pain and your pain medicine does not help.

If you cannot reach your doctor, go to the nearest Emergency Department.



# Resources

**If you have any questions, please contact us.**

Dr. Armen Aprikian: 514-934-8295  
Dr. Wassim Kassouf: 514-934-8246  
Dr. Simon Tanguay: 514-934-8535



## **Websites of interest:**

**Canadian Cancer Society**

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

## **Regarding anesthesia**

[www.cas.ca/English/Patient-Information](http://www.cas.ca/English/Patient-Information)

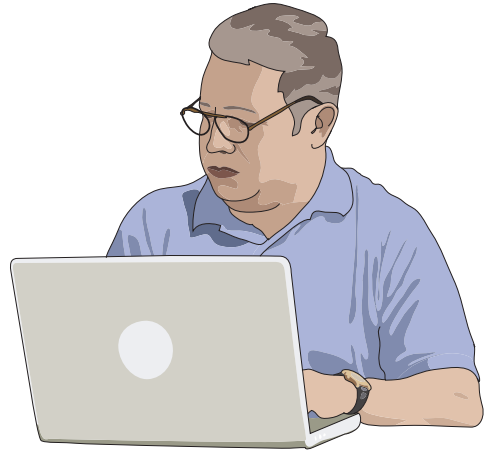
## **General conditions and disease**

[www.mayoclinic.com/health-information/](http://www.mayoclinic.com/health-information/)

<http://infotheque.muhc.ca/>

## **Cancer**

[www.cancer.ca/Quebec.aspx?sc\\_lang=en](http://www.cancer.ca/Quebec.aspx?sc_lang=en)



## **Tips on eating a healthy diet**

[www.helpguide.org/life/healthy\\_diet\\_heart\\_disease\\_stroke.htm](http://www.helpguide.org/life/healthy_diet_heart_disease_stroke.htm)

This booklet and many other patient education materials can be downloaded at the the MUHC Patient Education Office website:

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

# Suggestions to help you stop smoking

## Phases of quitting:

1. Preparing to quit
2. Choosing a quit date
3. Coping with withdrawal
4. Fighting relapses



## Strategies to help you quit:

- Stop smoking now and you will already be on your way to quitting.
- Take it one day at a time. Think of yourself as a non-smoker. Be proud of what you have already done.
- Ask your family and friends not to smoke around you.
- Ask a family member, or a friend, to stop smoking at the same time.
- Join a stop-smoking group and kick the habit with other people.
- Speak with your doctor about aids to help you quit, such as the nicotine patch.



## Get more information from:

Montreal Chest Hospital

(514) 934-1934 extension 32503

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

Quebec Lung Association

(514) 287-7400 or 1-800-295-8111





[www.pq.lung.ca](http://www.pq.lung.ca)





# Pain diary

Using the Pain Intensity Scale and table below, enter the level of pain you feel during the day.



For example:

| Days After Surgery |  Morning |  Noon |  Evening |  Night |
|--------------------|---|--|---|---|
| 1                  | 4 / 10  | 4/10   | 3/10  | 3/10  |
|                    |   |  |   |   |

| Days After Surgery |  Morning |  Noon |  Evening |  Night |
|--------------------|---|--|---|--|
| 1                  | __ / 10   | __ / 10  | __ / 10   | __ / 10  |
| 2                  |   |  |   |  |
| 3                  |   |  |   |  |
| 4                  |   |  |   |  |
| 5                  |   |  |   |  |

Looking for information on

# YOUR SURGERY ?



Visit the Patient Education Collection  
Search: **Surgery Patient Guides**  
[muhcpatienteducation.ca](http://muhcpatienteducation.ca)



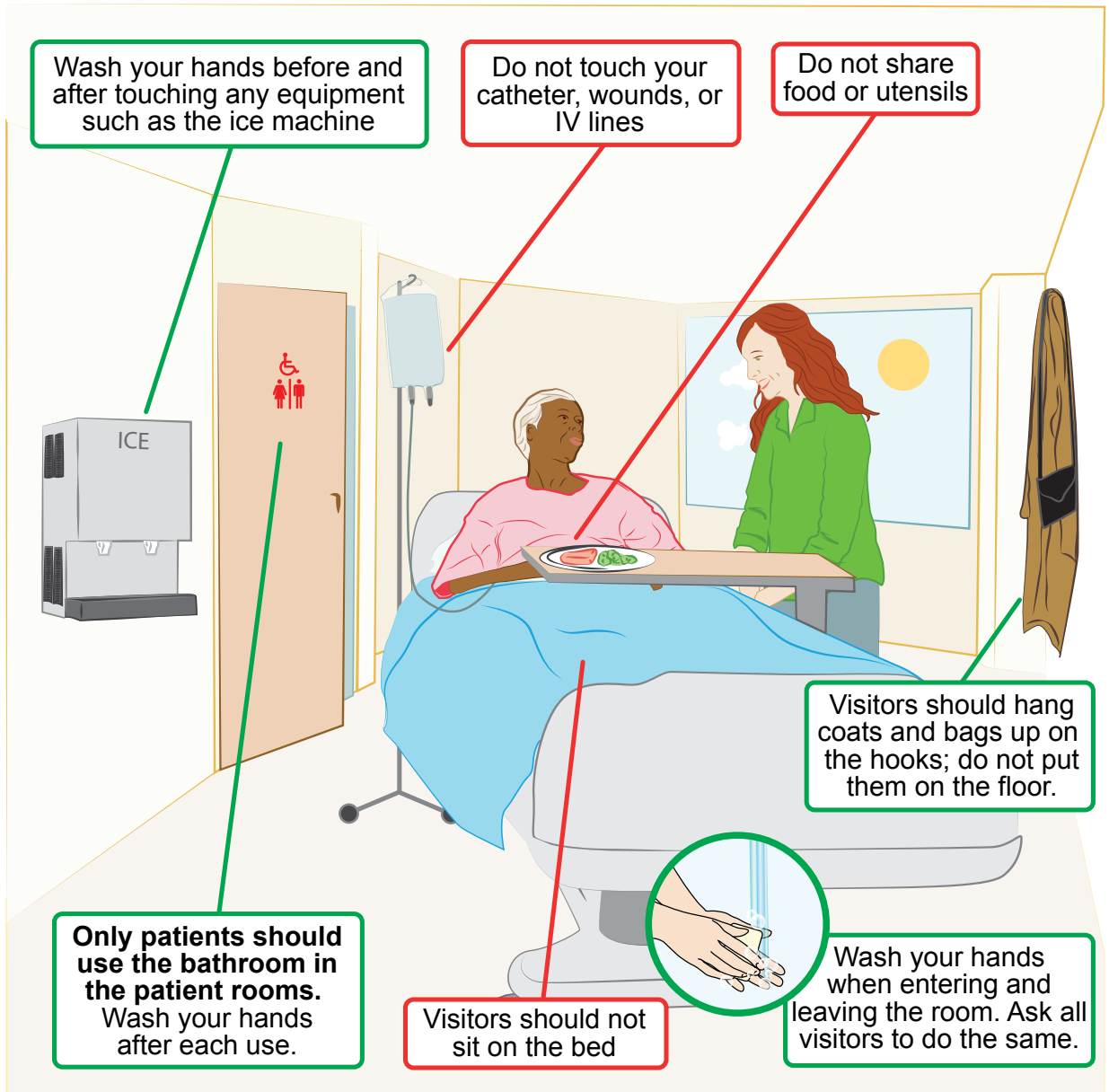
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# Tips for preventing infection in your hospital room



## Notes

[illegible]

## Notes

[illegible]

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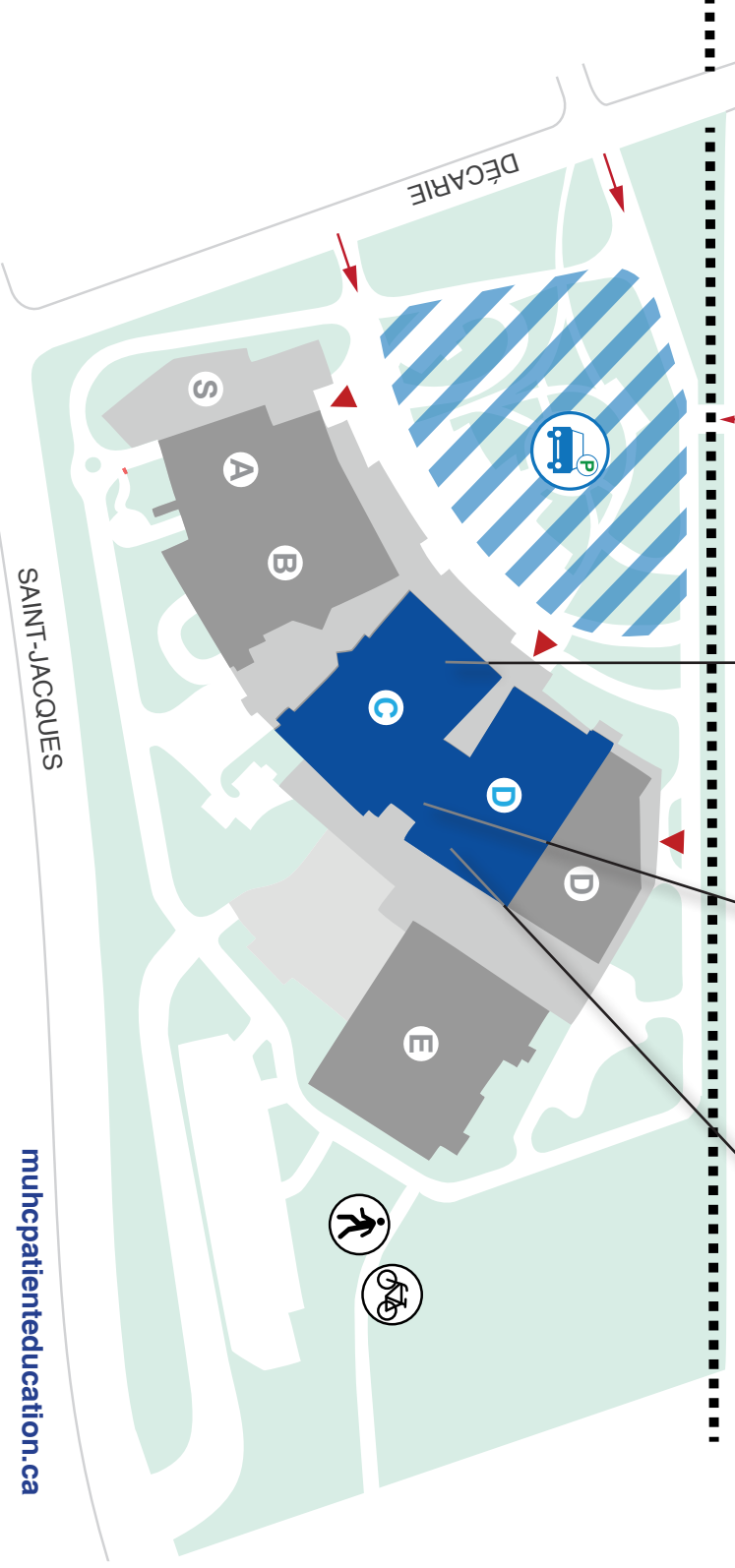


VENDÔME

Registration, Surgery  
and Intervention  
Centre: C.03.7055

Cafeteria:  
Located off the  
Adult Atrium on  
the level S1

Pre-op Clinic:  
D S1.2428



SAINT-JACOQUES

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