

#### MISSION

Above all else, we are committed to the care and improvement of human life.

### PHILOSOPHY

Swedish Medical Center Advanced Joint Reconstruction offers a complete spectrum of joint care. Our team of multidisciplinary, highly-trained total joint experts is committed to supporting you through every step of your joint replacement journey. We provide a comprehensive program that begins the moment your surgery is scheduled, and continues with information and guidance throughout your entire recovery process. As our patient, we will provide you with the education, personalized attention, and advanced surgical methods and technologies needed to ensure an optimal outcome and a quick return to a healthier, active lifestyle. We look forward to joining you on your road to recovery!

# IMPORTANT PHONE NUMBERS

**Total Joint Program Coordinator:** 303-788-6682

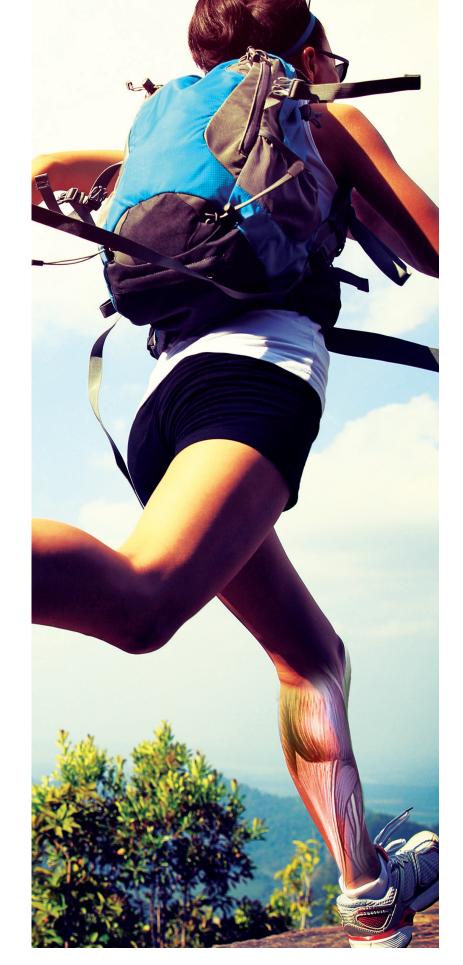
**Director of Patient Care, Orthopedics:** 303-788-3601

Inpatient Nursing Unit: 303-788-3600

Pre-Admission Clinic: 303-788-6009

Inpatient Physical/Occupational Therapy: 303-788-4651

**Swedish Medical Center Main Operator:** 303-788-5000



# INTRODUCTION TO SWEDISH MEDICAL CENTER ADVANCED JOINT RECONSTRUCTION

Most patients arrive at the decision to have joint replacement surgery after months—sometimes years—of pain and discomfort. Numerous steps, processes and questions follow such a decision, and we understand that patients want to be as informed as possible both before and after the operation.

This book is a comprehensive guide to joint replacement surgery at Swedish Medical Center aims to ensure you are prepared for the weeks before and after your procedure. We've found that well-informed patients feel more comfortable when they know what lies ahead, which results in a more successful recovery. Please consider this book your go-to resource and bring it with you to appointments with your surgeon, educational visits at the hospital and even on the day of your surgery.

Inside you will find lots of helpful information. We've included checklists to help you stay organized from the moment you decide to have surgery all the way to full recovery. We'll explain what you can expect and offer guidance every step of the way. From procedural explanations to parking instructions, we have you covered.

We will highlight the roles and responsibilities of every member of your care team to help you understand everyone's roles and how they'll be contributing to your progress. This team of specially trained experts is here to make sure your operation is safe and successful, your recovery is guided and your experience is pleasant.

This guidebook also includes an overview of your upcoming surgical experience designed to put your mind at ease and give you an inside look at what will happen on the day of your surgery. We'll explain the common medications that may be prescribed to you as well as some of the equipment we will use to successfully perform your surgery and monitor your condition after the procedure. You'll also find information on managing pain and achieving comfort.

Once you leave the hospital, we'll guide you through physical and occupational therapy. We'll help you navigate your first weeks at home and teach you how to decrease post-surgery risks so that you are in a position to recover quickly. This guide will help you plan ahead for the day you are discharged, teach you how to use assistive equipment during recovery and offer tips and advice to loved ones participating in your care.

When you choose Swedish Medical Center Advanced Joint Reconstruction for your joint replacement surgery, you are putting your trust in our surgeons, staff and facilities, and we take that trust very seriously. This guidebook is just one of the ways we want to show you that you've made the right decision.

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# OUR APPROACH TO JOINT REPLACEMENT SURGERY

At Swedish Medical Center Advanced Joint Reconstruction, we take a unique and revolutionary approach to joint replacement surgery. We know that well-informed patients have the best outcomes, so patient education is the cornerstone of our program. In order to provide you with the information that you need, we will invite you to attend a preoperative joint replacement class, where you will learn about all aspects of your joint replacement journey. You will also receive daily newsletters during your hospital stay, which will provide an outline of each day's activities and goals, to ensure you are well-prepared for the important daily events that will contribute to your successful recovery.

We also believe that a team approach to patient care leads to optimal outcomes. As such, all of our care members work together as a high-functioning team. Our Total Joint Program Coordinator will help coordinate all of your care needs, from the time you decide to have surgery until long after you leave our hospital. The Total Joint Program Coordinator will work with you to be sure that you are well prepared for surgery and will act as a liaison between you and all of the members of your care team, incluing your loved ones. We view our patients' family members as important members of the care team and will ask you to appoint a family member or friend as your care "coach." We will teach your coach how to help care for you throughout your recovery process. As part of our team approach, we will also invite you to participate in group exercise class while you are in the hospital recovering from surgery. Mobility is very important after joint replacement surgery and we have found that physical therapy in a group setting is a fun, rewarding and motivating experience. We will also invite you and your coach to a group luncheon while you are with us, hosted by our caring and dedicated orthopedic staff.

We look forward to sharing our premier joint center with you and know that you will be pleased with our special approach to joint replacement surgery at Swedish Medical Center Advanced Joint Reconstruction. Thank you for allowing us to join you on your road to recovery!

## PRE-ADMISSION CHECKLIST

#### When You Have Decided to Have Surgery:

# There are several important appointments that you will need to make before your surgery:

- Schedule a visit with the Pre-admision Testing Department at 303-788-6009. This is a very important step that cannot be skipped and should occur 2-3 weeks before your surgery.
- Take the joint replacement class offered at the hospital. Sign up at swedishhospital.com/jointclass or call 1-866-779-3347 to register by phone.
- Schedule a final appointment with your surgeon to occur approximately 2 weeks before your surgery to discuss details of your surgery and surgical consent.
- You may also be instructed to visit your primary care physician and / or specilaty physicians.

#### Two Weeks Before Surgery:

- Stop taking vitamins, herbs and supplements. See the medications section for additional information.
- Make arrangements for pets.

#### One Week Before Surgery:

- Prepare your house: Remove any fall hazards from your home including rugs, cords and furniture that might make navigation difficult and make sure items you use often will be easily accessible and within reach.
- Prepare and freeze some healthy meals that can be easily reheated when you return home from the hospital.
- Stop taking nonsteroidal anti-inflammatories (NSAIDS), including ibuprofen, Mortin, Advil, Naproxen, Aleve and aspirin. You may take Tylenol up until the day before surgery.

#### Other Tasks:

- Enroll in our JointCOACH software. This useful app helps ensure that you are ready for surgery and can be downloaded to all of your devices. Your surgeon's office staff will help to enroll you in JointCOACH.
- Designate a "coach" to help care for you in the hospital and when you get home. Let the Program Coordinator know if you don't have someone who can be your coach.
- Begin upper body strengthening (See Rehab Section).
- Obtain a temporary handicapped parking permit from your surgeon's office.

## LAST MINUTE CHECKLIST

# Before surgery will be busy. Please use this checklist to make sure you remember everything.

- Finalize travel arrangements: Discharge times vary so please request your ride be available throughout your day of discharge.
- Finalize home help arrangements: This includes designating a "coach" to help you with meal preparation, errands, getting to appointments and doing household tasks.
- Put clean linens on the bed the night before surgery.
- **Do not** shave the area on which you will have surgery.
- **Do not** eat or drink anything after the time instructed by the anesthesiologist or hospital staff.
- **Do not** wear lipstick, makeup, perfumes, powders, deodorants, lotion or nail polish on the day of surgery.
- Bring a list of current medications: Be sure to include medication name, frequency and time of day taken (See Forms Section).

#### Pack your hospital bag to include:

- This patient guidebook.
- A copy of your advance directive.
- Toothbrush and toothpaste.
- Hearing aids and extra batteries.
- Shaving equipment for after surgery.
- Hair brush and comb.
- Glasses, contact lenses and solution.
- Comfortable shoes with backs, no heels and no laces (preferably slip-on).
- Loose fitting shorts or athletic pants and a t-shirt.
- Continuous Positive Airway Pressure (CPAP) or Bi-level Positive Airway Pressure (BIPAP) machine.
- Copayments and deductibles: If you have pre-registered, payments will have been arranged in advance

#### Bring the following items for family or friends to hold on to:

- Government issued photo ID
- Insurance card
- Personal electronics if you wish; please note these cannot be locked in your room and should be held by your family or friends
- Swedish Medical Center recommends leaving valuables such as cash and jewelry at home

# YOUR ROLE IN PREVENTING SURGICAL INFECTIONS

Preparing skin before surgery can reduce the risk of infection at the surgical site. To make the process easier, we will provide you with a special antiseptic soap. Our 2% Chlorhexidine Gluconate (CHG) Cloths are designed to reduce the bacteria on your skin. If you are allergic to the Chlorhexidine, call your surgeon.

#### THE NIGHT BEFORE SURGERY, PLEASE:

- Shower the night before your surgery. Do not shave your legs for 5 days prior to surgery.
- After your bath or shower the night before surgery, you will wipe down your skin with the CHG Cloths.
- Wait one hour after your shower before wiping skin with the cloth.
- · Wipe your skin from the neck down to the toes, with special attention to the surgical area.
- Do not use the wipes on the face or genital areas.
- Do not rinse off. Allow skin to air dry.
- · Dress in freshly washed clothes and sleep on freshly washed sheets the night before surgery.

#### ON THE MORNING OF SURGERY, PLEASE:

- Do not shower. Wipe down your body with a second set of CHG cloths.
- · Do not apply any lotions, perfumes, powders or deodorant to your skin the day of surgery.

If instructed by the Preadmission Testing Department nursing staff: Beginning 5 days before your surgery, apply Mupirocin ointment 2% (e.g., Bactroban) ointment in your nostrils twice a day. How to apply Mupirocin ointment 2%:

- Squeeze prescribed amount (about the size of a small pea) into one (1) nostril and the other half into the other nostril two (2) times a day (morning and evening) for five days for a total of 10 applications
- Next, pinch your nostrils together and then let go. Pinch and let go of the sides of your nose for 1 minute to spread the ointment onto the skin surfaces in your nose

Bring used Mupirocin tube with you on day of surgery.

### FORM: HOME MEDICATION

This sheet is very valuable to your care team and they will be referring to it regularly. Be sure to include any supplements or herbal medications that you take. Please answer the questions truthfully. It should be completed prior to your next physician appointment.

PATIENT NAME				
HEIGHT	WEIGHT	DATE	FILLED OUT	
ALLERGIES				
Latex Environmental Medications Contrast Other				
Please list the names of all known allergens checked above				
CURRENT MEDICATION LIST List ALL prescriptions, herbal supplements, vitamins and over-the-counter medications				
NAME e.g., Laisix	DOSE e.g., 20mg	ROUTE e.g., oral	FREQUENCY e.g., twice per day	TIME AND DATE LAST DOSE TAKEN BEFORE SURGERY
IMMUNIZATIONS				
Have you had the Pnuemovax vaccine? Yes No				
Have you had a flu shot? Yes No If yes, when?				

## FREQUENTLY ASKED QUESTIONS

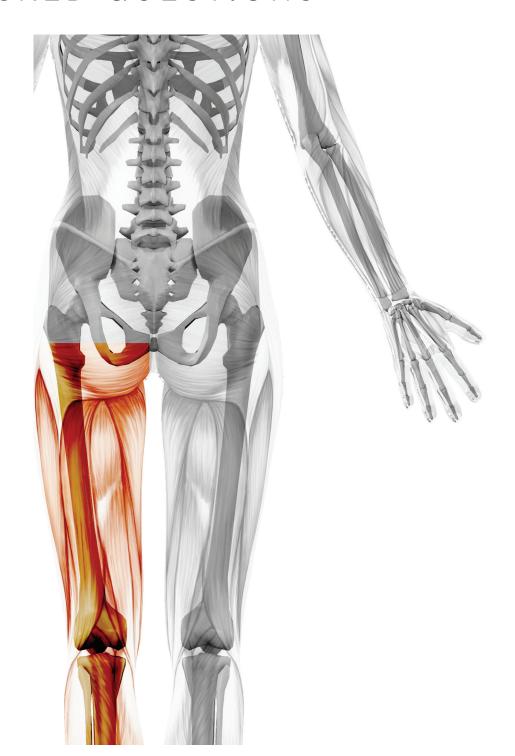
# Q: What is total knee replacement surgery?

A: The knee joint is composed of three parts: the end of the femur (thigh bone), the top of the tibia (shin bone) and the patella (knee cap). In a normal knee, these three bones are covered with smooth cartilage that cushions the bones and enables them to move easily. In an arthritic knee, the cartilage layers are destroyed, resulting in bone rubbing against bone. This causes pain, muscle weakness and limited motion.

Total knee replacement surgery involves replacing the knee joint with an artificial joint. Metal components are cemented to the ends of the bones and a plastic liner is inserted between them. The kneecap may also be resurfaced with a plastic liner. These components move together to allow normal motion of the knee joint. Bow leg or knock knee deformity can usually be corrected by this new alignment.

#### Q: How long will a joint replacement last?

A: The amount of time varies from patient to patient. There are factors that affect the longevity of your new joint such as your age, weight, activity level and medical conditions. However, with advanced technology and improved surgical techniques, the life expectancy for these implants is longer than ever before.



## FREQUENTLY ASKED QUESTIONS

# Q: What types of implants are used to replace my joint?

A: Most implants are a combination of metal (to replace the worn bone surface) and polyethylene (to replace the worn cartilage surface). Your surgeon will decide on the size, the type of implant and the method used to ensure an optimal fit.

# Q: What are the major risks of joint replacement surgery?

A: While risks are low, they do exist with every surgery. The two most serious complications are infection and blood clots. Our infection prevention program starts even before you come into the hospital with the Chlohexidine Gluconate and continues throughout surgery and your stay at the hospital. Our blood clot prevention program is built on a combination of medications, early mobilization and other techniques.

#### ACTIVITY

#### Q: When can I start driving?

A: There are two major considerations before you can start driving: you will need to be able to react to emergency situations and you must be off your pain medications. Most patients are able to meet these criteria two weeks following surgery.

#### Q: When can I fly?

A: Since you have undergone major surgery, you are at a higher risk for blood clots. You should discuss a timeline with your surgeon.

#### **BLOOD TRANSFUSION**

#### Q: Will I need a blood transfusion?

A: It is rare to receive a blood transfusion related to joint replacement surgery.

#### ANTICOAGULATION

#### Q: What is this?

A: Since you have undergone surgery, you are at a higher risk for blood clots. You may be started on a blood thinner after surgery. Specific medication and duration will be determined by your surgeon based on your risk factors and the surgeon's preference.

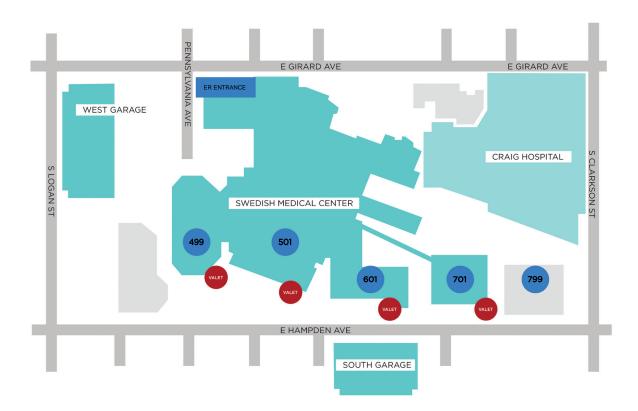
#### DENTAL CONSIDERATIONS

#### Q: Are there any dental precautions?

A: Please do not schedule any dental appointments (including routine cleanings) for three months after your surgery. However, make sure you promptly seek attention for any toothaches or suspected dental infections. Please discuss with your surgeon the use of antibiotics for all dental procedures following your surgery.

## THE DAY OF SURGERY

The Pre-Admission Clinic will provide you with instructions regarding where to report for your surgery. If your surgery will be at our Swedish Orthopedic Center (SOC), you enter through the main lobby of 799 E. Hampden Avenue and proceed to the second floor, (follow the signs). Our admissions staff will instruct you from there. Parking is available in the EAST parking garage. You may also use our complimentary valet service if arriving during business hours. For patients scheduled in our main operating room, use the hospital entrance at 501 E. Hampden Avenue.



# INFORMATION FOR FRIENDS & FAMILY

Here is a list of hotels near Swedish Medical Center. When making your reservations, ask if there is a Swedish Medical Center rate and shuttle service.

## Best Western - Denver/Lakewood 303-989-5500

3440 S. Vance St. Lakewood, CO 80227 www.bestwestern.com

#### **Courtyard Southwest**

303-985-9696 7180 W. Hampden Ave. Lakewood, CO 80227 www.marriott.com

#### Holiday Inn Denver Lakewood

303-980-9200 7390 W. Hampden Ave. Lakewood, CO 80227 www.holidayinn.com

#### La Quinta - Denver Cherry Creek

303-758-8886 1975 S. Colorado Blvd. Denver, CO 80222 www.lq.com

# **Denver Marriott - Denver Tech Center** 303-779-1100

4900 S. Syracse St. Denver, CO 80237 www.marriott.com

#### **Town Place Suites**

303-759-9393 3699 S. Monaco Pkwy. Denver, CO 80237 www.marriott.com

#### Hampton Inn

303-989-6900 3605 S. Wadsworth Bvd. Lakewood, CO 80235 www.hamptoninnlakewood.com



## YOUR CARE TEAM

#### ORTHOPEDIC SURGEON

- Performs your surgery and oversees your care
- Checks your progress in the hospital and at follow-up office appointments

#### ANESTHESIOLOGIST/ CERTIFIED REGISTERED NURSE ANESTHETIST (CRNA):

- Administers anesthesia in the operating room
- Monitors your condition during surgery

#### PROGRAM COORDINATOR

- Serves as your primary point of contact and a resource to guide you through the experience of having a joint replacement from the time you decide to have surgery until you are recovered
- Helps ensure you complete any presurgical needs
- Follows your progress in the months after surgery

# SURGEON-EMPLOYED PHYSICIAN ASSISTANT

- Works at the surgeon's office, assists with surgery and may see you daily after the surgery
- Coordinates your care after surgery

# HOSPITAL-EMPLOYED NURSE PRACTITIONER:

- Works on the Advanced Joint Reconstruciton unit
- Coordinates your care and discharge based on physician orders
- Monitors and communicates information about your condition to other team members
- Ensures pain control plan is right for each patient

#### OPERATING ROOM TEAM:

- Assists with surgical procedures
- Ensures patient safety throughout the procedure

# PREADMISSION TESTING (PAT) NURSE:

- Will obtain your health history and medicine list
- Provide pre-surgical patient education
- Ensure your chart is complete for surgery

# INPATIENT NURSING STAFF:

- Works closely with other team members to deliver individualized care
- Monitors your condition and communicates information about your condition to other team members
- Helps you and your family with personal care needs

#### NURSING DIRECTOR:

- Provides administrative and clinical leadership for Swedish Medical Center Advanced Joint Reconstruction
- Assists patients and staff with problems and concerns
- Serves to educate and develop the skills of the team members providing direct patient care

#### PHYSICAL THERAPIST:

- Assesses your physical needs and develops an individualized exercise program
- Instructs and assists you with exercise programs, the use of equipment and activity precautions

# OCCUPATIONAL THERAPIST:

- Helps you adapt to temporary lifestyle changes following a joint replacement
- Teaches you how to safely perform daily tasks without endangering your new joint, such as bathing and dressing
- Instructs you on how to use adaptive equipment

#### CASE MANAGER:

- Helps identify and facilitate any individual needs you may have when you leave the hospital
- Acts as an intermediary to assure that any home care needs meet your insurance requirement
- Available to discuss discharge concerns prior to surgery

#### PHARMACIST:

 Coordinates your medications based on surgeon's orders

## BEFORE SURGERY

#### ARRIVAL:

- Plan on arriving two hours before your surgery time.
- Your surgery will likely be in the 799 building, in the Swedish Orthopedic Center.
- Use our complimentary valet service if arriving during business hours.
- Take the elevator to the second floor of the 799 Building to get to the check-in desk.

#### PRE-OP:

- An IV will be started.
- Your medical history and home medications will be reviewed.
- You will meet with your anesthesiologist to review your anesthesia plan and some medications may be administered.
- You will meet with your surgeon who will mark the operative site and obtain final consent for the procedure.
- You will meet your nurse, who will be with you throughout the surgery.

#### OPERATING ROOM:

• Anesthesiologists administer anesthesia. Your anesthesiologist is typically assigned 24 hours prior to surgery and will attempt to call you the night before surgery to discuss your medical history and the type of anesthesia he or she will provide.

There are two types of anesthesia that may be utilized for your orthopedic surgery:

- **General anesthesia** uses anesthetic gases and IV medications to put you to sleep; your breathing, heart rate and blood pressure are continuously monitored.
- Regional anesthesia is a combination of IV medications to sedate you and a nerve or spinal cord block to numb your legs.
- The surgeon will contact your loved ones when the procedure is finished.

### AFTER SURGERY

#### THE DAY OF SURGERY:

- After surgery, you will be taken to the post anesthesia care unit, which you may hear called the PACU, where you will be monitored as anesthesia wears off.
- You will be transferred to the orthopedic floor when you are more awake and no longer need close monitoring.
- · You will have a chance to get up out of bed either with a physical therapist or your nurse.
- You will notice several tubes, wires, and other equipment including:
  - Oxygen: Most people require oxygen after surgery for at least 24 hours.
  - Pulse Oximeter: A monitor placed on your finger to measure the oxygen level of your blood.
     You will be attached to this monitor for the first 24 hours after surgery or longer if you continue to require oxygen.
  - Fluids and medications will be given through an IV until you are able to tolerate both by mouth.
  - Soft leg wraps will be placed around your lower legs that inflate and deflate periodically to decrease the chance of developing a blood clot in your legs.
  - Incentive Spirometer: Helps open your lungs and helps wean you from supplemental oxygen.

#### THE DAY AFTER SURGERY:

- Early activity will help you recover more quickly.
- Occupational Therapy will come by in the morning to help you get dressed in your own clothes.
- You will attend 1-2 group physical therapy sessions.
- You and your coach will be invited to attend group lunch.

#### THE SECOND AND/OR THIRD DAY AFTER SURGERY:

- · We will continue to manage your pain and help you become more independent.
- You will continue working on pain control and increasing your level of activity.

Once all of your therapy goals are met, your pain is controlled and you have no other medical needs, you will be discharged from the hospital to go home. This could be as early as the afternoon of the day after your surgery. Some patients even go home on th day of surgery.

### PAIN MANAGEMENT

Because different people experience pain differently, pain medication will not completely eliminate pain and must be managed according to each individual's tolerance and side effects. Our goal is to help you achieve a pain level that is both manageable and tolerable.

Narcotic pain medications may slow or stop your breathing if overused. Proper use depends on identifying the amount and type of medication that provides pain control without being over sedating. Your care team will help you find this balance.

Please communicate your past experiences with pain medication to your care team. If you have taken a pain medication that has worked well for you in the past with minimal side effects, we will likely try that medication first before exploring other options.

After surgery, you will be asked to describe your pain on a scale of 1-10, with 10 being the worst pain you can imagine. We will work with you to select an individual pain goal, which is a number on the scale that is tolerable to you to be able to rest, function and be active (often a 4-6 out of 10). If you have chronic pain and your normal daily pain level is a 7 out of 10, for example, we will work with you to establish a more appropriate pain goal. Using words like cramping, burning or aching help identify the source to more effectively manage your pain.

Please communicate with us when your pain goal is not being met, you are experiencing side effects, or your pain is increasing.

Two particularly helpful pain management techniques are:

Icing: Bags of ice cubes and reusable ice packs are effective pain relievers. Icing for 20 minutes at a time is recommended. Cold therapy products may be left on longer. When icing, please make sure to protect the skin with a washcloth or piece of clothing. Ice placed directly on the skin, even from a hose used on a cold therapy unit, can cause frostbite or damage the skin. Also, please remember to avoid icing right before performing your exercises because it can tighten the tissues you are trying to stretch out.

Elevation: Elevating your leg above heart level is an effective way to reduce the swelling associated with joint replacement surgery. The best way to elevate is to lay flat on the couch or in your bed and place your surgical leg on several pillows so gravity can help pull the fluid out of your extremity. Be sure to keep your leg straight when elevating. Avoid placing more pillows behind the knee and keeping the knee in a flexed position for a long period of time.

Other pain management tools that do not involve medication include:

- Repositioning
- Distractions: watching TV, reading or listening to music
- Talking with friends and family
- Relaxation and meditation

# COMMON MEDICATIONS AND COMMON SIDE EFFECTS

Pain medications including Norco® (Hydrocodone and Acetaminophen), Dilaudid® (Hydromorphone), Oxycontin® (Oxycodone), Percocet® (Oxycodone and Acetaminophen), Nucynta® (Tapentadol), and Ultram® (Tramadol). Side effects:

- Drowsiness, constipation, nausea and vomiting, rash, confusion, dizziness
- Constipation caused by narcotic pain medication can become severe. Over the counter laxatives help counteract this common problem. Some examples include Miralax®, Dulcolax® and Milk of Magnesia®. Drinking plenty of fluids is also important in managing constipation

Muscle relaxants including Valium® (Diazepam), Flexeril® (Cyclobenzaprine), and Robaxin® (Methocarbamol). Side effects:

• Drowsiness, dizziness, upset stomach

Blood thinners including Coumadin® (Warfarin), Fragmin® (Dalteparin), Xarelto® (Rivaroxaban) Eliquis® (Apibaxin), and aspirin. Side effects:

• Bleeding, easy bruising, nausea, changes in taste

Anti-nausea medications including Compazine® (Prochlorperazine), Phenergan® (Promethazine), and Zofran® (Ondansetron). Side effects:

Drowsiness, sleepiness, headache, constipation

Ask your physician about the use of NSAIDs (including Advil®, Aleve®, Motrin®, ibuprofen, etc.) before and after as these medications can increase the chance of bleeding complications.

# DECREASING POST SURGERY COMPLICATIONS

#### INFECTION PREVENTION:

We take the prevention of post-operative infection very seriously at Rose. The most effective techniques for reducing risk include:

- Following directions for Hibiclens cleansing prior to surgery (See Forms Section)
- Frequent hand washing
- · Keeping the wound clean and dry
- Avoiding elective dentistry for three months before and after surgery.
   Call the dentist immediately for any toothaches or suspected dental infections. Follow your surgeon's directions concerning preventative antibiotics when having dentistry in the future.

#### **BLOOD CLOTS:**

We work aggressively to prevent this rare complication. Things you can do include:

- Wearing your leg wraps when resting
- Walking frequently
- Taking blood thinner medication as prescribed

In rare cases, blood clots may travel to your lungs, causing shortness of breath, chest pain or a racing heartbeat. Please notify your surgeon immediately if you experience any of these symptoms.

#### FALLS AND INJURY:

Your safety is our number one priority. After surgery, you have an increased risk of falling. While you may feel like you can safely get out of bed, it is vital that a nurse or staff member assists. Remember to use devices, like a walker and/or crutches, both during your hospital stay and when you return home.

#### WOUND HEALING:

It is important that you follow the directions provided when you were discharged from the hospital to ensure healing of the surgical site. This includes following instructions on incision care and not taking any baths, sitting in hot tubs or swimming until cleared by your surgeon. In addition, you should avoid nicotine use in any formbefore and after surgery because it slows wound/bone healing.

# Symptoms of a blood clot in your leg include:

- Calf pain
- Severe swelling in the lower leg

## DISCHARGE

In the past, many patients went to inpatient rehabilitation facilities or skilled nursing facilities after discharge from the hospital. This is no longer the case. The criteria for admission to such facilities have become stricter.

Routine joint replacement and/or living alone does not qualify a patient for using one of these types of facilities. The need for placement in a nursing or rehabilitation facility will be determined during your stay and it cannot be done prior to surgery. However, research indicates that patients recover better and have fewer complications when they go directly home following recovery in the hospital.

If you have any questions about home health care versus skilled nursing facilities/rehab, please call our program coordinator prior to your surgery date at 303-788-6682.

#### WHEN WILL I GO HOME?

You can expect to be discharged from the hospital when you meet these goals:

- · Your pain is well controlled
- You can shower and dress by yourself or with minimal assistance
- You can go to the bathroom by yourself or with minimal assistance
- You can walk up and down stairs by yourself
- You have no medical conditions requiring treatment in the hospital

#### DISCHARGE EDUCATION:

Discharge instructions will be reviewed throughout your stay. Education will be provided at the bedside by your nurses and therapist. At discharge, we will review instructions and information on any continued use of medications as well as exercises to do at home to continue your recovery.



# WHAT TO EXPECT DURING YOUR RECOVERY AT HOME

#### SWELLING/BRUISING:

Swelling of part or all of your surgical leg is common due to the normal inflammatory response the body has after surgery. Most total joint patients can expect some amount of bruising in the surgical leg with the bruising expected to progress a few days after surgery. Because everyone responds differently to surgery, some patients experience heavy swelling and bruising that may extend down to the ankle and foot.

#### STIFFNESS

Joint stiffness is quite common with joint replacements and is typically worse in the morning. Stiffness improves with movement so try to avoid sitting for prolonged periods of time. Some patients will continue to have some stiffness in the joint for several months after surgery.

#### SHOWERING:

Most incisions can get wet in the shower after you are discharged home from the hospital. However, your surgeon may advise you to keep your incision dry for a few days after surgery. Your discharge instructions will provide details about showering and dressing changes. You should also avoid soaking your incision in water, such as a bathtub or swimming pool, until your surgeon permits. Look to your discharge instructions for specific directions for showering.

#### CONSTIPATION:

Many medications, particularly narcotics, can cause constipation. Please see the Common Medications & Common Side Effects Section of this guidebook for tips.

#### ADDITIONAL INFORMATION FOR COACHES

#### PHYSICAL LIMITATIONS:

Following surgery, your loved one will have limitations on his or her endurance and ability to perform physical tasks. For the first few days, plan to be available to help with daily tasks and meals. You may also be needed to assist with some exercises that will be taught by your surgeon or the therapist in the hospital.

# TRANSPORTING THE PATIENT:

Patients must have clearance from the surgeon to drive and will need help getting to any appointments.

#### PAIN MANAGEMENT

Family can play an important role in controlling pain by keeping a log of medications and times given.

# ENCOURAGING THE PATIENT:

Recovering from surgery has some frustrations with good and bad days. A strong support system is instrumental in helping the patient stay motivated

# ASSISTIVE EQUIPMENT REHABILITATION

We will provide walkers and/or crutches during your stay for use while in the hospital. You will need to make arrangements for a walker and/or crutches for after you are discharged. It is important that you make arrangements to obtain a walker and/or crutches before your procedure date and bring them with you.

The physical therapy team also may make other equipment recommendations customized to your own living situation and needs. For example, most total joint replacement patients benefit from a shower chair because it is difficult to shower while standing. This equipment can be obtained from the following:

- Medical equipment stores
- Pharmacy/home stores like Walgreens or Bed, Bath & Beyond
- Used equipment from friends and family
- · Loaner programs such as:

#### American Legion

(short-term for veterans and family) 155 Van Gordon #364 Lakewood, CO 80228 303-914-5585

#### Assistance League of Denver

6265 East Evans Ave, Denver, CO 80222 303-322-1688

#### **Clements Senior Center**

1580 Yarrow St. Lakewood, CO 80214 303-987-4820

#### Dominican Sisters Home Health Agency

2501 Gaylord Denver, CO 80205 303-322-1413

#### Senior Assistance Center

2839 W. 44th Ave. Denver, CO 80211 303-455-9642

A physical therapist will visit you in your room after your procedure to perform an evaluation on the day of surgery or the morning following surgery. The physical therapist will work with you throughout your stay, teaching you how to use a walking device like a walker or crutches and negotiating stairs as well as guiding you through your exercises. The physical therapist also will help you learn to comply with any precautions following your surgery. You will continue physical therapy after discharge, either in your home or in an outpatient setting.

An occupational therapist may work with you during your stay. Occupational therapists focus on helping you adjust to do all the things necessary to take care of yourself at home, including getting dressed, preparing meals, showering and performing other personal care activities. The occupational therapist also will work with you to evaluate your living environment and needs and develop personalized interventions to help you function safely and effectively when you return home. Additionally, your occupational therapist will help evaluate your progress towards meeting self- care goals.

See <u>www.seniorsresourceguide.com</u> for a more extensive listing of loaner programs.



# UPPER BODY STRENGTHENING BEFORE SURGERY

This program is to be completed prior to your total joint replacement surgery and its purpose is to strengthen your arms. Swedish recommends using a resistence band such as TheraBand®.

#### GENERAL GUIDELINES:

- 1. Stretch until resistance is comfortable but not stressful.
- 2. Start with sets of 5 repetitions and work up to 20 repetitions.
- 3. Breathe steadily.
- 4. Exercises should be performed slowly to achieve the maximum benefit.
- 5. To make exercises more challenging, move your hands closer together on the resistance band.

# UPPER BODY STRENGTHENING BEFORE SURGERY

#### DIAGONAL SHOULDER EXTENSION:



Start with both hands over your head as shown.



Keeping one hand in place and your elbows straight, pull down with the other hand diagonally across your body.



Return to the start position with both hands overhead.

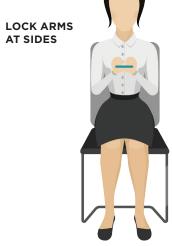


After repetitions are complete, repeat exercise using your other arm.

# UPPER BODY STRENGTHENING BEFORE SURGERY

#### **ELBOW EXTENSION:**

AT SIDES



Start by locking your upper arms into the sides of your body. Do not move your upper arms during this exercise. The only movement should be at your elbows.



Bend your elbows and place your hands together at chest level.







Hold one hand in place and pull straight down with the other hand.



Return to start position. After repetitions are complete, repeat the exercise using your

# UPPER BODY STRENGTHENING BEFORE SURGERY

#### **ELBOW FLEXION:**



Start by locking your upper arms into the sides of your body. Do not move your upper arms during this exercise. The only movement should be at your elbows.



Place both hands in your lap.



Keep one hand in your lap and with the other hand, bend at the elbow and pull straight up.



Return to start position. After repetitions are complete, repeat the exercise using your

# UPPER BODY STRENGTHENING BEFORE SURGERY

#### CHAIR PUSH UPS:



Sit in a chair with armrests.



Hold yourself off the chair for 10 to 30 seconds.



Place your hands on the arms of chair.



Push down with your arms to lift your buttocks up from the chair.



Return to start position to rest. Repeat exercise.

# YOU AND YOUR NEW KNEE

This guidebook provides information regarding techniques and recommended adaptive equipment in conjunction with explanation, demonstration and practice of each of these techniques during your occupational and physical therapy sessions. The goal is for you to return to your normal lifestyle as safely and independently as possible.

## BED TRANSFERS

Please be sure that your bed is firm and not too low. Waterbeds are not recommended.

- 1. Back up to the bed until you feel it with the back of your legs.
- 2. Slide your affected leg forward as you reach back for the bed with both hands and slowly lower yourself to sit on the edge of the bed.
- Turn diagonally so you are facing the end of the bed. Lift your legs on to the bed, one at a time while pivoting on your bottom.
- 4. Use your arms to scoot back and up onto the bed.
- Do not lie down in the bed until you are positioned correctly; you should be in the middle of the bed with both legs on the bed.







## SITTING

If possible, sit in a firm, sturdy chair with armrests. You can use a pillow or cushion on your chair to raise up the seat height.

- 1. Back up to the chair until you feel it behind your knees.
- 2. Slide the foot of your affected leg forward as you reach back for the armrests and lower yourself slowly, keeping your affected leg forward.
- 3. To stand, scoot forward in the chair. Do not lean forward in the chair.
- 4. Slide the foot of your affected leg forward and push yourself up using the armrests. When you have your balance, reach for your walking aid (walker/crutches).



# TOILET TRANSFERS

A raised toilet seat, commode chair and/or other equipment may be recommended by your occupational therapist.

- 1. Back up to the toilet until you feel it with the back of your legs.
- 2. Step your affected leg forward. Reach back for the edge of the toilet seat or safety rails and slowly lower yourself, keeping your affected leg forward.
- 3. To stand up, slide your affected leg forward and push up from the seat or safety rails using your arms.
- 4. Be sure you have your balance before reaching for your walking aid.



## TUB TRANSFERS

Use a tub seat and grab bar for safety and/or or any other equipment recommended by your occupational therapist. You cannot soak in the tub until your incision is healed and you obtain approval from your surgeon. If your tub has sliding doors, it is recommended to remove them and replace with a shower curtain.

- 1. Back up to the tub with your walking aid and make sure you are even with the tub seat. Reach back with one hand for the grab bar. Using the other hand, reach back for the tub seat. Once both hands are holding both items, slowly lower yourself onto the seat.
- 2. Swing your legs into the tub one at a time.
- 3. Use a long-handled sponge and/or a hand-held shower to bathe your legs if needed.
- 4. To transfer out of the tub, swing your legs out one at a time. Push up from the tub seat and/or grab bar.
- 5. Get your balance before reaching for your walking aid.

## SHOWER TRANSFERS

Use a shower seat and/or any other adaptive equipment recommended by your occupational therapist.

- Using your walking aid, back up to the shower until you feel the shower ledge with your heels.
- 2. Step over shower ledge with your unaffected leg first, then bring your affected leg in.
- 3. Reach back for the shower chair with both hands and slowly lower yourself to the chair.
- 4. Pivot on the shower seat towards the faucet. If your shower is too small for this technique, problem-solve alternative techniques/positions with your occupational therapist (e.g., stepping forward into shower with affected leg and crutches).
- 5. Use a long-handled sponge and/or a hand-held shower to wash your legs/feet.
- 6. Reverse the above process to get out of the shower. Step out of the shower with your affected leg first.

## DRESSING

While you are not required to use adaptive equipment to get dressed, you and your occupational therapist will determine if such equipment would make getting dressed easier following surgery. Always dress the affected leg first and undress it last. Sit on the edge of the bed or in a firm armchair for dressing.

#### **Underwear & Pants:**

- 1. Using a reacher, hold underwear at the waistband and bring it toward your affected leg. Slide the leg hole over your foot and pull it up to your knee. You can also gather the leg of the underwear up and into the clamp of the reacher in order to better see the opening at the bottom of the underwear. While sitting, pull your underwear up above your knees as far as you can until you are ready to stand.
- 2. Repeat the same process with your pants by bringing them to the same height as your underwear. (This way you only have to stand up once to complete the task.) You can also gather the entire pant leg in the reacher clamp in order to better see the opening at the bottom of the pant leg.
- 3. For safety, have your walking aid in front of you and stand up by pushing from the bed/ armchair until you are balanced. Pull up your underwear and pants over your hips.
- 4. To undress, reverse the process, remembering to remove your clothing from the unaffected leg first.

#### **Socks & Stockings:**

- 1. Slide the sock/stocking onto a sock aid until the toe is flush to the bottom of the sock aid. Be sure the top of the sock is not over the top of the sock aid.
- 2. Holding onto the straps of the sock aid, lower the sock aid to the floor in front of your affected foot. Slide your foot into the sock aid and pull on both straps until the sock comes up your leg. Continue to pull on the straps of the sock aid until the sock aid comes completely out of the sock. Unhook the sock aid from your leg.
- 3. Put on your other sock on the unaffected leg by either bringing your foot up to you or using the sock aid.
- 4. To take off your sock/stockings, hook the end of the dressing stick, reacher, or long- handled shoehorn at the top of your sock and slide it down your leg, over the back of your heel and off your foot.
- If your sock falls on the floor, you may pick it up with your reacher or dressing stick.

### SHOES

Slip-on shoes are generally recommended. If you prefer shoes that lace up, your occupational therapist can show you how to use elastic shoelaces.

- 1. Slide the toes of the affected leg into your shoe. Position a long-handled shoehorn in the back of your shoe and slide your heel down the shoehorn into the shoe. This may be easier to complete when standing as opposed to sitting.
- 2. Be sure not to turn your leg inward as you do this.



### HOME MAKING

- 1. Use a walker apron or plastic bag attached to your walker to transport items within your home. You can also spread a folded towel over the top of the walker to carry light objects.
- Carry liquids in containers with lids or covers (e.g., thermos, unopened cans of soda, water bottles).
- 3. Slide items along counter tops whenever possible rather than trying to carry them
- 4. Use a reacher to pick up items dropped on the floor or to retrieve items from low areas (e.g., the crisper in the refrigerator, low dresser drawers).
- 5. Sit on a high stool whenever possible (e.g., at a kitchen counter for meal preparation, a work table).
- 6. Remove all throw rugs in your home to avoid catching your walking aid or foot and possibly tripping or falling.
- 7. Use a long-handled brush to clean the toilet and tub.
- 8. Use long-handled tools (specifically, mops, brooms, dust pans and feather dusters) for cleaning.
- For laundry, use a pushcart or shoulder bag to transport clothing to/from your washer and dryer. You can also have friends or family assist.

## VEHICLE TRANSFERS

You will need to get into the front passenger seat of the vehicle.

- 1. Before getting in, have the seat positioned as far back as possible from the dashboard and in a semi-reclining position if possible.
- 2. Back up to the vehicle as you would a chair until you feel the seat behind your legs.
- 3. Lower yourself to the seat, holding onto a stable surface (e.g., the back of the seat, dashboard or, if possible, lower the front and back windows and hold onto the frame between the windows).
- 4. Slide your bottom back on the seat as far as you can.
- 5. Swing your legs into the vehicle one at a time. Remember when going toward your affected side, use a leg lifter or have assistance to get your leg into/out of the car.
- 6. You can move the seat up from the reclined position as you ride.
- 7. To get out of the vehicle reverse the above process.

# ADAPTIVE BENDING TECHNIQUES

When reaching for low or dropped items, hold onto something that is secure.

- 1. With one hand, hold onto a counter or table.
- 2. Kick back your affected leg as you bend forward and reach down with your free hand. Keep the toe of your affected leg on the ground for balance and your knee straight.
- 3. Once you have picked up the item, stand back up and regain your balance.

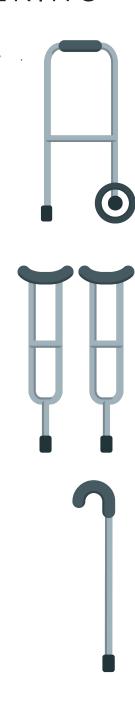
# USE OF AN ASSISTIVE DEVICE FOR WALKING

Your physical therapist will prescribe an assistive device for you while you are in the hospital and at home. Walkers and crutches are the most common equipment used. On rare occasions patients are able to walk with only the assistance of a cane.

If you already own a walker, crutches or cane, you may bring it to the hospital for the therapist to adjust for you. It is best to have your family bring it in the day after your surgery. If you would rather leave your equipment at home, you may borrow our equipment while in the hospital.

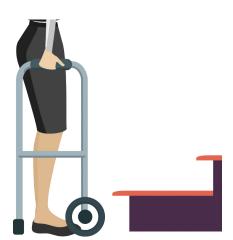
If you DO NOT already own a walker, crutches or cane, they can be purchased or rented. Your physical therapist can provide information for you to obtain the equipment or the therapist can order the equipment for you. Equipment ordered by your physical therapist will be delivered to your hospital room at no additional charge. Walkers and crutches can be billed to your insurance and may be paid for depending on your policy.

Your physical therapist will train you on how to use your assistive device for walking and for going up and down stairs.



## STAIR CLIMBING

#### GOING UP ONE STEP WITH A WALKER:



Approach the step with your walker or crutches and step into your walker close to the step.



Move your walker up onto the step.



Step up onto the step with your unaffected



Step up onto the step with your affected leg.

## STAIR CLIMBING

#### GOING DOWN ONE STEP WITH A WALKER:

## STAIR CLIMBING

#### GOING UP ONE STEP WITH CRUTCHES:



Walk to the edge of the step with your walker and step into your walker.



Move your walker off the step and onto the ground.



Step down onto the ground with your affected leg.



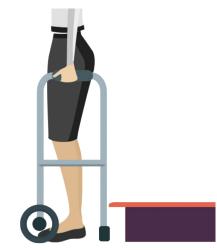
Approach the step with one crutch under each arm.



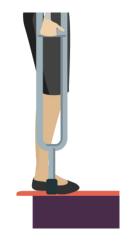
Step up onto the first step with your unaffected leg.



Bring your affected leg onto the step.



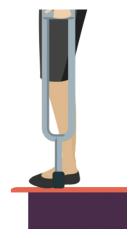
Step down with your unaffected leg.



Bring your crutches onto the step.

## STAIR CLIMBING

#### GOING DOWN ONE STEP WITH CRUTCHES:

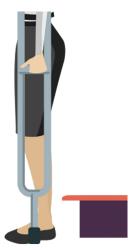






Approach the top of the step with one crutch Lower the crutches down. under each arm.

Step down with your affected leg.



Step down with your unaffected leg.

## STAIR CLIMBING

# Going Up a Flight of Stairs with Crutches and a Railing

- 1. Approach the stairs with your crutches.
- 2. Hold onto the rail with your closest hand and place the crutches under the opposite arm.
- 3. You can either place both crutches under one arm or place one upright and the other perpendicular to it (as shown in photos). Your physical therapist will help you determine which method is easiest for you.
- 4. Step up onto the first step with your unaffected leg.
- 5. Step up onto the step with your affected leg.
- 6. Bring your crutches up onto the step.
- 7. Continue this sequence until you reach the top of the stairs.

# Going Down a Flight of Stairs with Crutches and a Railing

- Hold onto the rail with your closest hand and place the crutches on the other side.
- 2. Lower the crutches onto the first step.
- 3. Step down with your affected leg.
- 4. Step down with your unaffected leg.
- 5. Continue this sequence until you reach the bottom of the stairs.

## STAIR CLIMBING

# Going Up a Flight of Stairs with Crutches without a Railing

- 1. Approach the stairs with one crutch under each arm.
- 2. Step up onto the first step with your unaffected leg.
- 3. Bring your affected leg onto the step.
- 4. Bring your crutches onto the step.
- 5. Continue this sequence until you reach the top of the stairs.

# Going Down a Flight of Stairs with Crutches without a Railing

- Approach the top of the stairs with one crutch under each arm.
- 2. Lower the crutches down onto the first step.
- 3. Step down onto the step with your affected leg.
- 4. Step down onto the step with your unaffected leg.
- 5. Continue this sequence until you reach the bottom of the stairs.

## HOME EXCERCISE PROGRAM

#### Congratulations on successfully completing your knee replacement surgery!

You have invested much time and energy into your rehabilitation and now need to continue your efforts to further improve the strength in your new knee.

The following section includes additional exercises to increase your strength and flexibility. Your physical therapist will provide instructions for these exercises while you are in the hospital. Upon discharge from the hospital, you should perform these exercises three times a day, starting with 10 repetitions and working up to 20 repetitions each. It is important to remember to breathe steadily throughout all your exercises. You will continue to be guided in your rehabilitation by your outpatient or home physical therapist.

Occasionally patients ask for a therapist to come to their home. There are extenuating circumstances that may cause your surgeon to order this for you but it is generally preferred for you to go to an outpatient clinic for your therapy. Outpatient therapy tends to be more aggressive, which will help you return to your prior level of function more guickly.

The four most important things you can do for the rehabilitation of your knee are as follows:

- 1. **Bend:** Bend your knee as far as possible several times per day. You cannot hurt your new knee by bending it too much although you may feel pain by doing so. A good goal to achieve is a 90-degree bend before you leave the hospital (a square angle).
- 2. Straighten: Sit in a chair with your affected leg up on another chair directly in front of you. Maintain this position (as pictured) for 20-30 minutes up to several times per day. It is very important for your new knee to get as straight as possible.
- 3. Lift: The most important strengthening exercise you can do is the straight-leg raise. This exercise will help you regain the strength in your quadriceps muscle, the large muscle group located on the front of your thigh.
- 4. Walk: Walking will help strengthen your knee and leg.

## ISOMETRIC EXCERCISES

#### Quad Sets:.

- 1. While lying on your back, straighten your affected leg as much as possible, tightening the muscles on the top of your thigh.
- 2. Hold for 5 seconds and relax.
- 3. Repeat\_\_\_\_times.

#### Hamstring Sets:.

- 1. While lying on your back, keep one leg straight and bend the other to a height of approximately 6 inches.
- 2. Tighten the bent leg by digging down and back with the heel.
- 3. Hold for 5 seconds and relax.
- 4. Repeat\_\_\_times.

#### Glute Sets:.

- Lie on your back and keep both legs straight.
- 2. Squeeze your buttocks together as tightly as possible.
- 3. Hold for 5 seconds and relax.
- 4. Repeat\_\_\_\_times.

## RANGE OF MOTION EXCERCISES

# Gravity-Assisted Flexion (Bending Your Knees):

- Sit on a sturdy chair that allows free movement of your foot backward. Keep your thigh well supported on the seat.
- 2. Bend your knee as far as possible. You can help pull your knee back by using your other leg or a long sheet placed under your foot.
- 3. Repeat\_\_\_\_times.

## STRENGTHENING EXCERCISES

# Seated Knee Extension (Straightening Your Knee):

- Sit in a chair with another chair facing you.
- 2. Place your operative leg up on the chair in front of you. Make sure there is a gap between the two chairs.
- 3. Allow your knee to straighten as much as possible.
- 4. Maintain this position for \_\_\_5. Repeat \_\_\_\_times per day.

#### Heel Slides:

- 1. Bend your knee, sliding your heel toward your buttocks.
- 2. Slowly lower your leg.
- Repeat\_\_\_times.

#### Calf Stretch

Sit with your knee straight and a towel looped around your foot. Gently pull on the towel until a comfortable stretch is felt in the calf.

Hold for 15 seconds.

Repeat \_\_\_\_ times.

#### **Short Arc Knee Extension:**

- 1. Lie on your back.
- On your affected side, place a large coffee can or rolled up blanket under your knee.
- 3. With your thigh resting on the can, lift your heel off the bed and straighten your knee as much as possible.
- 4. Pause and then lower your heel.
- 5. Repeat\_\_\_times.

## STRENGTHENING EXCERCISES

#### **Bridging:**

- Bend both knees up and put your feet flat on the bed.
- 2. Squeeze and lift your buttocks off the bed.
- 3. Lower your buttocks back down to the bed.
- 4. Repeat\_\_\_\_times.

#### Straight Leg Raise:.

- Bend your unaffected leg and put your foot flat on the bed
- 2. Lift your affected leg 8 inches off the bed, holding the knee straight.
- 3. Lower slowly
- 4. Repeat\_\_\_\_times.

#### Hip Abduction Slide:.

- 1. Lie on your back with your legs straight.
- 2. Keep a pillow between your knees during this exercise to avoid breaking your hip precautions.
- Keep your toes pointed toward the ceiling and slide your operative leg out to the side (like opening a pair of scissors).
- 4. Slowly return your leg to the original position.
- 5. Repeat\_\_\_times.

#### Seated Knee Extension:

- 1. Sit in a chair with your feet on the floor.
- Slowly kick the affected leg out front and try to straighten the knee as much as possible.
- 3. Repeat\_\_\_times.

## STANDING EXCERCISES

These exercises should be done near a kitchen counter or other high sturdy surface.

# Standing Hip Abduction (Kicking Your Leg Out to the Side):

- Move your leg straight out to the side with the knee and foot pointing straight ahead.
- 2. Do not hike your hip or lean to either
- 3. Slowly lower the leg.
- 4. Repeat\_\_\_\_times.

#### Standing Hip Flexion (Marching):

- 1. Bend your knee up toward your chest while keeping your trunk straight.
- 2. Do not bend more than 90 degrees at your hip.
- 3. Lower the leg slowly.
- 4. Repeat \_\_\_\_times.

# Standing Hip Extension (Kicking Your Leg Backwards):

- 1. Keep your body straight and upright throughout this exercise.
- 2. Move your operative leg back as far as possible, keeping the knee straight.
- 3. Slowly return to the starting position.
- 4. Repeat \_\_\_\_times.

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