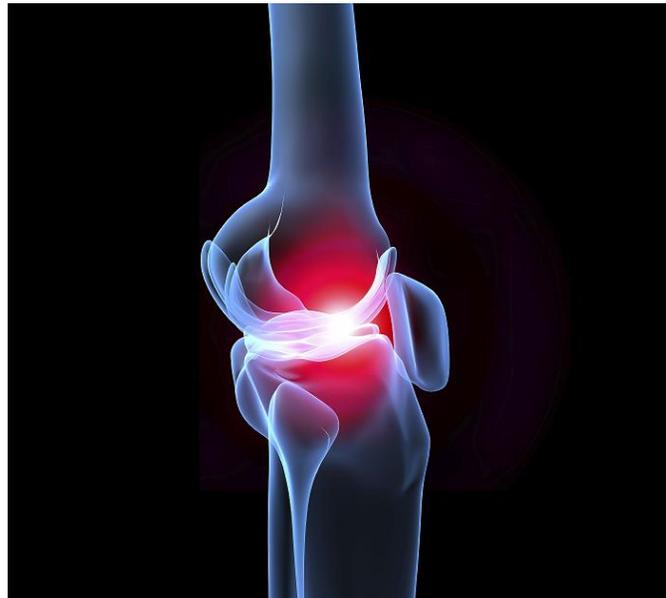


Knee Replacement Surgery

Patient Guide



381 Church Street
PO Box 1800
Markham, Ontario
L3P 7P3
905-472-7000

Visit our web page at:
www.oakvalleyhealth.ca

Important Numbers

Orthopaedic Joint Assessment Centre: 905-472-7373 ext. 6966

Surgical Assessment Clinic: 905-472-7627 (appointment before surgery)

Post-Surgical Wellness Clinic: 905-472-7627 ext. 3

Fracture Clinic: 905-472-7070

Orthopaedic Patient Navigator-905-472-7373 ext. 6105 or orthopaedicnavigator@msh.on.ca

- If you have a cough, cold or fever, please call to reschedule your appointments
- If your health changes, you develop a cough, cold, fever or an illness within one week before your surgery, call your surgeon as soon as possible
- If your loved one cannot come with you to any of your appointments, please inform us ahead of time if you require an interpreter
- Please confirm with the hospital regarding the current visitor policy

YOUR PATIENT GUIDE TO PREPARE YOU FOR SURGERY

Welcome to Oak Valley Health's Markham Stouffville Hospital. The goal of this booklet and the team at the hospital is to prepare you for a successful outcome from your knee replacement. A knee replacement will not only improve your quality of life, but your independence and overall health. During this journey we ask that you have a family member, caregiver or friend available to stay with you as needed and for your discharge home. This person will play an important part in your care and recovery and will act as your support person.

At Oak Valley Health we have an interprofessional team who will be looking after each step of the way. These members include your surgeon, physiotherapists, anesthesiologist, nurses, pharmacists, occupational therapists, rehabilitation assistants and orthopaedic patient navigator.

The Ontario Ministry of Health has implemented new care plans for all patients having hip or knee replacement surgery. These plans help you to recover and return home as quickly and safely as possible and may be different than what you might have experienced in the past, or heard from others.

Knee replacement surgery has changed a lot in the last few years due to advancement of science, technology and experience. Your recovery and rehabilitation begins immediately after surgery with the goal of getting you home to recover quicker than ever. Prepare to go home the same day of your surgery or the morning after your surgery.

It is important that you prepare for surgery and participate in your recovery to ensure the best outcome. There are many resources available to help educate yourself and prepare your home before your surgery.

If you have any questions or concerns while waiting for your surgery, during your hospital stay, or after you go home, your Orthopaedic Patient Navigator can be reached at 905-472-7373 ext. 6105 or by email at orthopaedicnavigator@msh.on.ca.

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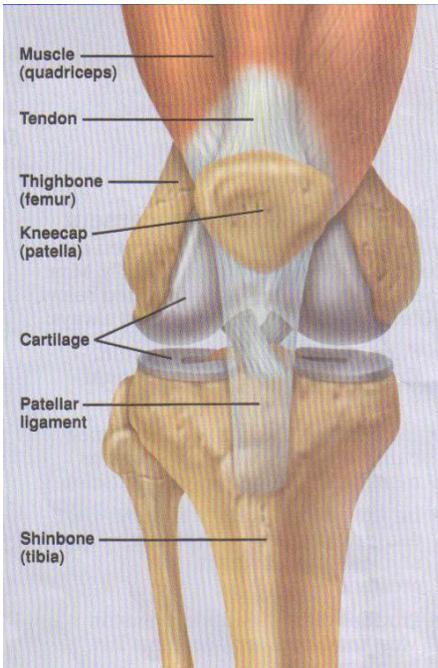
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Key Activity/Appointment Details

| ✓ | Items |
|---|---|
| | <p>Date of surgery: Your surgeon’s office will call you with your surgery date.</p> |
| | <p>Preoperative assessment: This assessment is also known as your “SAC” (Surgical Assessment Clinic) visit. After your surgery is booked you will receive a call from your surgeon’s office to give you a date for your preoperative assessment.</p> |
| | <p>Appointments with specialists: Your family doctor or your surgeon may suggest that you see other specialists (e.g., a cardiologist) before your surgery.</p> |
| | <p>Outpatient physiotherapy: Lifemark Physiotherapy is one of our chosen physiotherapy partners. In the event there is not a Lifemark close to your home, our team will provide alternate suggestions.</p> |
| | <p>Discharge date from hospital: During your preoperative assessment at the hospital, the team will discuss your plans for going home. Plan to go home the day following your surgery; and in some cases, the same day (same day discharge to be discussed with your surgeon).</p> |
| | <p>Staples/clips removal date: Your staples/clips need to be removed sometime between the 12th to the 14th day after your surgery. You should make an appointment with your family doctor to have this done.</p> |
| | <p>Anticoagulation/blood thinner therapy stop date: Refer to your discharge instructions to know when to stop taking your new anticoagulant or blood thinner.</p> |
| | <p>Postoperative appointment with surgeon: You will be seen by your surgeon in the Fracture Clinic. You will be given this appointment upon discharge from the hospital. This appointment is generally 2-6 weeks after surgery (surgeon dependent).</p> |

Knee Replacement

Healthy knee

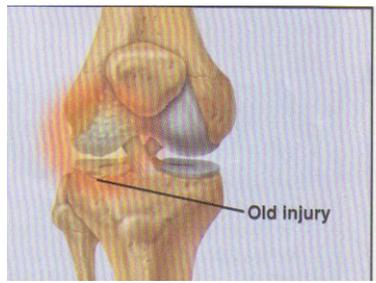


Below you will find some of the most frequently asked questions and answers. If there are any other questions that you need answered, please ask your surgeon or bring a list of questions to your preoperative visit.

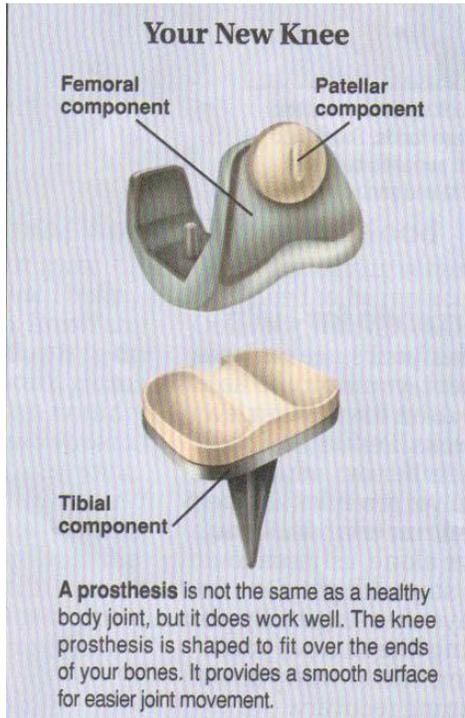
Why does my knee hurt?

In the knee there is a layer of smooth cartilage on the upper end of the shin bone (tibia), the under surface of the kneecap (patella), and the lower end of the thigh bone (femur). This cartilage serves as a cushion and allows for smooth motion of the knee. Cartilage cracks or wears away due to injury, usage, or arthritis. Eventually it may wear down to the bone. These processes can cause pain, swelling, and stiffness.

Damaged knee



Total Knee Prosthesis



What is a total knee replacement?

The surgery is designed to replace the damaged cartilage from the bottom of the thigh bone and from the top of the shin bone with sophisticated artificial parts, called a prosthesis. This prosthesis is made of metal or a combination of metal and plastic resurfacing the 3 different compartments of the knee (inside, outside and kneecap). This creates a smoothly functioning joint that does not hurt as it prevents the bones from rubbing together. With new smooth surfaces, the bones can once again glide freely and maintain range of motion.

What is a partial knee replacement?

A partial or unicompartmental knee replacement is designed to repair a joint with disease on only one side of the knee, making it much smaller than a total knee prosthesis. For patients with arthritis limited to the medial (inner) compartment, surgeons may choose to perform a partial knee replacement.

This surgery replaces only the diseased part of the joint and can preserve the healthy bone, cartilage and ligaments on the non-affected side. Not all patients are candidates for a partial knee replacement; you should discuss treatment options with your surgeon.



Unicompartmental Knee Replacement



Unicompartmental Knee



Total Knee

What are the major risks?

Most surgeries go well, without any complications. Infection and blood clots are two possible serious complications. To reduce the risk of infection, we administer antibiotics at the time of the operation and take special precautions in the operating room. To prevent blood clots, you will be prescribed a blood thinner, which should be taken every day, and usually for at least two weeks after the operation. **It is important for you to know how, and for how long, to take your blood thinning medication.** If you have questions about this, please ask before you go home.

Will I need blood?

You may need blood after surgery (transfusion) and you will be asked to sign a “Consent for Blood Transfusion” form. Approximately 5% of knee surgery patients receive a transfusion after surgery. Your blood test results will be monitored closely after the surgery. To decrease the risk of having a transfusion, it is very important to maintain a healthy diet during the months before the surgery to increase your blood iron levels. You may be asked to take an iron supplement after the operation.

Managing pain and activity before your surgery

Pain

Apply heat or ice to the knee for 15-20 minutes 2-3 times a day to help relieve the pain. Ensure that you have a layer between your skin and the heat/ice source, such as a towel. Check your skin every few minutes to ensure you are not damaging your skin from either heat or ice. A warm bath or whirlpool is excellent, a hot water bottle works well too. If you use a heating pad, be sure to turn it off when not in use, since it is left on too long it may cause a burn to your skin.

Fitness

Most people find the best activities for the knee are swimming, cycling (stationary bicycle or street bike), and walking.

Activity modification

Pay attention to your daily activities to identify certain ones that always make your knee sore. You should make every effort to modify or eliminate these activities to avoid further aggravating the knee pain.

Strengthening exercises

Exercise can help maintain mobility and strength. It is good to do some gentle knee exercises as long as they are not making your pain worse. It is safe and encouraged to start the exercises you will be doing after your surgery.

Use of a cane or walker

Use a walking cane on the opposite side of your painful knee. This will help you walk properly and reduce pain. If you have balance problems, a walker may be better for you.

Drink plenty of fluids

Adequate fluid intake is very important for wound healing and contributes to health and well-being in many ways. Be sure to drink at least six (6) glasses (8 ounces) of water each day. Drinks containing caffeine (coffee, tea, colas), or alcohol dehydrate the body and should not be counted as part of your six (6) glasses per day.

Smoking Cessation

If you smoke, it is important that you stop now. If you are unable to stop completely, try to cut down on the number of cigarettes smoked per day. If you decrease the amount you smoke, your lungs will be in better condition for anaesthesia and the surgery. It will also be easier for your body tissue to heal after surgery if you are not smoking. Smoking can increase your anaesthesia risks and postoperative complications.



The hospital has a no-smoking, no vaping policy. You will not be able to smoke in the hospital under any circumstances. Nicotine replacement therapy (in the form of nicotine patches and lozenges) is available in the hospital for inpatients if interested. This should be discussed at the Preoperative Surgical Assessment Clinic (SAC) appointment. You can also discuss nicotine replacement therapy and other smoking cessation strategies with your family doctor or pharmacist.

Getting Medical Clearance to Have Surgery

When you are scheduled for surgery, your surgeon or an anaesthesiologist will decide what preoperative testing and consultations you will require. Some patients may need to see other specialists, such as their cardiologist.

Preparing yourself for surgery and discharge home

In preparation for your surgery and discharge home it is important that you start planning now. Many surgery patients go home the same day of surgery or the next day. If you stay overnight, plan to be discharged home before 11:00 am the following day.

Transportation: General Information

It is important that you consider what your transportation needs will be after surgery, as you will not be driving until advised by your doctor. You will need someone to bring you home from the hospital. You will also need someone to bring you to your follow up appointments. Applications for parking permits and specialized bus services can take several weeks, so you should apply early.

Ask yourself these questions:

1. Who will bring me home from the hospital after surgery?
2. Who will bring me to the hospital for my follow-up appointment?
3. Who will bring me to outpatient physiotherapy?

Getting Your Home in Order

Having a little extra help after surgery is important. There are number of things you can do now to be as prepared as possible. Here are some ideas:

- Remove tripping hazards from around your home (i.e. scatter mats, clutter, loose wires)
- Add non-slip mats to your shower floor or bathtub. Showers are recommended after surgery. Baths, and hot tubs are not recommended after surgery until your incision is fully healed.
- Make or purchase frozen meals now to lessen the amount of cooking you are required to do later
- Reorganize your closets and drawers so that most frequently used items are at waist level
- Ensure good lighting in rooms and hallways
- Ensure items you might need at night are within easy reach

Checklist for Discharge Home

| ✓ | Preparations |
|---|--|
| | Who will help me around the house and with transportation if I need it? |
| | Do I have support (grab bars) around my toilet and bath? |
| | Do I have any aids/devices to make self-care easier after surgery? |
| | Do I have someone to get my groceries? |
| | Have I arranged for meal preparation? E.g., frozen meals made ahead of time? |
| | Who will help with my laundry? Cleaning? |
| | Have I arranged for someone to care for my pet(s)? |
| | Preparing the home |
| | Have I reorganized my kitchen and bedroom; putting frequently used items in waist height drawers or shelves so I can reach the items easier? |
| | Have I removed tripping hazards such as cords, area rugs, furniture? |
| | Have I removed clutter from the hallways/rooms to ensure safe walking with an aid? |
| | Have I removed or taped down the edges of larger rugs? |
| | Have I installed handrails to provide support on the stairs? Inside? Outside? |
| | Do I have adequate lighting? |
| | Have I placed a non-slip mat on the shower floor or bathtub or other areas as needed when I need to shower? |
| | Do I have an armchair with a firm cushion and backrest? |

Support Services

Following your joint replacement surgery, you may need some help once you get home (e.g. laundry, groceries, or meal preparation). Prior to your admission and surgery, you should arrange to have a family member, caregiver or friend available to provide this help. If you live alone and have no family or social supports for going home, you can purchase private services following your hospital stay. These services may include a private caregiver to come into your home to assist you, or a short-term respite stay in a Retirement Home.

Respite stays are available at a daily rate in most retirement homes; these arrangements need to be made in advance of your admission to hospital.

Please inform your Orthopaedic Patient Navigator prior to your admission if you have made any respite arrangements as some additional follow-up from the hospital team may be required before you are discharged.

If you require information about respite stays, please contact your Orthopaedic Patient Navigator.

Preoperative Surgical Assessment Clinic (SAC)

Booking the Appointment

The booking of your surgery will start the process of scheduling your preoperative surgical assessment clinic (SAC) appointment. You will receive a call and/or a confirmation from your surgeon's office with the date of this appointment. Your SAC appointment will take place several days or weeks before your surgery.

You must attend this preoperative assessment to go ahead with your surgery. If you cannot attend at your booked time, **call your surgeon's office to rebook**. Your assessment will take place virtually or in person.

Purpose of the SAC Appointment

- To be assessed by an anaesthesiologist, a registered nurse, and/or a medical internist (if required) virtually or in person
- To provide you with education for successful joint replacement surgery and recovery
- Meet virtually or in person with a registered nurse in the clinic, who will complete an assessment with you and coordinate any required tests such as blood, x-rays, and possibly an electrocardiogram (ECG)

Other Tips

- Please bring or have ready all medications you are taking at home in their original containers with the labels (including eye drops, inhalers, creams, vitamins, herbal and over-the-counter medications)
- Please bring someone with you to this visit if possible. It is important to have a family member, friend, or caregiver with you through the surgery preparation process. You will receive a lot of information during this appointment and it is helpful for you to have a support person
- If your primary language is not English, please arrange to have an interpreter with you for all your appointments, on the day of your surgery, and follow-up visits

Checklist for Surgical Assessment Clinic (SAC)

| ✓ | Appointment Checklist-What to bring with you |
|---|---|
| | Health card |
| | The Anaesthesia Patient Questionnaire – completed by you. |
| | Copies of any recent blood work or diagnostic tests that you have had done outside of Oak Valley Health if done within 60 days before your surgery date. |
| | All medications you are taking at home in their original containers with the labels (include prescription eye drops, puffers and creams, herbal and over-the-counter medications). |
| | A family member, friend, or caregiver (coach) who will be helping you after surgery. |
| | Interpreter- If your primary language is not English, please arrange to have an interpreter with you for all your appointments and on the day of your surgery. |

Incomplete forms may result in delay or possible postponement of your surgery

We will be asking you to complete a Patient Reported Outcome Measures (PROMs) survey three (3) times over the course of your care and recovery. It takes about 5 minutes to complete and you will be able to report on your pain, functional status, overall quality of life, and orthopaedic care, in real-time. Please complete the survey after your SAC appointment, three months after surgery, and one year after surgery.

Type the link or use the QR code to access the survey. Please have your health card ready.

www.msh.on.ca/proms



Pre-Operative Education Videos

It is recommended you watch the educational videos prior to surgery. Each video will feature members of your Orthopaedic team including:

- Orthopaedic patient navigator
- Nurse practitioner
- Pharmacist
- Occupational therapist
- Physiotherapist

This videos will give you information on a number of topics including:

- General information about joint replacement
- Medications used in hospital and when you go home
- What you need to prepare before surgery
- What to expect after surgery
- Equipment demonstrations and recommendations regarding renting and/or purchasing this equipment
- Post discharge physiotherapy
- How to plan for your discharge home

The videos can be found on the our website:

www.msh.on.ca/preparing-surgery

Anaesthesia

All patients will see a doctor from the Department of Anaesthesia and possibly an Internal Medicine doctor. You will be informed of this when your preoperative assessment is booked or your nurse may refer you during your visit.

There are 2 types of anaesthesia:

- **General Anaesthesia:** Medications are given to keep you asleep and wake you up at the end of the surgery. It is not a natural sleep.
- **Regional Anaesthesia:** Central regional anaesthesia is a combination of opioid analgesic and local anaesthetic administered into the spinal column to provide pain management during your surgery.

Most joint surgery is done with regional anaesthesia, with added sedation so you will not remember much or feel any discomfort. You can discuss your level of wakefulness with your anaesthesiologist before your surgery

You will also receive peripheral regional anaesthesia which is also called a nerve block. The anaesthesiologist inserts a local anaesthetic around a group of nerves to prevent you from feeling pain in the knee for 12-24 hours. This is highly effective in producing pain relief. When you wake up, your leg may feel numb and heavy as a result. In recent studies patients reported minimal to no pain after their joint surgery for up to 24 hours. Nausea, however, is a normal side effect from anaesthesia. Medications can be given to help reduce this effect.

Your surgeon and anaesthesiologist will discuss these options with you.

Are there any risks from anaesthesia?

Any kind of medical treatment has risks. The risks vary with the existing medical conditions of the patient and the type of surgery.

Why must I not eat or drink before my surgery?

When you are given an anaesthetic, you lose the reflexes that prevent food or liquids from entering your lungs. This can lead to a serious complication called aspiration pneumonia. This is why you must have nothing to eat, usually from midnight before the surgery. If you need start fasting at a different time, you will be notified.

What to do about your medications

Some medications can increase your risk of bleeding and must be stopped before your surgery. If you are taking medications on a regular basis, you will be told by your physician, medical consultant, or nurse which medications can be taken on the morning of surgery. You can take these with a few sips of water. Bring all of your prescription medications to the hospital in their **original** containers. These include inhalers, insulins, eye drops and any other special formulations

Some herbal supplements and vitamins can also increase your risk of bleeding and can interfere with medications you are given in the hospital (for example, feverfew, garlic, ginger, ginkgo, ginseng, vitamin E). The Anaesthesiology Department at MSH requires that you **stop all herbal supplements** two weeks before surgery.

If you are on any medications which prevent blood clots you should ask the anesthesiologist or surgical assessment nurse when to stop taking these medications prior to surgery. Some examples of blood thinning medications include warfarin, dabigatran (Pradax[®]), rivaroxaban (Xarelto[®]), aspirin and anti-inflammatories such as naproxen (Aleve) or ibuprofen (Advil).

If you have further questions, please discuss them with your anesthesiologist at your pre-operative appointment.

Please discuss stop dates for all medications with your doctor. These medications can increase your risk of bleeding.

Equipment, Tools and Safety Devices

You will need to have some equipment to help you get moving again after your surgery; for example, a two wheeled walker. Other equipment may be helpful to you by making certain activities of daily living easier; this equipment is optional.

You must pay for any equipment yourself. Some external insurance providers (extended health care plans, etc.) may cover the costs. Please check with your provider.

Walking Aids

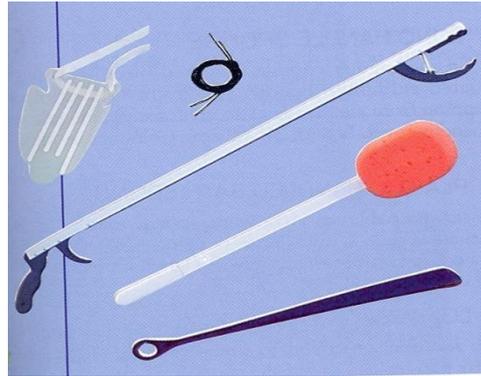
The following are examples of walking aids that you will need to borrow, rent or purchase to use after your surgery. It is important that if you are borrowing equipment that it is in safe working condition and adjustable to your height. Please note that walkers come in different sizes (not one size fits all). A two wheeled walker is **required**. A cane is recommended for climbing stairs.



Tools (optional)

Tools that may be helpful during dressing and bathing:

1. Sock aid (top left)
2. Elastic shoe laces
3. Reacher
4. Long-handled sponge
5. Long-handled shoe horn



A raised toilet seat or commode can be helpful for getting on/off the toilet (i.e. make it easier to get up and provide arm support). Please consider your height and the height of your toilet prior to arranging equipment.

Stationary Commode



Raised toilet seat



Grab bars can be helpful around your tub and/or toilet area to increase safety. Shower chair/stool may be useful for bathing/showering.



Corflex Knee Wraps are available for purchase. You will be asked at the time of your SAC appointment if you would like to purchase one. This is optional, but many patients find them useful and easy to use. You will be provided and charged for a Corflex Knee Wrap unless you have requested not to have it.

Purpose:

The Corflex Knee Wrap is designed to simultaneously provide cold (cryotherapy) and compression to the knee joint to minimize swelling, inflammation and pain in an easy to use manner.

The knee wrap is not a brace, (i.e. it is not used to protect or support the knee in a weight bearing position). It is an “ice-pack dressing” designed with the additional benefit of compression during the application.



Application Instructions

The Corflex Knee Wrap may be applied directly to the skin, but do not remove any underlying dressings unless advised to do so by your nurse or surgeon.

- **Apply Corflex Knee Wrap with ice packs for 20 minutes and then remove.**
- Patients are instructed to remove the ice pack/ wrap after 20 minutes as the nurse/ therapist may not be available at the exact time for removal.
- Allow at least two hours between applications to permit the joint to return to its usual temperature.
- Alternate using the four packs so the two coldest packs are applied to your knee.
- Application may also be coordinated with physiotherapy as icing before or after exercise will help reduce pain and swelling.

REMOVE THE CORFLEX WRAP IMMEDIATELY AFTER ICING. DO NOT WALK WITH THE CORFLEX WRAP.

A cold therapy machine is another option that can help with alleviating post-operative pain and swelling.

Surgery Preparation

The day before your surgery

| | |
|---|--|
|  | What to pack *remember to clearly label with first and last name |
| | Your OHIP/Health card and any additional insurance information |
| | All medications you are taking at home in their original containers with the labels (include prescription eye drops, puffers and creams, herbal and over-the-counter medications) |
| | Comfortable clothes, including undergarments |
| | Loose fitting socks and supportive non-slip shoes/slippers |
| | Personal hygiene items such as toothbrush, soap, deodorant, tissue, razor, hairbrush, etc. |
| | Credit card to pay for additional hospital expenses |
| | This patient guide |
| | Two wheeled walker |
| | Note - If you wear glasses, contact lenses, a hearing aid, or dentures be sure to bring a case to put them in and any cleaning solutions. |

Please DO NOT bring electrical items (e.g. fans, hair dryers) or valuables. Cell phones and money can be brought in once assigned to your room.

The hospital is not responsible for any personal items lost or stolen while in hospital. You will be required to sign a form entitled “Personal Belongings and Valuables Record.”

Please bring in your walker when you arrive for surgery.
Please confirm with the hospital about the updated visitor policy.

Calling to Confirm the Time of Your Surgery

It is important that you call your **surgeon's office** four days before your surgery to confirm the time of your surgery.

What to Do if You Get Sick

If you get sick in in the days leading up to your surgery and if you experience any symptoms such as cough, fever, headache, etc., contact your surgeon's office immediately.

What to Do the Night Before and Morning of Your Surgery

- During your preoperative appointment with SAC (Surgical Assessment Clinic), the nurses will provide you with an over-the-counter preoperative (Chlorhexidine 4%) shower/bath kit. Please ensure that you follow the instructions in the package provided to you. **You need to use this kit the evening prior to surgery and the morning of the surgery.**
- **Do not have any food or fluids** after midnight.
- Take your regular prescription medications with just a sip of water when you wake up. **Exception:** Do not take medications you have been told to hold prior to your surgery.
- Plan to have a support person come with you on the day of your surgery. Only one (1) person can stay with you in the Surgical Admission and Discharge Unit (SADU) and Operating Room waiting area. They are welcome to stay with you until you enter the Operating Room.

The Day of Your Surgery

Please confirm with the hospital regarding the current visitor policy

1. When you arrive at the hospital at your designated time, please phone the Patient Registration line at 905-472-7393. You will need to provide your health card information. You will be instructed when to enter the hospital.
2. Upon entering the hospital, please go to the Surgical Family Waiting room. You will see a Surgical Admission and Discharge Unit (SADU) nurse who will instruct you to change into a hospital gown, housecoat, and slippers. You will be provided a plastic bag for your clothes that will be labeled and kept aside while you are in the Operating Room.
3. The SADU nurse will admit you for your surgery. Prior to surgery, you may receive preemptive analgesic (medication) as part of your pain management plan of care. You will wait with your support person (if applicable) in the waiting room until your surgeon and the operating room are ready.
4. Next, you will be escorted to the Operating Room (OR) waiting area. The anesthesiologist and the operating room nurse will meet you there. You may ask any questions you have at this time. You may also see your surgeon, and can arrange for him/her to see your support person when the surgery is over. At this time, your knee to be operated on is confirmed with you and marked with an X.
5. After the surgery is done, you will move to the Post Anaesthesia Care Unit (PACU). Your PACU nurse will frequently check your vital signs and your dressing. Pain and anti-nausea medication will also be given to you as needed. If you require a pain pump it will be started and attached to your IV. An x-ray will be taken of your new joint at this time. When you are awake and comfortable you will be moved to your room on the surgical unit where you will be discharged the next day. If you are being discharged the same day of your surgery, you will go to the Surgical Admission and Discharge Unit (SADU) following the PACU. You will be discharged directly from SADU.

Pain Management

A question that most patients ask is “How much pain will I have after surgery?” As each individual has their own pain experience, we cannot predict your level of pain postoperatively. However, with the use of regional anaesthesia, nerve blocks and using different types of pain medications, such as opioid (also known as a narcotic) and non-opioid medications, most patients have minimal to no pain for up to 24 hours after the surgery. We strive to keep you comfortable after surgery. We will work with you to revise the pain management plan of care accordingly.

Due to nerve blocks, for the first 24 hours, your leg may have decreased sensation; this is normal. As the numbness decreases, you will need to respond to the pain with different methods (i.e. medication and non-medication interventions).

Pain scale

You will be asked to rate how much pain you have on the pain scale below. Typically you will be asked to rate your pain on a scale from 0 to 10, with 0 being “no pain” and 10 being “the worst pain possible”. Your pain level may change at times. Be sure to tell a member of your health care team if it becomes worse.

0 – 10 Numeric Pain Intensity Scale

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------|---|---|---------------|---|---|---|----------------|---|---|----|
| No Pain | | | Moderate Pain | | | | Worst Possible | | | |

We encourage you to tell your nurse if you are having pain and to use oral pain medications. Our goal is to help you manage your pain so that it does not slow down your recovery. **Do not** wait to take pain medication until the pain becomes unbearable. Though you will experience some pain at times, the goal of pain control is that you can participate in physiotherapy and get rest at night, which will help in your recovery. We use a variety of pain medications to manage your pain. All patients are ordered scheduled non-opioid pain medication to be taken by mouth, such as acetaminophen (Tylenol®) and an anti-inflammatory, such as celecoxib (unless contraindicated). It is important to take this medication regularly during the day and night to maintain a constant level of pain control. You may also be prescribed to a slow release opioid. If there is difficulty achieving reasonable pain scores (5 or less on the pain scale above), additional medication, such as an opioid, is available to receive by asking your nurse.

It is important for pain management to reduce swelling by applying ice to your surgical joint. Apply ice to your post-surgical knee every 2 hours while awake.

Pain pump

You **may** have a pain pump after your surgery. The pain pump allows you to give yourself pain medication as you need it. This method of pain control is known as Patient Controlled Analgesia (PCA). The pain pump is connected to your intravenous (IV) line and provides pain medication when you push a button. The amount of medication released by the pump is prescribed by the anaesthesiologist considering your surgery and medical health. The pump is programmed to allow the prescribed dose. The built-in timer on the infuser will prevent you from receiving too much medication in too short a time. Push the button whenever you are uncomfortable and especially before you start your exercises, or get up to walk. **Do not** wait until the pain is severe. **Do not ask** or allow family or friends to push the pain button for you. It is important that only you give yourself the medication when you feel you need it. If you are still having pain after pushing the button, please call your nurse.

The side effects of pain medication can be managed. Common side effects include nausea, vomiting, constipation, and itchiness. Please report any side effects **immediately** to your nurse so they can be treated.

At discharge you will be provided with a prescription for medications to take for pain once you are at home. Your surgeon will prescribe both an opioid such as hydromorphone, as well as non-opioid medication such as acetaminophen. Taking the non-opioid medications **regularly** will decrease the amount of opioids you need to take to treat your pain. Your opioid prescription will be written as a partial fill meaning only half the tablets will be dispensed at a time. Only fill the second amount if needed. Take the opioid **only** if you need it for moderate to severe pain and as few times as possible to control your pain. Return any unused opioids to your pharmacy for safe disposal.

Discharge Pain Management Instructions for Total Joint Surgery

Most patients will have some pain after surgery.
Follow the steps below to help manage your pain.

1

Pain after surgery

- Pain at your surgical site may get worse the first few days after surgery
- Follow the activity level recommended by your physiotherapist. It is important for your pain to be well controlled to do exercise.
- Apply ice (wrapped or in a bag) to the surgical area. For total knee replacement apply ice for 15 minutes every 2 hours (while awake) x 7 days and then continue as suggested by your Physiotherapist.

2

Non-Opioid Pain Medication

** Let your surgeon know if you have been told to avoid any of the medications below*

- You may be given a prescription for acetaminophen (Tylenol®) and an anti-inflammatory (if appropriate for you) such as Celebrex.
- Take acetaminophen every 6 hours for 3 weeks, then take as needed. Take the anti-inflammatory (if prescribed) as instructed by your surgeon.
- If the anti-inflammatory causes stomach upset, take with food.
- You may also be prescribed other non-opioid pain medications. Taking these medications **regularly** will decrease the amount of opioids you need to take to treat your pain.

3

Opioid Pain Medication

- You will be given a prescription for up to 80 tablets of an opioid (narcotic) such as hydromorphone as a partial fill (half the tablets at a time). Only fill the second amount if needed.
- Take the opioid **only** if you need it for moderate to severe pain and as few times as possible to control your pain
- Use a laxative such as PEG (Restoralax®, Lax-A-Day®) daily while taking opioids to help prevent constipation. Ask your pharmacist if you have any questions.
- Opioids may cause nausea and/or vomiting. If this occurs see your pharmacist for an anti-nausea medication.
- Opioids can cause dizziness, confusion and may make you sleepy. While taking opioids, do not drive a car or operate equipment.
- Take any unused opioids back to a pharmacy for safe disposal

If your pain is not well controlled or you are experiencing side effects, or unexpected reactions, please contact our Surgical Nurse Practitioner at 905-472-7373 ext. 6233, your surgeon, your family doctor or go to the Emergency Department.

You will be provided with a 'Pain Management Discharge Questionnaire' in your discharge package. Please complete it 10-12 days following your surgery and bring the form with you to your follow-up appointment with your surgeon and hand it in at the fracture clinic reception desk.

Physiotherapy and Discharge Planning

Physiotherapy refers to the functional activities and exercises that you will learn and practice after your surgery. Physiotherapy starts after your surgery and gradually progresses as you recover. Your Orthopaedic team will work with you to ensure an easy, safe, and appropriate discharge home. All patients will be expected to attend outpatient physiotherapy at an outpatient clinic. The patient navigator will assist you in finding a clinic. You must make arrangements for your transportation to appointments.

Early Physiotherapy Goals

The goals of physiotherapy in the first days after surgery are to:

- Minimize your pain and swelling
- Ensure your safety in daily activities
- Get you moving, for example, in and out of bed, walking, managing stairs if required
- Teach you how to care for yourself at home

Precautions

Following your knee replacement, there may be certain movements you should avoid until your surgeon tells you it is safe to do so. For example, squatting or kneeling. It is important to keep moving and keep your new joint active. However, movements should be made with care and if discomfort is felt, do not force the joint.



Do not squat until allowed by your surgeon



Do not kneel until allowed by your surgeon

Swelling

After knee surgery you will have swelling. You should use ice or cold packs regularly to cool your knee to reduce the pain and swelling. You should be icing your knee every two hours while awake for 20 minutes.

How to Reduce Swelling

Swelling, also called “edema,” is common after knee replacement surgery. It usually affects the foot, ankle, knee and sometimes the thigh. You may notice some swelling while you are in the hospital, or it may not develop until later.

You can reduce swelling by lying down flat on a bed or couch at least three times a day for 30 minutes.

Functional Activities

After your surgery you will need a walking aid to help you walk – a two wheeled walker and a cane will be required. Your physiotherapist will teach you how to use them. The physiotherapist will teach you other activities of daily living such as how to get in and out of bed, how to get up and down from a chair and how to go up and down the stairs.



Walking



Standing with Support



Sitting Up

You may work with an occupational therapist (OT) to review your equipment needs and self-care activities. Your OT will confirm what equipment you may have already rented or purchased and recommend additional items to make looking after yourself easier once you get home. Other activities of daily living such as bathing and dressing may be discussed.

Activities of Daily Living

Strategies:

- Dress your surgical leg first
- Wear loose fitting pants or shorts; elastic waist clothing is easier to manage
- Wear loose fitting socks/diabetic socks
- Sit to get dressed; stand only to pull up clothing
- Ask for help when needed
- Avoid open-toed slippers or shoes without backs, non-slip soles are advised
- Use adapted equipment (if needed)

Exercises

The next few pages will show you the exercises you will be doing right after surgery. These exercises are safe to start before surgery. Practicing before surgery is helpful in making the exercises easier in the recovery stage. If able, try to complete these exercises once a day prior to surgery. After your surgery, you will be expected to practice these exercises on your own and with the therapist.



Knee Replacement Exercises

Markham Stouffville Hospital
381 Church Street, L3P 7P3, Markham, ON, Canada



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EXERCISES FOR KNEE REPLACEMENTS

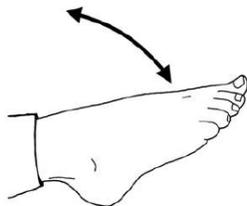
These exercises are to help you move normally and safely.
-Complete Exercise **3-4 times a day, 10 repetitions each time.**

ICE:

Apply ice to your operated knee for 20 minutes every 2 hours.

STAIRS:

Go up the stairs leading with your **non operated** leg, go down the stairs leading with your **operated** leg.



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Lying on your back or sitting.
Briskly bend and straighten your ankles.

Repeat 10 times every hour.

Complete **Deep breathing** 10 times every hour.

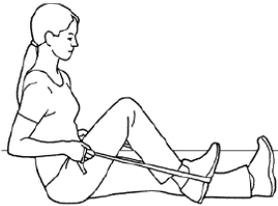
Lie on your back with your legs straight.



Point your toes up and push the back of your operated knee firmly down against the bed.

Hold for 5 seconds. Relax. Repeat 10 times.

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Lying on your back. Put a strap around the foot of your operated leg.

Bend your knee by sliding your heel along the bed towards you.

Gently pull the strap to bend your knee a little more.

Hold for 5 seconds then completely straighten your knee.

Repeat 10 times.

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Sit with your operated leg straight out in front of you. Put a strap around your foot.

Gently pull the band and feel the stretch in your calf.

Hold approx. 10 secs.

Repeat 5 times.

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Lying on your back. Put a roll under your operated knee, bend your other leg and put your foot on the bed.



Lift foot of your operated leg off the bed while leaving your knee on the roll.

Hold for 5 seconds and then slowly lower.

Repeat 10 times.

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Lie on your back with your operated knee straight and your other knee bent.



Exercise your straight leg by pulling the toes up, straightening the knee and lifting the leg off the bed.

Hold for 5 seconds then slowly lower.

Repeat 10 times.

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Sit on a chair with your feet on the floor. Bend your operated knee as much as possible.

Repeat 10 times.



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Sit on a chair with your feet on the floor.

Exercise your operated leg by pulling your toes up, tighten your thigh muscle and straighten your knee. Hold approx. 5 seconds and slowly relax your leg.

Repeat 10 times.

Discharge Planning

Your Orthopaedic Patient Navigator will visit with you the day of or on your first day after surgery. The role of the Orthopaedic Patient Navigator is to coordinate your needs for a safe discharge and ensure a seamless transition from hospital to home.

Your discharge plans were discussed with you at your preoperative visit. The final decision about where and when you will be discharged will be based on these plans as well as your medical condition, your progress with therapy, and the recommendations of your Orthopaedic team while in hospital.

Discharge Day

When you go home from the hospital, someone will need to drive you as you will not be driving until your surgeon has given you clearance to do so. If you are going home the same day of surgery, your support person will receive a phone call after surgery. Your support person will be expected to come to the Surgical Admission and Discharge Unit (SADU) after surgery and remain with you until your discharge. If you will be discharged the day after surgery (post-operative day 1), let your ride know that you should be picked up **in the morning** before 11a.m.

Don't forget you may need a little extra help when you first return home. You will need to have a family member, caregiver, or friend stay with you for the first day or two after being discharged from the hospital.

You will receive written discharge instructions from the Orthopaedic team about your medications, physiotherapy, and follow-up appointments. You will be shown a video by your pharmacist before your discharge, with information about your new medications. You can view the video at home using the following link: <http://bit.ly/mshortho>

Your postoperative appointment with the surgeon in the Fracture Clinic will be booked prior to your discharge.

When getting into the vehicle to go home, follow these tips:

- Move the front passenger seat all the way back and semi-recline the back rest
- Stand facing away from the car using your walking aid
- Slowly lower into the seat, using the door frame and seat for support as needed
- Sit down on the seat and slide back into the seat as far as possible
- Turn slowly to bring your legs into the car together; you may need help with this the first few times

Post-Surgical Wellness Clinic

The Surgical Wellness Clinic will provide you rapid access to our team of care providers that specialize in assessing the progress of your recovery from surgery up to 30 days after leaving the hospital.

Why might I call/go to the Post-Surgical Wellness Clinic?

I am having symptoms following my surgery:

- Fever over 38.5 C
- Excessive nausea and vomiting
- Increased pain, from day of discharge, not relieved by medication
- Difficulty urinating
- Difficulty with bowel movements
- Redness or increased drainage from incision
- Excessive bruising
- Excessive swelling

The Post-Surgical Wellness Clinic is open Monday through Friday 12 noon-4 p.m., please call and leave a message at **905-472-7627 ext. 3**. A nurse practitioner will contact you regarding your symptoms.

On weekends or after hours please follow up with:

- 1) Your family doctor
- 2) Urgent Care Clinic or Walk-in clinic
- 3) Emergency Department

Go to your nearest Emergency Department if you develop any of the following conditions:

- Chest pain
- Shortness of breath or difficulty breathing
- Red or dark urine
- Red or black stool
- Excessive bleeding or foul smelling drainage from your incision
- Numbness, tingling, blue or cold toes

What You Need to Know Once Home

Congratulations! You are finally home. When you get home, there are a lot of things you need to know for your safety, your speedy recovery, and your comfort. Remember to keep using your Patient Guide as a reference.

General Health

- Your appetite may be poor and your energy level decreased for the first month. Following are a few tips to help increase your appetite:
 - Drink plenty of fluids to keep from getting dehydrated.
 - Eat smaller and more frequent meals and snacks.
 - Eat during the times you feel well.
 - Be flexible. If you are not hungry at dinner, make breakfast, a snack or lunch your main meal.
- Opioid pain medication may cause constipation. Adjust your diet as necessary; add extra fluids, fruits, vegetables and whole grains. Ask your pharmacist for an appropriate laxative.
- You may have difficulty sleeping at night. If you cannot sleep on your back, it is okay to sleep on either side. A pillow between your knees is more comfortable. **Never place a pillow under the operated knee. Maintain extension at all times.** Do not sleep too much during the day.

Your Incision

Your incision will gradually heal. You may notice some numbness around your incision – this is normal and often improves with time. However, in some patients, a degree of permanent numbness is normal.

Caring for your incision

- Keep your incision dry.
- A special bandage called an Aquacel dressing will be applied to your incision after surgery. You will be able to shower with the Aquacel dressing on.
- This dressing must remain on your incision until the specified removal date which will be written on your dressing.
- However, once your dressing is removed, the incision must be covered with a light gauze dressing. You will be provided with a dressing before discharge. This dressing is not waterproof. Cover the leg with plastic wrap (i.e. Saran) when you are taking a shower
- Always make sure the wound is clean and dry after showering, pat the incision dry- do not rub
- Do not apply any medicated creams or Vitamin E oil until the incision is fully healed
*****Do not take a bath, soak in hot tubs or swim in pools/lakes/ocean until your surgeon has advised you that it is safe to do so.**

Getting your staples removed

Your staples need to be removed between the 12th to 14th day after your surgery. You will need to see your family doctor to have them removed. It is a good idea to book this appointment ahead of time to ensure you are seen within the appropriate time frame. If your family doctor cannot accommodate you during the recommended time frame then you may also go to a walk-in clinic or make an appointment with The Post-Surgical Wellness Clinic. Remember to take the staple removal tool with you to your family doctor appointment. The hospital will give you this tool on your discharge day.

You will be able to shower without a cover 24 hours after you have had your staples removed.

Physiotherapy and Activity

Exercising is **mandatory** to get the best results from your surgery. You will need physiotherapy after your discharge from hospital. Your post-discharge physiotherapy should start within 7 days from your discharge date. It is important that immediately after your discharge, you continue with your exercise program and walking activities at home until you are seen by your community physiotherapist after one (1) week. Your orthopaedic patient navigator will help refer you to a clinic.

Why do I need to continue physiotherapy?

Your physiotherapist will work with you to regain your movement, strength, and function. Specific exercises and functional tasks will help you gradually progress towards optimal recovery. If you have specific personal goals, your physiotherapist will discuss these with you as well.

How often will I get therapy?

You will be assessed by your outpatient physiotherapist then a treatment program and schedule will be set up. The frequency of your treatment is based on your individual needs and goals, your physiotherapist will discuss this with you. You will need to continue your independent home exercise program in addition to attending therapy sessions. The success of your therapy is dependent on your full participation with your exercises and walking activities.

Follow-Up Appointment with the Surgeon

Your surgeon will check your progress at 2-6 weeks after your surgery. You will come to the hospital for this visit to the Fracture Clinic. You will get a date and time for this appointment when you are discharged from the hospital. Check your Discharge Instruction Sheet to confirm the location, date and time of this appointment.

You will be provided with a 'Pain Management Discharge Questionnaire' in your discharge package. Please complete it 10-12 days following your surgery and bring the form with you to your follow-up appointment with your surgeon and hand it in at the fracture clinic reception desk.

On the Road to Recovery

You are now well on the road to recovery. You are likely to have questions about getting your life back to normal. There will continue to be things you will have to do or change as a result of having had your knee replacement surgery. Keeping up with your exercises, moderate activity and physical fitness are important for long-term success of your joint replacement surgery.

A joint replacement can last a lifetime depending on how much stress is put on the joint. The amount of stress to the joint relates to your weight and the types of sport and leisure activities you do. Depending on your age and these factors, you may need a second joint replacement.

Driving

The ability to drive depends on whether surgery was on your right or left side and the type of vehicle you have. If surgery was on your right side, your driving could be restricted for as long as six weeks. Driving will depend on your individual progress.

You need to consult with your surgeon for advice on when you can drive again. It is not recommended that you drive while taking opioid medications for pain control. It is advisable to check with your insurance company regarding their policies around your return to driving.

Working

It is recommended that you take at least 4 -6 weeks off work depending on the type of job you have (i.e. sedentary or physical). If your job is more physical or involves long periods of standing, you may require 8-12 weeks off. Individual needs vary so ask your surgeon when you can go back to work.

You need to discuss with your employer any special needs you have to return to work. For example, you may need to keep your leg elevated while sitting or to request reduced work hours initially. In addition, you may still be using a walking aid.

Leisure and Sport Activities

Getting back to regular leisure and sport activities is important. You will need to treat your new joint with care. You are encouraged to participate in low impact activities such as walking, dancing, swimming, golf and bowling. If you are unsure of what activities are right for you, speak with your surgeon or physiotherapist. Low impact activities can usually be started three months after surgery.

Sexual Activity

Following surgery, sexual intercourse may be resumed in a few weeks and once it is comfortable to do so. You should avoid any positions that cause you pain. Individual questions may be discussed with your surgeon at your follow-up appointment after surgery. Specific instructions regarding kneeling on your operative knee should be addressed at this time.

Dental and Surgery Precautions

Bacteria can travel from your mouth to your bloodstream and then into the knee which subsequently can cause an infection. Maintaining good oral hygiene and oral health is important **before** and **after** surgery. During regular dental check-ups/cleanings, please tell your dentist that you have had knee replacement surgery prior to the appointment. Your surgeon/dentist may suggest antibiotics for elective dental work moving forward. You may be asked to avoid dental procedures four weeks before the surgery and 12 months after to reduce the risk of infection.

- **Please speak with your surgeon about their preference for dental work and cleanings before and after your surgery.**
- **Please notify any specialist you see that you have an artificial knee. This is very important before any invasive procedure such as a heart catheterization or colonoscopy.**

Travel

It is possible to set off security alarms at the airports when you have an artificial joint. Wear loose clothing and be prepared for secondary inspection by security personnel. When you are traveling over many hours remember to stop and change positions hourly to prevent joint discomfort and stiffness.

Survey Reminder

Please complete your Patient Reported Outcome Measures (PROMs) survey three months and one year after your surgery. Type the link or use the QR code to access the survey. Please have your health card ready. www.msh.on.ca/proms



Best Wishes

Thank you for reading this patient guide. We hope it has helped you through your joint replacement journey.



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Visit our website:
www.oakvalleyhealth.ca