

# Recovery After Your Knee Replacement Surgery

Your Name: \_\_\_\_\_

Please bring this booklet with you for all clinic and physiotherapy appointments and your hospital stay.

	Date/Time
Your Surgery	
Your assessment before surgery	
Your Physiotherapy initial assessment	
Your appointment after surgery	



**Lakeridge  
Health**

## QUESTIONS

After you read this booklet, you may still have questions regarding your knee surgery. Use the chart below to help you determine who to contact with your questions.

Question Topic	Who to Contact	Contact Number
Your surgery: <ul style="list-style-type: none"> <li>• Date of your surgery</li> <li>• Time of your surgery</li> </ul>	Your Surgeon	Your Surgeon's Office
Information given at your Pre-Op Clinic appointment before your surgery	Pre-Op Clinic	<b>Oshawa</b> Pre-Op Clinic 905-576-8711 x 33412
		<b>Ajax</b> Pre-Op Clinic 905-576-8711 x 14220
Your outpatient physiotherapy <ul style="list-style-type: none"> <li>• Equipment</li> <li>• Exercises</li> </ul>	Outpatient Physiotherapy Clinic	905-576-8711 X 36254
Toll Free Hospital Number 1-866-338-1778		

Following your surgery, you will be eligible to receive outpatient rehabilitation at one of our Lakeridge Health Ambulatory Rehabilitation Centres (ARC) clinics listed below.

ARC Oshawa (offsite location)  
58 Rossland Rd. W.  
Oshawa, ON L1G 2V5  
Tel: 905-576-8711, ext. 34355  
Fax: 905-721-4777

Ajax and Pickering Hospital  
580 Harwood Ave. S.  
Ajax, ON L1S 2J4  
Tel: 905-683-2320, ext. 11213  
Fax: 905-428-5204

Alternatively, you can attend outpatient rehabilitation at a private clinic of your choice. You will receive a referral for outpatient physiotherapy from your Surgeon. There may be a fee for any required equipment.

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# INTRODUCTION

This booklet has been designed to help you understand and learn about your knee replacement and rehabilitation following your surgery. This booklet contains information on all your upcoming care, including care before your surgery, admission to the hospital, surgery, care after your surgery, rehabilitation, and follow-up care once you are home. It is important to remember that everyone is different so your recovery may be different from what is explained here.

For more information about knee replacements, please visit:  
<https://arthritis.ca/treatment/surgery/knee-replacement-surgery>

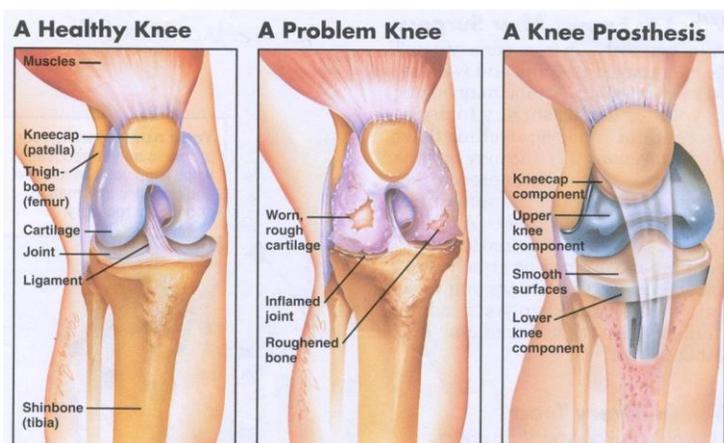
## The Knee Joint

The knee joint is a hinge type joint, allowing the knee to bend and straighten. The end of the thigh bone (femur) meets the top of the shin bone (tibia). Both bone ends are normally covered with cartilage which permits smooth and painless motion.

## About the Artificial Knee Joint (called a Prosthesis)

Each prosthesis is made up of two parts:

1. The upper part of the replacement consists of a contoured metal cap that fits around the lower end of the thigh bone (femur).
2. The lower part of the replacement consists of a flat metal plate (a stem) that fits in the shin bone (tibia). A plastic insert fits on top of the metal plate.
3. The surface of the kneecap (patella) may or may not be lined with new plastic.



## Causes for artificial knee replacement

There are many conditions that can result in degeneration of the knee. The most common are:

**Osteoarthritis:** this condition is referred to as “wear and tear arthritis”. Osteoarthritis can occur with no previous history of injury. The knee simply wears out. There may be a genetic tendency in some people that increases their chances of developing osteoarthritis.

**Abnormalities:** that are mechanical, or result from fractures, involving the knee, can lead to degeneration many years after the injury.

## YOUR SURGERY

You have made the decision to undergo this elective surgery and have therefore met with an Orthopedic Surgeon.

The goals of knee replacement surgery are to relieve pain, improve joint movement, and restore or improve your ability to safely perform daily activities like walking, standing, or stair climbing.

It is important for you to know that after your surgery you will have increased pain and limited mobility for a short period of time. Recovery time can vary from person to person, depending on the procedure and your general health. Full recovery can take 6-12 months, and your participation in rehabilitation is important to your full recovery.

Your Surgeon will have informed you of the possible risks of this type of surgery including: infection, blood clots, nerve damage, wear and implant failure, bone fracture, adverse reactions to what the artificial knee is made of limited pain relief and range of motion and anesthetic complications. If you have any remaining questions regarding this procedure, please ask your Surgeon.

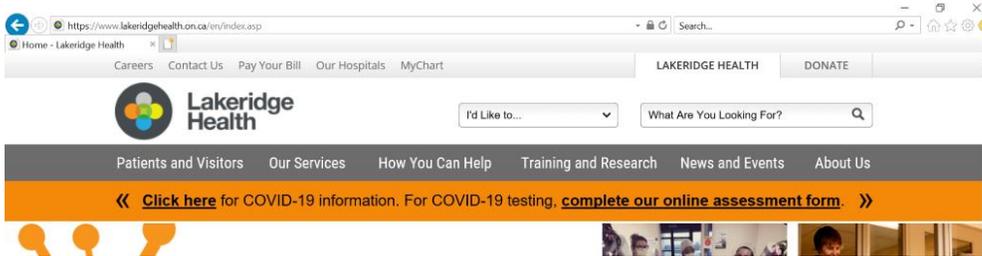
To learn more about your surgery, read this booklet in its entirety. Bring this book with you for your stay in the hospital and to all clinic and physiotherapy visits related to your knee replacement.

Please read the education document and watch a short video about before and after your surgery. They can be found on the Lakeridge Health Musculoskeletal Physiotherapy website:

<https://www.lakeridgehealth.on.ca/en/ourservices/musculoskeletalphysiotherapy.asp>

How to access the online education documents and video:

1. Type in the key word 'Physiotherapy' in the "What Are You Looking For?" search field on the Lakeridge Health website, <https://www.lakeridgehealth.on.ca>



2. Then click on 'Musculoskeletal Physiotherapy' link.
3. Scroll down to find all the Education documents and video.



You can also scan this QR code that will bring you directly to the education material and video.

If you are unable to view the video at home, there will be a space provided after your Pre-Op Clinic appointment to view the educational video.

## PREPARING FOR SURGERY

**You may be discharged from the hospital the same day as your surgery or one day after your surgery.**

It is important to know:

- What help you may need after you are home from the hospital. Community resources, such as respite care or home care, are an additional cost and need to be arranged prior to your surgery
- How you will get to and from the hospital. Please arrange transportation before your surgery
- Your instructions given by your Surgeon for before your surgery. For example, quit smoking, or follow-up with other healthcare providers
- That you need to maintain or attain a healthy body weight and improve your fitness level as recommended by your Physician or Surgeon. This will help your rehabilitation and recovery after your surgery

Please share any recreational drug use with your healthcare providers. These drugs can increase the risk of surgical complications up to and including death. All information shared with your healthcare team is confidential.

## HELPFUL TIPS TO SET UP YOUR HOME

If you have stairs at home, you will be taught by your Physiotherapist how to go up and down stairs before you return home. Many people are more comfortable living on the main level of their home when they first go home. If possible, set up a temporary bedroom on the main floor. If you do not have a bathroom on the same level as your bed, a commode chair can be rented and is useful.

Avoid low beds at home. If you need to, raise your bed height with blocks, an extra mattress or by renting an adjustable hospital bed. It is much easier getting on and off a firm mattress than a soft one. If your mattress is soft, place a board underneath it. Prepare a bedside table that holds everything you will need such as a clock, lamp, telephone, medication, water, and books.

It is recommended that you arrange help for household tasks, such as housekeeping, when you first get home, especially if you live alone. If you live alone, you may want to consider getting a medical alert button.

### Tips:

- Change furniture layout to allow a walker to be used
- Remove area rugs and clutter
- Move frequently used items to waist height
- Prepare meals and freeze them
- Install grab bars and railings for staircases
- Arrange transportation for appointments
- Place skid proof mats in your washroom and shower or tub
- Ensure there is adequate lighting throughout your home to avoid tripping or falling
- Wear supportive shoes inside your home
- Use chairs with a firm seat, backrest and arms. Avoid chairs that recline, rock or swivel

# SAFETY AT HOME

After a knee replacement, the following equipment is needed:

Two-wheeled walker



Single Point Cane



After a knee replacement, the following equipment is recommended:

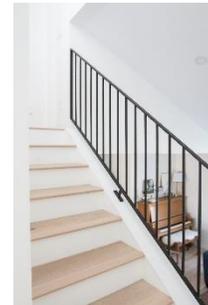
Non-slip mat in tub/shower



Grab bars near toilet and tub/shower



Railings for Staircase



Raised toilet seat with arms



OR

Raised toilet seat without arms



Tub transfer bench



OR

Bath seat (with or without back)



While in hospital, you will meet with a therapist to help you prepare to go home. They will let you know if you need any additional equipment to help you at home.

<input type="checkbox"/> Sock aid 	<input type="checkbox"/> Long handled reacher 	<input type="checkbox"/> Long handled shoehorn 
<input type="checkbox"/> Long handled sponge 	<input type="checkbox"/> Long handled shower head 	<input type="checkbox"/> Urinal 
<input type="checkbox"/> Tub clamp grab bar 	<input type="checkbox"/> Versa frame 	<input type="checkbox"/> Commode 
<input type="checkbox"/> Rollator walker 	<input type="checkbox"/> Walker- no wheels 	<input type="checkbox"/> Firm Hip Cushion (3"-4") 

\*Your equipment may not look exactly as pictured here.

A vendor list can be found in Appendix A.

## WHAT DO I NEED TO BRING TO THE HOSPITAL?

	Same Day Discharge	Overnight Stay
Smart Device (cell phone, or tablet/iPad with chargers)	✓	✓
Loose comfortable clothing	✓	✓
Cane or Walker A walker/cane will be provided for you during your hospital stay. Have the person picking you up on the day of discharge bring your cane/walker to help transfer to car.		
Comfortable Walking Shoes Flat rubber soled shoes or slippers with support around the back of the ankle. Allow for an increase in shoe size by 1 size to accommodate for swelling on the operative knee.	✓	✓
Home Medications in the original containers that are not supplied by the hospital. Your nurse will inform you of this.		✓
Toiletries Toothbrush, tooth paste, comb.		✓
Glasses & Case (if applicable)	✓	✓
Dentures & Denture Cup (if applicable)	✓	✓
Hearing Aids	✓	✓
You may receive a peripheral nerve block infusion for your pain management. It is recommended that you bring a small satchel or carrying case that you can place around your waist to store the infusion.	✓	✓

Lakeridge Health is not responsible for lost or stolen items

## WHAT TO DO BEFORE COMING TO THE HOSPITAL FOR YOUR SURGERY

- Notify your Family Doctor of your operation date and expected discharge date so they will be prepared for your visits after your surgery
- Stop taking medications as directed by your Surgeon, Anesthesiologist and/or Nurse who reviewed your medications at the consultation before your surgery
- If you are feeling unwell up to one week before surgery or if there is a change in your health, you should notify your Surgeon immediately by contacting their office

## THE DAY BEFORE SURGERY

- If you have not quit smoking, it is suggested that you do not smoke within 24 hours of your surgery.
- Shower or bathe to reduce the risk of infection from bacteria on the skin. Do not apply creams or lotions.
- Do not shave over or around where the surgical incision will be.
- Remove all make-up, nail polish, and jewellery. If you have acrylic nails, you may leave these on, but the nail polish must be removed.
- Eat and drink as you normally would until midnight before your surgery.
- After midnight: NO food, NO alcohol, NO gum or candy, NO milk products, and NO soups, broths or meal replacements.

## THE MORNING OF SURGERY

You are encouraged to drink as much clear fluids as you like until 3 hours before surgery. Please drink ONLY the fluids listed below:

- Water
- Black coffee or tea (sugar and sweetener are okay, but NO milk or cream)
- Sports drinks
- Carbonated beverages (including sodas)
- PULP FREE fruit juice (NO orange juice)

Drinking clear fluids before surgery and staying well hydrated, has been shown to improve blood pressure, decrease nausea and vomiting and decrease anxiety (especially if your surgery is later in the day). Stopping clear fluids longer than 3 hours before surgery does not help to empty your stomach and does not improve safety and can cause dehydration. Drink enough to feel comfortable and well hydrated.

Before arriving to the hospital, ensure you have consumed 250mLs or 1 cup of a clear-fluid high carbohydrate drink such as: Gatorade, Apple Juice or Ginger Ale.

Please Note: Orange Juice is not considered a clear fluid.

On arrival to the hospital, please go to the surgical registration desk at the time recommended by your Surgeon to prepare for your surgery.

Once in the hospital and while waiting for your surgery your Surgeon or Anaesthesiologist may ask you to take some medications with sips of water.

## AFTER YOUR SURGERY

- Early mobility is important for your recovery. You can expect this to start the day of your surgery, as early as 4-6 hours after your surgery
- Independence is important to your recovery and you are encouraged to do as much as possible for yourself
- You will be expected to sit up in a chair for meals and move to the bathroom
- If you feel burning or discomfort in your heels or sharp calf pain, please inform your Nurse or Surgeon's office

## IMMEDIATE POST-OPERATIVE EXERCISES

Begin the exercises below immediately after your surgery. They will help to increase circulation in your legs and feet, which is important for preventing blood clots. They will also help to prevent complications with your breathing.

1. Deep Breathing Exercises - Take slow deep breaths, in through the nose and out through the mouth 10 times every hour when awake.
2. Ankle Pumping – Move your feet up, down, and in circles 10 times every hour when awake.



3. Buttock Contractions – Tighten your buttocks muscles and hold for a count of 5 seconds 3 to 5 times every day.



## CARING FOR YOUR INCISION

It is important that you take proper care of your incision to avoid infection. Here are the things you need to know:

- Change your dressing as recommended by your Surgeon or Nurse. You may be required to purchase additional dressing supplies
- Before touching your incision, make sure you wash your hands with soap and water
- Gently remove the old dressing and inspect it for odor and drainage. Report any yellow or green drainage and odour to your Surgeon or Family Doctor
- Place the new dressing over the incision, making sure to cover it completely. Be careful not to touch the underside of the clean dressing

Ask your Surgeon whether you can shower with your dressing. Some dressings are waterproof, and others cannot get wet.

## WHAT YOU CAN EXPECT BEFORE GOING HOME

- You may be given a prescription and you understand your medication and their schedule
- You must be eating and drinking well
- Your pain is well managed
- You will be taught how to care for your dressing and incision
- A Physiotherapist will start and review your exercises and ensure the following:
  - Check your ability to move your knee
  - Teach you how to walk with a walker and walk up and down stairs, if applicable
  - Tell you how much weight the Surgeon has deemed appropriate to put on your operated leg. In most cases, this will be as much as you are able to tolerate

- You may also be seen by an Occupational Therapist to help you prepare to go home
- Have made an appointment with your Family Doctor to remove your staples. In some cases, your Surgeon will remove your staples at their office or fracture clinic. If this is the case, an appointment date and time will be given to you
- Have arrangements made for transportation home. If you are going home the same day as your surgery, remember to have a responsible adult stay with you for 48 hours after your surgery
- You may be set up with a virtual interactive nursing app to monitor your recovery at home. If so, this will be further discussed with you by your Surgeon

## WHAT WE EXPECT OF YOU AT HOME

- You are continuing your exercise program three times a day or as directed by your Physiotherapist
- You should gradually increase the distance you are able to walk with your walking aid
- Consult with your Surgeon regarding when you may return to work or sports
- No driving for 4-6 weeks, as directed by your Surgeon
- You may resume sexual activity when you are comfortable (usually 6 weeks after surgery)

## DO'S AND DONT'S

- Do change position regularly to avoid feeling stiff
- Do ice your knee for 10-15 minutes at a time to prevent swelling and pain, every 2 hours while awake
- Do elevate the knee above the heart while icing if able
- Do not jump
- Avoid kneeling
- Avoid activities that involve pushing, pulling, or lifting heavy objects
- Avoid sitting on low surfaces
- Do not attempt too many stairs or hills
- Do not do very vigorous sports like jogging or racquet sports. For guidance on specific physical activities after knee surgery, ask your Physiotherapist or Surgeon



WARNING SIGNS



If you notice any of the following, contact your Family Physician or Surgeon:

- Increased redness, swelling, odor or drainage from your incision
- An unexplained fever (temperature of higher than 38°C or 100°F) or body chills that last more than a day
- Severe knee pain that is not decreased by your pain medication and rest
- Any numbness or tingling of your toes that is not relieved by elevating your legs
- Sudden and severe increased swelling or pain in your thigh or calf

- Either leg feels unusually cool to the touch
- You suddenly have trouble walking

Go to the Emergency Department if you experience trouble breathing or chest pain.

## EXERCISING TIPS

- Gradually increase your exercises and work on them daily.
- It is a good idea to take pain medication about 30 minutes prior to physiotherapy as being at a comfortable pain level will increase your tolerance to exercises.
- Ice your knee and elevate your leg regularly, especially in the initial recovery phase to help discomfort and swelling. You can start to use ice on your surgical leg the day of surgery. Do not use ice directly on skin. Always ensure when icing that your incision or dressing remains clean and dry. To achieve this, place a thin cloth or towel on your incision, for protection. Leave the ice on for approximately 10-15 minutes (watch for redness around the area) and repeat every 2 hours. It is generally recommended to ice following your exercises. Do not use ice over an area of decreased sensation or numbness.
- Swelling may occur for about 6-12 months after your surgery.
- Use the RICE principle:

**Rest**

**Ice**

**Compression**

**Elevation**

This should alleviate swelling. To elevate your leg, keep the foot of your operated leg higher than your heart while you are lying down. You should elevate your legs at least twice a day for 45-60 minutes.

# MANAGING YOUR ACTIVITY

## Positioning in Bed

It is recommended that you keep your knee straight when lying in bed. Do NOT place a pillow underneath your knee. You are allowed to place a pillow under your ankle.



## HOW TO GET IN AND OUT OF BED:

1. Slide your legs to the edge of the bed and shift your buttocks across the bed, while remaining on your back.
2. Hook a cane or bed sheet around the arch of your foot to help assist your operated leg to the edge of the bed and then on to the floor. Use your other hand to push your body upright.
3. When moving, try to move your body as a whole.
4. When getting into bed, reverse the process.

## GETTING DRESSED

When getting dressed:

- Sit in a chair or at the edge of your bed
- DO NOT stand to step in or out of your pants or shoes
- Put underwear and pants on by pulling your underwear and pants onto your operated leg first
- When undressing, take your pants and underwear off of your operated side last
- Your Therapist may recommend other dressing aids, such as a reacher or sock aid

## SITTING AND STANDING

Sitting on a firm chair with arm rests is best. If the chair is too low (seat is below the knee when standing), you may want to place a firm cushion on the seat to make it easier to stand up.

### TO SIT IN A CHAIR

1. Using your walker, back up to the chair until you feel the back of your non-operated leg touching it.
2. Move your operated leg forward and reach back for the arm rests with one hand and lower yourself slowly into the chair. Once seated, you may scoot to the back of the chair.

### TO STAND UP

1. Slide to the edge of the chair and move your operated leg slightly forward.
2. Push up with either both hands on the chair or with one hand on the chair and the other hand on the walker. Put most of your weight through your non-operated leg as you stand. Do not pull up on the walker to stand as it may tip.
3. Grasp the walker with both hands, straighten your back and stand tall.

Incorrect Positioning



Correct Positioning



## TOILET OR COMMUNE USE

This procedure is the same as getting in and out of a chair. Your Therapist may recommend bathroom equipment, such as a raised toilet seat (with or without arms), to make it easier to get on and off the toilet. If your toilet is on a different level in your home, a commode chair can be used to reduce the amount of stair climbing.

To use a commode, raised toilet seat, or toilet rails:

1. Using your walker, back up to the toilet until you feel it behind your legs. Reach back for the armrest or toilet seat as you slide your operated leg forward. Slowly lower yourself onto the toilet.
2. Reverse the process for getting up. With your operated leg forward, push yourself up with the armrests. Do not pull up on the walker, as it may tip.
3. Avoid twisting your knee. Stand and turn to face the toilet when flushing.

## SHOWERING

- Before you leave the hospital, your Therapist will talk to you about getting in and out of your shower or bathtub. They will help you decide whether a bath seat is needed for safety and provide you with information about your equipment needs.
- Remember to ask your Surgeon whether you can get your dressing wet prior to showering.
- Shower only. It is not recommended to submerge yourself in the bathtub.
- Wet tub and shower stalls can be risky. Turn on the water after getting into the tub or shower and let the water drain away before getting out. Dry yourself off before getting out.
- A long-handled sponge/brush or reacher can help you wash and dry yourself.
- Put all your bathroom accessories, such as shampoo and soap, in an area that is easy to reach.
- You may want to plan to have someone assist you when you attempt to shower for the first time at home.

## USING A WALKER

To walk, place the walker forward first and take a short step with the operated leg. You should focus on using a heel-toe pattern. Then, step an equal distance with the non-operated leg, placing weight through your hands on the walker as needed.

Ensure you place your walker down on all 4 legs. If you are using a walker with wheels, you do not need to pick it up – simply slide it along. When you turn, be sure the walker turns with you. It is best to turn towards your non-operated leg. When turning, take small steps. Do not twist your knee.

You may progress to using crutches or a cane once you and your Physiotherapist feel you are ready. Your Physiotherapist will instruct you on the proper technique of walking with a cane or crutches. When walking with a cane, please remember that the cane is held on the non-operated side and moves ahead with the operated leg.

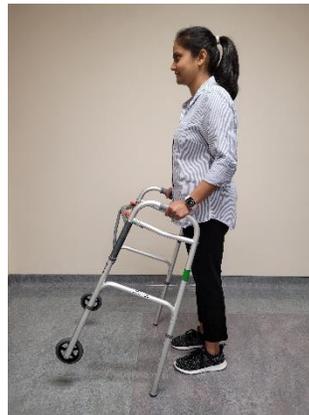
Correct Position



Incorrect Position



Incorrect Position



Incorrect Position



# STAIR CLIMBING

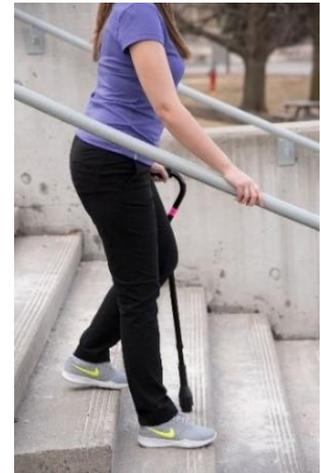
## Ascending:

1. If there is a railing, grasp it and hold a cane in the opposite hand. If you have crutches, place both crutches under your opposite shoulder. If you do not have a railing, then you may substitute another crutch or cane for it.
2. Step up with the non-operated leg first, then bring the crutches/cane and the operated leg up together to the same step, while sliding your hand up the railing (if you have a railing).



## Descending:

1. Grasp the railing, if available. Place your crutches or cane in your other hand.
2. Place the crutches or cane on the first step down.
3. Step down with the operated leg and then follow with the non-operated leg to the same step, while sliding your hand down the railing (if you have a railing).



You may wish to remember this sequence by the saying: “Up with the good, down with the bad” meaning your good leg leads up and your bad leg leads down.

## CAR TRANSFERS

To get into the front passenger seat:

1. Make sure the seat is moved as far back as possible. If it is too low, consider placing a firm pillow on the seat to make it higher so that you don't have to bend your knee as much.
2. Back up to the car with your walker until you feel the car behind your legs.
3. Reach back and sit down on the side of the seat as you would any chair.
4. Scoot yourself backward onto the seat until your legs will clear the doorway. Then pivot and swing your legs into the car. Fasten your seatbelt.
5. Reverse the process to get out.

**Note:** To make sliding along the seat easier, you may want to try placing a plastic garbage bag on the seat before you sit. Additionally, you can place the hook of your cane around your foot on the operated leg to help guide your leg in or out of the car.



## TRAVELLING LONG DISTANCES

If travelling by car, plane or train for more than an hour, it is recommended that you frequently (approximately every half hour) get out of your seat and walk. This helps to avoid excessive stiffness and swelling in your legs and ankles.

Flying is not recommended for the first 3 months following your knee replacement. If you have plans to travel, please speak with your Surgeon first.

## YOUR REHABILITATION

You will need more physiotherapy to help you regain function in your knee once you are discharged home. You will qualify for OHIP-funded outpatient physiotherapy after your knee replacement surgery. Referrals for your outpatient physiotherapy will be made before you leave the hospital.

You can expect to have your first physiotherapy appointment within 7 days after being discharged from the hospital.

The options available for you to receive outpatient physiotherapy are:

- Referral to outpatient physiotherapy at Lakeridge Health. This may be group or individual sessions, as appropriate.
- Referral for outpatient physiotherapy at another hospital or a private clinic closer to your home. You are responsible for making your own appointments in this case. A Physician referral will be given to you upon hospital discharge. Take this referral with you to your first appointment.

At your first outpatient physiotherapy appointment, your needs will be assessed, and a new exercise program will be created for you. These exercises will build on those you have become familiar with. They will help you to build the strength, range of motion, and function of your new knee. You will progress from using a walker to using a cane, and ideally to walking independently without an aid.

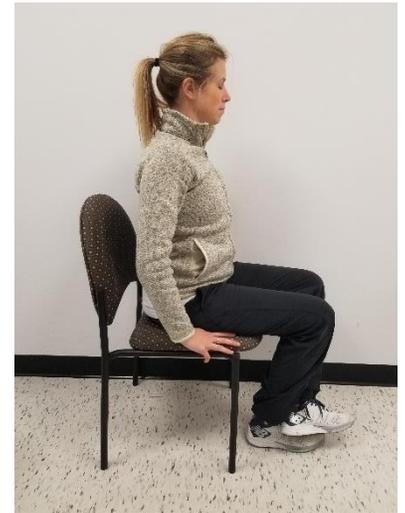
Please bring this manual, that contains recommended exercises, and your health card with you to your first outpatient physiotherapy appointment and wear loose fitting clothes.

## MEASURING YOUR KNEE MOVEMENT AT HOME

### Estimating Knee Flexion (knee bend)

Sit in a chair with your back against the backrest and slide your heel under the seat as you bend your operated knee. Your goal is to have your foot under the chair.

Your Physiotherapist will monitor your range of motion. Ideally, you want to have a 90-degree bend in your knee by two weeks after surgery, a 100-degree bend by three weeks after your surgery, and progress from there.



### Estimating Knee Extension (knee straightening)

Push down on the thigh of your operated leg to try and straighten your knee towards the bed while keeping your toes pointed towards the ceiling. Ideally, you want to have a goal for back of knee to touch the surface you are lying on.



Your home exercise program is very important as it helps you to improve your range of motion and strengthen the muscles around the knee. We recommend that you practice the exercises 1-6 before your surgery so you are familiar with them. Some of these exercises will be reviewed with you while you are in the hospital.

# EXERCISES AFTER YOUR SURGERY

Continue to do these exercises 3 times a day once you are discharged from the hospital. Before your first outpatient physiotherapy appointment, you should be comfortable doing these exercises.

## 1. ISOMETRIC QUADS (thigh muscle tightening)

- Sit or lie with your operated leg straight out.
- Push your operated knee down into the bed and tighten your thigh muscle, while keeping your toes pointed towards the ceiling.
- For how long? Hold for 5 seconds
- How many? 10-20 times



## 2. KNEE BEND (with a strap)

- Sit or lie with your operated leg straight out. Use a strap around your foot to help bring your operated knee into a bent position, keeping your heel on the bed.
- Hold the straps as close to your foot to allow for a stronger pull.
- For how long? Hold for 5 seconds
- How many? 10-20 times



## 3. QUADS (Thigh muscle) OVER ROLL

- Place a rolled towel or pillow under your operated knee.
- Engage your quadriceps muscle (in the front of your thigh) to lift your foot off the bed, straightening out your knee.
- You can use a strap or tie to assist if needed.
- For how long? 3-5 seconds
- How many? 10-20 times



#### 4. SEATED KNEE BEND with foot assistance

- Sit upright in a chair and place your non-operated foot over the operated leg.
- Use your non-operated leg to slide the foot of your operated leg under the chair, which will bend your knee.
- Your goal is to have your foot under the chair.
- For how long? 5 seconds
- How many? 10-20 times



#### 5. HEEL RAISES

- Hold onto a counter or rail and place your feet shoulder width apart.
- Rise up and down onto your toes.
- How many? 10-20 times



#### 6. HEEL TO BOTTOM

- Hold onto a counter or rail and place your feet shoulder width apart.
- Bend your operated knee to raise your heel up towards your bottom.
- Keep your knees parallel and do not let one knee come ahead of the other.
- How many? 10-20 times on each leg





Do not start the following exercises until instructed by your Physiotherapist

## 7. ¼ SQUATS

- Hold onto a counter or rail.
- Place your feet shoulder width apart.
- Bend your knees and squat down as if you were sitting in a chair.
- Remember to push your bottom back.
- Your kneecaps should remain in line with your second toe.
- Do not allow your knees to go over your toes.
- How many? 10-20 times



## 8. STRAIGHT LEG RAISE IN SITTING

- Sit in a chair with your bottom forward so your back is not touching the backrest.
- Straighten your operated leg and bring your toes towards you (activate your muscles on the front of your thigh).
- Keeping your operated leg straight, lift your heel off the ground 1 inch.
- How many? 10-20 times



## 9. LUNGE ON STAIRS

- Put your operated leg on the second stair while holding onto a rail or the wall.
- Lean forward with your back straight to allow your operated knee to bend and hold this position.
- For how long? 5 seconds
- How many? 10 times



## 10. CALF STRETCH

- Hold onto a counter or rail and place your toes and the ball of your foot of your operated leg on a rolled towel, keeping your heel on the ground.
- Take a step forward with your non-operated leg. You should feel a stretch in the back of your operated leg.
- For how long? 10 seconds
- How many? 5 times



## 11. QUADS AT WALL

- Stand with your back against a wall and your feet shoulder width apart.
- Place your heels 1-3 inches away from the wall.
- Put a small ball or rolled up towel behind your operated leg (this will make your operated knee bend slightly).
- Use your muscles to straighten your operated knee by pushing the ball or towel into the wall.
- How many? 10-20 times



## 12. HIP ABDUCTION

- Hold onto a counter or rail.
- Raise your leg out to the side (raising it up beside you).
- Make sure your upper body is not moving as you raise your leg and keep your body in an upright posture.
- How many? 10-20 times on each leg



### 13. MARCHING

- Hold onto a counter or rail, and one at a time, bring your knees up towards your hips as if you were marching.
- Keep your back in an upright posture.
- For how long? 1-3 minutes



### 14. STRAIGHT LEG RAISE IN LYING

- Sit or lie with your operated leg straight out.
- Push your operated knee down into the bed and tighten your thigh muscle, while keeping your toes pointed towards the ceiling.
- Lift your operated leg straight up to the height of your other bent knee.
- For how long? Hold for 5 seconds
- How many? 10-20 times



### 15. STEP UP AND DOWN

- Hold onto the railing. Put your operated leg onto a step, then bring your other leg up.
- Step down with your non-operated leg first keeping your operated leg up on the step.
- Then place your operated leg down to the same step. Repeat.
- Remember to go slowly and controlled.
- How many? 10-20 times



## 16. SIDEWAYS STEP UP AND DOWN

- Hold onto a railing. Put your operated leg sideways onto a step, then bring your other leg up.
- When stepping down, step down sideways with your non-operated leg. This will work your operated leg.
- Remember to go slowly and controlled.
- How many? 10-20 times



## 17. STEP DOWN

- Hold onto a railing and keep your operated leg on the step while stepping down with your non-operated leg.
- Remember to go slowly and controlled.
- How many? 10-20 times



## 18. SINGLE LEG STANCE

- Place your feet shoulder width apart. Start by placing your hands on a countertop.
- Try to pick up your non-operated leg so you are balancing on your operated leg.
- Challenge yourself by trying to lift your hands away from the countertop. Do this slowly as you focus on a still object in front of you.
- Remember to keep your hands close to the countertop in case you start to lose your balance and need to hold on to the countertop to steady yourself.
- For how long? 1-2 minutes. Take breaks as needed



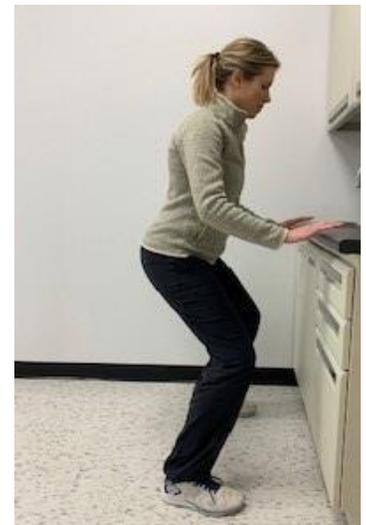
## 19. SIT TO STAND

- Sit in a chair or on a bed. Check to see that you are able to stand up from the chair or bed without using your hands.
- Place your feet shoulder width apart and parallel.
- Tighten your thigh muscles to straighten your knees and stand up.
- Stand up and sit down trying not to use your hands for support.
- How many? 10-20 times



## 20. MONSTER WALK

- Hold onto a counter or rail and stand with your knees slightly bent in a ¼ squat position.
- Keeping your knees slightly bent, take sideways steps along the counter or rail.
- Repeat going the other direction.
- Avoid standing up after every step. Stay low while keeping your chest up facing forward.
- For how long? 1-3 minutes



## 21. WALL SQUAT

- Stand with your feet shoulder width apart and facing forward.
- Bring your feet 1-2 feet away from the wall and lean your back against the wall.
- Gently slide down the wall by bending your knees into a ¼ squat position.
- For how long? 10-30 seconds
- How many times? 3 times.



## 22. LYING KNEE BEND

- Lie on your back with your bottom near the wall. Put your operated foot on the wall, allowing your knee to bend.
  - Let gravity pull your operated knee down into a bend, to the point where your knee feels tight by sliding your foot down the wall
- Option: place your non-operated foot on top of your operated foot and gently press down.

- For how long? 30-60 seconds
- How many? 10 times



## 23. QUAD (Thigh muscle) STRETCH/KNEE BEND (with strap)

- Lie on your stomach and extend the non-operated leg.
- Place a strap around the ankle of your operated leg.
- Pull the strap over your head to assist the bending of your operated knee.
- For how long? 5 seconds
- How many? 10-20 times



## 24. KNEE STRAIGHTENING ON STOMACH

- Lie on your stomach with your operated leg straight and have your feet slightly hanging off the bed.
- For how long? Stay in this position for as long as you can tolerate. Start with a minute and progress to a maximum of 10 minutes.



## APPENDIX A

### MOBILITY AND MEDICAL EQUIPMENT

Below is a list of some rehabilitation equipment companies in Durham Region. These vendors have been randomly selected for your information only. Lakeridge Health has no affiliation with the companies listed below.

Company	Equipment Available	ADP Registered*
<b>Courtice Home Health Care</b> 1423 King St E, Unit #5 Courtice, ON L1E 2J6 Tel: 905-721-0004	Walkers, wheelchairs, bathroom equipment, hospital beds, Sara Stedys	Yes
<b>Durham Medical</b> 242 King St. E Oshawa, ON L1H 1C7 Tel: 905-728-1112	Walkers, wheelchairs, bathroom equipment, cryotherapy machines, compression socks/garments, hospital beds, stair glides, porch lifts, lift chairs, ADL tools, Sara Stedy rentals	Yes
<b>Health Rite IDA</b> 75 Bayly St. W Ajax, ON L1S 7K7 Tel: 905-428-1711 www.healthritepharmacy.ca	Braces, walkers, assisted living devices, medical Device and management products.	Yes
<b>Homestead Oxygen and Medical Equipment</b> 10 Moose Rd. Lindsay, ON K9V 6K8 Tel: 705-328-3015 Toll free: 1-800-990-8873 Website: www.homesteadoxygen.ca	Walkers, wheelchairs, bathroom equipment, hospital beds, ADL tools, splints, compression stockings, lift chairs, stair glides, Sara Stedys Oxygen and Respiratory equipment Can order in Acapella and Aerobika	Yes
<b>Living Well Home Medical Equipment</b> 100 King St. E Bowmanville, ON L1C 1N2 Tel: 905-623-7110 Website: www.LivingWellHME.com	Walkers, wheelchairs, bathroom equipment, hospital beds	Yes

Company	Equipment Available	ADP Registered*
<b>Medigas (Oshawa)</b> 300 Bond St. W Oshawa, ON L1J 8P3 Tel: 905-723-8482	Walkers, wheelchairs, bathroom equipment, hospital beds Can order Acapella and Aerobika	No
<b>Medigas (Lindsay)</b> 90 McLaughlin Rd Lindsay, ON K9V 6B5 Tel: 705-324-1790 Toll free: 1-866-446-6302	Walkers, wheelchairs, bathroom equipment, hospital beds, Sara Stedy rentals	No
<b>Motion</b> 149 King St W Oshawa, ON L1J 2J3 Tel: 905-576-2174 Website: www.themotiongroup.com	Walkers, wheelchairs, bathroom equipment, stair glides, hospital beds, porch lifts	Yes
<b>Oddfellows (Sunderland and Port Perry)</b> Contact: Ken Dowson Tel: 905-986-0177	Equipment Loan Service for donated equipment. Walkers, wheelchairs, bathroom equipment	No
<b>Pharmasave</b> 360 Wilson Rd South 60 Ontario St. Oshawa, ON L1H 6C7 Port Hope, ON L1A 2T8 Tel: 905-725-6513 Tel: 905-885-1294 Website: www.pharmasave.com	Bathroom safety, compression stockings, everyday living aids, mobility products, wound care supplies	No
<b>Pickering Village Pharmacy</b> 59 Old Kingston Rd Ajax, ON L1T 3A5 Tel: 905-683-9271	Walkers, wheelchairs, bathroom equipment	No
<b>Port Perry Medical Supplies Ltd</b> 462 Paxton St. Unit 104 Port Perry, ON Tel: 905-982-2777	Walkers, cryotherapy, compression socks, transport/basic wheelchairs, power chairs, splints, ADL tools	No

<b>Company</b>	<b>Equipment Available</b>	<b>ADP Registered*</b>
<b>Silver Cross</b> 850 King St.W, Unit 9 Oshawa, ON L1J 8N5 Tel: 905-668-8560 Website: www.silvercross.com	Stair lifts, porch lifts, ceiling lifts, home elevators Bathroom equipment, walkers, wheelchairs, hospital beds, Sara Stedys	Yes
<b>Soul: The Wheelchair Studio</b> 2-10 Carlow Court Whitby, ON L1N 9T7 Tel: 905-665-8000 Website: www.soulwheelchairstudio.com	Walkers, wheelchairs, adaptive tricycles, knee walkers, bathroom equipment, hospital beds	Yes
<b>The Medical Supply Store</b> 635 Kingston Rd. Pickering, ON L1V 3N7 Tel: 905-839-6200 Toll Free: 1-877-839-6209 www.themedicalsupplystore.ca	Braces, walking aids, compression hosiery	Yes
<b>VitalAire Healthcare- Ajax</b> 520 Westney Rd. South, Unit 26 Ajax, ON L1S 6W6 Tel: 905-428-8800 Toll free: 1-800-567-0202 Website: www.vitalaire.com	Sleep apnea treatment and education, CPAP supplies, home oxygen products and services	No

Vendor list as of March 2021

\*ADP Registered: Registered Assistive Devices Program provider

## APPENDIX B

### FREQUENTLY ASKED QUESTIONS (FAQ)

1. How long and how often will I have to come to physiotherapy?

The amount of physiotherapy required after your surgery can vary from person to person. Recovery is dependent on many factors (for example: previous mobility, strength, pain, swelling, etc.). On average, patients require 1-2 physiotherapy appointments per week for approximately 4-6 weeks. Your Physiotherapist will provide you with a home exercise program. Completing these exercises is a crucial part of your recovery.

2. When can I drive?

You must get clearance from your Surgeon before you resume driving. Generally, you are not permitted to drive for 4-6 weeks after your surgery.

3. Can I use heat?

Initially after surgery, we do not recommend placing heat on your surgical leg. Please talk to your Physiotherapist before you use heat on your surgical leg.

4. When can I use ice? For how long and how frequently can I use ice?

Ice your knee and elevate your leg regularly, especially in the initial recovery phase to help discomfort and swelling. You can start to use ice on your surgical leg the day of surgery. Do not use ice directly on skin. Always ensure when icing that your incision or dressing remains clean and dry. To achieve this, place a thin cloth or towel on your incision, for protection. Leave the ice on for approximately 10-15 minutes (watch for redness around the area) and repeat every 2 hours. It is generally recommended to ice following your exercises. Do not use ice over an area of decreased sensation or numbness.

5. How long do I need to use my walker?

Talk to your Physiotherapist. The walker may be required for a few weeks to months, depending on the individual.

6. What is the best position to sleep in? Can I sleep on my side?

Do not sleep on your side. It is recommended you sleep on your back with your operated leg straight. Do NOT place a pillow underneath your knee. You can place a pillow under your ankle (see pictures on page 19).

7. Can I sleep in a recliner chair?

It is not recommended to sleep in a recliner chair. Often, the footrest will cause the knee to stay in a slightly bent position. This means your knee may not fully straighten as needed for your recovery. If you must sleep in a recliner, we recommend placing a rolled-up towel underneath the ankle of your operated leg to ensure that your knee is able to lie flat.

8. What activities can I do after my surgery?

Walking is a low-impact activity which can be performed immediately after surgery. Use your walker or cane as directed by your Physiotherapist.

For most patients your incision is fully healed around 6 weeks after surgery. Please check with your Surgeon before starting to swim to ensure your incision is fully healed. Whip kicks are not permitted. High impact activities are NOT recommended (example: jogging, running, squash or racquetball and singles tennis). If you are unsure if an activity is permitted, check with your Surgeon or Physiotherapist.

You may find kneeling challenging. If you need to kneel, it is recommended that adequate padding be placed under your knee (for example: foam pad for gardening). Limit the amount of time you spend in the kneeling position.

9. Can I apply for accessible parking permit during my recovery period?

Yes. You can apply for a temporary accessible parking permit through Service Ontario. You will need a healthcare practitioner's authorization.

10. When can I visit the dentist after my knee replacement?

Speak to your Surgeon before receiving any dental care.