Total Hip Replacement Exercise Booklet

Weight Bearing As Tolerated

Patient Name: ________________________
Surgeon:_____________________________
Date of Surgery:_______________________
Physiotherapist:_______________________
(416) 967-_____
# Table of Contents

## Postoperative Information
- Hip Precautions ........................................................................................................page 4
- Reducing Pain and Swelling .....................................................................................page 5
- Walking and Early Activity .......................................................................................page 6
- Postoperative Exercises ............................................................................................page 7
- Managing Stairs ..........................................................................................................page 14

## After the First Follow-up Visit
- Your Hip Replacement Follow-up Education Session ...............................................page 15
- After Your First Follow-up Visit ..............................................................................page 16
- Taking Care of Your New Hip ....................................................................................page 17
- Guidelines for Resuming Activity ............................................................................page 21
- Progression Exercises ...............................................................................................page 25
Hip Precautions

The following precautions are to be followed at all times for the next 6-8 weeks, unless otherwise instructed by your surgeon or an advance practice Physiotherapist/Occupational therapist. At your follow-up visit, you will be advised whether you can discontinue your hip precautions.

DO NOT BEND BEYOND 90° AT THE HIP

DO NOT TWIST AT THE WAIST

DO NOT CROSS YOUR LEGS
Reduce Pain and Swelling

Ice and Heat:
- Ice can be applied to your operated leg for 10–15 minutes. You may find this most helpful after exercise. Ice on the thigh while elevating your leg above your heart helps decrease to swelling.
- Beginning one week after surgery, you may apply heat to your thigh or the front of your hip, for 10-15 minutes before you exercise. Do not apply heat directly over the incision.

Pain Medication:
- Pain medication should be taken as prescribed.
- It is important that your pain is controlled so that you are able to complete 2-3 exercise sessions each day and gradually progress your walking.
- If you have pain when doing your exercises, take your pain medication before starting your exercises. The goal is to be 4/10 or lower (low to moderate pain) on the 0-10 pain scale.
- For more information about pain management visit www.sunnybrook.ca/hipkneepain

Sleeping:
- You are required to sleep with pillow(s) between your legs until you have your 6-8 week follow-up and your hip precautions have been removed.
- You may sleep on your back or on either side with pillow(s) between your thighs, but not on your stomach.
- Scar sensitivity is normal. Gradually increase the amount of time you spend lying on your operated side.
Walking and Early Activity

**Weight Bearing As Tolerated** means you are allowed to put as much weight as you feel comfortable with on your operated leg. As you walk, stand up as straight as you can. When you step, try to put the same amount of weight through each leg and have an equal step length.

**Using a mobility aid**

Start by placing your walker ahead of you and stepping your **operated** leg to the middle of the walker, followed by your **non-operated** leg. Stand up straight and keep your eyes forward. **Important:** never place your feet ahead of the front of your walker.

**Walking Sequence:** 1. Walker 2. Operated Leg 3. Non-operated leg

**Sit to Stand**

When sitting or standing from a chair, bed or toilet you must **extend your operated leg** out in front of you. It is important that you continue to do this until you have come for your follow up appointment (6-8 weeks after surgery).
Post-operative Exercises

1. Deep Breathing Exercises
   Take a slow deep breath, in through the nose and out through the mouth.

2. Ankle Pumping
   Move your feet up, down and in circles.

3. Buttock Contractions
   Tighten your buttock muscles and hold for a count of 5 seconds.

Begin the above exercises immediately after your surgery, as they are important to:
- help prevent complications with your breathing
- help prevent blood clots in your legs
- increase your circulation

Repeat these exercises 10 times every hour you are awake
The following exercises will help you in your recovery to improve your hip range of motion and increase strength. These exercises begin during your hospital stay and continue at home.

**Postoperative Exercises**

Repeat exercises 2 to 3 times a day

4. Hip and Knee Bending

- Lie down on your back with your head on a pillow
- Wrap a towel or sheet under the thigh of your operated leg
- Pull up on the towel to bring your knee towards your chest. Keep your heel on the bed
*Do not go beyond a 90 degree bend at your hip

Hold 5 seconds. Repeat 10-30 times.

5. Straight Leg Push Down

- Press your whole operated leg into the bed
- Feel the muscles in your buttock and operated leg tighten

Hold 5 seconds. Repeat 10-30 times.
6. Quads (Front Thigh) Strengthening Over a Roll

- Place a towel roll under the knee of the operated leg
- Push the back of your knee down into the roll while lifting your heel off the bed
- Make sure that the back of your knee does not come off the roll

Hold 5 seconds. Repeat 10-30 times.

7. Hip Flexor (Groin) Stretch

- Keep the operated leg flat on the bed
- Bend the non-operated leg toward your chest using your hands or a towel
- If your muscles are tight, you will feel a stretch at the front of your operated hip

Take 5 slow breaths while holding this position (30-45 seconds). Repeat 3-5 times.
8. Hip Abduction

- Slide the **operated** leg sideways in bed
- Keep your kneecap and toes pointing up towards the ceiling
- Always keep your legs slightly apart
- Do not lift your leg off the bed
- Once you are able to, progress to moving leg sideways on its own

Hold *5* seconds. Repeat **10-30** times.

9. Resisted Hip Abduction

- Lying on your back with sheet around thighs
- Hands pull on the sheet while both legs push out against the resistance of the sheet, **without moving the legs**
- Keep your kneecap and toes pointing up to the ceiling

Hold *5* seconds. Repeat **10-30** times.

10. Bridging

- Lying on back, knees bent
- Squeeze buttocks
- Lift buttocks off the bed

Hold *5* seconds. Repeat **10-30** times.
11. Hamstring (Back of Thigh) Curls

- Hold onto a counter or table for balance
- Bend your knee so that the heel of your operated leg moves towards your buttock
- Keep your thighs level with each other and keep your knee pointed to the floor

Hold 5 seconds.
Repeat 10-30 times.

12. Standing Hip Bending

- Hold onto a counter or table for balance
- Bend your operated hip by bringing your knee towards your chest

Do not go beyond a 90° bend

Hold 5 seconds.
Repeat 10-30 times.
13. Standing Hip Abduction

- Hold onto a counter for balance
- Slide your **operated** leg out to the side lifting your foot just slightly off the floor.
- Do not hike your hip or lean to other side. Keep your belt line level with the top of the counter.
- Keep your toes pointing forward

Hold **5** seconds.  
Repeat **10-30** times.

14. Single Leg Balance

- Hold onto a counter and attempt to stand on your operated leg
- Squeeze your buttocks together
- Make sure to keep your hips level

Hold **5-10** seconds. Repeat **10** times.
15. Sideways Stepping

- Practice stepping sideways along the length of a counter in each direction

Repeat **10** times.

---

16. Forward/Backward Stepping

- Practice stepping forwards and backwards, transferring your weight from one leg to the other
- Progress to taking several steps forwards and backwards

Repeat **10** times.

Remember: Stand up tall, do not twist your trunk, use hand support on a counter for safety. Keep your belt line level with the top of the counter.
A handrail will make stairs easier and safer. Place one hand on the railing and hold cane (s) in your opposite hand. If you do not have a handrail, use one cane in each hand.

To go up the stairs:
- Place the non-operated leg up on the first step
- Use the cane/handrail to help step up
- Bring the operated leg up to the same step

To go down the stairs:
- Start at the edge of the step
- Bring the cane and your operated leg down to the first step
- Step down to the same step with the non-operated leg

DO NOT progress to normal stair climbing until after your follow up visit (approx. 6-8 weeks after surgery)
Your Post-operative Hip Replacement Education Session is on: ___________________ at ________

Date      Time

Please bring the following items with you:

- This booklet
- Your health card and Sunnybrook hospital card
- Reading glasses, if needed
- Wear comfortable clothing
- Orange/coral referral, if provided by your surgeon

*Please remember Sunnybrook is a scent free hospital*

*Please call 416-967-8626 as soon as possible if you have not been booked into a post-operative hip replacement education session or need to change your appointment. You must have had your 6-8 week follow-up appointment before attending this session.*
After your 6-8 week follow-up

The following section of the book only applies after you have had your first follow-up appointment with your surgeon or advanced practice physiotherapist/occupational therapist (APP/OT) and your hip precautions have been discontinued.

This section contains tips about safely returning to your daily activities and progression exercises. Note, if advice from your surgeon or APP/OT is different from the information provided in this booklet, please follow the advice of your surgeon or APP/OT.

It is recommended that the following exercises be taught by a registered physiotherapist. These exercises are designed to improve your hip range of motion, strength, balance and endurance.

When you attend the Post-operative Hip Replacement Education Session we will review the following information and teach you the “Progression Exercises” that are appropriate for you.

Remember: Exercise is Medicine!
How do I take care of my new hip after the 6-8 week follow-up?

Hip Precautions:

- It is now safe to bend your hip past 90°, but **do not force it!**
- Your hip may feel stiff. Gradually increase your hip bending to a maximum of 120° or half way between 90° and your chest
- You may now cross your legs, at the ankles or knees if comfortable
- Do not force your hip into any extreme position; avoid movements that require you to plant ‘n’ pivot (e.g. Salsa dancing, golfing with cleats)

Do I still need my hip cushion, raised toilet seat, shower bench, etc.?

- None of the equipment is required, but many people still find some of this equipment helpful until they have improved strength, balance and mobility (e.g. if you are very tall or still quite stiff)
- For gardeners, or individuals that spend time in a kneeling position, there is a useful tool called a “kneeler”. This device makes kneeling more comfortable and has arms to help you get up and down
Progression of functional activities

Getting up or down from a chair: You no longer need to put your operated leg out in front of you when you are getting up or down from a chair, bed or toilet.

Climbing stairs: You can start climbing stairs normally when you feel strong enough. Use the railing and a cane if needed. Note: make sure that when you step up on your operated leg, your hip does not drop to the side (see picture on the right).

Sleeping: You are no longer required to use a pillow between your knees and you can lie on either side. If you wish, you may now resume sleeping on your stomach.

Putting on shoes: Gradually work towards putting your shoes on without aids. Below are four examples of safe methods for putting on your shoes or socks. When bending down to your feet, keep your knees apart.
Progression of functional activities continued

Getting up & down to the floor: Put your operated leg behind you. Follow the pictures below.

1. 2. 3. 4. 5.

Taking a bath is okay as long as you can get up/down from the floor (as shown above) and your incision is fully healed. Placing a non-slip mat on the bottom of the tub will reduce the risk of slipping.

Safe Lifting Tips

- Avoid heavy repetitive lifting (e.g. lifting moving boxes)
- If you must transport heavy objects, use a cart
- Avoid lifting objects greater than 20% of your body weight
- When lifting, bend with your knees, not with your back and hold the load close to your body, keeping a normal arch in your low back
- It is safest to lift an object that is between your knee and waist level. Consider setting up your kitchen/work areas so you can lift in the ideal range
**Footwear**

- It is not uncommon to feel like your legs are a different length following hip replacement. This may be the result of tight and/or weak muscles. You should allow 3-6 months for your body to adjust to your new hip. **DO NOT** add a shoe lift unless it has been suggested by your surgeon or advanced practice physiotherapist/occupational therapist.

- Wait at least 3 months and speak to your surgeon before getting fitted for new orthotics. You may wear your old orthotics so long as they are worn in both shoes and one side is not built up more than the other, to provide a lift. If you are unsure, simply wear supportive footwear for the first 3 months post surgery.

**Safe Walking Tips**

- For winter walking, Ice-O-Grips are stainless steel prongs that attach to your cane and can be flipped up while indoors.

- Snow cleats are great for improving traction if you have to walk on snow and ice. For example: walking your dog in the park. Remember snow cleats need to be removed before going indoors.

- Walk on well-lit paths that have been cleared of snow and ice.

- Keep your hands out of your pockets (but off of your cell phone!). Ensure you hold onto handrails.

- Balance requires all of our senses, so wear your glasses and use your hearing aids if needed.
Resuming Activities

This chart is meant as general guidelines, please always follow the advice of your surgeon. Exercises under the heading **Potentially permitted at 3-6 months**, are to be cleared by your surgeon before resuming. Ask your surgeon if you want to return to an activity that is not listed below.

<table>
<thead>
<tr>
<th>Permitted at 6-8 weeks</th>
<th>Permitted at 3 months</th>
<th>Potentially permitted at 3-6 months</th>
<th>Not permitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swimming -unless surgeon has said otherwise</td>
<td>Gardening</td>
<td>Downhill/Cross-country skiing</td>
<td>Jogging/Running</td>
</tr>
<tr>
<td>(no whip kick or egg beater)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase walking endurance</td>
<td>Bowling/ Lawn bowling</td>
<td>Weight training–lower body*</td>
<td>Squash/Racquetball</td>
</tr>
<tr>
<td>Golfing (putting and chipping only)</td>
<td>Curling</td>
<td>Horseback riding</td>
<td>Whip kick or egg beater in swimming</td>
</tr>
<tr>
<td>Stationary bike (upright or recumbent)</td>
<td>Golfing</td>
<td>Skating / Snowshoeing</td>
<td>Contact sports</td>
</tr>
<tr>
<td>Elliptical/ Treadmill (Walking only)</td>
<td>Outdoor cycling</td>
<td>Canoeing/ Kayaking (open kayak)</td>
<td></td>
</tr>
<tr>
<td>Weight training – upper body, core strength</td>
<td>Dancing</td>
<td>Yoga*/ Pilates (modify as necessary)</td>
<td></td>
</tr>
<tr>
<td>Driving a car - unless surgeon has said otherwise</td>
<td></td>
<td>Rowing*</td>
<td></td>
</tr>
<tr>
<td>Tai Chi</td>
<td></td>
<td>Tennis/Pickleball (doubles)</td>
<td></td>
</tr>
</tbody>
</table>

*Avoid forceful repeated maximum bending of thigh to trunk. Stay within a comfortable range of motion.
Usual walking aid progression

Walker/Crutches → 2 Canes → 1 Cane → No aid

Note: when using one cane, the cane should be held in your hand opposite to your surgery leg.

How to fix your limp

• Build your strength by doing the exercises given to you in this book
• Practice walking properly in front of a full length mirror
• Focus on:
  o Putting equal weight through both legs
  o Taking even steps
  o Spending equal time on each foot
• Use your walking aid until you have stopped limping
• Even if you are not limping with short walking distances, you may begin to limp after being on your feet for a long period of time. Take your cane with you just in case you need it or maybe consider using walking poles
• Full recovery can take up to 1 year
Caring for your new hip

- Minimize your risk of falling. Be extra careful until you regain strength, balance and coordination
- Be active. A healthy active lifestyle can help prolong the life of your new joint
- Canadian Physical Activity Guidelines recommend:
  - 150 minutes of moderate aerobic physical activity (sweating a little bit and breathing harder) per week, in sessions of 10 minutes or more
  - Muscle and bone strengthening at least 2 times per week
  - More physical activity provides greater health benefits

Useful Websites

Get moving guide:
http://whenithurtstomove.org/ways-to-give-get-involved/patient-information-resources/

Canadian physical activity guidelines:
http://csep.ca/en/guidelines/guidelines-for-other-age-groups

Want another copy of this exercise booklet?:
http://sunnybrook.ca/content/?page=musculoskeletal-education-healthcare-providers
Exercise Instructions

Strengthening exercises:
- 3-4 times per week (every other day)
- Start with 1 set of 8-15 repetitions
- Progress gradually to 3 sets of 8-15 repetitions, take a 1-2 minute break between sets
- Think slow and controlled movements, no need to hold the position
- Move on to an exercise labeled “progression” when you can easily complete 3 sets of 8-15 repetitions
- If possible, repeat exercises on your other leg

Stretches:
- Warm up for 5-10 minutes prior to stretching (eg. walking, warm shower, stationary bike)
- Hold for 45 seconds (or 5 slow deep breaths) and repeat 3 times
- Can be done everyday

- It is normal for muscles to feel sore or even shaky when starting a new exercise
- Joint pain is not normal. Pain, unlike soreness, is an indicator that you may be overdoing it with your exercises. Rest for 1-2 days and then start exercising again slowly
- Gradually increase your activity level
- Walking DOES NOT take the place of your exercises
- Continue with these exercises for at least the first year after your surgery
Please refer to page 24 for exercise instructions (including how many repetitions and how often)

17. Bridge

- Lying on back, knees bent
- Squeeze buttocks
- Lift buttocks off the bed

**Progression level 1:**
- Lift buttocks off the bed with both feet on bed
- Once you are up, lift non-operated leg up an inch
- Keep unoperated leg up as you lower buttocks back to the bed

**Progression level 2:**
- Repeat Progression level 1, but try raising your foot a bit higher or straightening your non-operated leg
18. Clam Shell

- Lie on your non-operated side with your hips and knees slightly bent
- Keep your feet together
- Open your knees as much as you can without letting your top hip roll backwards

Note: if possible, push your feet against a wall or headboard as you lift your top knee.

Progression: tie a theraband around your lower thighs, just above your knees. You may want to start off with a light resistance band.
19. Side-lying Hip Abduction with Band

- Tie a resistance band just above your knees
- Lie on your non-operated side
- Bend your bottom leg (non-operated) and straighten your top leg (operated)
- Lift your top leg straight up against the resistance of the band
- Do not let your top hip roll backwards

20. Hip Flexor Strengthening

- In sitting, lift your operated leg up so that your foot is off the floor
- Try to avoid leaning back

**Progression:** add resistance using your hands
21. Squat

- Stand in front of a chair/sink and keep equal weight through both feet
- Keep your toes pointing forwards
- Bend your knees and stick your bum out
- Lower your bum down slowly and with control, using hand support if needed
- If using a chair, lower all the way down into sitting
- Do not allow your knees to go ahead of your toes

**Progression level 1:** tie a band just above your knees. Press thighs apart against tension of band while doing the chair squat exercise.

**Progression level 2:** do your chair squat with unoperated leg slightly ahead, using hand support if needed.
22. Crab Walk

- Bring your feet together and tie a band just above your knees
- Stand with feet shoulder distance apart
- Stick your bum out as if you are about to sit in a chair
- Do not allow your knees to go ahead of your toes
- Press thighs apart against the tension of the band
- Maintain this squat position and take a few steps in one direction, then side step back in the other direction
- When stepping feet back together, don’t bring feet closer than hip distance apart
- Repeat in opposite direction until you are back to your starting position
23. Single Leg Balance

- Balance on operated leg, holding onto a counter for support if needed
- Squeeze your buttocks together
- Make sure to keep your hips level
- Try to hold for 30 seconds
- Repeat 3 times

**Progression:** once you are able to stand without holding on, progress to standing on an uneven surface such as a flat pillow, wobble board or Bosu ball.

24. Standing Abduction Against Wall

- Stand on **operated** leg
- Bend **non-operated** knee and push against wall
- Your hip should not be touching the counter
- Make sure to keep your hips level and thighs in line

**Progression:** try to take your hand off the counter so that your lower leg is the only part of your body touching the wall.
25. Standing Hip Abduction

- Hold onto a counter for balance
- Lift your **operated** leg out to the side while standing tall
- Keep your hips level and upper body straight
- Do not hike your hip. Try to keep your foot roughly **1cm off the floor**
- Keep your toes pointing forward

**Progression:** tie a theraband around your knees or ankles.

26. Marching in Standing

- Hold onto a counter for support if needed
- Bend your hip and lift your knee towards your chest
- Alternate sides
- Keep your back straight and ensure that you are not rocking from side to side

**Helpful Tip:** perform this exercise in front of a mirror.
27. Hip Bending Stretch

- Bend your knee and bring your **operated** leg toward your chest
- When you cannot go any further on your own, use your hands/towel to pull your thigh towards your chest until you feel a gentle stretch
- You are now allowed to bend your hip to 120° (half way between 90° and your chest)

28. Hip Flexor Stretch

- Lie with **operated** leg hanging over the end of the bed
- Bend the **non-operated** leg toward your chest using your hands or a towel
- You should feel the stretch at the front of your **operated** hip or groin
- Repeat with other leg

**Note:** to increase the stretch, let more of your thigh hang off the bed and bend your knee.
29. Seated Hamstring Stretch

- Sit on the edge of a chair
- Keep **non-operated** foot flat on floor. Straighten your **operated** leg with heel on floor and toes pointing up to the ceiling
- Ensure that you are sitting up straight with an arch in your low back
- Slowly lean forward at hips while maintaining a straight back with chest up

![Seated Hamstring Stretch Image]

30. Adductor Stretch

- Stand with your feet wider than hip distance apart
- Lunge **away** from the side that you are stretching
- You should feel the stretch in your groin or the inside of your thigh

![Adductor Stretch Image]

31. Side Stretch

- In sitting or standing
- Raise the arm on your **operated** side above your head
- Lean away from your **operated** side
- Take **4 deep breaths** to increase the stretch

![Side Stretch Image]