



Knee Replacement: Patient Information Booklet

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Introduction

The purpose of this booklet is to provide you with information before your knee surgery. This booklet gives you instructions on preparing for surgery and what to expect after your surgery. Please read the booklet carefully, write down any questions you may have, and **bring this booklet with you for clinic visits and your hospital stay.**

You have chosen to have a knee replacement. Your health care team will do all they can to make your surgery a success. We hope that keeping you informed helps you understand what to expect and how you can take an active role in your care. How well you prepare for surgery and the efforts you make after surgery will be important factors in your recovery. *Your success depends on you.*

Patient and Family Member/Friend Information

It is important that you choose a family member or friend to be with you throughout your knee replacement journey. This is a person who will be supporting you prior to surgery, during your hospital stay, and at home with your recovery. This person can be a family member, friend or caregiver. Please review the booklet with this person before your surgery so you both have an understanding of the care you will be receiving.

What does a Family Member/Friend do?

- Attends an education session with you prior to your surgery
- Supports and works with you during your hospitalization
- Supports you with your rehabilitation once you have been discharged, including transportation as needed
- Translates – if English is not your first language

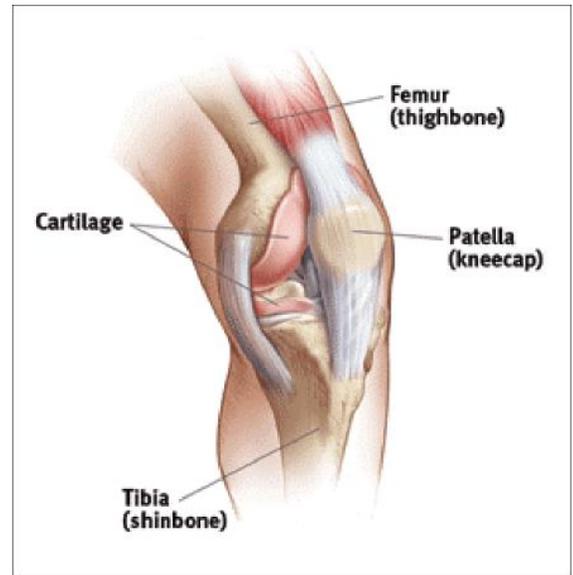
Remember...

Your Family Member/Friend is there to be a “guide on the side” – not to take over for you!

All About Your Knee

What is a Knee Joint?

The knee is a 'hinge joint' made up of three bones in a hinge formation: the patella (knee cap), the end of the femur (thigh bone), and the top of the tibia (shin bone). In a healthy knee, cartilage covers the surface of the bones in the knee joint and lets you move smoothly and without pain.



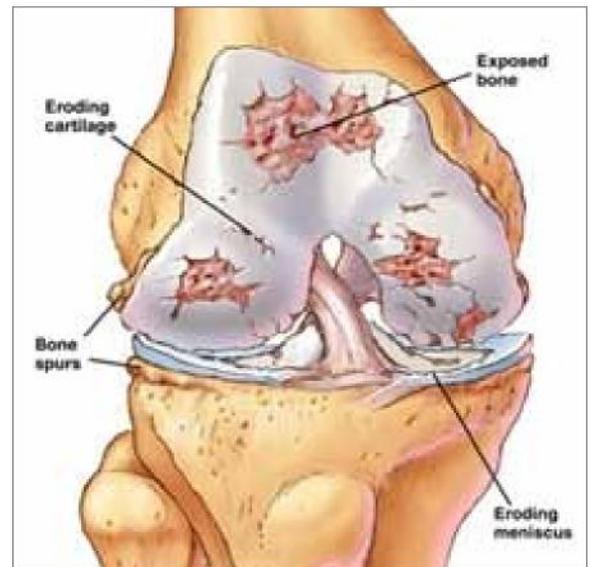
HEALTHY KNEE

Why do I need a Knee Replacement?

Arthritis of the joint is the most common reason for a knee replacement. Arthritis damages the cartilage and roughens the bone surfaces. This damage causes pain on movement and decreases joint movement and strength.

Most people have very good results after surgery, including:

- Less pain
- Better movement and strength
- Improved ability to do everyday activities



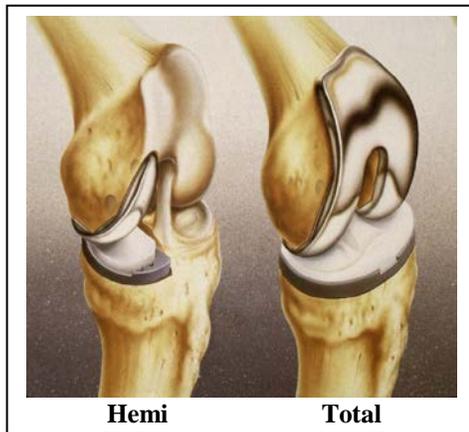
UNHEALTHY KNEE

What is a Knee Replacement?

When a joint is replaced, the unhealthy or damaged bone is removed and replaced with man-made parts called a prosthesis. The components may be held in place with bone cement.

A Total Knee Replacement consists of three parts:

1. The upper metal piece fits into the thighbone.
2. The lower metal piece has a plastic surface and fits into the shinbone.
3. The plastic button may be fitted onto the back of the kneecap.



How is the surgery done?

1. Your kneecap is moved out of the way. Part of the end of the thighbone is removed and replaced with a metal component.
2. The top of the shinbone is removed and replaced with a metal platform. A plastic piece is fitted on top of the metal platform.
3. The back of the kneecap is smoothed and fitted with a plastic component.

In a uni-compartmental procedure (**Hemi or Oxford Knee Replacement**), only one side of the knee joint needs to be replaced. Upper and lower pieces are used.

Preparing for Knee Surgery

Get thinking and feeling your best.

Emotional preparation is very important for your surgery. Sometimes it is difficult to deal with pain while waiting for surgery. You can experience problems sleeping and may become anxious or frustrated. It is important to deal with these feelings.

Here are some suggestions:

- Practice formal relaxation techniques like deep breathing, visualization/visual imagery and progressive muscle relaxation.
- Be active. Continue your usual daily activities. Use your walking aid to take stress off your sore joint.
- Discuss concerns with your family member/friend.
- Be informed and prepared prior to your surgery. This will help decrease anxiety and make you more hopeful.

Improve your physical health.

- Manage your weight. Eat a well-balanced diet, as recommended by 'Eating Well with Canada's Food Guide'.
- Ensure that health issues (including dental, vision, cardiac, diabetes, prostate and urinary tract problems) are dealt with by your family doctor before your surgery.
- Quit smoking. Smoking delays healing and slows your recovery from surgery.
- Stay active! Exercise and do your regular activities. Research shows that exercise can help decrease pain, increase strength and flexibility, and keep your heart healthy before surgery.
- Exercising for longer periods of time can benefit your heart, lungs, circulation and muscles. Exercises include walking (on land or in water), swimming or stationary cycling.

If you have not been regularly active, speak to your family doctor before starting a new exercise program.

Start slowly. Begin with a few minutes and gradually progress to 20-30 minutes of exercise, three times a week.

Pre and Post-Surgery Exercises

These exercises will be reviewed with you in the PreHab Education Class. If you have questions, please ask a Physiotherapist for help.

Start with 5 to 10 repetitions of each exercise with each leg. Gradually do more until you can complete 10 to 20 repetitions of each. Repeat exercises 2 to 3 times a day, prior to surgery.

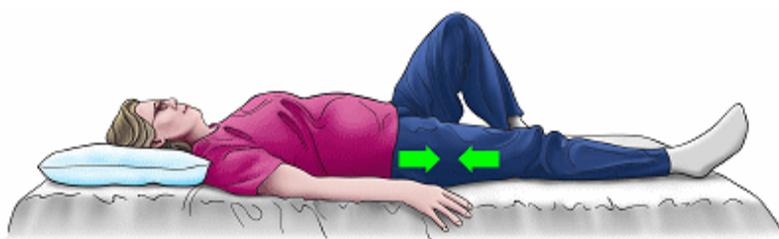
Note: “operated” means the leg that will be undergoing surgery.

1. ANKLE PUMPS



Point your foot down and then pull it back towards you. Repeat this 10-20 times continuously.

2. QUAD SETS



Push operated leg flat by tightening muscles on the front of your thigh.

Hold for 5 secs. then relax your muscles. Repeat up to 20 times.

3. HEEL SLIDES



Bend your operated knee and pull your heel toward your buttocks. You can place plastic under your heel to help slide and use a strap to pull your foot. Hold for 5 secs. Repeat up to 20 times.



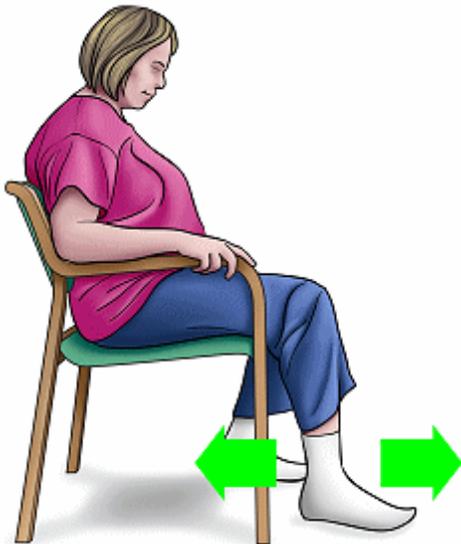
4. QUADS OVER ROLL

Place a rolled up towel/can under your operated knee. Raise lower part of your leg until your knee/leg is straight. Hold this for 5 seconds. Slowly lower back to starting position. Repeat up to 20 times.



5. STRAIGHT LEG RAISE

Bend un-operated knee and keep operated leg straight. Tighten muscles on top of leg and lift operated leg 6-10 inches off bed and hold for 5 seconds. Repeat up to 20 times.



6. KNEE SLIDE

Slide your operated leg back until you feel a stretch. Place your un-operated leg on top of operated leg and push back. Hold for 5 seconds. Repeat up to 20 times.

Note: These will be your post-surgery exercises (10 repetitions, 3 times a day). Follow instructions of your Physiotherapist after surgery.

PreHab Education Class

You will be contacted with an appointment date and time for this class. This appointment should happen approximately 4 to 6 weeks before surgery. You need to bring a family member/friend.

This class helps you prepare for surgery. There will be presentations by various multi-disciplinary team members, including a Physiotherapist and a Pharmacist, as applicable.

The class will provide Patient Education and Preparation Tips.

It is mandatory that all surgical patients and their family member/friend attend this educational session. Your surgery could be delayed if you do not attend.

Your Homework Before Your Surgery

- **Read Knee Replacement Patient Information Booklet.**
- **Get equipment in place at home.** Refer to Equipment List on pages 10-11 and Vendors List provided.
- **Arrange family/friends to help you** with groceries, meals, driving, etc.
- **Do knee exercises daily.** See Pre-Surgery Exercises on pages 5 & 6
- **Arrange Outpatient Physio – for after surgery (goal – starting 7-14 days after surgery)**

Options:

- Kemptville District Hospital (KDH). The KDH Physiotherapy staff will arrange this for you during your post-operative hospital stay.
- The Riverside Hospital (Ottawa). **Note:** You can access therapy here only if your surgeon is an 'Ottawa Hospital' surgeon. The KDH Physiotherapy staff will arrange this for you during your post-operative hospital stay.
- A Private Physiotherapy Clinic. Please arrange your own appointment.
- If you want to attend outpatient Physiotherapy at another hospital closer to your home, it is up to you to contact the Physiotherapy Department in that hospital to determine if you can go there for your Physiotherapy after your surgery. (You should ask about wait times for outpatient physiotherapy. Recommend no longer than 14 days.)

Note: A CCAC (Community Care Access Centre) Physiotherapist will be arranged to visit you at home about 1 week after your surgery. After this visit you should attend outpatient physiotherapy as per the above options.

Pre-Admission Clinic (PAU)

- The Pre-Admission Clinic (PAU) is an outpatient clinic that is the final step in preparing you for surgery.
- This appointment takes place one to three weeks before surgery.
- You will be contacted with an appointment date and time for this clinic.
- You need to bring a family member/friend.
- You need to bring all your medications, including vitamins and supplements, in their original containers.
- You may eat, drink and take your regular medications before this appointment.
- You will see a registered nurse (RN), who will assess your medical status and explain your upcoming surgical process.
- You will see an anesthetist (doctor who give you your anesthetic during your surgery).
- Basic tests may be done such as an ECG, X-rays, and blood test.
- If you have any last minute questions, this is an excellent time to ask.

Surgery Time

- You will be given a time to come to the hospital for your surgery.
(1-2 Days prior to your surgery)

What to Expect During your Stay in Hospital

Treatments

- Daily blood work
- X-ray of your knee (usually done the day after the surgery)
- Intravenous (I.V.) line for the first 24 hours after the surgery
- The nurse will monitor your incision site and change your bandage as needed
- You may be given some oxygen through a mask or nasal prong

Medications

Medications you may be taking during your hospital stay include pain medication, anti-nausea medication, antibiotics, blood thinners, and any medications that you usually take at home.

Activity

The day of your surgery, we ask you to do deep breathing exercises and ankle pumping exercises. You may be assisted to sit on the edge of the bed or transfer to a commode with your nurse. Your Physiotherapy starts the day after your surgery. The Physiotherapy staff will assist you with your exercises and walking with your walker. You will continue your Exercise/Walking Program three times per day. After your exercise and walking, ice must be applied to the knee, and the leg should be elevated.

- You will sit in your chair at your bedside for your meals.
- You will get up to the sink to wash.
- You will get dressed in your own clothing.
- You will walk to the washroom using the walker.
- You will walk in the hallway with the walker.

You must be able to do exercises and walk with a walker independently on the day you go home. Before you go home, on the day of discharge, you will practice stairs with the guidance of the Physiotherapy staff.

Nutrition

You follow your normal diet during your hospital stay.

Elimination

You may have a urinary catheter if necessary, but this is usually removed the day of your surgery. It is good to monitor your bowel and bladder function after your surgery, to make sure all systems are working properly.

Discharge

Partial knee replacement (PKR) and total knee replacement (TKR) patients go home one day after their surgery. .

About Your Medications

Your medications will be carefully reviewed at the PAU clinic by the Anesthetist.

Some medications can cause bleeding during surgery; these medications will be stopped before your operation.

Equipment

The following equipment is recommended. Plan to have the equipment for 4 to 12 weeks following surgery to help protect your knee during activities of daily living:

1. Two-wheeled Walker
2. Cane
3. Bath seat/shower seat
4. Raised toilet seat/commode
5. Wall grab bars
6. Non-slip surfaces in tub/shower, bath mat outside of the tub
7. Long-handled reacher, sock aid, elastic shoelaces, long-handled shoe horn
8. Long-handled sponge/brush
9. Sturdy, firm armchair, above knee height
10. Any other items identified for you by a health care provider

It is very important to have any required equipment **before** you go to the hospital for surgery. Having the equipment in place ahead of time will give you the opportunity to practice with it before surgery so that you can manage better at home after you leave the hospital.

Please bring your two-wheeled walker to the hospital with you to use after the surgery. You can leave your cane at home.

EQUIPMENT RECOMMENDATIONS FOR KNEE REPLACEMENT PATIENTS.



Raised Toilet Seat with Arms

Toilet commode with adjustable height legs or raised toilet seat with arms



Shower Equipment:

Tub transfer bench or shower chair (both with adjustable legs) or shower stool



Walking Aid:

Cane and two-wheeled walker



Self Care Aids: Sock aid, long handled reacher, sponge and shoe horn

Please have all your equipment arranged before your surgery.

Items you will need in the hospital

- walking shoes
- loose fitting clothing/walking shorts
- toothbrush and toothpaste
- dentures, eyeglasses, hearing aids, if used
- hairbrush
- electric razor
- your two-wheeled walker
- KDH will provide you with a cryocuff for icing your knee during your hospital stay. If you have an alternate icing device/machine, you should bring it with you.

DO NOT bring valuables, large sums of money or extra medications with you to the hospital.

What to do with your clothing and belongings

- Remove all jewelry, dentures, glasses, contact lenses, artificial body parts, body piercings, clothing, nail polish, and make-up before your surgery.
- Send all valuables home with your family member/friend.
- All belongings will be waiting for you on the surgical unit, where you will go after surgery.

Your health care facility is not responsible for lost items.

Length of Stay

- You can expect to be **discharged 1 day after** the day of your surgery.
- Partial (Oxford/Hemi) and Total Knee Replacement patients go home the day after surgery.
- **If you live alone, plan to have your family member/friend available to assist and support you for 1 to 2 weeks after your surgery.**
- If you anticipate needing more assistance on discharge, there are community resources available (e.g., convalescing at a local retirement home). Please make the necessary arrangements prior to your surgery.

Pre-Surgery Patient Checklist

Have the following ready before your surgery:

- Someone (family member/friend) available to assist and support you
- Equipment that you will need when you go home (and you've practiced using it)
- A ride to the hospital
- A ride home when you're discharged
- Please make sure you are familiar with the exercises in this booklet. (Do the exercises 2 to 3 times a day prior to the surgery to build up your strength)
- Loose, comfortable clothing and walking shoes to wear in the hospital
- Some meals prepared for when you get home
- Please make sure you have a conversation with your doctor about medication issues
- Chlorhexidine provided at your pre-op visit (you will be instructed to wash your leg prior to surgery, see page 14)

Between your PAU visit and Day of Surgery

- If you suffer from constipation, take your usual laxative two days before surgery
- Be sure you have a bowel movement before coming to the hospital.

IMPORTANT: If you develop a fever, infection, cold, flu, or gastric symptoms (such as diarrhea) before your surgery, please call your surgeon's office as it may mean your surgery will have to be rescheduled.

Skin Preparation for Surgery

- Infection can occur after any surgery. The most common source of infection comes from bacteria on your skin. To prevent this you must clean and prepare your skin.
- The night before or the morning of surgery, shower or bathe using an unscented or non-perfumed soap.
- Wash your knee with chlorhexidine from mid-thigh to mid-calf. Dry off with a clean towel.
Caution: your skin may turn red after using the chlorhexidine. This should resolve within an hour or so. If the redness persists or if you have any type of reaction, wash the area with soap and water and dry with a clean towel. Notify the nurse if this occurs the morning of the surgery.
- Remember to shampoo your hair.
- Trim nails and remove nail polish.

Nutrition

- Continue to follow your regular diet, and avoid eating a heavy meal the day before surgery.
- It is important to have an empty stomach before surgery. Anesthesia can weaken the systems that keep food and drink safely in your stomach. Serious problems can arise if food or drink find their way out of the digestive system and into your lungs.
After midnight the day before surgery:
 - **do not** drink fluids
 - **do not** eat any food
 - **do not** smoke
 - **do not** chew gum
- Any medication that your doctor has instructed you to take should be taken with only a sip of water.

The Day of Your Knee Surgery

- Have someone drive you to the hospital.
- Check-in at the Welcome Centre. You will be directed to the pre-surgical area where the necessary preparation will be done for your surgery.
- You and the doctor responsible for anesthesia will decide together what type of anesthetic is best for you.
- An intravenous (IV) will be started in one of your arms.
- You may be given sedation and other medication in advance of your surgery.
- You will be taken to the Operating Room.
- You will be given an anesthetic.

Anesthesia

Types of Anesthesia

Your Anesthetist will discuss with you the option of staying awake during surgery or having medication to put you to sleep. If you choose to stay awake, you will not see the surgery taking place, or feel any pain.

1. Regional Anesthetic (Spinal or Epidural)

Medication is injected in the spinal fluid below your spinal cord, freezing the nerves of your hips and legs. A small area on your lower back is frozen. A very small needle is used to inject the medication below your spinal cord (the needle is removed).

Possible Side Effects: headache, backache

2. General Anesthetic: You are asleep for the entire surgery.

Anticoagulants to Prevent Blood Clots

40-60% of orthopedic surgical patients are at risk for a blood clot unless they receive anticoagulants. You will be prescribed anticoagulants in the hospital and for at least two weeks after discharge to prevent this.

Possible Symptoms of a blood clot:

Deep Vein Thrombosis (DVT)

- Clot usually occurs in the leg
- Redness
- Warmth
- One leg is larger than the other
- Pain

Pulmonary Embolism (PE)

- Clot in your lungs
- Tight or heavy chest
- Coughing and/or coughing up blood
- Feeling out of breath

Rest and Sleep

- Limit your visitors.
- Try to get enough rest as it is important for recovery.
- When lying on your side, place 1 or 2 pillows between both your knees and ankles to help the leg relax and to support your knee (see Figure 1).
- When lying on your back, do not use pillows horizontally under your knees (see Figure 2). This will keep them bent and it is important that you are able to get your knee to straighten completely. Your surgeon prefers **NO PILLOW** under your leg.
- Exception = You can elevate your legs above your heart on multiple pillows as shown in Figure 3 to help reduce swelling (**2-3 x/day, 20-30 minutes**).

Figure 1

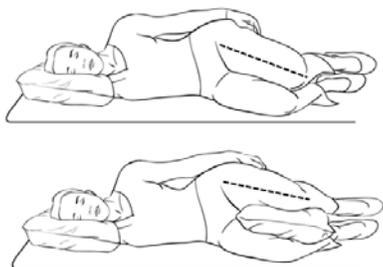


Figure 2

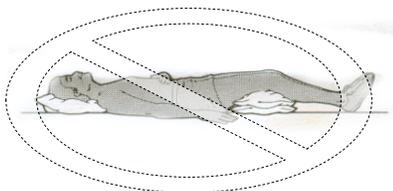
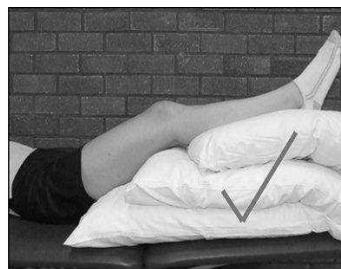


Figure 3



Incision Care

- Your dressing should be checked and changed as needed.
- It is normal for your incision to feel tender, tight, itchy and numb.
- The incision can be sore for several weeks.

Nutrition

- You will start on a liquid diet.
- You can eat solids when your appetite improves.
- A poor appetite is common after surgery.

Breathing Exercises

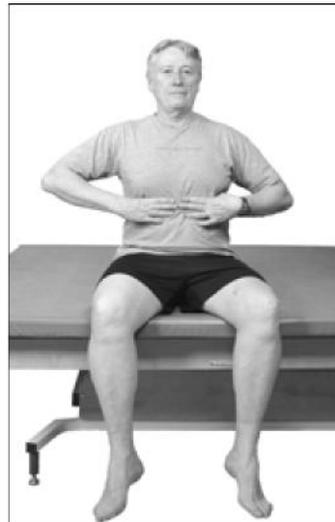
- Sit or lie down.
- Inhale deeply through your nose.
- Without exhaling, take 3 small “sniffs” to fill your lungs.
- Hold 2 to 5 seconds, and then exhale.
- Do this 10 times every hour that you are awake while in hospital.

REMEMBER:

Your recovery will go more smoothly if you do breathing and circulation exercises AND get out of bed and walk as soon as you are able.

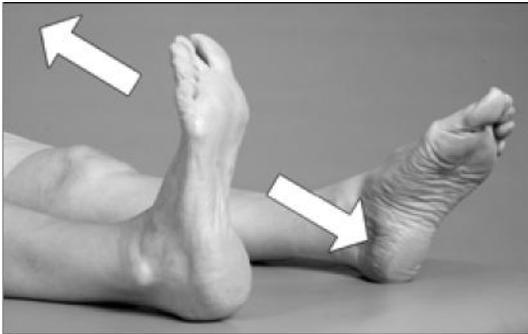
TIP:

Do breathing and circulation exercises (ankle pumps) every hour you are awake while in hospital.

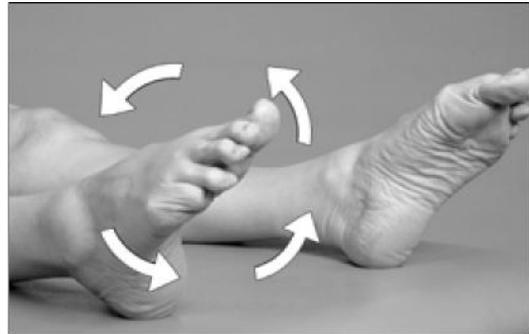


Circulation Exercises

- Pump your feet up and down.



- Do ankle circles in each direction.



- With your legs straight out in front of you, squeeze the muscles on the front of your thighs as well as your buttock muscles.



Can repeat 20 to 30 times every hour or half hour while you're awake.

Precautions

DO NOT KEEP your knee in one position too long, as it will stiffen.

DO NOT FORCE your knee to extremes. Avoid squatting and sitting on low furniture, going down steep stairs, or sitting in the bathtub.

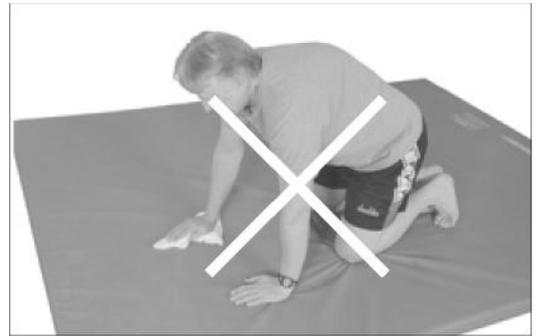
DO NOT KNEEL until your knee is fully healed. It may be uncomfortable to kneel or get up from a kneeling position, depending on the strength of your other leg and arms.

DO NOT CLIMB a lot of stairs initially. At home, think ahead and try to reduce the number of trips up and down.

DO NOT LIFT anything heavy, or push heavy objects with your knee. Talk to your doctor before returning to strenuous work such as heavy lifting, pushing or pulling.

DO NOT PIVOT or twist on your operated leg. Take small steps to avoid twisting or pivoting on your knee. After three months, you may be able to start participating in leisure activities such as dancing or golfing, if you avoid twisting your knee. Ask your physiotherapist how to modify these activities.

DO NOT perform activities that require sudden stopping and starting (tennis, skiing, running, jumping) or contact sports. Swimming, walking and biking are good activities to resume once you heal.



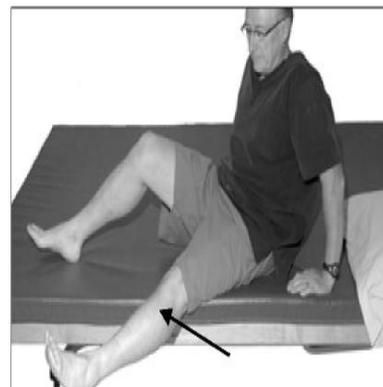
Getting Moving

- Activity will prevent you from getting stiff and sore.
- You will see a physiotherapist soon after surgery.
- Your nurses or physiotherapist will show you how to change position and help you sit on the edge of the bed and stand after surgery.
- With staff assistance, you will sit up, then stand and walk using a walker.
- Your physiotherapist will show you how to use your walking aid.
- Once you can walk alone, take short frequent walks during the day, using the walker.
- Continue using a walking aid until your doctor or physiotherapist tells you otherwise.
- You will also start the exercise program to regain strength and movement in your knee. Some of the exercises may be painful, but it is important to start them as soon as possible. **You will not damage your replacement or incision by following your physiotherapist's directions.**
- You will practice some everyday activities, including getting in and out of bed, dressing, and climbing stairs.

Your nurse will encourage you to use pain medication about 30-60 minutes before exercises.

Getting In and Out of Bed

- You can lead with either leg.
- To get out of bed, use your strong leg and your arms to move closer to the edge of the bed, and then swing your legs over the side of the bed and sit up.
- Do the reverse for getting into bed.



Standing

- For the first few weeks, place your operated leg slightly forward when you stand up.
- Do not pull up from your walker – push from a seated position when standing up.
- If getting up from a chair, push from the armrests.
- If you are having difficulty, ask your physiotherapist for guidance.



Sitting Down in a Chair

- Back up until you can feel the chair with the back of your legs.
- Slide your operated leg forward.
- Grasp the armrests and bend your knees.
- Lower yourself gently into the chair.
- Sit with your knee bent and your foot flat on the floor for short periods of time.



Using the Toilet

You may use a raised toilet seat and armrests or a commode. Be sure that when you are seated, the toilet paper is within easy reach.

- Back up until you can feel the toilet with the back of your legs.
- Slide your operated leg forward.
- Grasp the armrests and bend your knees.
- Lower yourself gently onto the toilet.
- To stand up, reverse the procedure.



Getting Dressed

Putting on underwear, pants, socks and shoes will be difficult.

- Sit on the side of the bed or in a chair.
- Dress the operated leg first and undress it last.

You may need the following if there is no one to help you dress:

- sock aid
- long-handled shoe horn
- long-handled reacher
- dressing stick

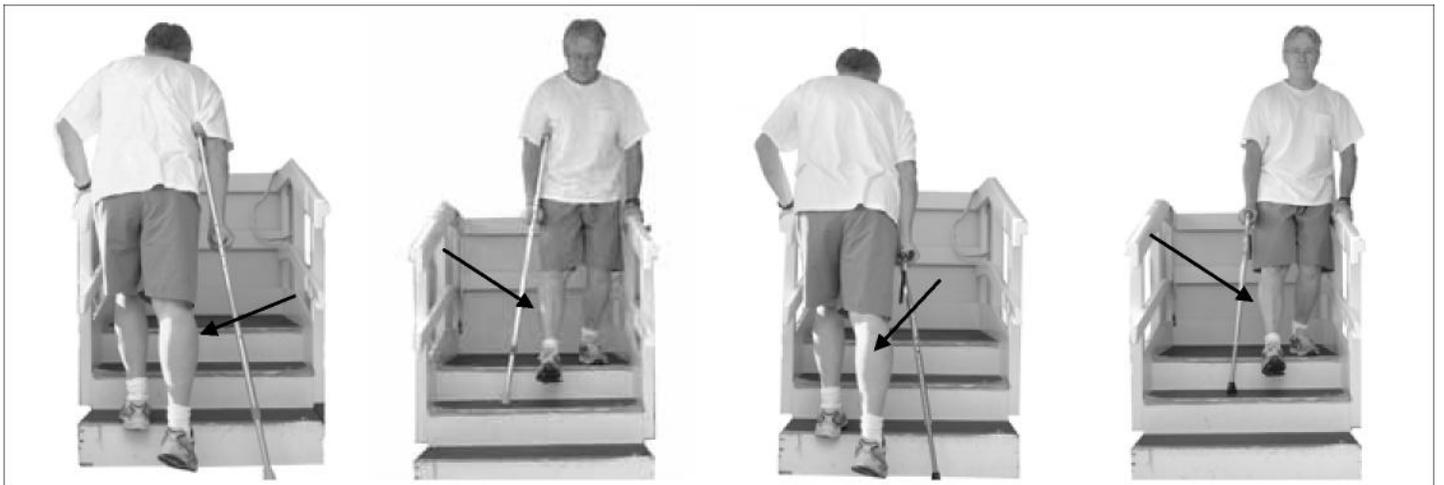


Climbing Stairs

You should learn to climb stairs before you leave the hospital.

Going up:

- Hold the handrail with one hand and a cane/crutch with the other.
- Step up with your strong leg. Bring your operated leg and cane/crutch up to it.



Going down:

- Hold the handrail with one hand and use a cane or crutch in the other.
- Step down with your operated leg and cane/crutch. Then step down with your strong leg.

If you don't have a handrail at home, you should consider installing one. Otherwise, you will require physical assistance on stairs.

After-Surgery Exercises

- Your in-hospital physiotherapist will be going over your exercises with you (see exercises on pages 5 and 6). If you have any questions or problems with the exercises, please talk to your physiotherapist.
- Do these exercises **3 times a day** following surgery.
- The first step for all exercises should be to stabilize your body by pulling your stomach muscles back toward your spine.
- You should ice your leg after each exercise session.

TIP:
DO NOT
HOLD YOUR
BREATH
 while
 exercising.
 It increases
 your blood
 pressure.

Swelling Management

It is normal for your legs to swell somewhat after surgery, but it is important to try to reduce the swelling. Elevate your leg **at least three times** a day for 20 to 30 minutes each time.

- Lie on your back.
- Raise your leg on pillows so your foot is well above the level of your heart.
- Apply ice to knee, front and back.
- Make sure you have support all the way from your hip to your heel with no gaps. Your leg should be fully supported and your knee straight.
- Your leg should be relaxed. You should not be working to hold it on the pillows



Cryotherapy Options

- Crushed ice, ice packs/gel packs, frozen vegetables, icing devices eg. Cryocuff, Game Ready
- Apply ice for up to 15 to 20 minutes at a time. This can be done as often as once an hour.

Swelling Management (Continued)

- If using cold packs (ie. gel packs, crushed ice, frozen vegetables), protect your skin by wrapping the cold pack in a dry tea towel or pillowcase.
- If your incision is fully healed, you can try using damp cold as it will penetrate more deeply and is easier to tolerate. Wrap your cold pack in a damp tea towel or pillowcase and place it directly over the area that is painful.

Note: In hospital, cold will be applied by nursing/physiotherapy staff using a cryocuff, to help with pain and swelling.

Discharge Home

You will be ready to go home 1 day after your surgery.

Before you go home, you will be able to safely:

- Get in and out of bed
- Move on and off a toilet/chair
- Dress with aids or with minimal help
- Walk the distance you need to get around your home using an appropriate gait aid
- Use stairs if necessary

You must know how to:

- Do your exercises – the therapists will review these with you. This will be your home exercise program.
- Follow the movement precautions beginning on page 20 of this booklet.

Day of Discharge

- It is important that a family member or friend be present.
- Your nurse and physiotherapist will review your discharge instructions with you.
- Discharge from the hospital is generally late morning, before lunchtime.
- You will receive a discharge prescription for an anticoagulant and analgesic.

If you are traveling a long distance:

- Plan to make frequent stops.
- Ensure your gait aid is in the trunk of the car, so you can use it when you get out.
- Bring extra pillows and ice packs.
- Remember to take your pain medications before you leave the hospital.

Physiotherapy Discharge Instructions

When you get home from the hospital be sure to do your home program 3 times a day:

1. Do 10 reps of each exercise. Build up to 20 reps over 1 to 2 weeks
2. Walk with your walker. Indoors at first; you can progress to outdoors as able.
3. Apply ice to knee and elevate leg for 15-20 minutes following exercises/walking. You can apply ice and elevate more often to help with swelling control.

Ensure you have physiotherapy follow-up when you go home. Follow your physiotherapist's instructions: he/she will work with you to progress your movement, strength, walking ability, and overall function. He/she will help you return to your regular activities.

If you experience any of the following symptoms at home you must seek medical attention (i.e., call/visit your family doctor or visit the nearest Emergency Department):

- Pain in your chest, difficulty breathing or shortness of breath
- An increase in pain, swelling or tenderness in your leg that is not relieved by elevation and icing
- Your incision becomes red, hard, hot and swollen, or begins to drain
- Redness or pain in your lower legs, even when resting
- Chills and a fever (above 38.5° C)
- A painful 'click' or decreased movement in your knee or sudden difficulty walking
- Blood in your stool, urine or sputum, and increased bruising
- Other infections such as a chest cold or bladder infection

If it is after clinic hours, go to the nearest Emergency Department. If you are concerned about infection, it is important to contact/notify your surgeon's office.

Nursing Discharge Instructions

Follow-up Appointments

Staples are to be removed 10-14 days from your surgery date. If your follow-up appointment with your surgeon is not within two weeks, please make an appointment with your family physician to have your staples removed. You will receive instructions from your nurse at time of discharge.

Activity

Please follow the instructions given to you by your physiotherapist on discharge.

Do make an effort to do your exercises as recommended by your physiotherapist and ice following, with your leg properly elevated, for 15-20 minutes. Continue to do short walks as instructed by your physiotherapist throughout the day.

Do not expect to play sports, take long driving trips or long walks or do any hunting, dancing, gardening, snow shoveling, strenuous exercise, etc. in your first weeks following discharge. Test your limits by extending your times of activity by short intervals until you get back to your previous activity prior to surgery (or better). Please check with your physiotherapist before restarting any of your regular activities. Remember that each person is individual in their healing process and some people may take more time than others to return to their normal functional level.

Pain Medication

Important:

Take pain medications as directed and/or as needed to assist with your daily activity.

If you have abnormal symptoms (such as nausea, vomiting, insomnia, hallucinations) each time you take your pain medication, please speak to your family doctor or surgeon to see if your pain medication regimen needs changes.

If your pain medication is not controlling your pain, please speak to your family doctor or surgeon to see if your pain medication regimen needs changes.

Your pharmacist is also a good resource to advise re. pain medications.

REDUCING YOUR PAIN MEDICATIONS

As your pain decreases, begin by reducing the dose of pain medication, rather than stopping completely. For example, if you are taking 2 mg of Hydromorphone, reduce to 1 mg every four hours. You may also try increasing the times between taking your medication before stopping completely. For example, Hydromorphone is often taken with Tylenol. In this case, if you have extra pain in the morning, but not during the day, you may try taking Hydromorphone in the morning and at bedtime. Continue to take plain Tylenol regularly through the day (every four hours). In time, you could also reduce your Tylenol intake. This practice will ensure that your pain will remain under control as you progress through the next few weeks.

These are suggestions only – if you have any further questions, your pharmacist will also be a good resource. Please read further to see different considerations for other medications that you may be prescribed with or instead of Hydromorphone when you are discharged.

NOTE: If you are using Tylenol, please be aware what strength of Tylenol you are using (regular 325mg vs. extra strength 500mg). Ensure that you do not exceed 4000 mg in a 24 hour period.

NOTE: If you have been prescribed Percocet, Oxycocet, or Tramacet, do not use with Tylenol. These medications are a combination that includes Tylenol (325 mg per tablet usually). Take as directed by your physician.

NOTE: If you have been prescribed Hydromorphone, please speak to your doctor or pharmacist to confirm that you may safely take Hydromorphone with other medications that cause drowsiness (such as muscle relaxants or sleeping aids).

Anticoagulants (Blood Thinners)

On discharge, your surgeon will prescribe an oral medication to thin your blood, taken daily. This medication is very important to prevent blood clots which can cause serious, possibly life-threatening problems if not treated. Therefore, please do not stop this medication unless instructed by your surgeon. Also, continue with ankle pumping exercises as taught by the physiotherapist.

The signs and symptoms of a blood clot in your leg may include: swelling of the leg; pain or tenderness in the leg, which you may feel only when standing or walking; increased warmth in the area of the leg that's swollen or painful, or red or discolored skin on the leg. Some people aren't aware of a deep vein clot in their leg until they have signs and symptoms of a blood clot in the lung. Signs and symptoms of a blood clot in your lung may include: unexplained shortness of breath, pain with deep breathing or coughing up blood. **See your doctor right away if you have signs or symptoms of either condition.**

Swelling and Icing

Swelling is expected. Keeping your leg elevated periodically during the day and using ice packs to both front and back of surgical knee, at least three times daily will also help with swelling (A.M., Noon, P.M.). You may use ice packs more often as needed (after exercises or walking) but only 15 to 20 minutes at a time. Always have a barrier between ice and skin (thin towel or pillow case). Do not reapply ice until area is no longer cool to touch. Also, continue with ankle pumping exercises as taught by the physiotherapist.

NOTE: If you have rented or purchased a Game-Ready machine or cryocuff, please use as directed. You do not need to use ice as explained above unless you do not have access to your Game-Ready machine or cryocuff.

Remember to maintain a good balance between activity and rest. Do not overexert yourself – this could cause increased swelling to your knee and decrease your mobility.

Shower and Dressing/Bandage

You may shower when you return home. On the morning of discharge, a new Aquacel dressing is applied. You will also receive an Aquacel dressing on discharge in a discharge package.

The dressing, that has been applied in the hospital, on the day of discharge, may be kept on for no longer than 2 days. If you want to shower immediately when you return home but wish to keep the dressing on for a second day, wrap with saran wrap and keep away from the water as much as possible, while showering.

On day two, take a shower with the dressing on. After the shower, remove the old dressing, clean with gauze (available at your pharmacy) or clean wash cloth not used in the shower previously. Use a fresh, clean gauze or cloth each time that you clean the incision. You may use Normal Saline (available at your pharmacy) or unscented/mild soap for cleaning. Do not use any scented bath products, oils or creams on your incision site. Dry well and apply the supplied Aquacel dressing from your discharge package. If the second dressing is dry and no drainage is apparent after 24 hours, you may remove – if desired. If you prefer to leave it on for an extra day, do so, but remove after 2 days and leave open to air.

NOTE: Please abstain from using the bath/soaking in a tub/swimming until your incision is well healed – at least 6 to 8 weeks.

Bowel Care

Please be aware that certain pain medications (such as Dilaudid) can cause constipation. Please follow the Canada Food Guide for fiber intake (fruits, vegetables, whole grain and nuts). Please ensure that you drink plenty of fluids, preferably water (approximately 8-250ml glasses daily). If you did not have a bowel movement in the hospital, please continue to take a stool softener (*such as colace or senekot or whatever your pharmacist recommends*) until you have a bowel movement. If you do not have a bowel movement after four days, please go to your family doctor for assessment.

Delirium

Delirium is a common disorder characterized by a recent onset of changes in a person's alertness and memory, attention, and confusion. Some of the risk factors that are associated with Delirium include: old age, infection, a history of multiple medical conditions, dehydration, some types of medication (e.g. medications for depression), alcoholism, previous episode of delirium and bone fractures. Delirium can be a frightening experience for patients and family members. Patients may fear that they are losing their minds. Delirium can be a serious health risk particularly in elderly persons. Early identification and treatment is essential. Be assured that while you are in the hospital the Nurse will watch for these changes based on their ongoing observations of the patient and/or concerns expressed by the patient, family and/or medical team. Please ask one of our medical team if you have any other questions about delirium and patient care.

Signs to Watch For. Please notify your doctor if –

1. You have a fever of 38 C (100.5 F) for more than 24 hours
2. You have excessive pain, or new pain, bleeding or drainage from your wound
3. Your incision opens
4. You have persistent nausea or vomiting

If you have urgent problems, contact your surgeon or family doctor or go to your nearest Emergency Department.

Hospital Discharge Checklist

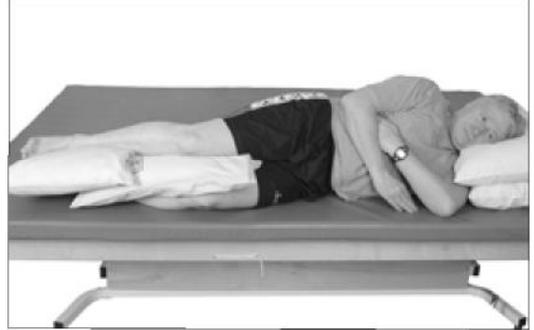
Make sure you check all items before you go home.

- I have confirmed my ride home.
- I know how to take care of my incision.
- I know what my medications are supposed to do and when to take them.
- I have an exercise program to follow.
- I know the signs that mean I need immediate medical attention.
- I have information about my follow-up appointments with my family doctor and surgeon.
- I have a copy of my discharge instructions.
- I have arranged for all the equipment I need.
- I have a plan for ongoing physiotherapy

Activities at Home

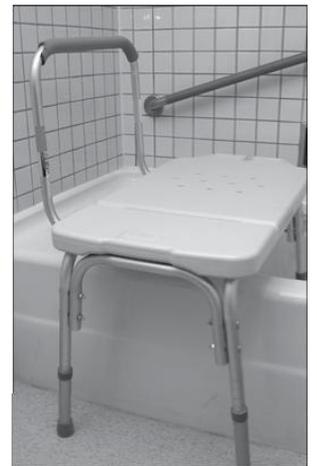
Sleeping

- When lying on your side, place 1 or 2 pillows between both your knees and ankles for 6 weeks following surgery (see picture at right).
- When lying on your back, do not use pillows horizontally under your knees. This will keep them bent and it is important that you are able to get your knee to straighten completely. You can elevate your legs above your heart on pillows that extend from below your knee to ankle (see picture on page 24).
- Use a firm mattress. If your bed is low, have it raised on blocks.



Bathing

- A walk-in shower is easiest to use. Have a shower/tub seat to sit on and a non-slip mat on the bottom of your shower or tub.
- If you use the tub to shower, you may need a tub transfer seat that has two legs inside the tub and two legs outside (see picture at right). You will sit down on this bench from outside of the tub and swing your legs in.
- You may need a grab bar to steady yourself while you get in and out.
- **DO NOT** pull or lean heavily on towel rods, soap dish holders, shower curtain rods, or anything else that could be pulled off the wall.
- Use a long-handled sponge to wash your feet if you cannot bend far enough to reach them.



Getting In and Out of the Car

- You may need a firm cushion on the car seat.
- You can put a large plastic bag on the seat so the surface is easy to slide on.
- Move the seat back as far as possible and recline it slightly.
- Back up to the car seat using your gait aid. Hold onto the door frame, not the door.
- Slide your operated leg forward and sit down.
- Swing your legs into the car.
- Adjust the seat once you're in the vehicle.
- To get out, reverse the process.



Driving

- Check with your surgeon before starting to drive again. No matter which knee you had replaced, you usually will not be allowed to drive for at least 4-6 weeks after surgery.
- Before driving, you need to be able to bend your knee enough to sit comfortably, have good muscle control to ensure adequate reaction time and no longer be taking narcotic medication.

Housework

DO NOT do heavy housework such as vacuuming or shoveling snow for at least 3 months.

- For lighter tasks, avoid bending, squatting, over-reaching and twisting.
- If possible, have a family member or friend help you. If doing the housework alone, you may need to modify the way you do it. You may also choose to contact a home support agency in your area to arrange for privately paid housekeepers.

TIPS

- Reorganize cupboards so that items you use often are within easy reach and you're not forced to squat or over-reach.
- Rest your knee by sitting on a high stool while cooking or ironing.
- Sit on a chair to unload laundry, and wash smaller loads. Put all items into a laundry bag so you only have to carry one item.
- Leave bedding un-tucked.
- Use a long-handled broom or mop.
- Sit on your tub seat to clean the tub and use a long-handled sponge to avoid over-reaching.

Sexual Activity

You may return to sexual activity when it is comfortable to do so, as long as you follow the standard knee precautions for at least 3 months. If you have questions, talk to your physiotherapist.

Airport Metal Detectors

Your new knee may set off metal detectors such as those at airports. Tell the security officer that you have a knee replacement. A hand-held wand can be passed over the area to confirm. If you are concerned about traveling, ask your physician for a letter or card stating that you have a knee replacement.

Post-Surgery Activity Guidelines

About 3 months after surgery, you may resume the following activities if your surgeon approves:

- Swimming
- Golf
- Cycling on a regular bike (raise seat so your knee is not excessively bent)
- Gentle dancing
- Aquatic exercise
- Low impact aerobics
- Light hiking
- Gardening in raised beds or with long-handled tools (to limit excessive bending)

Tips to Avoid Falls

- Avoid going outside in bad weather if possible.
- When walking outdoors, avoid poorly maintained sidewalks, unlit streets, and icy surfaces. Try to walk with a walking partner.
- In winter, wear boots with a good gripping sole.
- When you no longer need a walker, use a cane with an ice pick tip when walking on snow or ice.
- Remove floor mats around the house. Pathways should be cleared of cords, wires, and clutter.
- Make sure your home is well lit. Use a night light or motion light if you get up during the night.
- Have a handrail on all stairways.
- Always use sturdy shoes with non-slip soles that give your feet and ankles firm support.
- Never rush to answer the telephone. An answering machine or a cordless phone can be helpful.
- Do not carry too many packages – use home delivery or a push-cart.
- Use a non-slip mat in the tub or shower.

Long-Term Concerns

Preventing Infection

You are at greater risk of developing an infection in your knee now that it has been replaced. If you develop an infection of any sort (bladder infection, abscessed tooth, lung infection), call your family doctor immediately. You may need antibiotics to prevent the infection from spreading to your knee replacement. If you are having dental work or other surgery performed, tell the dentist or surgeon about your knee replacement. They will let you know if you need to take special precautions.

Loosening of Knee Joint

Over time, the components of your knee replacement may loosen. This often takes many years and may be caused by too much stress being placed on the replaced joint. Talk to your surgeon if you have any questions or concerns about loosening.

Online Resources

Associations

Bone & Joint Decade Canada: <http://www.bjdcanada.org/>

Canadian Orthopaedic Association (COA): <http://www.coa-aco.org/>

Canadian Orthopaedic Residents Association (CORA): <http://www.coraweb.org/>

Canadian Orthopaedic Nurses Association (CONA): <http://www.cona-nurse.org/>

Canadian Association of Occupational Therapists: <http://www.caot.ca/>

Canadian Physiotherapy Association (CPA): <http://www.physiotherapy.ca/Home>

Government Health Sites

Health Canada: <http://www.hc-sc.gc.ca/>

Canadian Institute of Health Information: <http://www.cihi.ca/>

Canadian Institute of Health Research: <http://www.cihr-irsc.gc.ca/e/193.html>

Healthy Living

Occupational Therapy Work: <http://www.otworks.ca/otfinder.cfm>

Active Living Coalition for Older Adults: <http://www.alcoa.ca/e/index.htm>

Ontario Retirement Communities Association: <http://www.orcaretirement.com/>

Disease-state web sites

The Arthritis Society: <http://www.arthritis.ca/>

Osteoporosis Canada: <http://www.osteoporosis.ca/>

Diabetes Care Community: <http://www.diabetescarecommunity.ca/Home.aspx>

Multiple Sclerosis: <http://mssociety.ca/en/default.htm>

Sites providing Orthopedic related info

Canadian Orthopedic Foundation: <http://www.canorth.org/en/about/Default.aspx>

My Joint Replacement (Ontario): <http://www.myjointreplacement.ca/>

Thank you for Choosing Kemptville District Hospital

The Total Joint Replacement program at Kemptville District Hospital is made possible by financial support from the Kemptville District Hospital Foundation. The Foundation can be reached at (613) 258-6133, extension 157, or by email at mboucher@kdh.on.ca.

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<http://www.kdh.on.ca/>

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