

## Table of Contents

### Section One – Before Surgery

|   |    |
|---|----|
| <b>Using the Guidebook</b> .....                    | 4  |
| <b>Joint Center Overview</b> .....                  | 4  |
| <b>Joint Replacement Care Team</b> .....            | 5  |
| <b>Knee Replacement</b> .....                       | 6  |
| <b>Joint Replacement Calendar</b> .....             | 7  |
| <b>Medication List</b> .....                        | 8  |
| <b>Let's Begin - Six Weeks Before Surgery</b> ..... | 9  |
| Plan for Leaving Hospital.....                      | 9  |
| Medical Clearance.....                              | 10 |
| Preadmission Testing .....                          | 10 |
| Medications That Increase Bleeding .....            | 10 |
| Herbal Medicine.....                                | 11 |
| Healthcare Decisions .....                          | 11 |
| Stop Smoking .....                                  | 11 |
| Start Pre-operative Exercises .....                 | 12 |
| Exercising Before Surgery.....                      | 12 |
| Pre-operative Exercises .....                       | 13 |
| Prepare Your Home.....                              | 17 |
| Breathing Exercises.....                            | 18 |
| <b>Surgery Timeline</b> .....                       | 19 |
| Four Weeks .....                                    | 19 |
| Two to Four Weeks .....                             | 19 |
| Ten to Eighteen Days.....                           | 19 |
| One to Five Days.....                               | 19 |
| Bathing Instructions .....                          | 20 |
| Night Before Surgery.....                           | 21 |
| Day of Surgery.....                                 | 21 |
| Items to Take to the Hospital.....                  | 21 |
| Special Instructions .....                          | 21 |
| <b>Frequently Asked Questions</b> .....             | 22 |



## Table of Contents

### Section Two – At the Hospital

|                                       |    |
|---------------------------------------|----|
| <b>Understanding Anesthesia</b>       | 24 |
| Anesthesiologists                     | 24 |
| Types of Anesthesia                   | 24 |
| Side Effects                          | 24 |
| <b>Understanding Pain</b>             | 24 |
| Pain Scale                            | 24 |
| <b>Hospital Care – What to Expect</b> | 25 |
| Before Surgery                        | 25 |
| During Surgery                        | 25 |
| After Surgery                         | 25 |
| Post-op Day 1                         | 26 |
| Post-op Day 2                         | 26 |
| Post-op Day 3 - Discharge Day         | 26 |
| <b>Physical Therapy Schedule</b>      | 27 |
| <b>Discharge Options</b>              | 28 |
| <b>Frequently Asked Questions</b>     | 29 |

### Section Three – At Home After Surgery

|                                    |    |
|------------------------------------|----|
| <b>Caring for Yourself at Home</b> | 30 |
| Be Comfortable                     | 30 |
| Body Changes                       | 30 |
| Blood Clots                        | 30 |
| Compression Stockings              | 31 |
| Incision Care                      | 31 |
| Dressing Removal                   | 31 |
| Constipation                       | 31 |
| <b>Recognizing Complications</b>   | 32 |
| Infection                          | 32 |
| Blood Clots                        | 32 |
| Pulmonary Embolism                 | 32 |



## Table of Contents

### Section Three – At Home After Surgery (Con't.)

|   |    |
|---|----|
| <b>Post-operative Goals</b> .....       | 33 |
| Weeks One to Two.....                   | 33 |
| Weeks Two to Four.....                  | 33 |
| Weeks Four to Six.....                  | 33 |
| Weeks Six to Twelve.....                | 34 |
| <b>Post-operative Exercises</b> .....   | 34 |
| At Home Exercises.....                  | 34 |
| Advanced Exercises.....                 | 38 |
| Advanced Stair Exercises .....          | 41 |
| <b>Activities of Daily Living</b> ..... | 44 |
| Standing.....                           | 44 |
| Bed Transfers.....                      | 45 |
| Walking .....                           | 46 |
| Stair Climbing.....                     | 47 |
| Tub Transfers.....                      | 47 |
| Car Transfers .....                     | 48 |
| Getting Dressed .....                   | 49 |
| <b>Around the House</b> .....           | 51 |
| <b>Dos and Don'ts</b> .....             | 52 |
| What to Do .....                        | 52 |
| Exercise .....                          | 52 |
| Recommended Exercise Classes .....      | 53 |
| <b>Lifetime Follow-up Visits</b> .....  | 54 |
| <b>Frequently Asked Questions</b> ..... | 55 |

### Section Four – Appendix

|                                  |    |
|----------------------------------|----|
| <b>Glossary</b> .....            | 56 |
| <b>Preferred Providers</b> ..... | 57 |



## Section One:

## Before Surgery

### Welcome!

We are pleased you have chosen Longfellow Center for Joint Replacement at Mount Auburn Hospital to have your joint replacement surgery.

The goal of your surgery is to:

- Relieve pain
- Restore independence
- Return to an active lifestyle.

### Using the Guidebook

The Guidebook will assist you with:

- What to expect
- What you need to do
- How to care for your new joint.

Your Physician, Nurse, or therapist may add or change any of the recommendations. Always use their recommendations first and ask questions if you are unsure.

### Joint Center Overview

We offer a unique program to encourage discharge from the hospital one to three days after surgery. Program features include:

- Nurses and therapists trained to work with joint patients
- Casual clothes
- Private rooms
- Group activities
- Family and friends as “Coaches”
- Orthopedic Care Coordinator who helps the patient to navigate the preoperative to postoperative experience
- Case Manager who coordinates discharge planning
- Patient Guidebook
- Quarterly luncheons for former patients and Coaches
- Education seminars regarding knee pain management.



***Our Goal...***  
***You will walk the first day after surgery; you will resume most normal activities in 6 to 12 weeks!***





## Your Joint Replacement Care Team

**Orthopedic Surgeon** – Your Surgeon is a highly trained and skilled Physician who is responsible for repairing your damaged joint.

**Physician Assistant (PA)** – Your Surgeon is assisted by licensed Physician Assistants who will be with you from office to operating room and throughout your stay in the hospital; after your procedure. The physician assistants manage your daily care while in the Center.

**Registered Nurse (RN)** – Your daily care is provided by a member of our dedicated nursing staff who will monitor your condition, communicate with your surgical team, and insure that orders by your Physician and PA are carried out – all while providing ongoing information about your care.

**Physical Therapist (PT)** – Your Physical Therapist will work closely to insure that you return to daily functionality so that you can complete routine activities, establish and monitor an appropriate exercise regime to help you regain strength and motion, and provide continuous education about your post-operative care, as well as assist you in your discharge .

**Occupational Therapist (OT)** – Your occupational therapist guides you in performing daily tasks such as bathing, dressing, and toileting with your new joint, which may include adaptive equipment education and demonstrations.

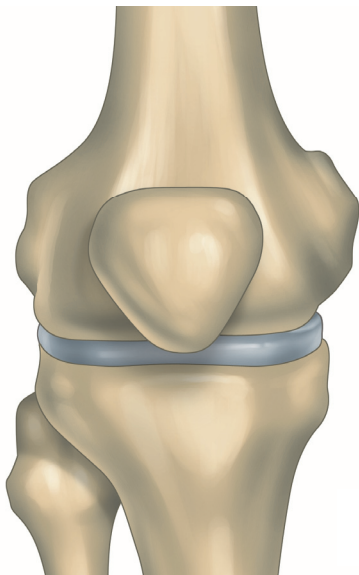
**Case Manager (CM)** – Your Case Manager will coordinate your discharge from the hospital.

**Orthopedic Care Coordinator (OCC)** – Your Orthopedic Care Coordinator is responsible for coordinating all of your care needs from the Surgeon's office to the hospital and back home again; he/she:

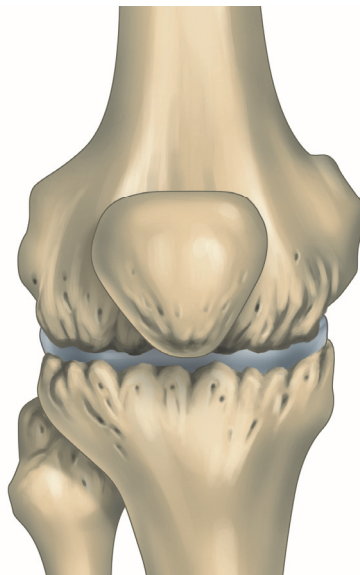
- Provides preoperative education about your surgery and what to expect
- Initiates discharge planning
- Acts as your advocate throughout the course of treatment from surgery to discharge, and answers questions and coordinate your hospital care with team members.



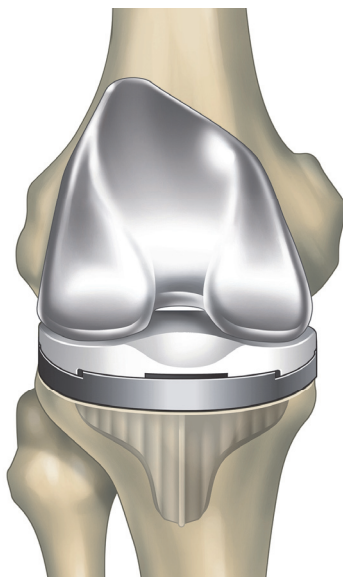
## Knee Replacement



**Healthy Knee**



**Arthritic Knee**



**Total Knee  
Replacement**



## Joint Replacement Calendar

You can use this chart to write in the date for your appointments for your preoperative history and physical, pre-admission testing, preoperative education class, and any additional specialist appointments that may be required for preoperative medical clearance. **First and foremost, be sure to write in the date and time of your surgery!**

|        | Monday | Tuesday | Wednesday | Thursday | Friday |
|--------|--------|---------|-----------|----------|--------|
| Week 1 |        |         |           |          |        |
| Week 2 |        |         |           |          |        |
| Week 3 |        |         |           |          |        |
| Week 4 |        |         |           |          |        |
| Week 5 |        |         |           |          |        |
| Week 6 |        |         |           |          |        |



## Medication List

For your convenience, here's a centralized location where you can write down your Medication list by providing the requested information.

| Name:   |   | Family Physician:                   |  |
|---|---|-------------------------------------|--|
| Medication Name/Dosage                                      | Instructions                              | Reason for Therapy                  | Duration                                       |
| What is the name of your medication?<br>What is the dosage? | When and how do you take this medication? | Why are you taking this medication? | How long have you been taking this medication? |
|   |   |                                     |  |
|   |   |                                     |  |
|   |   |                                     |  |
|   |   |                                     |  |
|   |   |                                     |  |
|   |   |                                     |  |
|   |   |                                     |  |
|   |   |                                     |  |
|   |   |                                     |  |



## Let's Begin: Six Weeks Before Surgery

### **Your First Step: A Plan for Leaving the Hospital**

You should use your discharge date and work backwards in developing a plan for your recovery process. Your Care Team will help you develop a discharge plan specific to your individual needs and most patients *go directly home* – where it is found to be more conducive to recovery when you are in familiar surroundings.

After scheduling your surgery, please contact your *Orthopedic Care Coordinator, Deborah Levenson*, at 617-499-5882. She will:

- Schedule your pre-operative class if you have not already done so.
- Plot the coordination of your pre-operative care between the Surgeon's office, preadmission testing, and the hospital, if necessary.
- Verify you have made an appointment, if necessary, with your Physician and have obtained pre-operative tests your Physician ordered.
- Answer questions and direct you to specific hospital resources.

**You are encouraged to call the Orthopedic Care Coordinator at any time to ask questions or express concerns about your pending surgery.**

**For your convenience, you will receive a packet of personal information one month prior to your surgery directly from your Surgeon's office.**

The packet will include the following important dates.

- Your preoperative medical clearance appointment with your Primary Care Physician
- Your preadmission testing appointment, and
- Your first postoperative appointment with your Surgeon.

**Your “Coach” is an  
Important Member of Your  
Longfellow Center Care  
Team!**

**Involving a friend or relative as your  
Coach is very important.**

Your Coach should be with you from the start – he or she should attend a pre-operative education class, visit during your hospital stay, and provide support during exercise classes, and keep you focused on your recovery.



## Medical Clearance

You must contact/visit your primary care Physician (PCP) within 30 days of your scheduled surgery for preoperative medical clearance. You may need to have lab work, an EKG and/or a chest x-ray performed. Please note that you may be required to undergo additional testing and/or appointments with specialists for final medical clearance.

## Preadmission Testing

You will attend a pre-test appointment 10-18 days prior to surgery. We ask that you please arrive 15 minutes earlier than your appointment time to pre-register for your surgery. **Registration is located in the Needham Lobby.** You will be directed to your preadmission testing appointment where you will meet pretest as well as anesthesia Nurses.

- You will have additional lab work as ordered by your Surgeon and you will have a nasal swab test for the presence of *staphylococcus aureus*.
- Please bring a list of all current medications and dosages with you. The Nurses will review your health history, current medications, discuss anesthesia options, and instruct you which medications you will need to discontinue before surgery.
- You will receive written instructions regarding what medications to take the morning of surgery with a sip of water.
- You will then be provided with a special soap to be used the night and morning before surgery. And finally, you may need to have a current x-ray taken of your knees.
- **Please refer to page 20 for specific bathing instructions before surgery.**

You will be contacted by the Surgeon's office if there is a positive result from your nasal swab test and if treatment is necessary. The surgeon's office will call in a prescription for Mupiricin (bactroban). You will be instructed to apply the ointment intranasally for a total of 5 days.

## Medications That Increase Bleeding

Your Physician should tell you when to stop any current medications before surgery. For example, discontinue all anti-inflammatory medications such as aspirin, Motrin®, Naproxen, Vitamin E five - seven days prior to your surgery. These medications may increase bleeding. If you are taking a blood thinner (aspirin, Plavix, Coumadin), you will be provided with written instructions for continuing or stopping the medication from the specialist who prescribed it. The pretest Nurse will instruct you about your other medications.

**NOTE: All patients will have a preoperative consultation with a Nurse from Mount Auburn Hospital's Anticoagulation Services.**





## Herbal Medicine

Herbal medicines/supplements can interfere with other medicines. Check with your Physician to see if you need to stop taking your herbal medicines before surgery.

Examples of herbal medicines include: Echinacea, ginkgo, ginseng, ginger, licorice, garlic, valerian, St. John's wort, ephedra, goldenseal, feverfew, saw palmetto, and kava-kava.



## Put Your Healthcare Decisions in Writing

*It is our policy to place your wishes and individual considerations at the forefront of your care and to respect and uphold those wishes.*

### What are Advance Medical Directives?

Your *Advance Medical Directives* are printed instructions that communicate your preferences regarding healthcare decisions. There are different types of directives, so please consult with your attorney concerning the legal implications and ramifications of each type as suggested below.

- **A Living Will** details your wishes if your condition is terminal, you are in an irreversible coma, or unable to communicate.
- **Appointment of a Healthcare Agent** (sometimes called a *Medical Power of Attorney*) is when you turn over the authority to make medical decisions to the person of your choice if you are unable to do so.
- **Healthcare Instructions** are your choices regarding use of life-sustaining equipment, hydration, nutrition, and high potency or addictive pain medications.

**Even though they are not required for hospital admission, if you have an Advance Medical Directive, we ask that you bring a copy of it with you to the hospital.**

## Stop Smoking<sup>1</sup>

Once your surgery is scheduled, if you are a smoker, you should strongly consider cutting down and quitting altogether for the following reasons.

Smoking can:

1. Delay your healing process.
2. Reduce the size of blood vessels and decreases the amount of oxygen circulated in your blood.
3. Increase clotting, which can cause heart problems.
4. Raise blood pressure and heart rates.

***Smoking can impair oxygen circulation to your healing joint. Oxygen circulation is vital to the healing process.***





We advise you to quit smoking before surgery because, if you do, you will increase your ability to heal. If you need help quitting, ask about Hospital resources.

When you are ready:

1. Decide to quit.
2. Choose the date.
3. Limit the area where you smoke; don't smoke at home.
4. Throw away all cigarettes and ashtray.
5. Don't put yourself in situations where others smoke.
6. Reward yourself for each day without cigarettes.
7. Remind yourself that this can be done – be positive!
8. Take it one day at a time – if you slip, get back to your decision to quit.
9. Check with your Physician if you need products like chewing gum, patches or prescription aids.

<sup>1</sup>Smoking Threatens Orthopedic Outcomes. Negative effects should prompt orthopedists to address the issue with patients. S. Terry Canale, MD; Frank B. Kelly, MD; and Kaye Daugherty. <http://www.aaos.org/news/aaosnow/jun12/cover2.asp>  
Motrin is a registered trademark of McNeil-PPC, Inc. All rights reserved by trademark owner.

## Start Pre-operative Exercises

Many patients with arthritis of the knee avoid using their painful leg. Muscles become weaker, making recovery slower and more difficult.

For this reason, it is very important to begin an exercise program before surgery to optimize your strength and flexibility. This will make recovery faster and easier.

**Begin exercises 1-11 found on pages (13-16).**

## Exercising Before Surgery

It is important to maintain strength and maximum flexibility before undergoing a total joint replacement. Always consult your Physician before starting pre-operative exercise programs. Basic exercises are listed in this guidebook and your Physician may instruct you to start an exercise program and continue until your surgery. *You should plan on doing them over 15 to 20 minutes twice daily prior to surgery.* Perform these exercises on both legs. Consider this training as “preventive medicine” for your muscles prior to your surgery.

You should also know that it's also important to strengthen your entire body, *not just your legs*, before surgery. Strengthen your arms by doing chair push-ups, because you will be relying on your arms when walking with the walker or crutches; getting in/out of bed and chairs; and on/off the toilet. You will be encouraged to perform light endurance activities for your heart and lungs such as walking for 10 to 15 minutes each day. If walking is too painful, consider riding a stationary bicycle.

***It is important to maintain your flexibility and strength before having knee surgery.***



# GUIDEBOOK FOR KNEES

Specific exercise programs are included in your pre-op education class by your Care Coordinator. It is strongly recommended that you break in a good pair of sneakers before your surgery to be used throughout your post-operative rehabilitation program. Your Coach should be there to assist you every step of the way to ensure that you stay active during your recovery!

## Recommended Pre-operative Knee Exercises

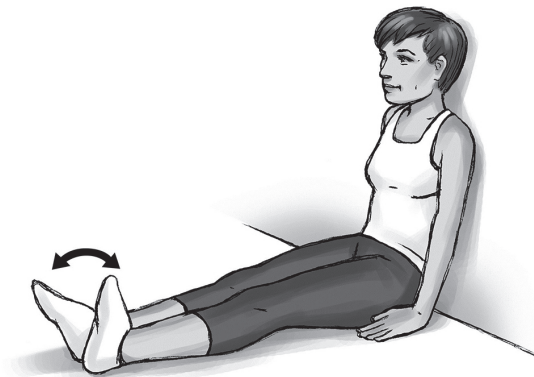
(You should not do not do any exercise that is too painful.)

1. Ankle Pumps
2. Quad Sets
3. Gluteal Sets
4. Abduction and Adduction
5. Heel Slides
6. Short Arc Quads
7. Hamstring Stretch with Optional Strap
8. Straight Leg Raise
9. Armchair Push-ups
10. Seated Knee Flexion
11. Knee Extension Stretch

### 1 Ankle Pumps

Flex and point your feet.

**Perform 20 times.**



### 2 Quad Sets (Knee Push-Downs)

Lie on your back and press your knees into the mat by tightening muscles on the front of the thigh (quadriceps). Hold for a five count. *Do NOT hold your breath.*

**Perform 20 times.**



MOUNT AUBURN HOSPITAL

### 3 Gluteal Sets (Bottom Squeezes)

Squeeze your bottom together. Hold for a five count. *Do NOT hold your breath.* **Perform 20 times.**



### 4 Hip Abduction and Adduction (Slide Heels Out and In)

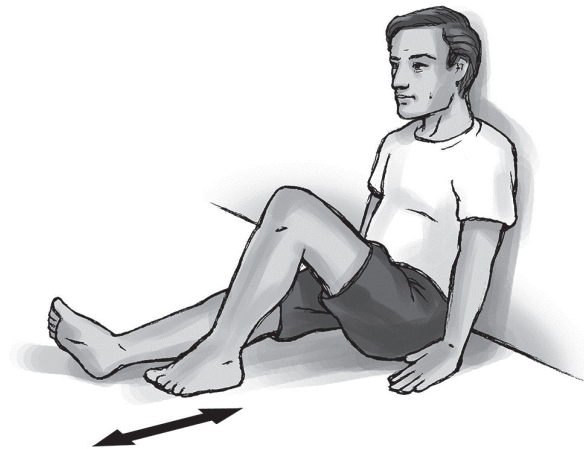
Lie on your back with toes pointed to ceiling and knees straight. Tighten thigh muscles and slide your leg out to side and back to starting position. **DO NOT CROSS THE MIDLINE!** **Perform 20 times.**

NOTE: After surgery, your therapist will advise how and when to start this exercise.



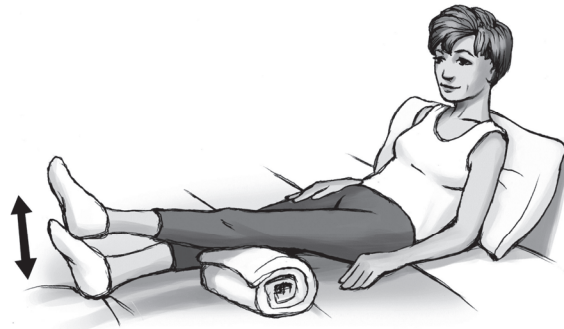
### 5 Heel Slides (Slide Heels Up and Down)

Lie on your back; slide heel up surface bending knee. **Perform 20 times.**



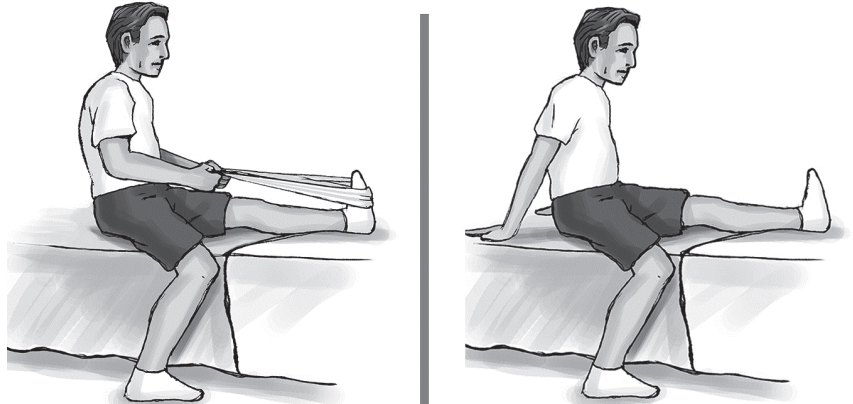
## 6 Short Arc Quads

Lie on your back, place a 6-8 inch rolled towel under knee. Lift foot from surface, straightening knee as far as possible. *Do not raise your thigh off the towel.* **Perform 2 sets of 10 (total 20).**



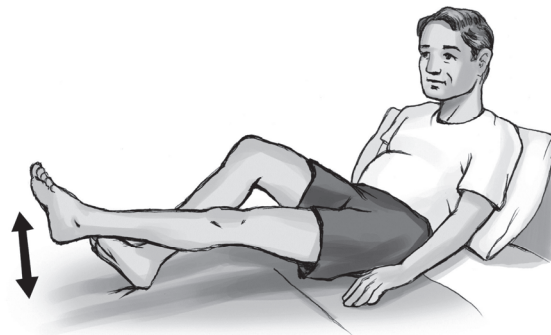
## 7 Seated Hamstring and Gastroc Stretch With or Without Strap

Sit on couch or bed with exercised leg extended and other leg dangling off side. Keeping exercised knee straight, gently lean forward until slight stretch is felt in back of thigh. As you become more flexible, use strap to pull up on foot. Hold for 20 to 30 seconds. **Perform 5 times.**



## 8 Straight Leg Raises

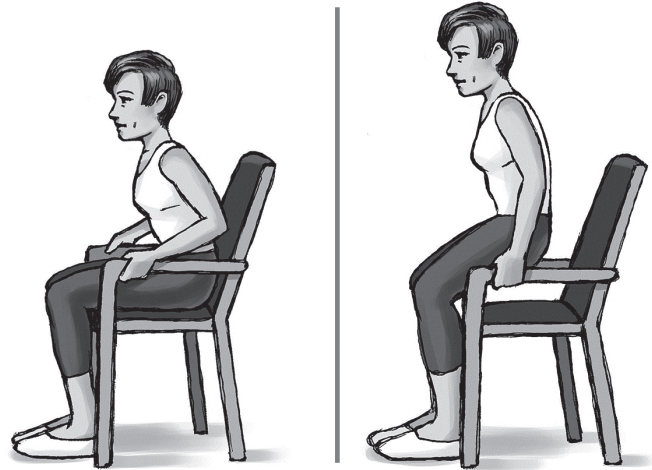
Lie on your back with unaffected knee bent and foot flat, tighten quad on affected leg and lift leg 12 inches from surface. Keep knee straight and toes pointed toward your head. **Perform 2 sets of 10.**



## 9 **Armchair Push-ups**

Sitting in sturdy armchair with feet flat on floor, scoot to front of seat and place hands on armrests. Straighten arms raising bottom up from seat as far as possible. Use legs as needed to lift. Progress to using only arms and unaffected leg to perform push-up. Do not hold breath or strain too hard.

**Perform 2 sets of 10.**



## 10 **Seated Knee Flexion**

Sitting in straight-back chair, bend affected leg as far as possible under chair (can use opposite foot to help). When maximum bend is reached, plant foot and slide hips forward further bending knee. Hold for 20 to 30 seconds. **Repeat 10 times.**



## 11 **Knee Extension Stretch**

Sitting in comfortable chair, prop affected foot on chair or stool. Place towel roll under ankle so calf is unsupported, and apply an ice pack and 5 pound weight (or bag of rice) on top of knee. **Hold position for 15 minutes.**





## Prepare Your Home

(Your Coach can help!)

- Put things you use often within easy reach.
- Secure railings to make sure they are not loose.
- Clean your home top to bottom, including laundry.
- Put clean linens on your bed.
- Prepare meals in advance – freeze if necessary!
- Don't forget to cut the grass, trim the hedges and tend the garden/finish other yard work.
- Remove throw rugs and secure wall-to-wall carpeting.
- Secure electrical cords and remove other walkway obstructions.
- Install nightlights in bathrooms, bedrooms, and hallways.
- Install shower/bath tub grab bars and put adhesive slip strips in the tub. *Grab bars secured via suction do not provide adequate support nor does a towel bar/rack.*
- Purchase a raised toilet seat and a shower chair/tub transfer bench if desired/needed.
- Contact the post office regarding your mail and see that your pets are taken care of.
- Arrange your ride home after discharge and make continue to make alternate arrangements until you are declared fit to drive by your Surgeon.



## Breathing Exercises

You can prevent problems such as pneumonia if you practice breathing exercises using the muscles of your abdomen and chest.

### Deep Breathing

- Breathe in through your nose as deep as you can.
- Hold your breath for five to 10 seconds.
- Breathe out as if you were blowing out a candle: notice your stomach going in. Breathe out for 10 to 20 seconds.
- Take a break and then repeat this exercise 10 times.

### Coughing - Repeat all steps twice.

- Take a slow deep breath: breathe in through your nose and fill your lungs completely.
- Breathe out through your mouth: concentrate on emptying your chest.
- Repeat.
- Take another breath, but hold it in and then cough hard: when you cough, focus on emptying your lungs.

***We advise that you practice deep breathing, coughing, and/or use an Incentive Spirometer to help prevent respiratory complications after surgery.***





## Your Surgical Timeline

### Four Weeks Before Your Surgery

#### Start Vitamins, Iron

You may be instructed to take multivitamins, as well as an iron supplement, which helps build up your blood count and may help prevent the need for a blood transfusion.

### Two to Four Weeks Before Your Surgery

#### History and Physical with your Primary Care Physician (PCP)

Attend an appointment with your Primary Care Physician (PCP) within 30 days of your surgery.

#### Pre-operative Class

Attend your class for Joint Surgery patients. Bring your Coach. If you cannot attend, inform the OCC.

|                      |  |  |
|----------------------|--|--|
| <b>Class Outline</b> | <ul style="list-style-type: none"> <li>- Joint Disease</li> <li>- What to Expect In The Hospital and During Recovery</li> <li>- Role of Your "Coach"/Caregiver</li> <li>- Learn Breathing Exercises</li> <li>- Review Pre-operative Exercises</li> </ul> | <ul style="list-style-type: none"> <li>- Learn About Assistive Devices and Joint Protection</li> <li>- Preventing and Recognizing Post-op Complications</li> <li>- Discharge Planning/Insurance/Equipment</li> <li>- Complete Pre-operative Forms</li> </ul> |
|----------------------|--|--|

### Ten to Eighteen Days Before Your Surgery

#### Pre-admission Testing

Attend your pretest appointment.

Attend any additional specialist appointments if required/so instructed for surgical clearance.

### One to Five Days Before Your Surgery

You can play an important role in your surgical preparations by reducing the number of germs on your skin by washing with a special soap – see "Bathing Instructions" on the next page.



## Bathing Instructions Before Surgery

### What kind of soap do I use?

Your caregiver will provide you with a special soap called **chlorhexidine gluconate 4%** (klôr-hek-sə-dîn) or **Hibiclens**. You may be given a bottle at your pretest appointment or you may be instructed to buy this at your local drug store. *If you are allergic to chlorhexidine gluconate, you may use another antibacterial soap.*

### When do I shower or bathe?

- Shower or bathe *the night before and the morning of* your surgery.
- Do not shave the area of your body where surgery will be done.
- **Please note that you may be instructed differently by your Surgeon or another Care Team member.**

### How do I use this soap?

You will use 1/3 of the bottle for each shower.

\*\*\*Never use chlorhexidine soap on your face, near your eyes or genitals\*\*\*\*

Step 1: Wash your hair, face, and body *with your normal soap*. Rinse well.

Step 2: Turn off shower or step out of the bathwater so that chlorhexidine soap doesn't rinse off too soon.

Step 3: Put chlorhexidine soap on a wet clean washcloth. Begin at your neck and wash your entire body.

Keep the soap solution on your body for five minutes. *Avoid scrubbing your skin too hard.*

1. After five minutes rinse the chlorhexidine soap off of your body with a wet, clean wash cloth. Do not wash with regular soap after you have used chlorhexidine soap.
2. Pat yourself dry with a clean, freshly washed towel.
3. Put on clean clothes or pajamas.

NOTE: Please do not apply any lotions, powder, or deodorant on your skin after using *the chlorhexidine* soap. If you do experience a *skin reaction*, stop using the soap and call your Physician if you have redness, rash or experience a severe burning sensation.



## Night Before Your Surgery

You will receive a phone call after 4 p.m. the evening before surgery to confirm your arrival time at the hospital. You will be provided with instructions the night before your surgery. Shower and wash with both your normal soap and the special soap provided as instructed. Do not eat or drink anything after midnight, **EVEN WATER**, unless otherwise instructed.

\*\*\*For Monday Surgeries, you will receive a call on the Friday before.

## Day of Your Surgery

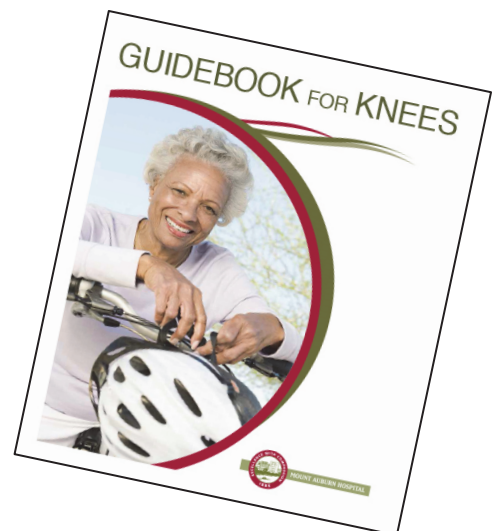
- Your Coach should remind you to shower and wash with the special soap provided as instructed.
- You should come to the surgical reception area located on the ground floor of the **Stanton Building** two hours before surgery. This provides adequate time for the staff to start IVs, prep, and answer questions. ***Please be sure to arrive on time!***

## Items to Bring with You

- Personal hygiene items (toothbrush, deodorant, battery-operated razor, etc.)
- Watch or wind-up clock
- Loose fitting clothes (2 shorts, 2 t-shirts/tops)
- Slippers with non-slip soles; flat shoes or tennis shoes
- Battery-operated items (if possible)
- Cell phone/charger
- Guidebook
- Copy of Advance Medical Directives (if you have one)
- Insurance card, valid driver's license, or photo I.D.

## Special Instructions

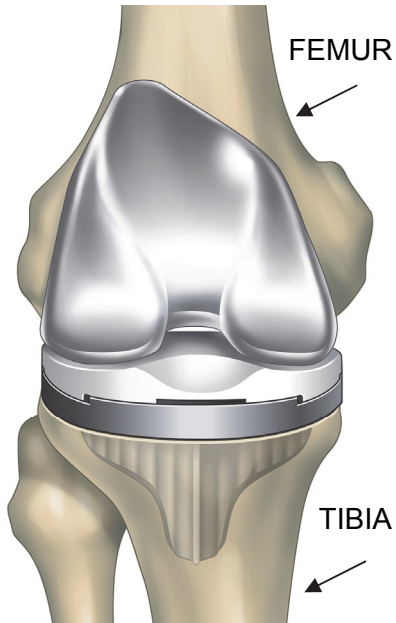
- You will be instructed as to which medications to take with water the morning of your surgery.
- Leave jewelry, valuables, and large amounts of money at home.
- Remove makeup before procedure; nail polish is permissible.
- Do not use body lotion, perfume, powder or deodorant.



## Frequently Asked Questions (FAQs)

### What is osteoarthritis and why does my knee hurt?

Osteoarthritis, the most common form of arthritis, is a “wear and tear” condition that destroys joint cartilage. Joint cartilage is the tough, smooth tissue that covers the ends of bones where joints are located. It cushions the bones during movement, and because it is smooth and slippery, it allows for motion with minimal friction. Trauma, repetitive movement, or for no apparent reason, the cartilage wears down exposing the bone ends. Over time, cartilage destruction can result in painful bone-on-bone contact, swelling, and loss of motion.



### What is total knee replacement?

The term total knee replacement is misleading. The knee itself is not replaced, but rather an implant is used to re-cap the worn ends of the bone as shown.

This is done with a metal alloy on the femur and tibia and a plastic spacer on the tibia and patella (kneecap). This creates a new, smooth cushion and a functional joint that can reduce or eliminate pain.

### How long will my new knee last and can a second replacement be done?

All implants have a limited life, depending on an individual's age, weight, activity level, and medical condition(s). A joint implant's longevity varies with every patient. Remember: an implant is a medical device subject to wear that may lead to mechanical failure. There is no guarantee that your implant will last for any specified length of time.

### What are the major risks?

Most surgeries go without complications; however, *infection and blood clots* are two possible side complications. To avoid them, your Surgeon may use antibiotics and blood thinners.

### How long will I be in the hospital?

Most patients will be hospitalized for *one to three days* after surgery. Mobility generally begins *the day of surgery*. Using a walker or crutches, your Nurse or Physical Therapist will help you walk to the bathroom and sit in a chair. Patients are generally discharged to home once they are able to sit, stand, and walk safely with the walker or other assistive device. Your Coach can provide valued support as necessary!



## What if I live alone?

Three options are available to you.

- Return home and receive help from a relative or friend.  
Attend outpatient physical therapy
- Return home and have a home health Nurse and a Physical Therapist visit you at home for two or three weeks.
- Stay in a sub-acute facility following your hospital stay; *this option requires approval from your health insurance company.*



## Section Two:

## At the Hospital

### How Anesthesia Works

#### Anesthesiologists

Your highly skilled Longfellow Care Team includes board certified Anesthesiologists and Nurse/Anesthetists.

#### Types of Anesthesia

- **General anesthesia** – you will be rendered temporarily unconscious during the procedure.
- **Regional anesthesia** – this type of anesthesia involves the injection of a local anesthetic providing numbness, loss of pain, or loss of sensation to the body (spinal blocks, epidural blocks and leg blocks).

#### Side Effects

Your Anesthesiologist will provide details regarding the risks and benefits associated with each anesthetic option, as well as possible complications/side effects which can occur. You will be provided with medications to treat nausea and vomiting, which sometimes occurs with anesthesia. The amount of discomfort you experience depends on several factors, specifically, the type of surgery you undergo. Your discomfort should be minimal, but do not expect to be totally pain free. Your Care Team will teach you the pain scale below to assess your pain level.

### Understanding the Causes of Your Pain

Pain can be constant (lasting a long time) or intense (breakthrough) — and it will change through the recovery process.

#### Pain Scale

Using a number to rate your pain can help your Joint Team understand and help manage it. “0” means no pain and “10” means the worst pain possible. With good communication, the Team can make adjustments and make you more comfortable.





## Your Care - What to Expect

### Before Your Surgery

- Your Anesthesiologist will review personal information to evaluate your general health to determine the type of anesthesia best suited for you. This includes your medical history, laboratory test results, allergies, and current medications.
- Intravenous (IV) fluids will be started and pre-operative medications may be given.
- Before you receive anesthesia, monitoring devices will be attached, including blood pressure cuff, EKG, and other devices.

### During Your Surgery

- Your Anesthesiologist will manage vital signs — heart rate and rhythm, blood pressure, body temperature and breathing — as well as monitor essential fluids and establish the need for a blood transfusion if necessary.

### After Your Surgery

- You will be taken to the *Post Anesthesia Care Unit* (PACU). Your pain level will be assessed, vital signs monitored, and an x-ray of your new joint may be taken.
- Depending on the type of anesthesia used, you may experience blurred vision, dry mouth, and chills.
- You will have monitors attached, IVs running, oxygen in your nose, compression devices wrapped around your legs, ice on the joint and a catheter in your bladder.
- After your stay in the PACU – typically 1-3 hours - you will be taken back to the Longfellow Center for Joint Replacement located on South 3.
- Most discomfort occurs the first 12 hours following surgery, so you may receive pain medication through your IV.
- ***Only one or two very close family members or friends should visit on surgery day.***
- At some point, you may be assisted to sit in chair and you may walk in the hallway with a rolling walker with assistance from your Physical Therapist. Mobility helps to relieve discomfort and prevent blood clots from forming in your legs.
- You should begin ankle pumps when in bed and when sitting up in the chair.
- You should use your Incentive Spirometer and do the deep breathing exercises you learned.





## Your Care - What to Expect

### Post-op Day One

- Expect to be out of bed, bathed, dressed in your own clothes, and seated in a recliner. Shorts/tops are recommended; long pants are restrictive.
- Your Surgeon and Physician Assistant will visit early in the morning.
- Your Physical Therapist will get you walking with crutches or a rolling walker.
- Intravenous (IV) pain medication will likely be stopped; you may begin oral pain medication.
- Group therapy typically begins; occupational therapy may begin, if needed.
- For patients being discharged, you will walk in the halls and learn to climb up/down stairs.
- Your Coach is encouraged to be present: visitors are welcome late afternoon or evening.

### Post-op Day Two

- Expect to be out of bed, bathed, dressed in your own clothes, and seated in a recliner. Shorts/tops are recommended; long pants are restrictive.
- You will start with a morning walk.
- You will walk the halls and learn to climb up/down stairs.
- You will have Group Therapy twice today. It would be helpful if your Coach participates.
- You will have a discharge class.
- Your equipment for home (rolling walker or crutches) will be provided to you by the Physical Therapist if you are going home today.
- If going home today, the goal is to discharge you by early afternoon.
- Evenings are free for visitors.

### Post-op Day Three – Discharge Day

- Day three is very similar to day two - please review.
- You should walk up/down stairs.
- Your equipment for home (rolling walker or crutches) will be provided to you by the Physical Therapist.
- *The goal is to discharge you by early afternoon*



## Physical Therapy Schedule

*Note: Times are approximate and represent a “typical” schedule. Physical Therapist will advise patients and family members if times change.*

|  |   |
|--|---|
| <b>Day of Surgery</b>                    | Some patients may be seen by the Physical Therapist today for their postoperative PT evaluation.  |
| <b>Post-op Day One</b>                   | <p>If you are not evaluated on day of surgery, your Physical Therapist will come to your room to evaluate you between 7 a.m. and noon. Coaches do not need to be at hospital this morning. First group therapy session at 1:30 p.m. Coaches are encouraged to attend!</p> <p>If you have already been evaluated by the Physical Therapist, you may be seen by the occupational therapist between 7 and 10 a.m. The first group therapy session is at 10:00 a.m. The second group therapy session is at 1:30 p.m. Coaches are encouraged to attend. You may be scheduled for additional individual sessions with a PT, OT or PTA if necessary.</p> |
| <b>Post-op Day Two</b>                   | <p>Your first group therapy session is at 10 a.m. It is recommended that all Coaches attend for instructions about items to know before taking the patient home. <i>On day of discharge, patients are usually discharged in the early afternoon.</i></p> <p>If you are not discharged today, you will have two group therapy sessions at 10 a.m. and 1:30 p.m. Coaches are encouraged to attend. You may be scheduled for additional individual sessions with a PT, OT or PTA if necessary.</p>   |
| <b>Post-op Day Three – Discharge Day</b> | <p>Group therapy starts at 10 a.m. You and your Coach will have an opportunity to ask questions if you are unclear about discharge instructions and specific Guidebook items. It is recommended that all Coaches attend for instructions about items to know before taking the patient home. If you are going home, equipment will be provided. <i>On day of discharge, you will be discharged directly after group class or at the latest, by early afternoon.</i></p> <p>If you are not ready for discharge, there will be a second group exercise class at 1:30 p.m.</p>   |



## Your Discharge Options

### Going Directly Home

- You should make arrangements to have someone pick you up.
- You will receive discharge instructions concerning medications, physical therapy, activity, etc.
- Your *assistive device* for home use will be provided by the Physical Therapist.
- If you require adaptive equipment, it will be provided by your occupational therapist.
- If you require Home Care services, your case manager will arrange for them.
- You will need to stop at the pharmacy on your way home to pick up your medications.
- If so instructed, you will begin therapy at an outpatient PT facility.



### Going to a Sub-acute Rehabilitation Facility

- Your sub-acute stay must be approved by your insurance company: in order to transfer to a sub-acute rehabilitation facility, you must meet admission criteria established by the facility in accordance with your insurance provider or Medicare.
- If you do require sub-acute rehabilitation, your Case Manager will make the arrangements.
- Your transfer papers will be completed by medical and nursing staff.
- You will be transferred from the hospital to the rehab facility via ambulance.
- Your Primary Care Physician or a Physician from the sub-acute facility will care for you in consultation with your Surgeon.



## Frequently Asked Questions (FAQs)

### **What happens during my surgery?**

Your surgery will last anywhere from one to three hours: time will be taken by operating room staff to prepare you for surgery. You may receive general anesthetic - “being put to sleep.” Some patients prefer a regional or spinal or epidural anesthetic, which numbs the legs. The choice is between you, your Surgeon, and the Anesthesiologist. *Regardless of anesthetic choice, you will not be awake during your surgery.*

### **Will surgery be painful?**

You may have varying levels of discomfort following surgery, but we keep you comfortable with appropriate medication and with the use of an ice wrap. Most patients will receive oral pain medication, with some additional IV medication for “breakthrough” pain if necessary. Be sure to communicate increasing levels of pain with the Joint Team. More can be done to control your pain if they are aware of how you feel.

### **How long and where will my scar be?**

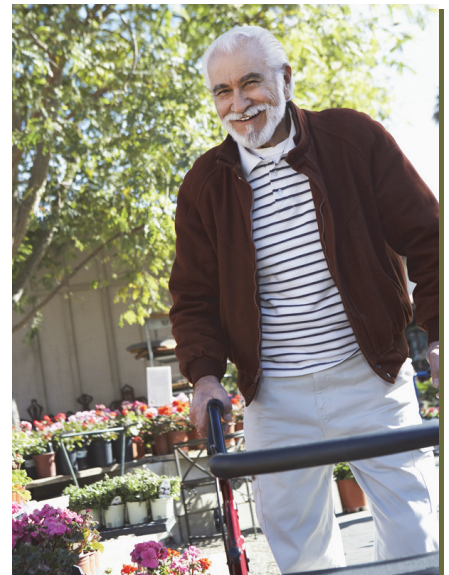
Your scar – location and length – will vary depending on the type of surgery you have. Your Surgeon will discuss which type of approach is best for you. You may experience some numbness around the scar after it is healed; this is normal and will disappear over time.

### **Will I need a walker, crutches, or a cane?**

You will progress at your own rate. We recommend you use a walker, crutches, or a cane for four to six weeks. Your Physical Therapist will arrange for equipment as needed.

### **Where will I go after discharge from the hospital?**

You, like most patients, may be able to go home directly after discharge. You may also transfer to a sub-acute rehabilitation facility. Your Longfellow Care Team will help with this decision and make necessary arrangements. *Check with your insurance company to see if you have sub-acute rehab benefits.*



## Section Three:

# At Home After Surgery

## Caring for Yourself at Home

***Try not to nap  
during the day so  
you will sleep at  
night.***

**Tried-and-true tips for your safety, recovery and comfort.**

### **Maximize Your Comfort Level**

- Take pain medicine at least 30 minutes before physical therapy.
- Wean off prescription medication to non-prescription pain reliever such as Extra-strength Tylenol® tablets which you should take up to four times per day.
- Change position frequently (every 45 minutes to 1 hour) to prevent stiffness.
- **Use ice for at least 20 minutes at a time as needed for pain and swelling. Use before and after your exercise program.**

### **Anticipate Body Changes**

- Your appetite may be poor, but your desire for solid food will return.
- Drink plenty of fluids.
- Expect sleep interruptions.
- Your energy level will be low: this may last for up to four weeks.
- Pain medication that contains narcotics promotes *constipation*; use stool softeners or laxatives as necessary.

### **Reduce the Possibility of Blood Clots**

You may be given a blood thinner to avoid blood clots in your legs. The amount of the medication may change depending on how your blood thins. *If you were given Coumadin®, it will be necessary to do blood tests once or twice weekly to monitor its effectiveness and perhaps adjust the dose.*

- If you are discharged home with home health services, a Home Health Nurse will come out twice a week to draw prothrombin (bleeding time test) time. Results are relayed to the Nurse or pharmacist at the hospital's anticoagulation clinic who will adjust your dose.
- If you **DO NOT** utilize home health nursing, you will go to an outpatient medical lab and have the prothrombin time drawn there. A Nurse or Pharmacist from anticoagulation management services at Mount Auburn Hospital will monitor your lab results and contact you to adjust the dose of blood thinner medication.
- If you are transferred to a rehabilitation facility, a Physician will monitor your progress and adjust your dosage if needed. When discharged, home health or outpatient blood monitoring will be arranged by the rehabilitation staff.





## Use Compression Stockings

You will be provided with special stockings to compress veins in your legs. This helps keep swelling down and reduces the chances of blood clots.

- If swelling in your operative leg becomes bothersome, elevate it for short periods. Lie down and raise leg above heart level.
- Wear your stockings continuously, removing one to two hours twice a day.
- Notify your Physician if pain or swelling increases in either leg.

Wear these stockings for four weeks after surgery; your Surgeon will advise you when to stop using them.

## Regular Incision Care

- A special waterproof dressing is applied after surgery: leave this on until it falls off or when removed by your Surgeon at your first postoperative visit unless otherwise instructed.
- You may shower with the dressing on as long as it is intact/sealed.
- If your dressing loosens or falls off keep the incision clean, dry and covered with a gauze dressing. *Do not get the incision wet until you have been seen by the Surgeon.*
- Call your Surgeon if there is wound drainage, odor, redness, increased pain, swelling or heat around the incision or if temperature/fever exceeds 100.5 degrees.

## Dressing Removal

- Make sure to thoroughly wash your hands with soap and water.
- Press down on the skin with one hand and carefully lift an edge of the dressing with the other hand.
- Stretch the dressing to break the adhesive seal around the entire perimeter of the dressing. When the adhesive seal is broken, gently remove the dressing.
- Keep the incision clean, dry and covered with a gauze dressing until inspected by the surgeon.

## Constipation

Certain medications may cause constipation; continue taking stool softeners while still taking pain medication and make sure you remain well hydrated.



## Recognizing and Preventing Potential Complications

### Infection

|            |  |
|------------|--|
| Signs      | <ul style="list-style-type: none"> <li>• Increased swelling and redness at incision site.</li> <li>• Change in color, amount, and odor of drainage.</li> <li>• Increased pain in hip not correlated with increased activity.</li> <li>• Fever greater than 100.5 degrees.</li> </ul> |
| Prevention | <ul style="list-style-type: none"> <li>• Take proper care of incision.</li> <li>• Notify dentist, Physician, Surgeon or medical professionals before having dental work or other invasive medical procedures done—prophylactic antibiotics are generally prescribed.</li> </ul>      |

### Blood Clots

Your surgery may cause the blood to slow and coagulate in leg veins, creating a blood clot. If a clot occurs, you may need to be admitted to the hospital to receive intravenous blood thinners.

|            |  |
|------------|--|
| Signs      | <ul style="list-style-type: none"> <li>• Swelling in thigh, calf, or ankle that does not go down with elevation.</li> <li>• Pain, heat, and tenderness in calf, back of knee, or groin area.</li> <li>• Blood clots can form in either leg.</li> </ul> |
| Prevention | <ul style="list-style-type: none"> <li>• Perform ankle pumps.</li> <li>• Walk several times a day.</li> <li>• Wear compression stockings.</li> <li>• Take blood thinners as directed.</li> </ul>   |

### Pulmonary Embolism

**A pulmonary embolism is an unrecognized blood clot could break away from the vein and travel to the lungs. This is an emergency — CALL 911!**

|            |  |
|------------|--|
| Signs      | <ul style="list-style-type: none"> <li>• Sudden chest pain.</li> <li>• Difficult and/or rapid breathing.</li> <li>• Shortness of breath.</li> <li>• Sweating.</li> <li>• Confusion.</li> </ul> |
| Prevention | <ul style="list-style-type: none"> <li>• <i>Follow guidelines above to prevent blood clot in legs.</i></li> </ul>  |





## Post-operative Goals

### Weeks One and Two

**Your goal is discharge from the hospital within one to three days. You may go directly home, but possibly go to a rehabilitation center.**

- Continue to walk with walker or two crutches unless otherwise instructed.
- Walk at least 300 feet with walker or support.
- If you have stairs, climb and descend a flight of stairs (12-14 steps) with rail once a day.
- Shower and dress if waterproof dressing is intact.
- Gradually resume homemaking tasks.
- Do 20 minutes of home exercises twice a day.

### Weeks Two to Four

**Your goal is to gain more independence. Follow the recommended exercise program to achieve the best results.**

- Achieve weekly goals.
- Move to cane or single crutch, as instructed by Physical Therapist.
- Walk at least one-quarter mile.
- Climb and descend flight of stairs (12-14 steps) more than once daily.
- Shower and dress.
- Resume household tasks within reason and mobility.
- Do 20 minutes of home exercises twice a day.
- Begin driving if left knee had surgery (need permission from Surgeon and Physical Therapist).

### Weeks Four to Six

**Your goal is recovery to full independence. Your home exercise program is important as you receive less supervised therapy.**

- Achieve weekly goals.
- Walk with cane or single crutch.
- Walk one-quarter to one-half mile.
- Progress on a stair from one foot to regular stair climbing (foot over foot).
- Drive a car regardless of which had surgery IF cleared by your Surgeon and Physical Therapist.
- Home exercise program twice a day.



## Weeks Six to 12

**Your goal is to resume all of your activities.**

- Achieve weekly goals.
- Walk without a cane or crutch — and without a limp.
- Climb and descend stairs in normal fashion (foot over foot).
- Walk one-half to one mile.
- Improve strength to 80%.
- Resume activities including dancing, bowling, and golf when cleared by your surgeon and physical therapist.

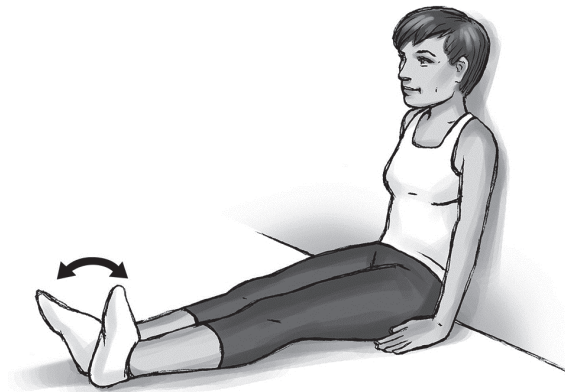
## Post-operative Exercises

Your pre-op exercise protocols now become even more critical because exercise is important to achieve the best results after knee surgery. Consult your Physician before starting an exercise program. Work on an exercise program with your Physical Therapist, at an outpatient facility, or participate in a home exercise program.

### At Home Exercises

#### Ankle Pumps

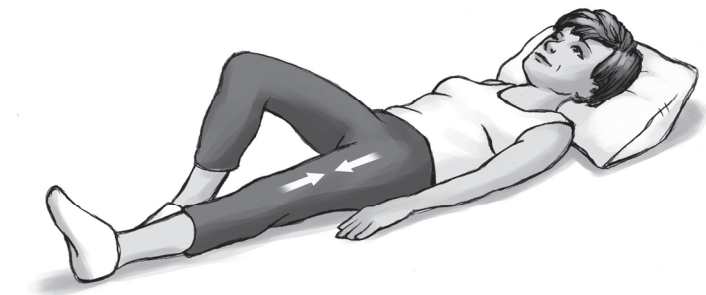
Flex and point your feet. **Perform 20 times.**



#### Quad Sets (Knee Push-Downs)

Lie on your back, press knees into mat by tightening muscles on front of thigh (quadriceps). Hold for 5 count.

**Do NOT hold your breath. Perform 20 times.**



## Gluteal Sets (Bottom Squeezes)

Squeeze bottom together. Hold for 5 count. *Do NOT hold breath.* **Perform 20 times.**



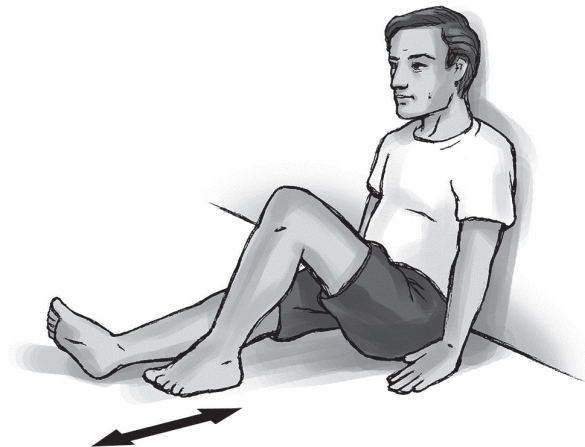
## Hip Abduction and Adduction (Slide Heels Out and In)

Lie on your back with toes pointed to ceiling and knees straight. Tighten thigh muscles and slide leg out to side and back to starting position. *DO NOT CROSS MIDLINE!* After surgery, your therapist will advise how and when to start this exercise. **Perform 20 times.**



## Heel Slides (Slide Heels Up and Down)

Lie on your back; slide heel up surface bending knee. **Perform 20 times.**

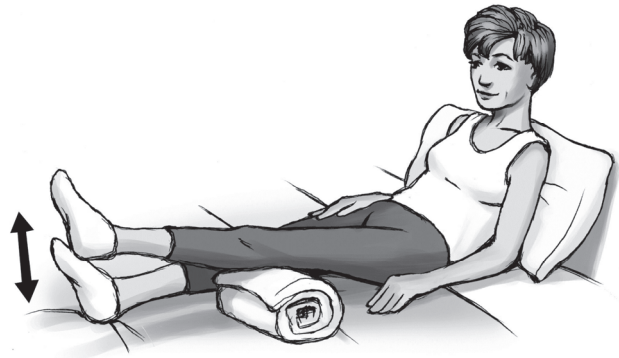


# GUIDEBOOK FOR KNEES

## Short Arc Quads

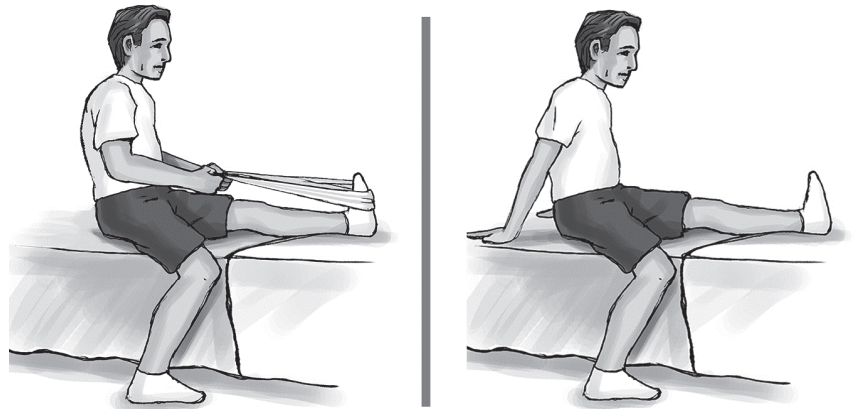
Lie on your back, place 6-8 inch roll under knee. Lift your foot from surface, straightening your knee as far as possible. *Do not raise thigh off roll.*

**Perform 2 sets of 10/20 total.**



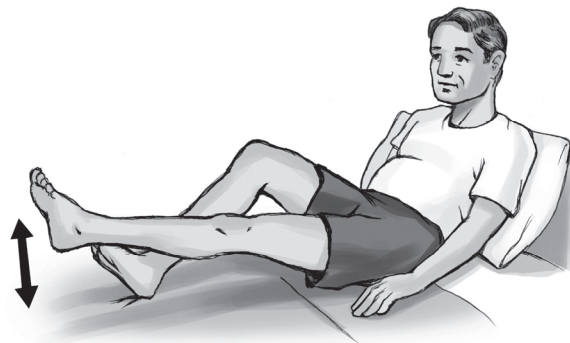
## Seated Hamstring and Gastroc Stretch With or Without Strap

Sit on couch or bed with exercised leg extended and other leg dangling off side. Keeping exercised knee straight, gently lean forward until slight stretch is felt in back of thigh. As you become more flexible, use strap to pull up on foot. Hold for 20 to 30 seconds. **Perform 5 times.**



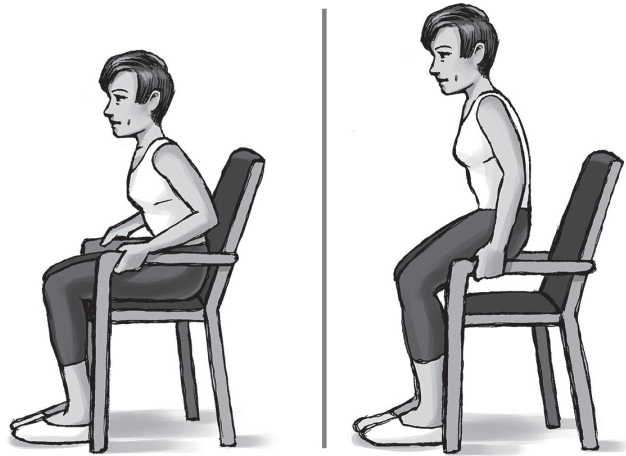
## Straight Leg Raises

Lie on your back with unaffected knee bent and foot flat, tighten quad on affected leg and lift leg 12 inches from surface. Keep knee straight and toes pointed toward your head. **Perform 2 sets of 10.**



## Armchair Push-ups

Sitting in sturdy armchair with feet flat on floor, scoot to front of seat and place hands on armrests. Straighten arms raising bottom up from seat as far as possible. Use legs as needed to lift. Progress to using only arms and unaffected leg to perform push-up. Do not hold breath or strain too hard. **Perform 2 sets of 10.**



## Seated Knee Flexion

Sitting in straight-back chair, bend affected leg as far as possible under chair (can use opposite foot to help). When maximum bend is reached, plant foot and slide hips forward further bending knee. Hold for 20 to 30 seconds. **Repeat 10 times.**



## Knee Extension Stretch

Sitting in comfortable chair, prop affected foot on chair or stool. Place towel roll under ankle so calf is unsupported, and apply an ice pack and 5 pound weight (or bag of rice) on top of knee. **Hold position for 15 minutes.**





## Advanced Exercises

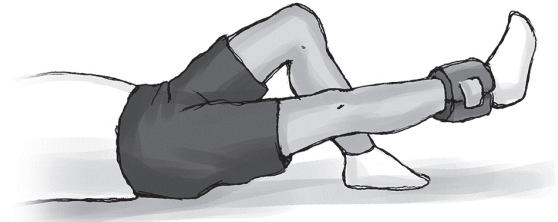
As instructed by a Physical Therapist, post-surgery.

**Do not begin these exercises until you have been given clearance by your physical therapist.**

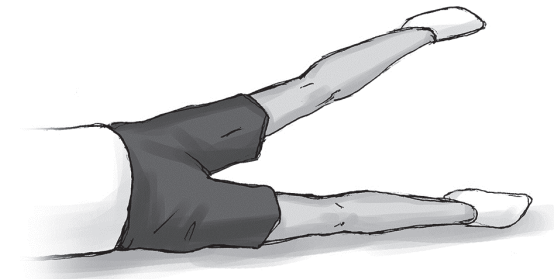
### Three-Position Straight Leg Raises

Perform straight leg raise in three positions:

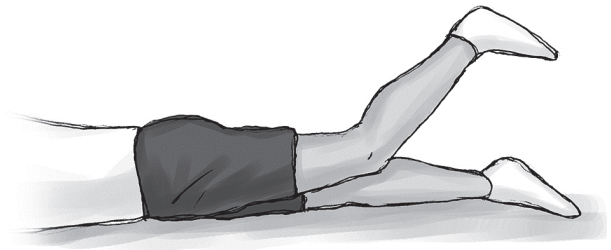
1. Lie on your back, straight leg progression using weights.



2. Lie on your non-surgical side.

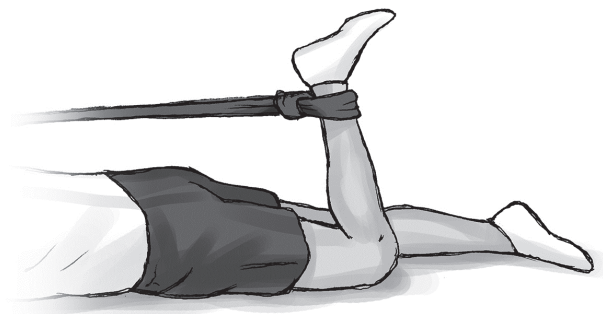


3. Lie on your stomach.



### Quadriceps Stretch

Lie on your stomach, bend surgical knee, raising foot from surface as far as possible. If able, place a strap around ankle to pull foot toward bottom. Hold for 20 to 30 seconds. **Perform 5 times.**





## Bridges

Lie on your back with knees bent and feet flat on surface; push down on feet as you tighten buttocks and hamstring muscles and lift hips from surface. Concentrate on pushing equally through both feet. Hold for 5 count then return to start position. **Perform 2 sets of 10/20 total.**



## Knee Extension – Long Arc

Sit with back against chair and thighs fully supported. Lift the affected foot up, straightening the knee. Do not raise thigh off of chair. Hold for 5 count. **Perform 2 sets of 10/20 total.**



## Standing Heel/Toe Raises

Stand, with a firm hold on to a stationary object. Rise up on toes then back on heels. Stand as straight as possible. **Perform 2 sets of 10/20 total.**



## Mini Squat

Stand, with feet shoulder width apart, and holding on to a stationary object. Keep heels on floor as you bend knees to slight squat. Make sure your knees do not go past your toes. Return to upright position tightening buttocks and quads. Keep body upright, heels on floor and do not squat past 90 degrees hip flexion. **Perform 2 sets of 10/20 total.**



## Standing Terminal Knee Extension

Standing against wall, with feet about 4-6 inches out, place 6-8" ball behind knee. Push ball into wall by tightening hip and quadriceps muscle. **Perform 2 sets of 10/20 total.**



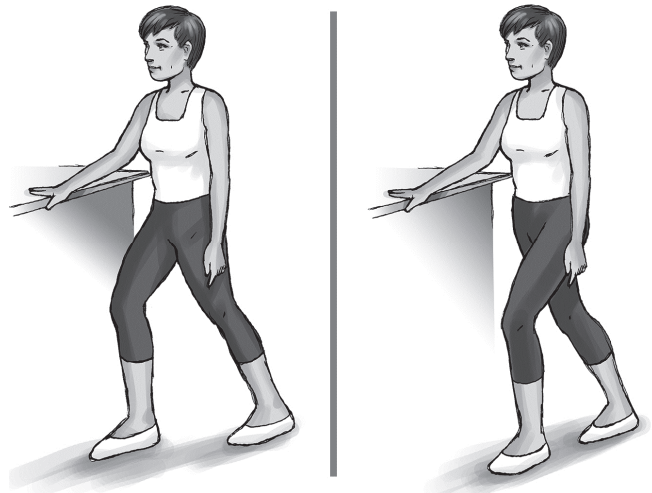
## Wall Slides

With feet shoulder-width apart and back to wall, slide down wall as far as comfortable. Make sure your knees do not go past your toes. Your therapist will guide you on how far to slide down wall. Make sure you keep equal weight on both legs. Push back up equally through both legs and come to standing. **Perform 2 sets of 10/20 total.**



## Standing Rock Over Surgical Knee

Stand sideways to countertop and hold on. Keep surgical knee and heel firmly planted on floor; step forward with other leg to feel a slight stretch in calf and thigh. Make sure your knee does not go past your toes. Step back. Concentrate on shifting weight to surgical side and on equal step distance. **Perform 10 times forward and 10 times back.**

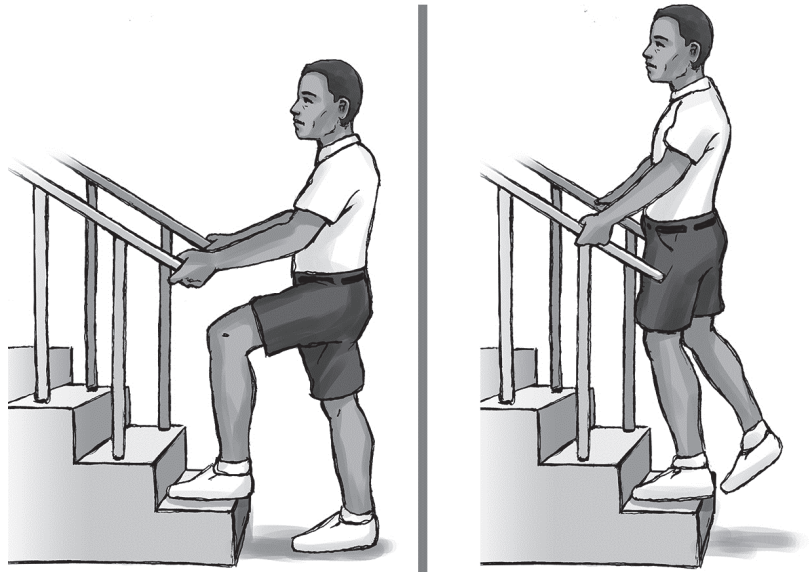


## Advanced Stair Exercises

Started 6-12 weeks after surgery; the physical therapist will instruct you on what step height on which to start.

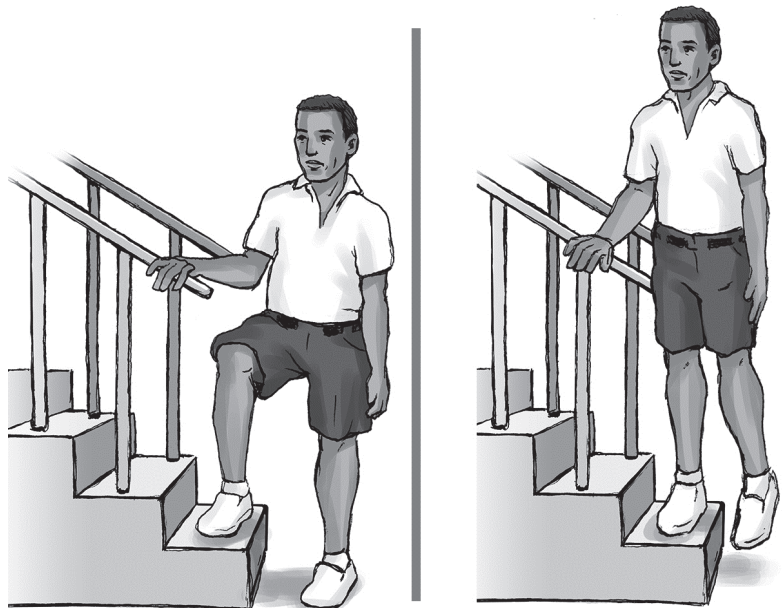
### Single Leg Forward Step-up

Hold onto stair railing – place affected foot on first step. Step up on stair with affected leg. Return to start position. May need to begin with 2-4" step (book/block) and progress to higher step as tolerated. **Perform 2 sets of 10/20 total.**



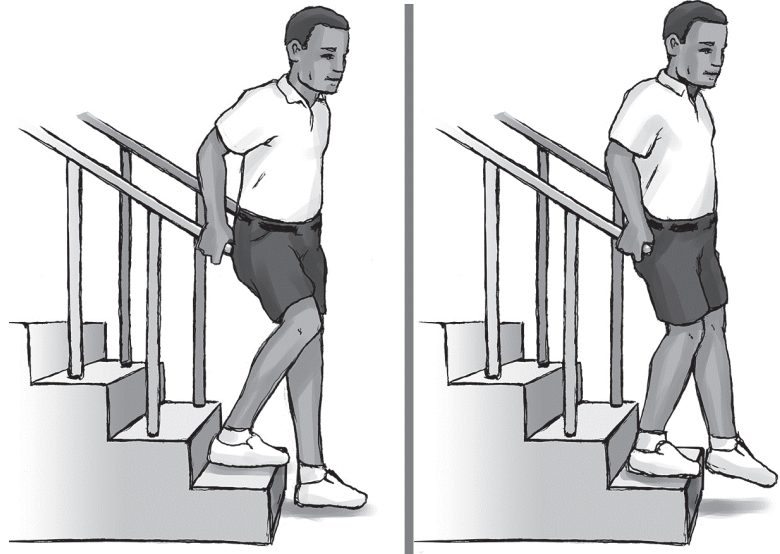
### Single Leg Lateral Step-up

Face railing, with affected leg nearest step. Holding onto railing, place foot on step and slowly step up lifting unaffected leg from floor; slowly lower foot to start position. May need to begin with 2-4" step and progress to higher step as tolerated. **Perform 2 sets of 10/20 total.**



## Retro Leg Step-up

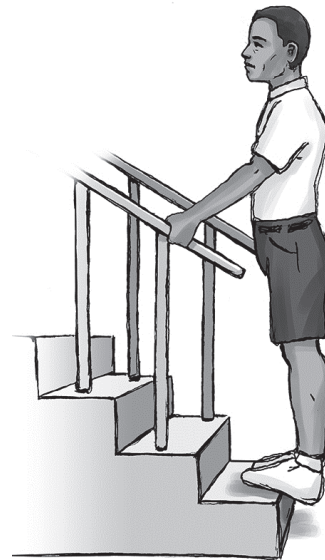
Stand with back to steps and holding railing. Place affected foot on step and step up backwards until other foot is on step. Return to start position by lowering unaffected leg back down to floor. May need to begin with 2-4" step and progress to higher step as tolerated. **Perform 2 sets of 10/20 total.**



## Standing

Stand, holding onto railing, with toes on stair and over edge. Relax and let heels hang down. Hold for 20 seconds.

**Repeat 5 times.**

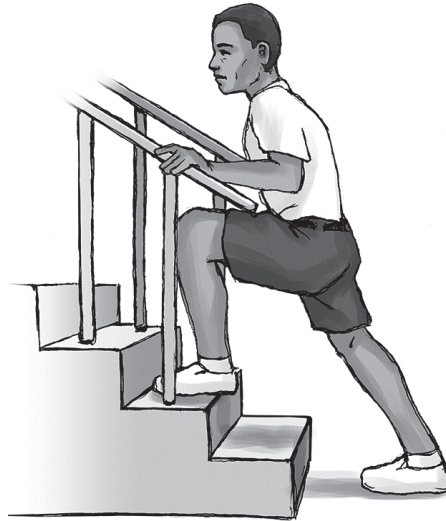




## Knee Stretches

Stand, holding onto railing and place surgical foot up on first or second step (Your therapist will instruct on which level to begin). Keeping non-surgical leg straight and on floor, stretch forward, bending surgical knee. Hold for 20 seconds. **Repeat 5 times.**

Then repeat with surgical foot on floor, and non-surgical foot on step. Try to keep surgical foot heel flat on floor and knee straight.





## Your Daily Living Activities

### Stand From Chair

*You should NOT pull up on walker to stand! Sit in a chair with armrests.*

- Extend surgical leg so knee is lower than hips.
- Bring hips to edge of chair.
- Push up with both hands on armrests. If a chair doesn't have an armrest, place one hand on walker while pushing off side of chair with other. Balance before grabbing for walker.



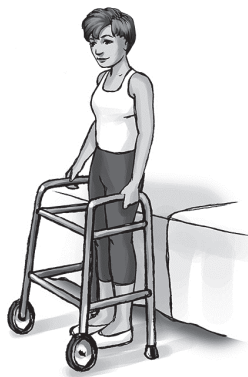
### Standing to Sit

- Back up to center of chair until you feel chair on back of legs.
- Slide out foot of surgical hip, keeping strong leg close to chair for sitting.
- Reach back for armrest one at a time.
- Slowly lower body to chair, keeping surgical leg forward as you sit.



## Getting into Bed

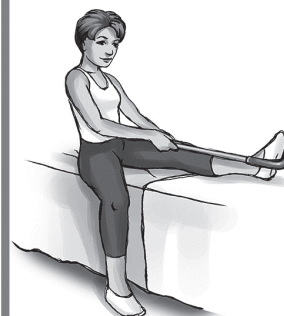
- Back up to bed until you feel it on back of legs (need to be midway between foot and head of bed).
- Reaching back with both hands, sit down on edge of bed and scoot back toward center of mattress. (Silk pajama bottoms, satin sheets, or sitting on plastic bag may make it easier.)
- Move walker out of way, but keep it within reach.
- Scoot hips around so you are facing foot of bed.
- Lift leg into bed while scooting around (if this is surgical leg, you may use a cane, rolled bed sheet, belt, or elastic band to assist with lifting leg into bed).
- Keep advancing and lift other leg into bed using assistive device. Do not use other leg to help as this breaks hip precautions.
- Scoot hips toward center of bed.



**Back up until you feel your leg on bed.**



**Sit keeping your knee lower than your hip.**



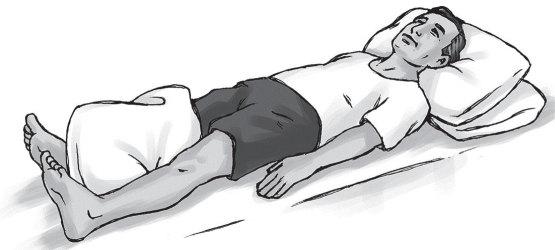
**Lean back on bed lifting your leg onto the bed.**

## Getting out of Bed

1. Advance hips to edge of bed.
2. Sit up while lowering non-surgical leg to floor.
3. If necessary, use leg-lifter to lower surgical leg to floor.
4. Move to edge of bed.
5. Use both hands to push off bed. If bed is low, place one hand in center of walker while pushing off bed with other.
6. Balance before grabbing walker.



## Lying in Bed



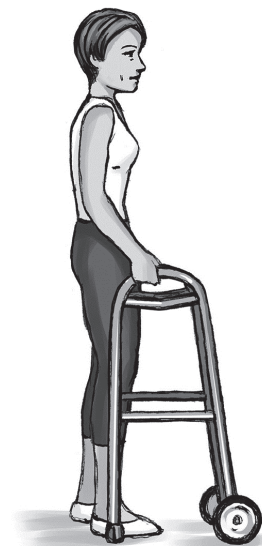
Keep a pillow between legs when lying on your back. Position your leg so toes are pointing to ceiling – not inward or outward.



To roll from back to side, bend your knees slightly, place a pillow between them so your surgical leg does not cross midline. Roll onto your side.

## Walking

- Push rolling walker forward.
- Step forward placing foot of surgical leg in middle of walker area.
- Step forward the non-surgical leg. Do NOT step past front wheels of walker.



### Note:

- Take small steps. Keep your walker in contact with floor, pushing it forward like shopping cart.
- If using a rolling walker, advance from basic technique to a normal walking pattern. Holding onto the walker, step forward with surgical leg, pushing walker as you go; try to alternate with equal step forward using non-surgical leg. Continue to push the walker forward. When you first start, this may not be possible, but you will find this gets easier. Make sure your foot does not go past the front of the walker when taking a step. Ideally, the foot should land in the center of the walker.

## Climbing Stairs

- Begin climb (ascend) with non-surgical leg first (up with good).
- Go down (descend) with surgical leg first (down with bad).
- Always hold on to railing!

## Tub Transfers - Getting into a Tub using a Bath Seat

- Back up to the tub until you feel it at back of your knees. Confirm you are in line with bath seat.
- Reach back with one hand for bath seat. Keep your other hand in center of walker.
- Slowly lower onto the bath seat, keeping your surgical leg out straight.
- Move the walker out of way, but within reach.
- Lift your legs over edge of tub, using leg lifter for surgical leg, if necessary. Hold onto shower seat or railing.



### *Note:*

- Although bath seats, grab bars, long-handled bath brushes, and hand-held showers make bathing easier and safer, they are typically not covered by insurance.
- Use a rubber mat or non-skid adhesive on bottom of tub or shower.
- To keep soap within reach, make soap-on-a-rope by placing bar of soap in toe of old pair of pantyhose and attach it to bath seat.

## Tub Transfers - Getting out of Tub using Bath Seat

- Lift your legs over outside of tub.
- Scoot to edge of bath seat.
- Push up with one hand on back of bath seat while holding on to center of walker with other hand.
- Balance before grabbing walker.
- Return to edge of the bath seat.
- Push up with one hand on back of bath seat while holding on to center of your walker.

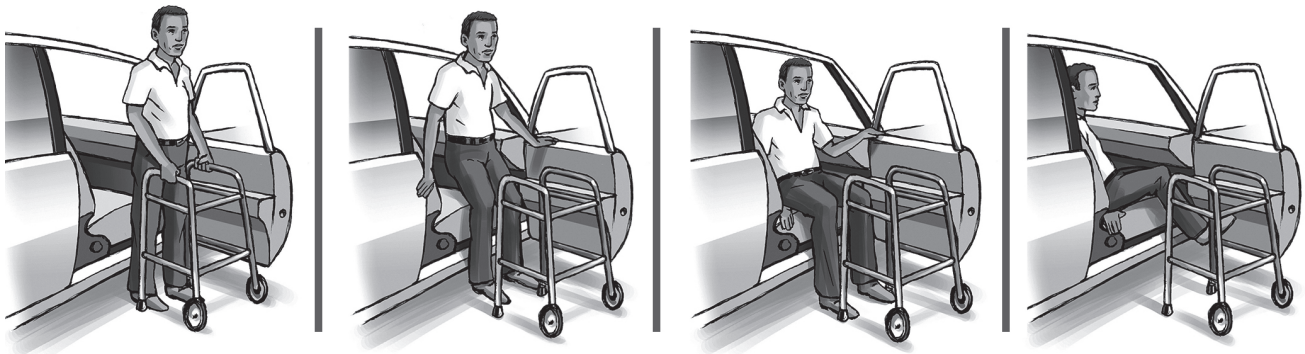




# GUIDEBOOK FOR KNEES

## Getting into the Car

- Push the car seat all the way back; recline seat back to allow for adequate room to get in and out, but always have it upright for travel.
- Place plastic bag on seat to help you slide.
- Back up to car until you feel it touch back of leg.
- Hold on to immovable object – car seat or dashboard – and slide surgical foot out straight. Watch your head as you sit down. Slowly lower yourself to car seat.
- Lean back as you lift surgical leg into car. Use your cane, leg lifter, or other device to assist you.



## Getting out of the Car

Bring your legs out one at a time. Lead with your hips and shoulders and do not twist your back. Place your right hand on back of the seat and the left hand on the frame or dashboard. Push up to stand. Reach for the walker when you are stable.



## Getting Dressed

*Use your “reacher” or a dressing stick can help remove pants from foot and off floor.*

## Putting on Pants and Underwear

1. Sit down. Put surgical leg in first and then non-surgical leg. Use your “reacher” or a dressing stick to guide waistband over foot.
2. Pull your pants up over knees.
3. Stand with walker in front to pull your pants up.

## Taking off Pants and Underwear

- Back up to chair or bed.
- Unfasten your pants and let them drop to floor. Push underwear down to your knees.
- Lower yourself down, keeping surgical leg out straight. Take non-surgical leg out first and then surgical leg.



## Using a Sock Aid

- Slide sock onto sock aid.
- Hold cord and drop sock aid in front of foot. Easier to do if knee is bent.
- Slip your foot into sock aid.
- Straighten your knee, point toe, and pull sock on. Keep pulling until sock aid pulls out.

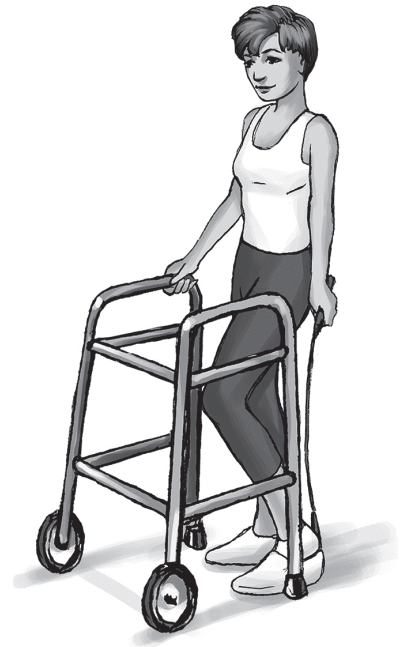




## Using a Long-handled Shoehorn

1. Use your “reacher,” a dressing stick, or long-handled shoehorn to slide shoe in front of foot.
2. Place shoehorn inside your shoe against back of heel.
3. Lean back as you lift leg and place toes in shoe.
4. Step down into shoe, sliding your heel down the shoehorn.

*This can be performed sitting or standing. Wear sturdy slip-on shoes or shoes with Velcro closures or elastic shoelaces. Do NOT wear high-heeled shoes or shoes without backs.*



## Around the House: Saving Energy and Protecting Your Joints

### Kitchen

- Do NOT get on your knees to scrub floors. Use a mop and long-handled brushes.
- Plan ahead! Gather all cooking supplies at one time. Sit to prepare any meal.
- Place frequently-used cooking supplies and utensils where they can be reached without much bending or stretching.
- To provide better working height, use a high stool or put cushions on a chair when preparing meals.



### Bathroom

Do NOT get on your knees to scrub bathtub. Use a mop or other long-handled brushes.

### Safety Tips and Avoiding Falls

- Pick up throw rugs and tack down loose carpeting. Cover slippery surfaces with carpets that are firmly anchored to the floor or have non-skid backs.
- Be aware of floor hazards such as pets, small objects, or uneven surfaces.
- Provide good lighting throughout: install nightlights in bathrooms, bedrooms, and hallways.
- Keep extension cords and telephone cords out of busy pathways. Do NOT run wires under rugs — this is a fire hazard!
- Do not wear open-toe slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls.
- Sit in chairs with arms to make it easier to get up.
- Rise slowly from either sitting or lying position to avoid getting light-headed.
- Do not lift heavy objects for first three months and then only with Surgeon's permission.



## Dos and Don'ts for the Rest of Your Life

### What to Do

- Notify your Dentist or other Physician/Surgeon in advance if you are having dental work or other invasive procedures. Generally, antibiotics are taken prior to any procedure.
- Although risks are low for post-operative infections, they remain. A prosthetic joint can attract bacteria from an infection located in another part of your body.
- If you develop a fever of more than 100.5 degrees or sustain a deep cut or puncture wound, you should clean it as best you can, put a dressing or adhesive bandage on it, and notify your Physician immediately. *The closer the injury is to your prosthesis, the greater the risk and occasionally, antibiotics may be needed.* Superficial scratches may be treated with topical antibiotic ointment. Notify your Physician if area is painful or reddened.
- When traveling, stop and change positions hourly to prevent your joint from tightening.

### Exercise

With permission from your Orthopedic Surgeon and Primary Care Physician, you should be on a regular exercise program *three to four times per week, lasting 20 to 30 minutes per session.*

1. Impact activities, such as running and singles tennis may put too much load on the joint and are generally not recommended.
2. High-risk activities such as downhill skiing are discouraged because of risk of fractures around the prosthesis and damage to prosthesis itself.

### Exercise – Do's

- Choose low impact activities.
- Recommended exercise classes.
- Home program outlined in this book.
- Regular one- to three-mile walks.
- Home treadmill (for walking).
- Stationary bike.
- Aquatic exercises.
- Regular exercise at fitness center.
- Low-impact sports such as golf, bowling, gardening, dancing, swimming, etc.
- Consult your Surgeon or Physical Therapist about specific sport activities.



### Exercise – Don'ts

- Do not run or engage in high-impact activities or activities that require a lot of starts, stops, turns, and twisting motions.
- Do not participate in high-risk activities, such as contact sports.
- Do not take up strength/agility sports until approved by a Surgeon or Physical Therapist.



## Recommended Exercise Classes

### **Aquatic**

Participants are led by certified aquatic fitness professionals through a series of designed exercises which use the water's natural buoyancy and resistance to help improve joint flexibility and muscular strength. Warm water and gentle movements can help relieve pain and stiffness. *Your Physician's permission is required!*

### **Arthritis Foundation Exercise Program (AFEP)**

Developed by Arthritis Foundation, but not limited to individuals with arthritis. AFEP uses gentle activities to promote increased joint flexibility, range-of-motion, and maintain muscle strength. Advanced version helps increase overall stamina. Participants must be walking (ambulatory) and *your Physician's permission is required!* For more information, call: (617) 244-1800.

***You need to maintain a regular  
exercise program to ensure the health  
of the muscles around your joints!***

## Importance of Lifetime Follow-up Visits

### When should you follow-up with your Surgeon?

- Every year, unless instructed differently.
- Any time you have mild pain for more than a week.
- Any time you have moderate or severe pain.

*There are a number of reasons for routine follow-up visits with your Orthopedic Surgeon.*

If you have a *cemented knee*, the integrity of the sealant needs to be evaluated. With time and stress, it may crack. A crack does not necessarily mean you need another surgery, but it means things need to be monitored more closely.

Your knee could become loose and this might lead to unnecessary pain. Alternatively, the cracked cement could cause a reaction in the bone called *osteolysis*, which may cause the bone to thin out, causing some loosening.

The second reason for follow-up is that bearing surfaces in knee prosthesis may wear. Tiny wear particles combine with white blood cells and may get in the bone, causing *osteolysis* (similar to what can happen with the cement).

X-rays taken at follow-up visits can detect problems: new x-rays can be compared with previous films to make these determinations. *This will be done in your Physician's office.*

If you are unsure how long it has been or when your next visit should be scheduled, call your Physician.





## Frequently Asked Questions (FAQs)

### Will I need help at home?

Depending on your progress - and especially for the first few days, you will need someone to assist you with meal preparation, etc. Your Coach, family or friends should be available to help. Preparing thoroughly before surgery can minimize the amount of help needed. Be sure to get your laundry done, house cleaned, yard work completed, stock clean linens, and single portion frozen meals will reduce the need for help.



### Will I need physical therapy when I go home?

Yes, you will have either outpatient or in-home physical therapy. You are encouraged to utilize outpatient therapy. Your OCC will help arrange for these appointments. If you need home physical therapy, we will arrange for a Physical Therapist in your home. Following this, you may go to an outpatient facility several times a week to assist in your rehabilitation. *Just remember that the length of time for this type of therapy varies by patient.*

### Will my new knee set off security sensors when traveling?



Your joint replacement is made of a metal alloy and may or may not be detected when going through some security devices. Just in case, always inform the security agent that you have a metal implant. The agent will then instruct you on the security screening protocol at that location.





## Section Four:

# Appendix

# Glossary

- **Abdomen:** Part of body commonly thought of as the stomach; it's situated between hips and ribs.
- **Ambulating:** Walking.
- **Assistive Devices:** Rolling walker, crutches, cane, or other device to help you walk.
- **Compression Stockings:** Special stockings that encourage circulation.
- **Dorsiflexion:** Bending back foot or toes.
- **Dressings:** Bandages.
- **Embolus:** Blood clot that becomes lodged in a blood vessel and blocks it.
- **Incentive Spirometer:** Breathing tool to help exercise lungs.
- **Incision:** Wound from surgery.
- **IV:** Intravenous.
- **Osteolysis:** Condition in which bone thins and breaks down.
- **OT:** Occupational therapy.
- **Prothrombin:** Protein component in blood that changes during clotting process.
- **PT:** Physical therapy.

## Mount Auburn Hospital Preferred Providers

### Mount Auburn Hospital Affiliated Skilled Nursing and Rehabilitation Facilities

1. **Meadow Green Rehabilitation and Nursing Center**, Waltham, MA (781) 899-8600  
[www.meadowgreenrehabandnursing.com](http://www.meadowgreenrehabandnursing.com)
2. **Neville Center at Fresh Pond For Nursing and Rehabilitation**, Cambridge, MA (617) 497-0600 [www.nevillecommunities.org](http://www.nevillecommunities.org)
3. **Sancta Maria Nursing Facility**, Cambridge, MA (617) 868-2200 [www.sanctamaria.org](http://www.sanctamaria.org)
4. **Park Ave Nursing and Rehabilitation Center**, Arlington, MA (781) 648-9530  
[www.parkavenuehc.org](http://www.parkavenuehc.org)
5. **Lexington Health Center**, Lexington, MA (781) 862-7400 [www.ma.care-one.com](http://www.ma.care-one.com)
6. **Watertown Health Center**, Watertown, MA (617) 924-1130 [www.watertownhc.com](http://www.watertownhc.com)

### Mount Auburn Hospital Rehab Services - Outpatient Physical Therapy

625 Mount Auburn Street  
First Floor  
Cambridge, MA 02138  
(617) 499-5011

725 Concord Avenue  
Suite 5100  
Cambridge, MA 02138  
(617) 499-6760

### CareGroup Parmenter Home Care and Hospice

(617) 673-1700

### Mount Auburn Hospital Anticoagulation Services

330 Mount Auburn Street  
Main Entrance-Stanton Lobby  
Cambridge, MA 02138  
(617) 499-5311

