



Total Knee Replacement

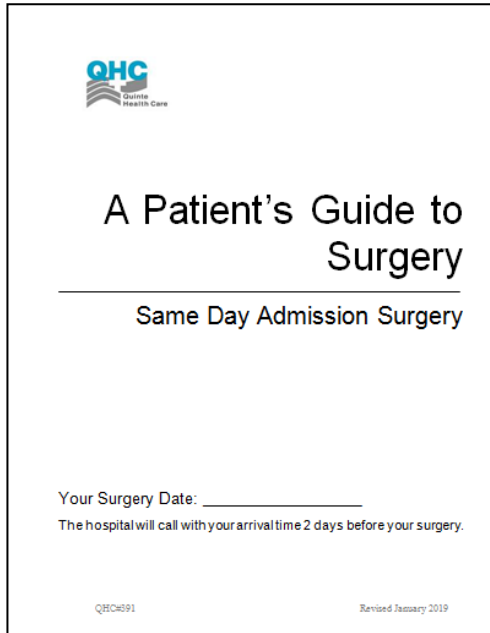
Date of Surgery _____

Estimated Date of Discharge _____

Purpose of this Booklet

This booklet has been designed as a resource for patients undergoing **total knee replacement surgery**. It has been created by the surgical team, including your orthopedic surgeon, nurses, anaesthetist, and physiotherapist.

This booklet **must be read along with ‘A Patient’s Guide to Surgery’ Booklet.**



The Guide to Surgery Booklet had general information that is relevant to all patients having surgery at Quinte Health Care and must be given to you by your surgeon’s office.

The ‘A Patient’s Guide to Surgery’ Booklet covers the following items:

1. How to Prepare for Your Surgery: things to tell your surgeon, pre-surgical testing, and important information for your safety.
2. Your Day of Surgery: what to bring, your arrival, and what to expect in hospital.
3. Recovering from Your Surgery. This includes the recovery room, your admission to hospital, visitors, and pain medications.

Your ‘**Total Knee Replacement**’ Booklet shares information that is particularly important if you are having this surgery. It includes:

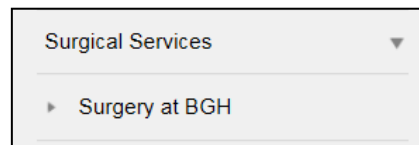
1. Planning for Your Discharge: how to prepare your home, what equipment you will need, and your Pre-Surgical Assessment appointment.
2. Packing and Preparing: for your hospital stay, including preparation checklists.
3. Recovering from Your Knee Surgery: pain medications, exercises and goals for each post-operative day.

You can also get information online at: <http://www.qhc.on.ca>

Click on: **Services & Clinics**

This is in the header at the top of the website.

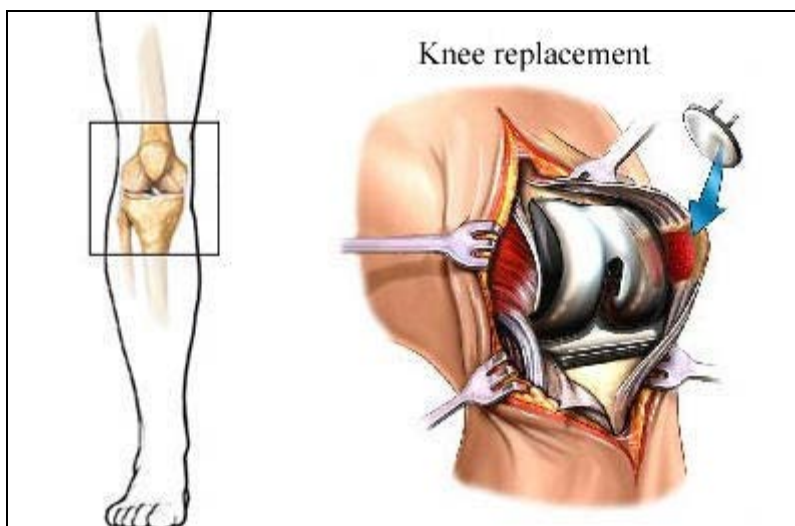
On the left-hand menu select:



Scroll down to open surgery specific information. Click on **knee** replacement surgery to **view all** instructional videos

You must view all instructional videos before coming to your Pre-Surgical Assessment appointment.

What is a Knee Replacement?



The knee is a hinge-like joint. The 2 bones at the knee joint are supported by muscles, ligaments and cartilage allowing you to bend and straighten your leg. In an arthritic or damaged knee, the surfaces of the bones become rough or the cartilage wears away causing pain and stiffness. During **knee replacement** surgery, the knee joint is replaced with new smooth surfaced parts (artificial knee) that will help relieve pain and restore function. **The usual length of stay in hospital is 1-2 days.**

Planning For Your Discharge



Remember that **your surgery is planned**. It is **very important** that you have made the necessary arrangements for your discharge home *before* coming in for your surgery.

Arrange for family or a friend to stay with you for the first week or so until you see for yourself that you can manage on your own. Alternate arrangements such as staying with family or friends should be considered.

You will need some help with things like cooking, laundry, housework, lawn care / snow removal, shopping and transportation (you will **not** be able to drive yourself until your surgeon advises you).

Your discharge plans will be discussed and documented before your surgery at your Pre-surgical Assessment Clinic visit.

Preparing Your Home



You will need to arrange your home **before** your surgery to make sure it will meet your needs after surgery. To make your return home easier and safer after surgery:

Clear hallways

- ✓ Remove all clutter and items in your walking area.
This includes: scatter mats, electrical cords, telephone cords, plants, and any other items in your walkway.
- ✓ Arrange furniture so that there are clear walkways wide enough for a walker (approximately 30 inches).
- ✓ Place night lights in hallways.

Remove / prevent slipping hazards

- ✓ Tape down large area rugs.
- ✓ Place a rubber mat or non-skid adhesive strips in your tub and/or shower.
- ✓ Purchase a long, handheld sponge or handheld shower attachment to make bathing easier.
- ✓ Ensure that all railings in and outside your home are secure.
This includes: stair railings and grab bars in the bathroom

Keep items you might need close

- ✓ Place frequently used items where they can be easily reached.
- ✓ Obtain an apron with pockets, shoulder bag or knapsack to carry items around the house (i.e. cordless phone, Kleenex).

Set up a ‘Recovery Centre’

- ✓ Get a supportive chair with arms that is easy to get up from after surgery. Place frequently used items close (i.e. reading material, phone, kleenex, etc.).
- ✓ If your bedroom is upstairs, consider setting up a bed on the main level close to a bathroom for the first week or so.

Organize your kitchen

- ✓ Stock up on groceries. Preparing meals, such as soups, stews and casseroles in advance will make your return home easier.
- ✓ Reorganize cupboards/closets/fridge so items you use often are within easy reach.

Dressing Supplies

Before surgery you should go to your local pharmacy and collect a couple items to care for your dressing after surgery:

- 50 ml sterile normal saline
- Two 4x4 gauze packages
- 2-4 non-adherent 4”x10” dressings (sometimes called ‘island’ or medipore)



Equipment

You will also need to rent, purchase or borrow equipment prior to your surgery. This includes:

- Dressing aids (long handled shoe horn, reacher, sock aid and sponge)
- Tub transfer bench/shower seat/ chair
- Walker (your physiotherapist will assess you to decide if a **2 wheeled** walker or **no wheeled** walker is most appropriate)

Your surgeon may also recommend you get a **special ice machine** that you will use post-operatively to help with your recovery. To use this, you will also need to buy a special bandage. **Ask your surgeon for more information.**

You can contact any health care vendor, visit www.southeasthealthline.ca or contact the South East LHIN Belleville at (613) 966-3530 or Toll Free at 1-800-668-0901 for services including vendors in your area.

Pre-Surgical Assessment Clinic Visit

2-3 weeks before your surgery, the hospital will call you with a date and time for you to attend a Pre-Surgical Assessment Clinic. Please see your **‘Guide to Surgery’ Booklet** (page #3) for **what to bring** and **what to expect** at your Pre-Surgical Assessment Clinic.

On the Day of Your Pre-Surgical Assessment Visit

- Eat breakfast on your clinic day
- **Do not** apply any lotions or creams
- You will meet with a physiotherapist. They will set up your first appointment and let you know where you need to go. You will need to organize a ride to and from appointments.
- One family member and/or friend is welcome and encouraged to attend, especially if you need help getting around the hospital.

If you are unable to attend your appointment, please the hospital and ask for OR bookings **(613) 969-7400** to reschedule.

Planning For Your Surgery

Pre-Operative Checklist

Please use this checklist to make sure you are properly prepared for surgery.

4 weeks before surgery

- Review this Booklet and your Day of Surgery Booklet
 - Review the Occupational Therapy Handout
 - Start your physiotherapy exercises 1 – 2 times a day
 - Prepare your home for after surgery (page #4-5 in this booklet)
 - Make your arrangements for help at home after discharge
 - Arrange for the required equipment (page #5 in this booklet)
 - Arrange for rides on the day of surgery, day you are discharged and for your physiotherapy appointments
 - Make sure you have already talked to your surgeon if you are taking **Aspirin (ASA), Plavix or Blood Thinners**
-

2-3 weeks before surgery

- Attend your Pre-Surgical Assessment Clinic Appointment
 - Complete all pre-surgical testing (blood work, ECG, x-ray if applicable)
 - Cut or trim your toenails
-

Packing For Your Hospital Stay

Please bring the following:



- Your CPAP machine (if you have one)
- Personal items: toothbrush, toothpaste, unscented soap, deodorant, Kleenex, comb, brush, electric razor, etc.
- Non-slip supportive shoes or slippers with a closed heel.
- A knee length nightgown or t-shirt, baggy shorts and a knee length housecoat
- If you wear glasses, hearing aid or dentures, be sure to bring a case to put them in, as well as any cleaning solutions. Please label these with your name.

Please leave cash, credit cards, jewelry and other valuables at home.

Please use this checklist to make sure you are properly prepared for surgery. This checklist is also available in your 'Guide to Surgery' Booklet

Night Before Surgery

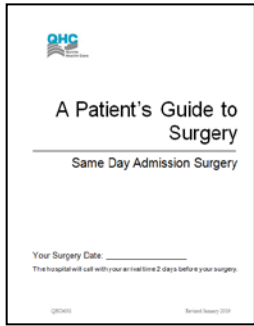
- Pack personal items (page #6 of this booklet)
 - Do not have any food** after midnight the day of your surgery
 - Remove fingernail or toenail polish
-

Day of Surgery

- You can drink **clear fluids** until **1 hour before your hospital arrival time**
- Take only the medications you have been instructed to take**
- Take a shower or bath the morning of (or evening before) your surgery
- Remove contact lenses
- Remove **all** jewelry (including rings, earrings, body or tongue piercings)
- Remove makeup
- Wear clean, comfortable (i.e. loose fitting) clothes to the hospital
- Bring your CPAP (if you have sleep apnea)
- Bring your Health Card
- Bring a storage container for your hearing aids, dentures, or glasses. Glasses and dentures will be removed just before surgery
- Bring **all** of your medications with you in their **original containers**, including any puffers, insulin, eye drops and/or patches
- Bring a book, magazine or something to entertain you while you wait
- Bring this booklet and your 'Guide to Surgery' Booklet

Clear fluids: water, apple juice, gingerale, Gatorade, **black** tea or **black** coffee (**no milk or creamer**).

Do not bring: valuables, money or jewelry to hospital



Your Day of Surgery

Please review to your 'A Guide to Surgery' Booklet. Pages #4 – 8 contain information that is important for your safety, your arrival, parking directions and what to expect in hospital.

Anaesthesia

You will have an opportunity to speak with the Anaesthetist prior to your surgery. The most common types of anaesthesia are general anaesthesia (which puts you to sleep) or spinal/epidural anaesthesia (numbs from the waist down). Your Anaesthetist will discuss the risks and advantages of each type of anaesthesia and answer any questions and/or concerns that you may have. The length of knee replacement surgery is approximately 1-2 hours.

Recovery

Managing Your Pain

Your Surgeon and Anaesthetist will determine the best method to keep you comfortable. Your pain may be controlled by injection or a patient-controlled analgesic (PCA) pump.

Patient-Controlled Analgesia (PCA)



While in hospital your doctor may order medication through the PCA pump. The PCA pump allows you to give yourself pain medication through your IV when you need it. You can do this by pressing the button when you are uncomfortable or before painful activity. The PCA pump will only deliver the amount of medication your doctor has prescribed. If you are still uncomfortable after waiting a few minutes, press the button again. Please let your nurse know if you are still uncomfortable.

Do not ask family or friend to push the button for you. It is important that only **YOU** give yourself the medication when you feel you need it.

Sometimes, this method of pain medication delivery may be given through a spinal/epidural catheter, which is inserted during surgery. Your anaesthetist will discuss this with you.

Managing your pain is an important part of your recovery. Our goal is control your pain enough to do the things you need to heal. This will allow you to work with your physiotherapist and nurses on regaining your muscle control, strength and mobility.

Physiotherapy & Exercises

When undergoing surgery, you are at greater risk for developing respiratory and circulator problems due to inactivity and the effects of the anaesthetic. Completing your exercises and following the instructions in the sections below can help counteract these effects and prevent complications that can slow your recovery.

Preventing Lung Congestion

Deep breathing and coughing is **very important** to help prevent congestion and pneumonia.

- Inhale deeply through your nose then slowly exhale through your mouth. Repeat 3 times and then cough twice.
- Do this 10 times per hour when awake.

A breathing device called an incentive spirometer may also be taught and used.

Preventing Blood Clots

Please refer to page #5 of your 'Guide to Surgery' Booklet. Your surgeon recommends leg and foot exercises (i.e. moving your feet up and down 10 times per hour) to promote good blood flow and decrease chance of blood clots. Your Surgeon may also order a blood thinner pill (Xarelto) and/or TED compression stockings to help prevent blood clots.

Exercises

You will begin doing exercises to start moving the new joint and strengthen the muscles around the joint soon after your surgery. Your physiotherapist will instruct and assist you with your exercises. These exercises are done because:

- The joint is often stiff and the muscles can become weak.
- Muscles can be bruised or cut during the surgery and need to be strengthened again.
- Appropriate movements during healing contribute to stronger, more flexible tissue surrounding the new joint.

It has been shown that with a combination of exercises and walking, people recover more quickly. With assistance from your physiotherapist, you will be getting out of bed and starting to walk with a walker the day of, or after surgery.

Please bring footwear with non-slippery soles and closed heels for safe walking.
Assume your foot may swell after surgery when choosing sizes.

Exercises for Knee Replacement

Unless otherwise stated, exercises are to be completed 3 times per day

1. Diaphragm Breathing

Lie with one hand placed on your stomach just below the rib cage. Inhale, and let your stomach swell with the inflation of your lungs. Hold, and then exhale. Repeat 10 times per hour.



2. Ankle Pumping

Point your toes downward, and then pull them up as far as you can. Repeat in a slow steady motion 10 times.



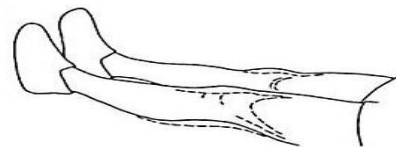
3. Knee Flexion

Lie on your back and slide your foot up towards your buttocks. When tension develops, hold, and slide your foot back down. Repeat 10 times.



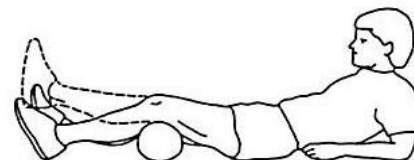
4. Quad Sets

Stiffen your operated leg to make it straight. Try to push the back of your knee down into the bed. Hold for 5 seconds. Relax. Repeat 10 times.



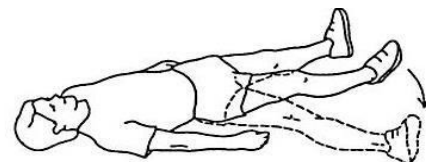
5. Knee Extension

Lie on your back with a juice can wrapped in a towel under your knee. Lift your foot up to straighten your knee, hold for 5 seconds. Slowly lower leg down. Repeat 10 times.



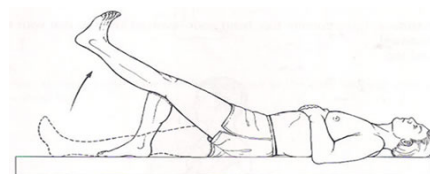
6. Hip Abduction/ Adduction

Lie on your back, with your knees straight and your toes pointing upward. Slowly slide your operated leg out to the side as far as possible, and then return to the middle. Repeat 10 times.



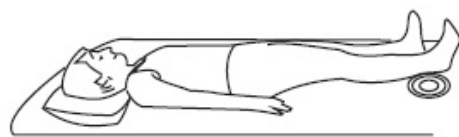
7. Straight Leg Raise

Lie on your back, with you good knee bent. Straighten you other knee and slowly raise your leg until your foot is about 12 inches off the bed. Hold for 5 seconds and slowly lower it down. Repeat 10 times.



8. Hamstring Stretch

Lie on your back, put a juice can under the heel of your operated leg, hold for 3 to 5 minutes. Gradually increase time as able. Complete exercise 3-5 times daily.

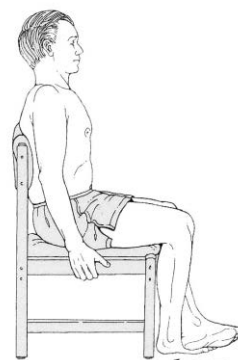


9. Knee Extension in Sitting

Sitting in a chair, straighten your knee and hold for 5 seconds. Slowly return to the starting position. Repeat 10 times

10. Knee Flexion in Sitting

Sitting in a chair, slowly slide your foot back, bending your operative knee. Use your other foot to help if necessary: cross your uninvolved leg in front of your operative ankle, push your operative leg backwards. As tightness increases, hold for 5 seconds. Slowly return to the starting position. Repeat 10 times.



Stair Climbing



The stairs will be done one step at a time with the rail on one side or the arm of strong person, and a cane or a crutch on the other side.

Remember this line! **“The good one up to heaven, the bad one down to hell”**

Meaning, you go **UP** the stairs with the **GOOD** foot first; then follow with the bad foot (the one with the injury or surgery).

Go **DOWN** the stairs with the **BAD** foot first; followed by the good one. The cane or crutch will be on the same stair as the “bad” leg.



Take it easy, take it slow.... one step at a time and think about what you are doing. Stairs are not difficult as long as you keep these rules in mind.

Recovery Goals

Day of Surgery

- ✓ Your surgeon will decide how much you should mobilize after your surgery. You may be up on the day of your surgery or they may recommend bed rest for the rest of the day.
 - ✓ Nursing staff will assist you with positioning every 2 hours.
 - ✓ Complete your bed exercises (please begin your exercises as you are able)
 - ✓ Keep a pillow between your legs when turning
 - ✓ Practice deep breathing and coughing (10 times per hour while awake)
 - ✓ Do ankle pumping exercises (10 times per hour while awake)
-

Surgical Short Stay Unit

If you are having one side of your knee replaced (unicompartmental/oxford knee replacement), you may be a candidate for our Surgical Short Stay Unit (SSU). The SSU is designed for patients having certain procedures, who will only need an overnight stay. Please see Page #9 of your Guide to Surgery for more information.

Post-Op Day 1

Your nurse and physiotherapist will help you with getting out of bed using a walker. Your activity will be slowly increased. It is **very important** that you cooperate with your physiotherapist at their requested time. **Your participation is the key** to your successful recovery. The goal is to promote healing and to get you walking again.

Knee exercises will be done each day with a member of the physiotherapy team and it is **very important** for your recovery that you do the exercises as instructed. Please review your Occupation Therapy Handout and videos online. An OT will visit you in hospital if required.

A CPM (continuous passive motion) machine is used which gently bends and straightens your leg to reduce stiffness and pain. Do not adjust the setting on this machine unless instructed by your surgeon or physiotherapist. Your surgeon or physiotherapist will set the machine and instruct you on how to use it.

The Anaesthetist will visit you to assess your pain control to ensure that you are staying comfortable with the PCA pump (if ordered).

The urinary catheter will be removed (if you have one).

If you meet all your goals and your surgeon is in agreement you may be ready for discharge by end of Post-Op Day #1

Goals for Post-Op Day 1

- Begin physiotherapy bed/chair exercises
- Begin walking – Aim for 10+ meters with a walker and the assistance of staff
- Learn how to apply knee immobilizer (if applicable)
- Get up in chair for meals
- Your discharge plans will be reviewed
- If you are able, you may do the stairs with physiotherapy today
- Is your ride ready for possible pick-up later in day on post op day #1?

If the team decides you need a bit more time, discharge will be tomorrow. Is your ride arranged?

Post-Op Day 2 – ‘Discharge Day’

The Anaesthetist will visit you to assess your comfort and will discontinue your PCA pump (if ordered). Your Anaesthetist will start you on pain medications. Remember to let your nurse know when you are having pain. It is important to continue to receive pain medication on a fairly regular basis to maintain your comfort.

Before discharge you will have been taught:

- Exercises to be continued to home
- How to use a walker, crutches or any other equipment you may need
- How to move in a safe way to protect your joint
- How to climb stairs

Goals for Post-Op Day 2

- Do bed/chair exercises independently
- Walk with a walker in the hallway two to three times for 10-25 meters, with minimal assistance
- Get up in chair for meals
- Transfer independently (getting in/out of bed or chair)
- Up walking to bathroom with supervision
- Climb stairs with assistance

Your ride home must be ready to pick you up today.

Discharge Checklist

- Blood thinner (anticoagulant) given
- Prescription(s) provided
- Discharge Instructions provided by your surgeon, nurse and physiotherapist
- All questions/concerns answered
- All belongings packed and returned
- All medications you brought with you to hospital have been returned (if applicable)
- Confirm your outpatient physio location with your hospital physiotherapist. If this is somewhere other than Belleville, you will receive a copy of your referral.

If you do not get a phone call about your physiotherapy appointment in 2 business days please contact the location of where you are booked for physiotherapy to follow up.

Follow-up appointment with surgeon: Date _____ Time _____
Place _____ Phone _____

Caring for Your Incision after Discharge

- ✓ Your dressing may stay in place for **up to 7 days**. The dressing is designed to absorb and draw fluid away from your incision.
- ✓ Once discharged from hospital, your dressing only needs to be changed if:
 - Your incision is draining or leaking fluid, or
 - The dressing is lifting away from your skin
- ✓ After 7 days at home, gently lift the corner of the dressing and peel it away from your skin. Look at your incision – Make sure it is closed and no leaking present. If you notice either of these things, please refer to the “Stoplight Chart” on page 16 of this booklet.
- ✓ Sutures/staples will be removed by your surgeon or family doctor 14 days after your surgery.
 - **If your staples are being removal by your Family Doctor:** bring the staple remover that was provided to you upon hospital discharge to your appointment. Your family doctor will require it to remove your staples.

Patient Reported Outcome Measures

Throughout your joint replacement journey you will be required to complete a self-assessment questionnaire called **Patient Reported Outcome Measures (PROM’s)**. These questions help provide us with information on your quality of life both before and after your surgery. It also helps to ensure that the care you receive during your journey is effective.

- You will complete the questionnaire first at your pre-admission clinic visit.
- You will be asked the same questions at **3 months** and **1 year** post surgery.
 - If you attend the Quinte Health Care Clinic you will complete the 3 month questionnaire at your last outpatient visit.
 - If you attend a different outpatient clinic, please visit our Bundled Care webpage at 3 months and 1 year to complete the questionnaire.

The survey link www.qhc.on.ca/bundled-care-in-surgery.php

You are welcome to complete the assessment at any point to let us know how you are doing.

Guidelines At Home

DO

- ✓ Use your walker until told otherwise by your surgeon or physiotherapist
- ✓ Take pain medication as instructed
- ✓ Wear proper footwear (flat, non-slip sole) both inside and outside your home.
- ✓ Wear your knee immobilizer (if ordered)
- ✓ Use a **pillow between legs** when lying on your side.
- ✓ Slowly increase your walking. If soreness increases then cut back. It usually takes several weeks to regain your energy - pace yourself.
- ✓ It is **very important** that you continue your exercises taught by your physiotherapist (3-5 times per day). This is vital to your recovery and for achieving a successful outcome from your surgery. Taking pain medication 30 minutes before doing your exercises may make this more comfortable.
- ✓ You may shower and get incision wet once your staples are removed and the wound is healed (or when instructed by your surgeon).

DO NOT

- ✗ Do not drink alcohol while taking pain medication
- ✗ Avoid sitting for more than 60 minutes at a time.
- ✗ **Do not drive** until your surgeon tells you that you can.

For Three Months:

- ✗ **Avoid** twisting your knee
- ✗ **Do not** perform heavy activities (vacuuming, shoveling, etc.)

You will **always** be restricted in activities that put extra strain on your knees. Examples include: jogging, racquetball, jumping, kneeling, squatting etc.

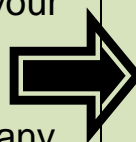
How I Might Feel and What to Do

Action Plan - What to do Every Day!

- Move around and do your exercises
- Check your wound for redness and bloody or foul smelling drainage
- Check the leg you had surgery on for swelling that is getting worse

Green Light: All Clear - This zone is your goal!

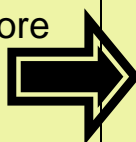
- You are able to complete your exercises and your ability to move around is getting better
- You feel well and do not have a fever
- Your wound is not draining and is not open in any areas
- Your pain is getting less and less



You are on track and your symptoms are under control. Go to your scheduled follow up appointments.

Yellow Light: Caution - This zone is a warning!

- You have swelling that is getting worse
- Your pain is not getting better or is getting worse and you have taken your pain medications
- You feel tired a lot
- You are not able to move around more and more each day
- After a few days, your wound is still draining bloody fluid

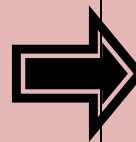


You may need to be seen by your Surgeon.

Call your Surgeon's Office or the Pre Surgical Assessment Office (613) 969-7400 ext. 2827

Red Light: Emergency - This zone means act fast!

- Your wound is draining foul smelling fluid or is getting redder and warmer to touch
- An area of your wound is coming open
- Fever or chills (temperature above 38°C/100.5°F)
- You have severe pain in the leg you had surgery on which is not relieved by medications
- You are very, very tired
- You have chest pain or shortness of breath
- You have pain in your calf area
- Your swelling is getting much worse



Call your Surgeon's Office today to report symptoms and request an appointment.

If you cannot get an appointment, go to your nearest Emergency Department.

*****If you are having chest pain: CALL 911 immediately*****

