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Centre intégré de santé et de services sociaux de Laval

Preparation guide for a a sugery ERAS[MD]

Hip Arthroplasty

Québec

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Thanks to

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Secretariat

Karine Beaulieu, agente administrative

Diffusion

Attention

This guide is intended for educational purposes. It is not a substitute for medical advice or advice from a health care professional and is not a substitute for medical care. Contact a qualified health care professional if you have any questions about your health care.

Traduction and adaptation of Guide de préparation à une chirurgie ERAS^{MD} : arthroplastie de la hanche, 2019

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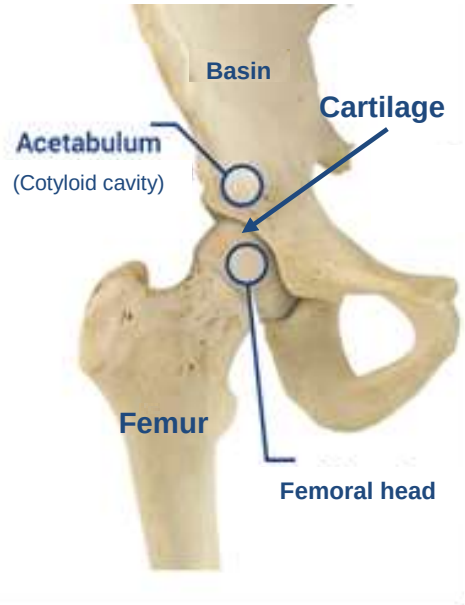
This guide is designed to help you understand and prepare for your surgery. It will explain how you can play an **active role** in your recovery and give you daily goals to achieve. Before your group teaching and your pre-admission clinic appointment, you should read this guide with your loved ones.

You should **bring this guide to all surgery-related appointments** and **on the day of surgery.**

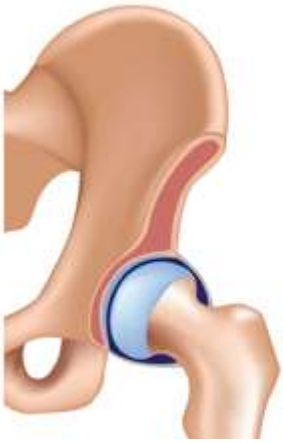
Remember that you are at the heart of your rehabilitation. You are the main actor of your surgery.

What is osteoarthritis of the hip?

The hip joint is composed of the femoral head and a cavity in the pelvis called the acetabulum. The femoral head is inserted and articulated in the acetabulum.



The inside of the acetabulum and the contour of the femoral head are coated with a very smooth layer of tissue called cartilage. This layer allows the femoral head joint to move (slide) smoothly and painlessly within the acetabulum. Muscles and ligaments allow movement and hold the joint in place.



Normal hip

Arthrosis of the hip

When cartilage is damaged, the joint becomes unbalanced and the damaged surfaces no longer allow for fluid movement of the joint. This results in pain, stiffness, inflammation and decreased function of the joint. The surfaces become rough and deformed. This is called osteoarthritis or joint degeneration.

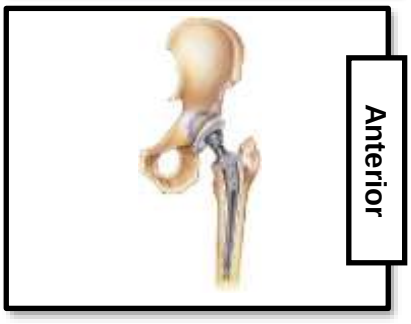
There are several causes leading to the destruction of the hip joint:

- A fracture
- A bone deformity
- An inflammatory disease (for example: rheumatoid arthritis)
- Insufficient blood supply to the joint (avascular necrosis)
- Infection
- Normal wear and tear related to aging

Over time, osteoarthritis of the hip causes pain in the joint that interferes with your regular activities and reduces your quality of life. When your doctor has not been able to improve your condition with non-surgical treatments such as specific strengthening exercises and medication, he or she may suggest hip replacement surgery.

What is a hip replacement?

This surgery consists of replacing the diseased joint with a prosthesis to restore its functional capabilities and give you a better quality of life. The orthopedist makes an incision to access the hip and frees the joint of its muscles and ligaments. There are 3 types of approaches performed at Cité de la Santé: posterior (at the buttock), lateral (at the thigh) and anterior (closer to the front of the leg). The orthopedist will choose the approach that is best for you.



During surgery, the orthopedist will remove the damaged parts and replace them with artificial implants. The femoral head is replaced with a ball-shaped device that is placed on a metal stem and inserted into your femur.

When the prosthesis is in place, he repairs and replaces the muscles and ligaments around the prosthesis with melting stitches. He injects medication deeply and superficially to help reduce swelling, inflammation and pain. He then closes the wound with stitches, metal staples or covers it with a self-adhesive film (Dermabond[MD]).

Several times during the surgery, he tests the movement of the prosthesis to ensure that it is stable and moves well.

User trajectory

When you are admitted to the hospital for your hip surgery, you enter a Rapid Postoperative Recovery Program (ERAS®) and have been since 2019. This program is designed to help you recover quickly and safely.

Since 2022, there has been a second pathway, called fast-track, which stems from the ERAS® program offered by the Cité-de-la-Santé. It allows users, targeted according to specific medical criteria, to return home early and safely on the day of the surgery.

Here is a summary of the steps that await you in preparation for your surgery.

At the orthopedist's office

- I receive my surgery preparation guide and my orthopedist completes the paperwork for my surgery.

At home, waiting for surgery

- I carefully read my preparation guide for surgery with my loved ones.
- I write down my questions and comments at the end of the guide.
- I begin my preparation for surgery and start my exercises before the operation (page 13).
- I begin to organize my preparations for my return home after surgery. If necessary, I ask for help from my family and friends to :
    - Prepare meals.
    - Do housework and shopping upon my return.
    - Arrange for help with my medical transportation upon discharge.
    - Determine who will accompany me to my appointments.
    - Arrange for someone to stay with me at home if necessary
- I wait for the call from the pre-admission clinic to schedule my appointment.

Before appointments (group teaching and pre-admission clinic)

- I prepare my medical history.
- I reread my surgery preparation guide and finalize my questions.
- I make sure that I am **accompanied** by a family member **at all my appointments**.

At the pre-admission clinic appointment

- I bring my surgery preparation guide and my medication list.
- I arrive on time and **accompanied**.
- I ask my questions and take note of the instructions.
- I discuss my preparations for going home with the nurse.
- I ask the nurse for advice if necessary.

After the pre-admission clinic appointment

- I continue to prepare for surgery and make arrangements for my home (page 15).
- I make sure I follow all the nurse's instructions.
- I do my breathing exercises (page 27) and physical therapy exercises (page 13).
- I do the other tests and attend the other appointments if the nurse tells me to.
- I continue to prepare for my return home and pick up the recommended equipment (page 17).
- I call the pre-admission clinic if I have any problems or questions (page 57).
- I start my checklist (page 10).

For **Laval users**, the CLSC administrative officer will send you, by **email** or **mail**, documentation regarding the services offered once a surgery date has been confirmed. * If you have not received documentation from the CLSC **one week** before the surgery, contact the Front Line Reception (APL) (page 57).

The day before the surgery

- I make sure I follow the instructions (fasting time and beverage - page 21).
- I check the availability of my loved ones to offer me support when I return home.

The day of the surgery

- I bring my surgery preparation guide.
- I make sure to follow the instructions (fasting time, beverage and medication - page 21).
- I complete my checklist (page 10).
- I arrive on time and am accompanied **by one adult**.

What to bring to the hospital?

- ☐ This guide to preparing for surgery.
- ☐ Your valid health insurance card.
- ☐ Your hospital card.
- ☐ Medication list provided by your pharmacy.
- ☐ Your medications, drops, creams and pumps in their original containers (do not take them on the ward without first talking to the nurse).
- ☐ 2 packs of **chewing gum** (sugar-free and appropriate if you wear dentures).
- ☐ Practical clothing (short pants with elastic waist, loose pants with elastic waist).
- ☐ Shoes that are **easy to put on** (shoes with velcro or elastic laces) **and safe** (shoes closed at the back, wide enough and adjustable to allow for swelling, non-slip soles and flat heels). “Sneaker” style,

  **** No « flip-flops » ****
- ☐ Breathing exercise device (Respirex) given at the group meeting.
- ☐ Pencil and notebook.
- ☐ Toothbrush and soap.
- ☐ If you wear glasses, contact lenses, hearing aids or dental prostheses, bring the appropriate kits or containers and identify them with your name.
- ☐ Your CPAP if you have sleep apnea.
- ☐ Plan to have a walker for the day of your discharge from the hospital. Your family member can bring it on the day of your discharge.

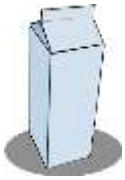
Please leave **all jewelry** and other **valuables at home**. The hospital is **not responsible for lost or stolen items** (cabinets are not locked). Rings will need to be cut off if not removed.

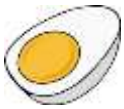
Lifestyle habits

In order to be optimally prepared for your surgery and to have a good recovery potential postoperatively, it is important to have good lifestyle habits.

Power suply

Protein promotes better healing and optimizes recovery. Without completely changing your diet, here are some suggestions to increase your protein intake.





Add this	To that
Skim milk powder or protein powder supplement (Nestlé Beneprotein)	Cooked cereals, scrambled eggs, sauces, mashed potatoes, soups, cream sauces, milks, milkshakes, custards, etc.
Milk (2% or 3.25% fat)	Hot cereals, soups, casseroles, hot chocolate (instead of water)
Soy beverage	Smoothies, soups
Greek yogurt	Fresh or canned fruits, vegetables, potatoes, rice, pancakes, casseroles, stews, soups, vegetable or fruit dips
Hard-boiled eggs	Sandwiches, salads, vegetables, potatoes, sauces and soups
Peanut butter or nut butter	Sandwichs, salades, légumes, pommes de terre, sauces et soupes.
Tofu	Milkshakes, soups, casseroles or stir-fries, salads
Canned peas or beans, legumes and lentils (depending on tolerance)	Casseroles, soups, stews, salads, rice, pasta and dips
Seeds and nuts (according to tolerance)	Salads, cereals, ice cream, yogurt
Pieces of cooked meat, poultry, seafood or fish	Salads, soups, scrambled eggs, quiches, baked potatoes, pasta

To supplement your diet, you can also take a supplement such as Ensure or Boost

Tobacco

Smoking increases the risk of respiratory problems after surgery, interferes with wound healing and pain management. It is recommended that you quit smoking or reduce your tobacco consumption **2 to 4 weeks before surgery.**

In order to help you in your efforts, do not hesitate to contact :

- Center de services ambulatoires de Laval
  450 978-8300, option 1, ext. 13169 (For people living in Laval).
- Pharmacist or family doctor.
- Smoking Cessation Centre nearest you
  1-866-JARRETE (527-7383)
  Jarrete.qc.ca

Alcohol

Alcohol can interact with certain medications and increase the risk of bleeding and postoperative complications. You must stop drinking alcohol **7 days before surgery.**

In order to help you in your efforts, do not hesitate to contact :

- Alcochoix+ Laval
  450 622-5110, ext. 64005 (For people living in Laval)
- www.alcochoixplus.gouv.qc.ca

Physical activities

Staying active and exercising helps keep your body in the best possible condition before surgery. If you already exercise, keep up your good habits. If not, slowly start adding exercise to your daily routine. Exercises do not have to be complex to be effective. A simple **15-minute walk** each day and **the exercises** on the following pages are sufficient.

Also refer to page 27 to start breathing exercises a few days before your surgery. The spirometry machine will be given to you at your group meeting.

Exercises to do before surgery

All exercises are to be performed at a rate of **20 repetitions twice a day.**

Mobilization of the ankles

Sitting in bed with your leg extended, perform the following movements with your ankle:

- Point the foot, then pull the foot toward you.
- Rotate the foot so that the sole is facing inward, then outward.
- Rotate the ankle in both directions.
- Repeat all movements. To be done on both ankles.

Crushing the knees

- Lie on your back with your legs extended.
- Try to crush your knee against the bed by contracting your thigh muscles and pulling your foot towards you.
- Hold the position for 5 seconds.
- Release and repeat. To be done on both legs.

Rear bridge

- Lie on your back with your knees bent at 90 degrees.
- While squeezing your buttocks, lift your pelvis off the bed as high as possible.
- Hold the position for 5 seconds.

Bend the hip

- Lie on your back with your legs extended.
- Bend the hip to operate as far as possible without the help of your hands, then complete with the help of your hands at the end of the movement.
- Hold the position for 5 seconds.
- Extend the leg completely on the bed and repeat.
- You can use a slippery surface (e.g. a plastic bag) to put under the leg to be operated on to facilitate the exercise.

Seated push-up

- While sitting in a chair, push on the armrests with your hands to lift your buttocks off the seat.
- Hold the position for 5 seconds.
- Gently sit back in the chair, controlling the descent with your arms and repeat.

Planning

It is important to plan and organize your return home. In fact, you will receive information at the group meeting before your operation. You may need help from friends or family with meals, laundry, personal hygiene and errands.

To better prepare your return home:

- Have a **supply of food**
  - Frozen or pre-prepared meals.
  - Community services available in your neighbourhood (e.g. Meals on Wheels).
  - Merchants (pharmacy, grocery store, etc.) for telephone ordering and delivery services.
- Plan to do a **thorough cleaning** and **laundry** before your surgery so that when you return home there is not too much to do. If necessary, pull up a chair near the washer to rest. You will do the laundry in small steps after the surgery.
- - Plan to have someone else do the **outside maintenance** (snow, lawn, etc.). In winter, make sure your driveway is safe.

Normally, patients are discharged the day after surgery and return home afterwards. Patients selected for the "fast-track" pathway are discharged the same day as their surgery if all parties involved in the case agree.

If you have any concerns regarding your return home, speak to the nurse at the pre-admission clinic during your appointment.

Transport

Make sure you have someone to pick you up when you leave the hospital. Don't forget they must bring your **walker.**

You will also need help **getting to medical appointments** for **at least 6 weeks**. Find people who can help you.

Home Adaptation

- Remove small rugs that are not attached.
- Clear circulation areas (stairs, hallway) by removing small furniture, objects placed on the floor, wires, plants, decorative objects that would impede the passage of your walker.
- Provide adequate lighting for your movements at night and during the day. If necessary, install a night light.
- Install a non-slip mat at the bottom of the bath and/or shower and at the exit of the bath/shower to avoid falling when taking your bath/shower. The bath exit mat should be stored on the edge of the tub when not in use.

- Place all items you use regularly at an easily accessible height.
- Consider sleeping on the side of the bed near the door to make it easier to get around.
- Make sure there is enough space to get to your bed. Please allow 60 centimetres (24 inches).
- Make sure that animals will not be a nuisance when you move around, as they may cause you to lose your balance.
- Make sure that the staircase leading to the main rooms (bedrooms, bathroom) is equipped with a handrail that is firmly attached.

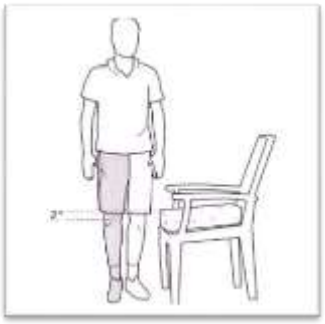
Make sure you have a wireless phone available at all times in case of an emergency when you return home.

Technical aids needed to return home

- **Walker** with wheels in front and skis in the back (**No rollator**, as it lacks stability and increases the risk of falling)

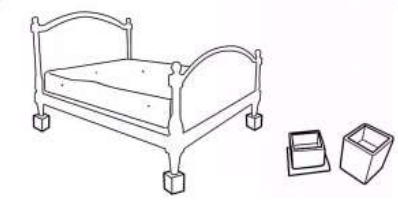
- **Cane**

- **Additional booster cushion/mattress or blocks**



Make sure the chairs or recliners you use have armrests. Avoid chairs with casters or unstable chairs, and soft, deep chairs. The seat of the chair should be **2 inches higher than the back of your knees.** Plan to use a good cushion to raise the seat to the height needed for safe positioning. You can use this cushion to raise your car seat.

You can also raise your bed mattress to make it easier to get in and out of bed. Make sure you have a **firm, high bed** (extra mattress or raised on blocks). However, this is not always required depending on the height of your chairs, armchairs, bed and your size.



- **Raised toilet seat**

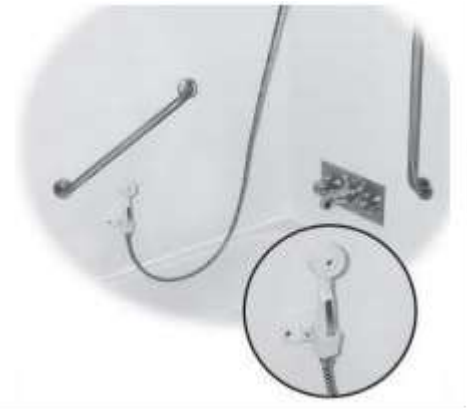
Seat raised 2 inches above the back knee bend (with or without armrests for approximately 6 weeks)

- **Technical aids** for dressing (sock threader, long shoehorn, gripper).

Suggested technical aids for returning home

These technical aids are not mandatory. They are recommended to make you independent and to help you if necessary after the surgery.

- Technical aids for hygiene (bath board, long-handled brush, shower-telephone, bath support bar, shower-telephone hook).



In some cases, you may be able to **purchase or rent** technical aids from brace dealers, pharmacies, or big-box stores (see the reference sheet included in your packet).

Wait until you have your group education on the equipment and technical aids needed before making your arrangements.

For any questions, contact your CLSC (see page 57).

Preoperative appointments

Group teaching (PadOrtho)

You will receive an initial call from the pre-admission clinic for group instruction by the nurses and physical therapists and an hip-bassin X-Ray.

The administrative officer will inform you of the **date and time** of your appointments. It is recommended that you **bring a relative** to the appointments.

Date and time of my group teaching: _____

Date and time of my hip-bassin X-Ray: _____

Person who will accompany me: _____

Pre-admission clinic

You will receive a second call from the pre-admission clinic to complete your file, meet with the anesthesiologist to validate the types of anesthesia available to you, take blood samples and perform tests if necessary. The nurse will validate with you the medications to be taken before the surgery as well as your preoperative preparation (pages 21 to 23).

Date and time of my pre-admission clinic appointment: _____

Person who will accompany me: _____

Admission

A third call will be made to tell you the date of your surgery. The time of arrival at the hospital will be given to you by phone 24 to 48 hours before the operation.

Date of surgery: _____

Arrival time: _____

It is recommended to be **accompanied at all appointments** related to the surgery and **on the day of the surgery**.

** If you plan to do your rehabilitation elsewhere than at your home address (for example, at one of your children's homes), you must advise us as soon as possible so that we can follow up with the CLSC in that sector before and after surgery. **

Please note that it is possible that your surgery date will be postponed.

Medications to stop or continue

At your appointment with the orthopedist or the nurse at the pre-admission clinic, we will advise you if you need to stop or continue these medications before your surgery.

☐ **Aspirin**[MD], **Asaphen**[MD], **Rivasa**[MD], **Entrophen**[MD], **Novasen**[MD], **Persantine**[MD], **AAS**, **Aggrenox**[MD] (**dipyridamole**/**AAS**), etc.
- ☐ To stop _____ days before surgery
- ☐ Do not stop

☐ **Plavix**[MD] (**clopidogrel**)
- ☐ To stop _____ days before surgery
- ☐ Do not stop

☐ **Effient**[MD] (**prasugrel**), ❒**Ticlid**[MD] (**ticlopidine**), **Brilinta**[MD] (**ticagrelor**)
- ☐ To stop _____ days before surgery
- ☐ Do not stop

☒ **Anti-inflammatories** (ex. Advil[MD], Ibuprofène[MD], Motrin[MD] incluant pour enfant, Celebrex[MD], Maxidol[MD], Aleve[MD], Naprosyn[MD], etc.)

Stop **2** days before surgery

☒ **All natural products** (glucosamine, omega 3, vitamin E, etc.)

Stop **7** days before surgery

You can take medications such as Tylenol®, Tylenol® extra strength, acetaminophen and Tempra® until midnight the night before your surgery.

If you are taking **Coumadin**[MD], **Sintrom**[MD], **Pradaxa**[MD], **Xarelto**[MD], **Eliquis**[MD], **Lixiana**[MD]

A hospital pharmacist will call you about 1 to 3 weeks before the operation and may ask you to have a blood test.

Once the pharmacy department receives the results, a pharmacist will call you again to tell you when to stop taking this medication.

It is mandatory to respect this instruction.

You will not be able to have surgery for **3 to 6 months** if you receive **infiltrations** in your **operated hip.**

Preoperative preparation

One week before the surgery

ATTENTION

One week before your **surgery**, if you have **these symptoms:**

- Sore throat, cold or flu
- Temperature (fever), over 38˚C
- Taking antibiotics
- A contagious disease (example: chicken pox) or have had recent contact with someone with a contagious disease
- A possible or confirmed pregnancy
- Redness, inflammation, discharge, sore or any other problem with the part of the body being operated on.

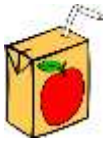
Call immediately to inform the administrative officer:

Orthopedics 450 975-5487

The day before the surgery

You can eat **normally**. Ideally, eat a high-protein meal (see page 11).

☐ The **evening** before, **drink** the listed amount of one of the following beverages:



- ☐ Apple juice (1000 mL)
- ☐ Commercial iced tea (1000 mL)
- ☐ Grape juice (1000 mL)

☐ The **evening before**, **do not drink** the above beverages if you are diabetic. However, you can drink water, tea and black coffee as usual.

The day of the surgery

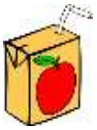
For all users :

From **midnight** the day before the operation:

- Do not eat solid food or nutritional supplements.
- Do not eat or drink dairy products.
- Do not drink alcohol or smoke.
- For the consumption of clear liquids, refer to the tables below.

At home

☐ On the **morning** of the surgery, **drink** the listed amount of one of the following beverages:



- ☐ Apple juice (500 mL)
- ☐ Commercial iced tea (500 mL)
- ☐ Grape juice (500 mL)

☐ If you are **diabetic**, **do not drink** the above beverages on the **morning** of the surgery. However, you can drink water, tea and black coffee as usual.

☐ On the **morning** of the surgery, take the complex carbohydrate drink.

☐ On the **morning** of the surgery, **do not drink.**

Be careful to drink **only** these clear liquids and nothing else.

When to stop to drink clear liquids?

You should stop drinking these liquids on **the morning of the operation**. The exact time to stop depends on when you are scheduled to arrive at the hospital on the morning of the operation. Remember that the time of arrival will be given to you by telephone 24 to 48 hours before the operation.

I have to arrive at the hospital at...	I need to stop drinking clear liquids to...
Before 10 h	6 h
After 10 h	8 h
I'm waiting at home, I don't have an arrival time, my surgery is on call.	11 h

These instructions will ensure that you have a **safe** operation and **avoid serious complications.** If you have **not followed these instructions**, you must **notify the nurse** upon arrival at the hospital.

Preoperative hygiene

- ☒ **Disinfectant Soap** (Dexidin 4%): On the morning of your surgery, you should shower with antimicrobial soap purchased at the pharmacy or gift store at the main entrance to C Block or D Block. You should soap your body from **chin to toes** and rinse afterwards.
- ☒ Put on **clean clothes** after your shower.
- ☒ **Do not wear** makeup, false eyelashes, nail polish (fingers and toes), false nails, cream, deodorant, perfume, jewelry or body piercings.
- ☒ **Do not shave** the area to be operated on.

Medications to be taken the morning of the surgery

Take **only** these medications
(with a sip of water)

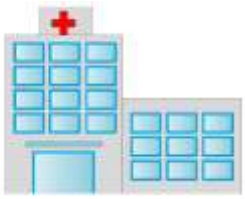
IMPORTANT

Failure to do so may result in the cancellation of your operation.

Course of the operating day

Arrival at the hospital

On the morning of the surgery, go to the reception desk in block C, first floor, room **RC.5**. From there, you will be redirected to a unit to prepare for surgery. There is a waiting period between the time of arrival and the time of surgery. Provide entertainment if needed (reading, music with headphones, etc.).



- When you arrive, the nurse will help you prepare for surgery.
- The nurse will take blood samples or tests if necessary.
- She will validate that you have followed the preparation instructions (beverages, fasting, medication, etc.).
- She will ask you to take out your pack of gum so that she can put it in your file.
- She will give you a hospital gown to change into.

You will have to remove :

- Glasses, contact lenses;
- Underwear, jewelry and body piercings;
- Dental, hearing and hair prostheses.

Only one person can accompany you during your surgery. However, your companion will not be able to follow you to the operating room and the recovery room. He or she will have to wait several hours before being able to visit you in your room.

Operating room

When leaving for the operating room, you must wear **only the hospital gown**. You must also urinate before leaving. You will be directed to the operating room on your feet or on a stretcher.

The anesthesiologist will meet with you once you arrive in the operating room to discuss the anesthesia and pain relief modalities that are best for you. You will also meet with the entire multidisciplinary team that will be caring for you during the surgery.

For more information about anesthesia, please read the "Role of Anesthesia - Teaching Sheet" (blue brochure) that was given to you along with this guide.

Please note that the surgery takes an average of 2 hours depending on your anatomy and the orthopedist. Before your arrival in the recovery room, we make sure that the movements of your operated limb are adequate and that the prosthesis is stable.

Recovery room

Once the surgery is complete, you will be transferred to the recovery room to recover from your anesthesia. An X-Ray of your hip is also taken to make sure there are no complications from the surgery.

- The recovery room nurse will take your vital signs, check your dressing and assess your general condition and pain level.

- Once you are stable and your pain is well controlled, you will be transferred to the orthopedic unit.

Orthopedic unit

Once you arrive on the unit, the staff will make you comfortable in your bed.

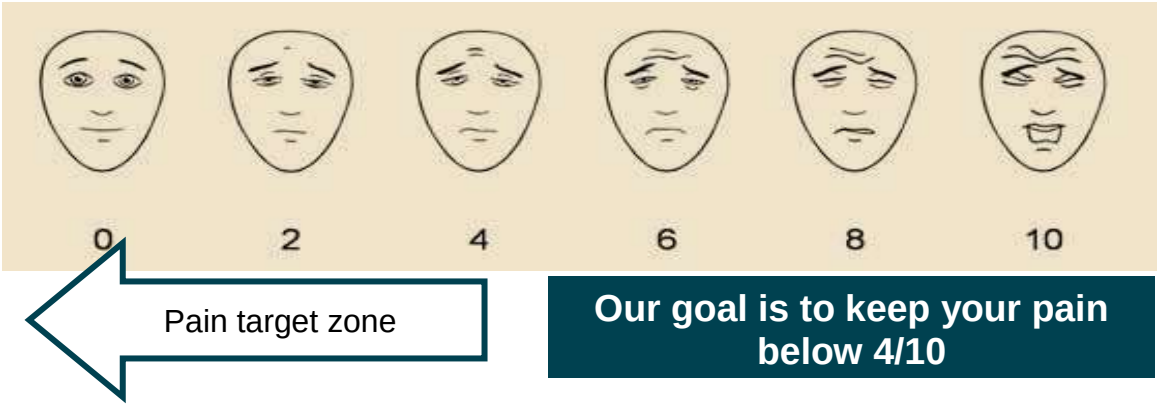
- The nurse will take your vital signs regularly and assess your general condition and pain level. She will also check your dressings.
- Start your exercises (pages 26 to 27) as soon as possible. Remember that the more you mobilize your prosthesis, the faster you will recover.

Visitors (maximum of 2 people) will be allowed on the ward from 8 am to 8:30 pm.

Pain control

It is normal to have pain after surgery. The level of pain is different from one person to another. However, with a combination of different pain medications (acetaminophen, anti-inflammatories, narcotics, etc.), mobilization and alternative methods, it can be well controlled. Pain should not prevent you from mobilizing.

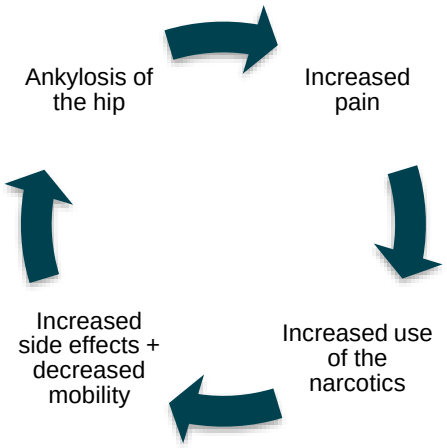
You will be asked to rate your pain on a scale of 0 to 10 frequently and regularly.



In fact, when you let the pain get too bad, it becomes very intense and very difficult to control despite medication. Moreover, when you are in pain, you move less and your hip becomes ankylosed. During the first few days, it is **important to evaluate your pain level regularly and to relieve it quickly.**

Pain relief is important because it will help you :

- Breathe easier
- Move more easily
- Sleep better
- Eat better
- Healing faster
- Resume your activities quickly



Get involved in the hospital **pain management process**. Ask your questions. That way, when you get home, **you'll have a good understanding of how to manage your pain.**

To help you, write down in a notebook or in your guidebook (page 58):

- Types of analgesia you are allowed.
- How often you are allowed to take pain medication.
- Time you last took each medication.
- Level of pain.
- Whether or not relief is effective.

The data you enter in your notebook helps you to:

- Better monitor your analgesia and assess the degree of relief.
- Plan your next dose so that you don't let your pain levels rise unnecessarily.
- Avoid overuse by knowing how often you receive them.

There are other ways that can be used in conjunction with medication to relieve pain:

- Ice application 20 minutes every 2 hours and after exercises.
- Frequent mobilization and position changes.
- Analgesic bottle.
- Meditation and relaxation methods.
- Distraction.

Ice application

Cold is a good way to reduce inflammation and pain in your operated hip in combination with medication. After your surgery, you will be recommended to put ice every 2 hours for 20 minutes on your hip and after the physiotherapy sessions to reduce inflammation (see page 35).

Exercices

After your surgery, you will need to lie down for 3 hours. However, immobility and lying still for a long time can cause complications such as pneumonia, blood clots and weakened muscles. To prevent these complications, you should start doing the following exercises **right after waking up** and continue doing them while in the hospital. **Don't wait** for your nurse or physical therapist to ask you to do them, **take the initiative to do them quickly.**

Spirometry (Respirex)

To be done **as soon as you arrive** on the orthopedic unit. Then, **every hour** (about 10 repetitions) when you are awake.

Spirometry is a simple breathing exercise that helps prevent respiratory complications such as pneumonia. It facilitates the removal of secretions from the lungs to maintain proper lung expansion. It stimulates the breathing reflex slowed down by anesthesia and pain medication. Finally, it promotes well-being and helps you return to your usual activities more quickly.

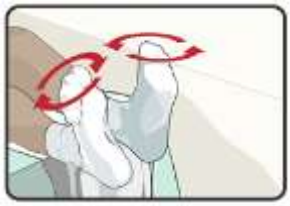
How to do it?

- Remove the device from its packaging. Connect the tube to the spur.
- Make yourself comfortable, ideally in a sitting position.
- Hold the device straight out in front of you (if it is tilted, it is too easy), exhale normally.
- Place your lips around the mouthpiece tightly, then **inhale**, taking in enough air to raise the first ball, then the second.
- Continue breathing in to keep the balls elevated for 3 seconds. This step helps to properly inflate your lungs. Keep your inhale for 3 seconds even if the ball is down.
- Then exhale through your mouth with your lips pursed. Take a break to breathe normally, then repeat.
- Repeat 10 times per hour or as directed by the nurse.
- Leave the device near you to encourage you to do these exercises. Do these exercises for up **to 1 week after surgery.**

Mobilization of the ankles

These three exercises promote blood circulation in your legs while you are lying down. Do these exercises **for 1 to 2 minutes, every hour** when you are awake.

- ☐ Ankle bending
- ☐ Ankle rotation
- ☐ Ankle extension



Legs

Here are 2 exercises that you should do **as soon as you return** from the operating room **at a rate of 20 repetitions every hour** when you are awake.

Bend the hip

- Lie on your back with your legs extended.
- Bend the operated hip as far as possible without the help of the hands, then complete with the help of the hands **without exceeding 90° for the posterior and lateral approach**.

- Hold the position for 5 seconds.
- Extend the leg so that it is straight on the bed and repeat.

Crush the knees

- Lie on your back with your legs extended.
- Try to crush your knees against the bed by contracting your thigh muscles and pulling your feet toward you.

- Hold the position for 5 seconds.
- Release and repeat.

Mobilisation

During the first few hours, the nursing staff will help you position yourself in bed if necessary. You should change your position regularly to avoid ankylosis of the prosthesis and pressure sores. Take this opportunity to start your exercises (pages 26 to 27).

You may have pillows between your legs. This is to prevent you from making forbidden movements that could dislocate your prosthesis while you are sleeping or during mobilizations.

You can **turn and sleep on both sides (also on your back)** as long as you avoid movements that are not recommended during the first weeks. To help you, you can put pillows between your legs for the first few weeks when you are in bed.

Verticalization and first postoperative rise

The raising consists of sitting on the edge of the bed with your legs hanging out of the bed and is done **4 hours** after the surgery **with the help of the nursing staff**.

If everything goes well, you will then do your first stand-up. It consists of moving around with a walker and sitting in a chair with **the help of the nursing staff** or **physiotherapy professionals**. You are usually allowed to put **100% of your weight** on the operated leg unless your orthopedist advises otherwise.

Walking

From the first hours after your surgery, your physiotherapist and the nursing team will guide you through your first movements to ensure that you move safely. You will use a **walker** to get around. As soon as possible, you should use a walker to go to the bathroom. **Avoid using the commode, bedpan and urinal.**

It is important to respect the movement restrictions to avoid dislocating your prosthesis (pages 29 to 30).

Movement restrictions after surgery

After your surgery, you will have movement precautions to follow to avoid dislocation of your prosthesis. You must **absolutely respect the restrictions** related to the approach used during your surgery to avoid dislocating your prosthesis. You will be informed of the approach used by your orthopaedic surgeon when you arrive on the orthopaedic unit.

Posterior approach

Restrictions to be maintained for the **first 6 weeks**

- **No** hip flexion of more than 90°.
- **No** internal rotation of the operated leg.
- **No** adduction of the hip - Avoid turning the operated leg inwards.

No hip flexion of more than 90°

No internal rotation of the hip

No hip adduction

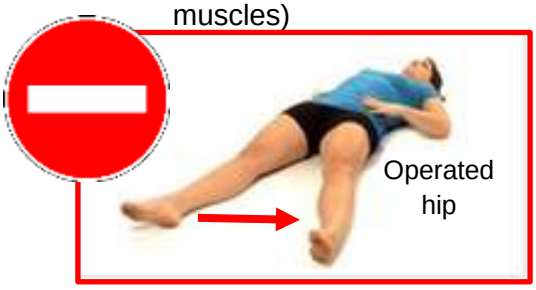
Restriction to be maintained **for life**

It is **forbidden** to do any of the **above movements simultaneously** (e.g. crossing your legs or bending over while rotating your hip). The combination of the above movements is at high risk of **dislocating your prosthesis**.

Lateral approach

Restriction to be maintained for the **first 4 weeks**

- **- No** active abduction (spreading the operated leg with the help of the thigh muscles)



Passive abduction is **allowed** (spreading the operated leg with the help of the other leg or with the help of a tool such as a strap or the help of another person) **without forcing with the operated leg**.

Restriction to be maintained for the **first 6 weeks**

- **No** hip flexion of more than 90°

Anterior approach

No restrictions. The following movements must be done for the first 4 weeks. However, stop if you have pain.

- **External rotation** of the hip (turning the leg outwards) without pain.
- Hip **extension** (bringing the leg backwards) without pain

Prevention of thrombophlebitis

To prevent the formation of clots associated with surgery and decreased mobility, your orthopedist may prescribe an anticoagulant to be taken as a pill or injection. If the doctor has prescribed an anticoagulant injection, you will need to give it to yourself (1-2 times a day). The nurse will teach you how to self-administer this medication before your discharge.

Your nurse will encourage you to achieve a few goals. These are simple tasks that will help you recover more quickly from your surgery.

These goals are as follows:

- ☐ Sit for a minimum of 15 minutes in a chair.
- ☐ Start eating and drinking protein-enriched nutritional supplements. If you feel nauseous (sick to your stomach), start with clear liquids and gradually increase the amounts and texture as you tolerate.
- ☐ Chew sugarless gum for 30 minutes to stimulate your bowels.
- ☐ Do the leg exercises every hour (page 28).
- ☐ Do the breathing exercises every hour (page 27).

Goals for the days following surgery

- ☐ Breathing exercises to be done until 1 week after surgery (pages 27).
- ☐ Ankle and leg mobilization exercises to be done every hour in bed and in the chair when you are awake (page 28).
- ☐ Sit for a minimum of 15 minutes in the chair, at least every meal.
- ☐ Walk down the hallway several times a day.
- ☐ Stay out of bed most of the time.
- ☐ Do your best during physiotherapy exercises.

- ☐ Assess pain regularly and take pain medication **regularly**.
- ☐ Maintain an acceptable pain threshold (below 4/10) and notify the nurse when pain increases.
- ☐ Take an active role in pain management by recording information in a notebook or at the end of the guide.
- ☐ Eat normally and drink protein-enriched nutritional supplements.
- ☐ Chew sugarless gum for 30 minutes 3 times a day.
- ☐ Drink 8 to 10 glasses of water a day to avoid constipation (if no restrictions).

Participate actively and **regularly** in your exercises so that your prosthesis evolves well.

Back home

You may leave the hospital when:

- ☒ You will have been discharged by all involved.
- ☒ You will be relieved with pain medication.
- ☒ You will mobilize normally and safely.
- ☒ The nurse will have given you and explained all the discharge papers:
  - Prescription for pain medication to be picked up at the pharmacy.
  - A summary sheet of your episode of care to give to your family doctor.
  - A Hospital Attendance Ticket or Time Off from Work will be given to you **only if you have requested it**. Notify your orthopaedic surgeon if you need these documents.
  - Prescription for an X-Ray.

Insurance forms:

If you have insurance forms to be completed, drop them off at the orthopedists' private office (1555 de l'Avenir Blvd., Laval). The secretary will call you to pick them up.

No forms will be filled out during your hospital stay.

Ask an **adult** to pick you up, as you **will not be able to drive** after the surgery. You should also arrange for this person to have your **walker** to facilitate your transfer to the car.

If you live **alone**, it is a good idea to have an adult stay with you for the **first 24 hours** to ensure safety.

Post-discharge follow-up

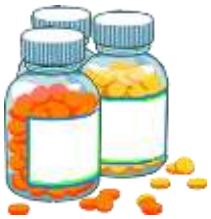
A nurse from the CLSC will come and follow up on your health and your wound when you return home. A physiotherapy professional will also come and check on the progress of your exercises the first week after your surgery. Thereafter, you will have to travel to do your physiotherapy sessions on an **outpatient basis**. You will have to plan your transportation since you will not be able to drive. You will have a follow-up appointment with the **orthopedist 6 weeks** after your surgery. **The week before your appointment**, you will need to have an X-Ray of your hip (the request will be given to you at discharge).

Post-operative instructions

Medication for pain relief

Because you were actively involved in managing your pain after surgery, you are able to apply the same principles you learned during your hospital stay at home so that your pain is well relieved.

On the other hand, it is normal to have pain for a few weeks after surgery. Pain relief should be constant and the pain should not prevent you from doing your daily activities such as dressing, bathing or eating. In fact, your pain should not exceed 4/10 during your activities of daily living.



However, during physiotherapy exercises, you must go beyond 4/10 for the exercise to be effective. It is normal to experience severe pain up to 10/10 during exercise. This pain should, however, decrease to 4/10 or less 15 to 20 minutes after the exercise session.

To relieve pain, follow your doctor's prescription and the pharmacist's advice. **Unless otherwise advised, take acetaminophen (Tylenol®) regularly for the first few weeks to keep the pain as low as possible and take narcotics if the pain is worse as prescribed.** Continue to use the notebook or guide to record your pain management (page 24).

For optimal relief, it is not advisable to wait until the physical therapy sessions to take the pain medication. It has been proven that a user who is well and continuously relieved increases his or her ability to perform daily exercises and, as a result, recovers his or her strength and range of motion more quickly.

Withdrawal from medication

Normally, after the first week and depending on your level of pain, you can begin to consider tapering off the medication. Start by reducing the amount of tablets or spacing out your doses of narcotics. Gradually, if you are well relieved, you can do the same with the other categories of medications used for your surgical pain, always starting with the strongest medications. Eventually, you will take only acetaminophen, which you can stop if you are completely relieved. If you have any questions regarding the withdrawal of medication, you can **contact your pharmacist.**

Cold pack

Here is a homemade recipe for "ice" that allows you to adapt the content to the shape of your hip.

Ingredients

- 1 cup of 70% rubbing alcohol or winter windshield washer
- 4 cups of water
- 2 large freezer bags (Ziploc©)

Directions for use

- Put the entire mixture in a good quality freezer bag.
- Insert it into a second bag.
- Remove air from both bags and seal tightly.
- Freeze.
- Cover the bag with a pillowcase to avoid direct skin contact.
- Apply the cold pack to your operated hip for **20 minutes every 2 hours**. After application, return the bag to the freezer for the next use.

Nutrition and hydration

Your bowels will begin to function normally again within a few days after your surgery. To avoid constipation that may be caused by pain medication and decreased physical activity:

- Eat fiber (cereals, whole grain bread, fruits, vegetables, etc.).
- Drink 8 to 10 glasses of water per day (if no medical restrictions).
- Chew gum for 30 minutes 3 times a day.
- Walk. Walking can help with bowel function.
- Take medication prescribed by your orthopedist to soften your stool (if prescribed).
- Ask your pharmacist for advice, as some laxatives are available over the counter.

If **after 3 days**, despite this advice, **you are unable to have a bowel movement**, consult **a health professional** (pharmacist, family doctor, Info-santé).

Hygiene

Plan to wash yourself at the **sink** for **several days** following surgery, as you will not be able to wet the dressing or wound for 10 to 14 days.

You will be able to shower as directed at discharge. When showering is allowed, the wound can be cleaned with a mild unscented soap. Then let the water run over the incisions, but do not rub and make sure to pat the skin dry. Use your technical aids (long-handled brush, non-slip mat, etc.) to avoid falls.

No bathing is allowed for 6 weeks after surgery to avoid contraindicated movements that could dislocate your prosthesis. Swimming in lakes, spas and pools should also be avoided for **6 weeks** to ensure that the wound is completely healed.

If you have signs of infection, stop showering. Do not put disinfectant or cream on the wound. Put on a dressing to protect the wound and collect the discharge. Contact the ERAS® clinical nurse (page 57).

Clothing

When dressing, sit on a chair to avoid slipping and falling. In the early stages, loose, elasticated clothing may be more comfortable and easier to put on.

Technical aids for dressing are **recommended** to promote independence during the first few weeks. If you do not have technical aids, you **will need help** with **dressing** and **putting on shoes** for the **first few weeks** in order to **respect the restrictions of movement in the postoperative period.**

Always dress the operated leg first and undress it last.

Dressings and wounds

Some orthopaedic surgeons will leave the wound open to the air while others prefer to cover it. Here are the devices used by orthopaedic surgeons. Dressings should not be rubbed or scraped as they may fall off before the wound has finished healing. The nurse in the orthopedic unit will tell you which one is right for you by checking off the device.

	☐	☐	☐	☐
	Dermabond® 	**Staples** 	**Bridging diachylon** 	**Dressing OPOV** 
Definition	Transparent film + surgical glue that seals the wound and protects it from infection			Blistered dressing that collects drainage as needed
Installation	Operating room	Operating room	Operating room + CLSC (after staple removal)	Operating room + Orthopedic unit
Duration	Three weeks	10 to 14 days	7 to 10 days	10 to 14 days
Removal	CLSC	CLSC	Take off by themselves.	Orthopedic unit + CLSC
Hygiene	Shower after 14 days post-op.	Shower 48 hours after removal.	Shower after 10 to 14 days post-op.	Shower after 10 to 14 days post-op **and** when dressing removed
Particularities	+ opaque/+ fragile over time. Do not rub the dressing, as this may loosen the adhesive and tape before the skin is fully healed.	Upon removal of the staples, bridging diachylons will be installed.	After 10 days, if they have not fallen out, you can remove them.	Put over the staples or diachylons if needed at the request of some orthopedists or if discharge.

It is important to keep the wound well protected from any injury for at least 4 weeks to avoid infection.

It is **normal** to have a **swollen** and **bruised** leg for the first few weeks. Taking anticoagulants may also increase bruising.

Protect your scar from the sun by using a maximum sun protection cream when it is well closed.

Scar massage

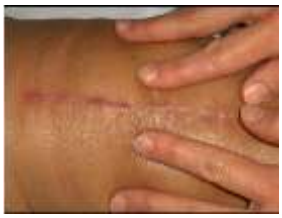
- Repetition : 10x
- Frequency : 2x/jour

Around the 3rd week, when the devices have been removed **and** the scar is free of "scabs" or discharge, you can begin massaging the tissue around the scar along its entire length.

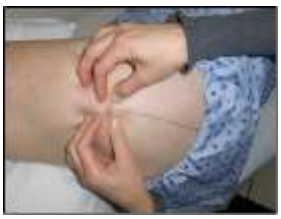
This massage serves several important functions including shaping the scar (which helps it stay flat), proper collagen production, reducing pain and itching, and ensuring flexibility in the scar.

To perform the massage, you must:

- Place your index fingers on either side of the scar.
- Press firmly but comfortably on the tissue so that your fingers and skin move together. The fingers should not slide over your skin or the scar. Do not massage in opposite directions to avoid spreading the wound.



- To be achieved:
    - Vertically from top to bottom;
    - Horizontally from right and left;
    - In small circles in both directions.



- Next, place your index fingers and thumbs on either side of the scar, press firmly but comfortably on the tissue so that your fingers and skin move together.
- Gently pinch the skin to make a bulge. This slightly lifts the skin away from the bone or muscle. Try to roll this bead up and then down and then from one end of the scar to the other.

- The first few days, following these massages, it is **normal** for the **scar to react a little** (slight swelling or heat). If this bothers you, you can apply ice for 20 minutes on your scar after the massage sessions.

Stop massaging if **pain** develops or if your scar is not responding well (redness, increased heat, discharge, thickening, etc.) and **contact the ERAS® Orthopedic Nurse Clinician.**

Adjustment of technical aids

The adjustment of the height of the walker or the simple cane is done in a standing position, with the trunk straight and the feet slightly apart (width of the hips), wearing flat heeled shoes.

- Stand in the center of the walker or place the foot of the simple cane about 15 cm (6 inches) from your foot on the opposite side of the operated leg.
- Drop your arm along the walker or cane.
- The hand rests (handles) of the walker or cane should be at the level of the crease in your wrist.

Approach with technical aids

Walk normally with the **walker**. Make sure you stay level with the back legs of the walker.

Avoid carrying objects in your hands when you need to move. Use a basket or bag attached to your walker.

Once you are able to walk with your full weight on your operated leg (without limping or loss of balance), you can transition from a **walker** to using a **simple cane**. Your physiotherapy professional will guide you through this transition and make adjustments to your technical aids.

Use the right techniques

NO YES NO

Position yourself at the level of the rear legs of the walker

NO YES

Never lean on the walker to get up or sit down. Use the armrests or the edge of the chair.

To walk with the simple cane, you must put it on the side opposite the operated leg. The order of support is as follows:

- Cane
- Operated leg
- Healthy leg
- Repeat.

Walking without technical aids can be started when there is **no more pain and limping.**

Activities

You should continue to be active after your surgery, but alternate with periods of rest. It is normal to feel some fatigue. Walking is one of the best forms of exercise (unless otherwise advised).

As soon as your wound is completely healed, most sports are recommended (stationary bike, swimming after 6 weeks, etc.). In fact, stationary bicycles can be used as a mobility exercise according to the recommendations of your physiotherapy professional. It is preferable to put the seat higher the first few weeks to avoid hip flexion of more than 90 degrees (contraindication of movement during the first 6 weeks for the anterior and lateral approach).

After 6 weeks, activities can be resumed depending on your tolerance and progress (cycling, golf, bowling, etc.). However, sports that subject your prosthesis to repetitive stresses should be avoided, as they reduce the life of the prosthesis (jogging, jumping, karate, racket sports, etc.). Activities involving falls or collisions increase the risk of prosthesis breakage and should also be avoided (soccer, volleyball, soccer, field hockey, aggressive skiing, etc.).

Avoid lifting weights over 4.5kg (10 lbs) for 4 to 6 weeks after your surgery.

Sexuality

You will be able to have sexual relations around 4 to 6 weeks postoperatively when you feel ready and comfortable. It is important to follow the precautions (pages 29 and 30) to avoid dislocation of your prosthesis.

Driving

You will **not be able to drive for 6 weeks** following your surgery. To be able to drive, here are the criteria you must meet:

- You no longer have dizziness.
- You no longer have pain.
- You will have stopped taking narcotic medications for at least 24 hours.
- You will have recovered your reflexes (evaluated by your physiotherapist and your orthopedist).
- You will be able to sit on both your buttocks.
- You will have had your follow-up appointment with your orthopedist (4 to 6 weeks after your surgery).

Travel

It is normal for metal detectors to ring at airports when you go through customs. You do not need medical proof that you have a hip replacement. From a medical point of view, after 6 weeks, if you have not had any complications, the orthopedist authorizes you to travel without any particular precaution. However, before traveling, check with your insurance company to make sure that you are covered in case of problems abroad. Some insurance companies require a period of 3 to 6 months without traveling.

Alcohol

Alcohol is contraindicated when taking narcotics because it magnifies some of their side effects (drowsiness, decreased alertness, decreased coordination, difficulty breathing). Once you have been off narcotics for 24 hours, you may consume alcohol in moderation.

Recovery

Return to work depends on the type of work you do, but generally allow **12 weeks for recovery**. Don't hesitate to ask for help from friends or family.

Exercises to do after your surgery

In order to recover from your surgery, you must **start exercising as soon as possible** to avoid ankylosis and stiffness caused by swelling and adhesion formation. You will be assisted by a physiotherapy professional to ensure a smooth progression from lying to sitting and finally to standing.

Do not forget to respect the movement restrictions (or precautions) specific to the approach used for your operation when performing your exercises (pages 29 to 30).

Posterior approach:

- **No** bending more than 90°
- **No** internal rotation
- **No** adduction

→ For the first 6 weeks

- **No** combination

→ For life

Lateral approach:

- **No** active abduction

→ For the 4 first weeks

- **No** bending more than 90°

→ For the 6 first weeks

Anterior approach:

- **Pain-free** external rotation
- **Pain-free** extension

→ **For** the 4 first weeks

All of these exercises (except #16) should be performed at a rate of :

- Repetitions : 20
- Frequency : 2-3 times a day

LEVEL 1 : EXERCISES IN A LYING POSITION

#1 Bend the hip

Posterior AND lateral approaches
Not allowed to exceed 90° for the first 6 weeks.

- Lie on your back with your legs extended.
- Bend the operated hip as far as possible without the help of the hands, then complete with the help of the hands **without exceeding the 90° angle for the posterior and lateral approaches.**

- Hold the position for 5 seconds.
- Fully extend the leg on the bed, then repeat.
- You can use a slippery surface (e.g. a plastic bag) to put under the operated leg to facilitate the exercise.

#2 Spread your leg

Lateral approach
Not allowed for the first 4 weeks. To be started on the 5th week.

- Lie on your back with your legs extended.
- Spread your operated leg by sliding it over the bed as far as you can.
- Keep your knee straight with your toes pointing to the ceiling throughout the movement.
- Hold the position for 5 seconds.
- Return to the center without going past your belly button, then repeat.

#3 Tighten your knees

- Lie on your back with your knees bent at 90°.
- Place a ball between your knees with your feet knee-width apart.
- Squeeze the balloon, trying to stick your knees together.
- Hold for 5 seconds.
- Slowly release, then repeat.

#4 Frog

Lateral approach
Not allowed for the first 4 weeks. To be started on the 5th week.

Anterior approach
For 4 weeks, stop if you have pain.

- Lie on your back with your knees bent at 90°.
- Slowly move your knees away from each other, as far as possible **without hip pain for the anterior approach**.
- Hold the position for 5 seconds.
- Bring the knees back to the center without touching. Keep a space the size of an orange between the two knees. Repeat.

#5 Squeeze your buttocks

- Lie on your back with your legs extended.
- Squeeze your buttock muscles for 5 seconds.
- Release, then repeat.

#6 Rear bridge

Anterior approach
Pain-free for the first **4 weeks.**

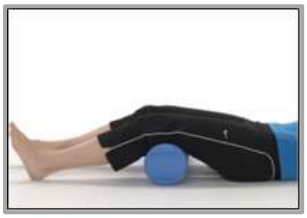
- Lie on your back with your knees bent at 90°.
- While squeezing your buttocks, lift your pelvis off the bed as high as possible or until your trunk is in line with your legs.
- Hold the position for 5 seconds.
- Slowly lower your pelvis back onto the bed, then repeat.

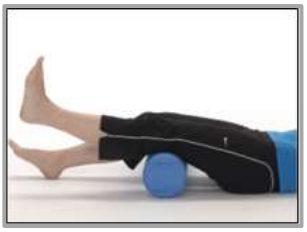
#7 Crush the knee

- Lie on your back with the operated leg extended and the ankle resting on a pillow or rolled towel.
- Push the knee of the operated leg towards the mattress by contracting your thigh muscles and pulling your toes towards you.
- Hold the contraction for 5 seconds.
- Release, then repeat.

#8 Remove the foot from the bed

- Lie on your back with your knees resting on a cushion or rolled towel. You can also use a tomato juice or coffee can wrapped in a towel to do the exercise.
- With your knee pressed against the cushion, lift your foot as high as you can.
- Hold for 5 seconds.
- Slowly lower your foot back down onto the bed, then repeat.





LEVEL 2 : SITTING EXERCISES

#9 Bending the hip while seated

Posterior AND lateral approaches
Not allowed for the first 6 weeks. To be started on the 7th week.

- Sit on a chair with your back straight.
- Lift the thigh of the operated leg as high as possible.
- Hold the position for 5 seconds.
- Slowly lower the thigh back into the chair and repeat.

#10 Extend the knee while seated

- Sit on a chair with your back straight.
- Extend the knee of the operated leg as far as possible, keeping the thigh in contact with the seat of the chair.
- Hold the position for 5 seconds.
- Slowly lower the foot, then repeat.

LEVEL 3 : STANDING EXERCISES

#11 Weight transfer

- Stand upright near a table or chair to use as a support for your hands.
- Transfer your body weight to the operated leg while maintaining the support of your hands.
- Hold the position for 5 seconds.
- Return to the center, then repeat.

#12 Bending the hip while standing

Posterior AND lateral approaches
Not allowed to exceed 90° for the first 6 weeks.

- Stand upright near a table or chair to use as a support for your hand.
- Bend your knee and lift your thigh as high as you can **without exceeding 90° for the posterior and lateral approaches.**
- Slowly lower your foot to the ground, then repeat.
- Keep your body straight as you lift your thigh.

#13 Spread the standing leg

Lateral approach
Not allowed for the **first 4 weeks.** To be started on the 5th week.

- Stand upright near a table or chair to use as a handstand.
- Lift your leg to the side, keeping your knee straight and your foot pointed forward.
- Hold for 5 seconds.
- Slowly lower your foot to the floor, then repeat.
- Keep your body straight as you lift your leg.

#14 Extend the leg backwards

Anterior approach
Pain-free for the **first 4 weeks.**

- Stand in front of a table or chair back to use as a support for your hands.
- Extend the operated leg backwards, keeping the knee straight.
- Hold the position for 5 seconds
- Slowly bring the leg back to the neutral position, then repeat.
- Keep your body straight throughout the exercise.

#15 Mini-squat

- Stand with your hands on a chair or table.
- Bend your knees slightly to about 30-45 degrees (as if you were trying to sit up, but you stop halfway).
- Hold for 5 seconds.
- Slowly come back up, then repeat.

#16 Calf Stretch

This exercise should be done:

- Repetition : 3x
- Frequency : 2-3x/day

Anterior approach
Pain-free for the first 4 weeks.

- Stand with both hands on the wall.
- Extend your operated leg backwards, keeping your knee straight and your heel on the ground.
- Bring your elbows to the wall by tilting your body until you feel a stretch in the calf of your operated leg.
- Hold the position for 30 seconds.
- Release the stretch position for 30 seconds, then repeat.

For more information, please visit the following sites

- www.lavalensante.com
  (in the care and services/surgery/orthopedics/hip section)
- https://www.physiotec.org

Rehabilitation protocol for total hip replacement

Attention to movement restrictions (pages 29 and 30)

0 to 4 weeks

- Training of a normal gait with the help of a support (walker, cane).
- Exercises to increase the arc of motion of the hip.
- Quadriceps and gluteus maximus strengthening exercises including active/resisted knee exercises.
- Stretching and strengthening exercises for the gastrocnemius/soleus and hamstring muscles.

4 to 6 weeks

- Continue training a normal gait with the help of a support (walker, cane).
- Continue the strengthening exercises previously prescribed.
- Introduce strengthening exercises for the abductor muscles while standing and lying down (only for the lateral approach). To be continued for the posterior approach.

6 to 12 weeks

- Continue abductor strengthening (supine, side and standing) and gait training with proprioception exercises.
- Continue progressive strengthening exercises for quadriceps, hamstrings, gluteal muscles and calf muscles.
- Emphasis on return to functional activities.
- Hip movement restrictions are removed except those maintained for life (see pages 29 and 30).

After 12 weeks

- Return to sports activities as tolerated (preferably low impact sports. High impact sports are not recommended).

Transfer techniques

Your operated leg is weaker and does not bend as well the first few days. It will improve with time and practice, but in the meantime, you will have to compensate with your non-operated leg and your arms.

Moving in a dorsal position from one side of the bed to the other

- Keep the head of the bed flat.
- Bend your legs and push with them and your arms to lift your seat and move it to the desired side. Then move your upper body with your arms to realign yourself.
- Do the maneuver for short distances at a time until you have reached the desired side.
- This maneuver is similar to the back bridge exercise (demonstrated on page 44).

Transfer to bed: Getting out of bed

- Approach the edge of the bed with the back bridge exercise (page 44).
- Sit up in bed with the help of your arms while keeping your legs in bed. Get off the bed one leg at a time while keeping your thighs supported by the mattress. Use your arms to help you.

- Reposition your seat perpendicular to your bed by pushing with your arms into the bed.
- Extend your operated leg forward with your knee slightly bent. Push with your arms on the mattress and with your non-operated leg against the floor to lift yourself off the bed. Avoid leaning forward too much (contraindication of movement except for the anterior approach on pages 29 and 30) by keeping your shoulders as straight as possible.

- Also, put the support on your operated leg as tolerated unless your surgeon advises otherwise. If you have a restriction, it will be noted at the head of your bed during your hospital stay. Once you have managed to stand upright, you can use your walker to support yourself.

Transfer to bed: lying down again

- Approach the edge of the bed with your walker until the back of your knees touch the edge of the bed. Once both legs touch the bed, move the operated leg forward slightly.

- Place your hands on the edge of the bed. Sit down, controlling the descent with the healthy leg and arms on the bed, avoiding leaning forward too much. Pull your buttocks back with the help of your arms.

- As you move backwards, gradually turn toward the pillows to face the foot of the bed. Avoid specific contraindicated movements as you approach your surgery (pages 29 and 30).

- Raise your legs gradually, making sure to maintain proper alignment of the operated leg. Use your hands or make a hook by inserting your non-operated leg under the operated leg at the ankle to help you raise the operated leg in the bed. If the hook is ineffective, move back as far as possible towards the center of the bed with your arms, with your back tilted backwards, so that the weight of your legs is supported by the mattress.

- Once your legs are on the bed, move the healthy leg out from under the operated leg if you used the hook. Reposition yourself in the bed, then lie on your back. You can move around the bed using the back bridge exercise (page 44).

Transfer to the chair

- Approach the chair with your walker until the back of your knees touch the edge of the chair. Move your operated leg forward keeping your knee slightly bent.
- Take the armrests of the chair, one hand at a time. Slowly sit on the front of the chair, controlling the descent with your arms and healthy leg.
- Then slide down to the bottom. Avoid dropping. Do not lean forward more than 90° except for the anterior approach (pages 29 and 30).

Standing up

- Do the opposite of the chair transfer. Move the operated leg forward.
- Slide yourself onto the front of the chair.
- Pushing yourself up on the armrests of the chair and your healthy leg, stand up. Do not lean forward more than 90° except for the anterior approach (pages 29 and 30).
- Once you stand, take the walker and bring your legs to the same height

Reaching objects out of range

Do not use a step stool or chair to reach higher objects. A fall could have very serious consequences.

In the first few weeks due to the restrictions and until your strength in the operated leg is fully restored, it would be best to use a long-handled pliers to reach an object out of your reach.

Warning

The **next 2 techniques** for picking up objects from the ground are only applicable after 6 weeks or when strength and balance have been fully recovered. Ask your physiotherapist for advice if needed.

With a **single hip replacement** (one hip prosthesis only)

You can pick up an object on the ground by extending the operated leg backwards and bending the non-operated leg. It is preferable to lean on a solid surface during this maneuver to avoid losing your balance.

With **two hip replacements** (prosthesis on both hips)

If you have had surgery on both hips, you should squat with your legs apart and support yourself on a solid surface to keep your balance.

This technique avoids dislocation of your hip due to a combination of risky movements (bending the hip more than 90° while rotating the thigh inward - pages 29 and 30).

Walking up the stairs

- Approach the first step. Supporting yourself on the handrail and cane, step up the healthy
- Then mount the cane and the operated leg on the same step as the healthy leg.
- Repeat the sequence: healthy leg, cane with the operated leg, healthy leg, etc.
- Climb one step at a time and the cane will always follow the operated leg.

Patient operated on the left hip

Walking down the stairs

- Approach the first step. Supporting yourself with the handrail and cane, lower the cane first onto the step.
- Lower the operated leg.
- Finally lower the healthy leg onto the same step as the operated leg.

Patient operated on the left hip

- Repeat the sequence: cane, operated leg, then healthy leg on the same step, etc.

Always use 2 supports:

- 2 handrails
- 1 handrail and a cane

Remember:
"The good (healthy leg) go to heaven and the bad (operated leg) go down to hell".

Transfer to the car (front seat)

- Move the passenger seat back as far as possible and tilt the seat back. You can also cover the seat with a firm cushion and a plastic bag to make the transfer easier

.

- Get as close as possible to the right front door (passenger side) with your walker. Stand with your back to the car and the back of your legs touching the car.

- Support yourself on the dashboard (left hand) and on the backrest (right hand). Slowly sit on the edge of the seat with the operated leg extended in front of you (same as sit-to-stand transfer – pages 49 and 50).

- Cross your head and slide your buttocks as far back as possible while keeping your back slightly tilted.
- Enter one leg at a time to facilitate proper alignment. As your back is tilted backwards, by rotating your pelvis, bend your knee and lift your thigh with your hands to facilitate the entry of your operated leg into the vehicle

- Once the leg is in, you can readjust the position of the backrest and seat for your comfort.

- Proceed in reverse order to get out of the car by first lowering the seat back.

Complications to watch out for

If you have...

Breathing difficulties 	**Heart palpitations** or **chest pain** 
Phlebitis A **cramp** or **intense and prolonged pain** in the calf*. 	**Persistent dizziness**, **sudden weakness** or **unexplained sweating** 
Sudden, severe pain in the **hip** with a "**pop**" sound and your leg turning in or out 	

Call immediately
Health emergency at 911

*Phlebitis is a blood clot that forms in the legs during prolonged immobility. It can travel to the heart, lungs and brain. Other signs to watch for are:

- Redness in the leg.
- Sensation of heat in the calf.
- Edema of the calf.
- Severe pain in the calf.
- Prolonged cramping in the leg.

Note that it is **normal** for your thigh or leg to be **swollen** for 3 to 12 months after your surgery.

If you have one or more of the following signs or symptoms:

<table>
<tr>
<td> 
Fever (38.5°C or 101°F and higher) for more than 24 hours</td>
<td> 
Pain that increases or is not relieved by medication.</td>
</tr>
<tr>
<td> 
You have nausea or vomiting and cannot tolerate liquids.</td>
<td> 
Significant bleeding in the operated area.</td>
</tr>
<tr>
<td colspan="2">Signs of infection at the site of the operation:
• Redness
• Pain
• Swelling
• Yellowish or greenish discharge
• Warmth
• Splitting of the wound edges
• Stitches begin to emerge from the wound</td>
</tr>
</table>

See the **ERAS® clinical nurse** (page 57) between 8 am and 3 pm on weekdays.

Contact Info-Santé at **811 any time (24/7) for health advice or go to the emergency room.**

For all other questions, contact one of the resources listed on the next page.

Available resources

For any **emergency**, call 911.

For **health advice**, call 811**.**

24 hours a day, 7 days a week

Before the surgery

Pre-admission (before surgery only) 450 975-5566

After the surgery

Care Unit - Orthopedics 5th ouest Sud ..... 450 668-1010, poste 23474
(Same day as hospital discharge, evenings and weekends)

ERAS^{MD} clinical nurse ..... 450 668-1010, poste 22681
eras.cissslav@ssss.gouv.qc.ca
(Monday to Friday between 8am and 3pm, response time 24-48 working hours)

Info-Santé 811
(24 hours a day, 7 days a week service)

Orthopedic Outpatient Clinic 450 975-5569

Private Office of Orthopaedic Surgeons 450 668-3840
1555 de l'Avenir Blvd, Suite 310, Laval, H7S 2N5

CLSC (after hospital care, evenings and weekends)

Laval aera

Accueil première ligne (front line reception) ..... 450 627-2530, poste 64922

Laurentian aera

Thérèse de Blainville 450 433-2777
Des sommets 819 324-4000
St-Jérôme 450 432-2777
Pays d'en haut 450 229-6601
Jean-Olivier Chenier 450 433-2777
Argenteuil 450 562-3761
Antoine Labelle 819 275-2118

Région de Lanaudière

Lanaudière Sud 450 654-2572
Lanaudière Nord 450 839-3864

If you would like to learn more about your hip surgery, visit :

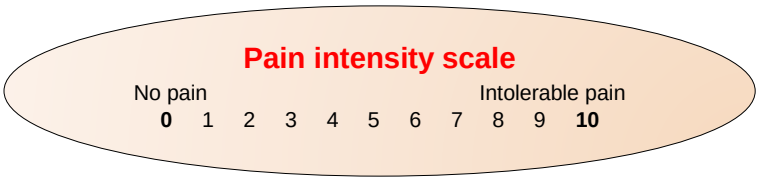
- CISSS de Laval : www.lavalensante.com
- Fondation Canadienne d'Orthopédie : www.canorth.org/fr
- Société de l'Arthrite : www.arthrite.ca

Pain tracking journal

The Pain Tracking Log allows you to **take part** in your episode of care. Using the Pain Intensity Scale, record your pain out of 10, the name of the pain medication taken and the time you received your pain medication. This will allow you to understand and better manage your pain relief in the hospital with guidance and to continue independently at home.

For exemple:

Days after the surgery	Morning	Noon	Evening
1	6 /10 8 h 20 : dilaudid	4 /10 12 h 30 : dilaudid	7 /10 16 h 45 : dilaudid 21 h : dilaudid



Days after the surgery	Morning	Noon	Evening	Night
1	/10	/10	/10	/10
2	/10	/10	/10	/10
3	/10	/10	/10	/10
4	/10	/10	/10	/10
5	/10	/10	/10	/10
6	/10	/10	/10	/10

Notes and questions

Notes and questions

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Bibliography

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Centre intégré de santé et de services sociaux de Laval. (2018). *Passeport pour ma chirurgie de la prostate.*

Centre universitaire de santé McGill. Office d'éducation du patient. (2015). *Guide pour la chirurgie de la hanche.*

Vancouver Coastal Health. OsteoArthritis Service Intergration System. (2019). *Before, During and After Hip and Knee Replacement Surgery : A patient's guide.* http://vch.eduhealth.ca/PDFs/FB/FB.130.B393.pdf

References

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Centre intégré
de santé
et de services sociaux
de Laval

Québec

August 2022
Direction des services professionnels
62-100-380