HOSPITAL FOR **SPECIAL SURGERY**

YOUR PATHWAY TO RECOVERY

A Patient's Guide to

Total Knee Replacement (TKR) Surgery

WHERE THE WORLD COMES TO GET BACK IN THE GAME

Volume 2 • 8th Edition • Patient Education Series

YOUR PATHWAY TO RECOVERY
A Patient's Guide to **Total Knee Replacement (TKR)**

DEVELOPED BY
Members of the Interdisciplinary Patient Family Centered Education Committee and the Adult Reconstruction and Joint Replacement Service

SPECIAL THANKS TO
- Michael Parks, MD for his leadership and oversight of this material
- Chitranjan Ranawat, MD and Amar Ranawat, MD for photographs, illustrations, and editorial review
- Mark P. Figgie, MD, Steven Haas, MD and Geoffrey Westrich, MD for editorial review

ABOUT HOSPITAL FOR SPECIAL SURGERY
Founded in 1863, Hospital for Special Surgery (HSS) is a world leader in orthopedics, rheumatology, and rehabilitation. HSS has received Magnet Recognition for Excellence in Nursing Service from the American Nurses Credentialing Center and has one of the lowest infection rates in the country. For the last three years HSS has received the HealthGrades Joint Replacement Excellence Award. A member of the NewYork-Presbyterian Healthcare System and an affiliate of Weill Cornell Medical College, HSS provides orthopedic and rheumatologic patient care at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. All Hospital for Special Surgery medical staff are on the faculty of Weill Cornell Medical College. The Hospital's research division is internationally recognized as a leader in the investigation of musculoskeletal and autoimmune diseases.

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A Patient's Guide to Total Knee Replacement Surgery

Dear Patient,

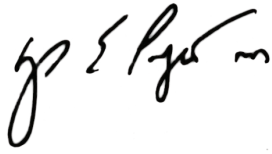
Welcome to Hospital for Special Surgery (HSS). We are very pleased that you have chosen HSS for your knee replacement surgery and we are committed to making your recovery a comfortable and successful one. It is with great pleasure that we on the Adult Reconstruction and Joint Replacement (ARJR) Service provide you with a comprehensive overview of your upcoming experience. This manual is your guide. We urge you to read and refer to it frequently and bring it with you during your hospital appointments and visits. Additional information and patient education materials are available for your review on our website at www.hss.edu.

Members of the ARJR service are dedicated to improve the design of knee replacements and the development of newer and less invasive techniques to facilitate a rapid and successful recovery. We appreciate your participation in our research studies and welcome your comments and input to help improve our Knee Replacement Program. On behalf of all members of our service, we hope that this educational booklet helps answer many of the questions regarding your condition and treatment.

Please feel free to contact the patient education staff at 212.606.1263 if you have questions or require additional information.

Sincerely,

Todd J. Albert, MD
Surgeon-in-Chief and
Medical Director



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Manager, Patient Education Programs

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Important Telephone Numbers

Hospital for Special Surgery Main	212.606.1000
Admitting	212.606.1241
Patient Education	212.606.1263
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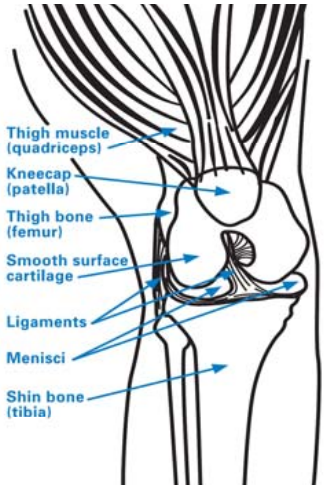
Access Private Nursing Service	212.774.7187
Physical Therapy	212.606.1221
Food and Nutrition Services	212.606.1293

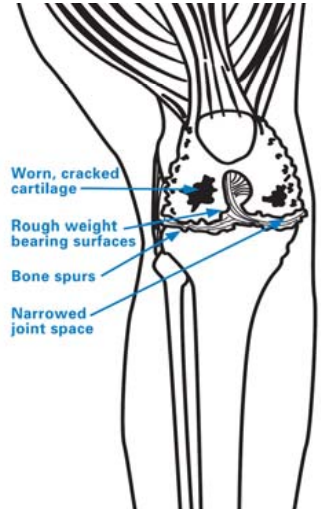
A Closer Look at Total Knee Replacement

To understand TKR, you should be familiar with the structure of the knee, a complex joint consisting of three bones: the femur (thigh bone), the tibia (shin bone), and the patella (kneecap). When you bend or straighten your knee, the end of the femur rolls against the end of the tibia, and the patella glides in front of the femur.

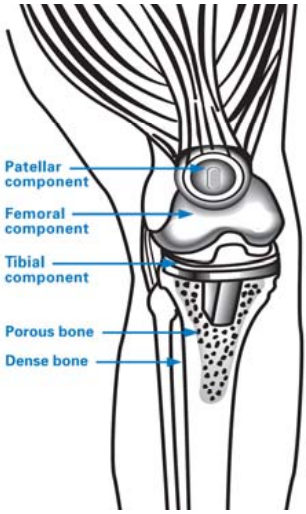


With a healthy knee, smooth, weight-bearing surfaces allow for painless movement. Muscles and ligaments provide side-to-side stability.

A membrane lines the joint. Cartilage acts as a cushion between the femur and tibia and is lubricated by synovial fluid.



With an arthritic knee, the cartilage cushion wears out. The bones rub together and become rough. The resulting inflammation and pain cause reduced motion and difficulty in walking.



The weight-bearing surfaces of a TKR are smooth, as in a normal knee. A femoral component covers the end of the thigh bone, a tibial component covers the top of the shin bone, and the patellar component covers the underside of the kneecap.

Most femoral components are metal alloys (cobalt chromium) or metal ceramic alloys (oxidized zirconium). The patellar component is plastic (polyethylene). The tibial insert component is also plastic (polyethylene). The tibial tray component can be made of the following materials:

- cobalt chromium (metal alloy),
- titanium (metal alloy), or
- polyethylene (plastic).

Clinical and biomechanical research has steadily refined knee replacement methods and materials. Prosthesis durability can vary from patient to patient because each patient's body places slightly different stresses on the new knee. However, the average patient can expect to obtain greater mobility and freedom from pain, which will, in turn, improve ability to walk.

Before You Come to the Hospital

Total knee replacement can enhance your quality of life by providing many years of improved mobility and reduced pain. Each year, over 300,000 Americans benefit from total knee replacement. In the last decade, remarkable advances in technology have transformed total knee replacement into an efficient and widely performed procedure.

Before, during, and after your hospital stay, the members of the Adult Reconstruction and Joint Replacement (ARJR) Service and HSS staff are committed to your well-being and satisfaction. Each attending surgeon is supported by a large staff of fellows, residents, physician assistants, anesthesiologists, radiologists, nurses, physical therapists, social workers, and administrative personnel.

In bringing you the latest advances in total knee replacement, Hospital for Special Surgery, a major teaching affiliate of Weill Cornell Medical College, combines world-class professionalism with personalized care. The hospital's outstanding diagnostic, surgical, and rehabilitation divisions offer a complete array of services.

The members of the ARJR Service and staff at HSS are here to serve you. Help us help you; any medical concerns should be discussed with your surgeon and unresolved administrative issues with your surgeon's office manager. A patient's active participation in treatment with full understanding of all issues, is vital to a full and uneventful recovery. A family's involvement with the patient's treatment plan is also encouraged and beneficial.

Things to Do

1. Before your surgery, the surgeon's office staff will make an appointment for you with an internist at HSS who will:
   - Review and/or perform any necessary diagnostic tests
   - Perform a medical exam to make sure you are safe for surgery.

2. Unless you are told otherwise, continue to take medicines already prescribed by your own physician.
   - Fish oils should be discontinued 7 days prior to surgery.
   - Anti-inflammatory medications, nutritional supplements (vitamins, minerals, iron, and calcium) should be discontinued 7 days prior to surgery.
   - Consult your physician regarding aspirin products. Patients with cardiac stents should continue to take their aspirin (81 mg.).

3. An appointment will be made for you for pre-surgical testing approximately 7 to 14 days prior to surgery where:
   - The pre-surgical screening staff will perform routine diagnostic testing so you are ready for surgery, including taking a blood sample for testing, a urine specimen, and an electrocardiogram (EKG).
   - You should bring a list of current medications and a detailed account of prior medical, surgical and family health history.
   - Complete all preadmission information as requested.
   - The nursing staff will request information as part of a comprehensive medical history to add to your patient database profile.
   - The nursing staff will provide instruction on preparation for surgery.

4. The surgeon's office staff will make an appointment for you to attend the pre-operative patient education class. The class is approximately 60 to 90 minutes long. During the class, patient educators will:
   - Review the surgical process
   - Discuss setting realistic expectations, patient safety, mobility, pain management and the prevention of complications (infection and blood clots)

- Provide instruction on bowel and skin preparation
- Provide information about:
  - nutrition and diet restrictions before surgery
  - the preoperative patient phone call and how patients obtain general pre-surgical information
  - the staff phone call to the patient the day before surgery with detailed and specific preparation instructions
  - the time and place to arrive for surgery
  - discharge planning

5. You may be asked to donate your blood for the surgery. If a donation is recommended, the surgeon's office staff **will provide information and schedule** usually 1 to 2 weeks prior to date of surgery.
   - **It is important to drink plenty of fluids before and after you donate and be sure to eat a substantial meal prior to your donation.**

6. You may wish to discuss your post-hospital needs with Case Management Services (212.606.1271) before admission. The Pre-Admission Program offers patients and their families the opportunity for assistance before the patient is admitted for surgery. This program enables you to begin understanding and planning your hospitalization and your discharge needs in a timely, comprehensive manner. It helps you maximize your options, and make decisions in a more relaxed way.

All patients must call the hospital's pre-surgical information line at 212.606.1630 and listen to a pre-recorded message as soon as possible, prior to your scheduled surgery, for general instructions and a review of the pre-hospital process.

7. Prepare for your return home from the hospital.

8. Before your admission, please complete the Health Care Proxy form authorizing another person, designated by you, to make decisions with your physician about your care, should this become necessary.

9. A nurse from the Call Center will contact you one business day, prior to your surgical date (Friday for Monday surgical cases) with more detailed instructions.

10. The night before your surgery and 2 hours after your dinner, administer your Fleet enema.

11. The surgical area from mid-thigh to mid-calf should be washed with the antiseptic soap solution at the end of your bath or shower on the night before surgery. Do not shave your legs during this last shower. The solution should be rinsed and removed after application. Specific instructions will be provided through the pre-surgical screening appointment, the preoperative education class, and pre-operative phone call.

12. The Call Center nurse will review when you should stop eating and drinking, but realize that it is likely that **only clear fluids** (no milk products) **after midnight** (i.e., water, ginger ale, black coffee or tea) will be allowed on the day of your surgery and **nothing** should be consumed 3 hours prior to your surgical time. A detailed preoperative nutritional guideline is described in this booklet and will be reviewed during the preoperative education class.

13. For patients who have Sleep Apnea and use a Sleep Apnea device, please bring your mask attachment and a record of the settings you normally use. Please DO NOT bring the CPAP machine. Patients with sleep apnea are generally required to stay overnight in the PACU to be monitored and observed.

14. The use of nicotine products (i.e., cigarettes, cigars, gums, or patches) has been shown to increase risk of complications following surgery. They can inhibit bone and wound healing by decreasing blood flow to the surgical site. They can also increase the risk of deep vein thrombosis (a.k.a. blood clots). Please discuss smoking cessation with your doctor.

15. You will be instructed to go to the Family Atrium on the **4th Floor** of the hospital. One support person may accompany you.

Extremely Important

Always have a list of your current medications and the dosages so that the correct medication and dosage can be prescribed for you while you are in the hospital. You should also have contact information for your local physician, (name, phone and fax number) and any details on medical information, allergies, or past reactions to anesthesia.

Be sure you understand all preoperative instructions. If you have questions or concerns, please discuss them with your surgeon or call the HSS Patient Education team at 212.606.1263. For more information, go to www.hss.edu and click on "Patients & Visitors".

Diet

PREPARING FOR SURGERY

One Week Prior to Surgery

- Stop all nutritional supplements (vitamins/minerals including iron and calcium)

The Day Before Surgery

- Follow a Low Fiber Low Residue Diet on the following pages (refer to "recommended foods" and "sample menus")
- Do not eat any solid food after midnight

Day of Surgery

- Take CLEAR FLUIDS ONLY up to 3 hours before surgery OR up until ARRIVAL AT THE HOSPITAL. Do not eat or drink anything after arriving at the hospital.

DAY BEFORE SURGERY: LOW FIBER/LOW RESIDUE DIET

The Low Fiber/Low Residue diet is to be used the day before surgery. A low fiber/low residue diet reduces the amount of waste that moves through the intestines, which is helpful in preparing for surgery. This diet is not nutritionally complete, and is intended to be used for a short duration only.

RECOMMENDED FOODS

Food Group	
Milk and dairy *limit to 2 servings daily (check package for serving size)	Milk or lactose-free milk; almond, rice or soymilk; yogurt (plain or vanilla), soy yogurt (plain or vanilla flavor); cottage cheese, cream cheese, ricotta cheese and aged cheese; ice cream or frozen yogurt; butter or margarine
Meat and other proteins	Ground or tender, well-cooked lean meats, poultry, fish, eggs and soy prepared without added fat
Grains	Enriched white bread and rolls; white rice, noodles, pasta, and cooked potatoes (no skin); plain crackers; farina, cream of wheat, and grits; cold cereal: Rice Krispies, Puffed Rice and Corn Flakes
Fruits	Fruit juice without pulp; canned or cooked fruits without skins or seeds; ripe banana; soft cantaloupes, honeydew melons, seedless watermelon; peeled apple
Vegetables	Strained vegetable juice; most well cooked or canned vegetables without seeds and skin, such as potato without skin, tomato sauce, pureed spinach, green beans, carrots and asparagus tips; iceberg lettuce
Beverages	Water, apple or cranberry juice, coffee, tea, carbonated drinks; bouillon or strained broth
Fats, snacks, sweets and condiments	Vegetable oil, butter, margarine, ketchup, vinegar, mayonnaise; plain cookies and cakes; fruit ice, jello, custard, jelly (seedless), honey, sugar or syrup

FOODS TO AVOID

Food Group	
Milk and dairy *limit to 2 servings daily (check package for serving size)	Yogurt or ice cream with nuts, seeds or fruit; more than 2 cups daily from milk and dairy group
Meat and other proteins	Legumes (dried beans), nuts, nut butters, seeds and tough fibrous meats
Grains	Whole grain, whole wheat, rye, cornbread or pumpernickel bread; breads made with nuts, seeds or fruits; whole wheat pasta; whole grains such as brown rice, buckwheat, bulgur, oats, corn and kasha, whole grain cereals, bran cereals, granola-type cereals, and cereals with nuts, seeds, coconut or dried fruit
Fruits	All other raw fruits including berries, citrus fruits, grapes, pears and pineapple; prunes and prune juice; dried fruit
Vegetables	ALL raw or partially cooked vegetables AND beets, broccoli, cauliflower, brussels sprouts, cabbage, sauerkraut and corn; greens (mustard, turnip, spinach, collards); lima beans, peas, mushrooms, okra, onions, parsnips, peppers, potato skins, tomatoes and winter squash
Beverages	Limit milk and dairy products to 2 servings per day
Fats, snacks, sweets and condiments	Any made with whole grain flour, bran, seeds, nuts, coconut or dried fruit; nuts, seeds, and popcorn

SAMPLE LOW FIBER/LOW RESIDUE DIET

GENERAL

Breakfast

½ cup apple juice
¾ cup corn flakes
1 slice white toast
1 tsp. margarine
2 tsp jelly
1 cup lowfat milk
coffee/tea

Lunch

1 cup chicken noodle soup
3 oz lean hamburger on bun (white, no seeds)
1 cup vanilla yogurt (no fruit/seeds) OR 1 cup lowfat milk
½ cup canned peaches
tea

Dinner

½ cup cranberry juice
3 oz chicken breast
½ cup mashed potato
½ cup well cooked green beans
1 slice white bread
1 tsp margarine
½ cup applesauce
tea

Breakfast

½ cup orange juice (strained, no pulp)
1 cup cream of wheat
1 scrambled egg
1 slice white toast
1 tsp margarine
2 tsp jelly
1 cup lowfat milk
coffee/tea

Lunch

½ cup grape juice
3 oz lean roast beef
baked potato (no skin)
½ cup well cooked carrots
1 small white dinner roll
1 tsp margarine
1/2 cup canned pears
tea

Dinner

3 oz baked fish
½ cup white rice
½ cup well cooked asparagus tips
1 slice white bread
1 tsp margarine
½ cup Italian ice
tea

Snack

1 cup lowfat milk
4 graham crackers

LACTOSE RESTRICTED AND DIABETIC

Breakfast

1 scrambled egg
1 slice white toast
1 tsp margarine or butter
1 cup cream of wheat or farina
½ cup apple juice
coffee/tea

Lunch

1 cup chicken noodle soup
3 oz turkey
2 slices white bread
1 tsp mayonnaise
½ cup soft melon or cantaloupe
tea

Dinner

3 oz baked fish
½ cup white rice
½ cup well cooked green beans
1 white dinner roll
1 tsp margarine or butter
½ cup canned peaches in
natural juice
tea

Snack

5 vanilla wafers
1 cup soymilk or 1 cup Lactaid milk

DAY OF SURGERY: CLEAR FLUID DIET (ANY MEAL)

ALLOWED

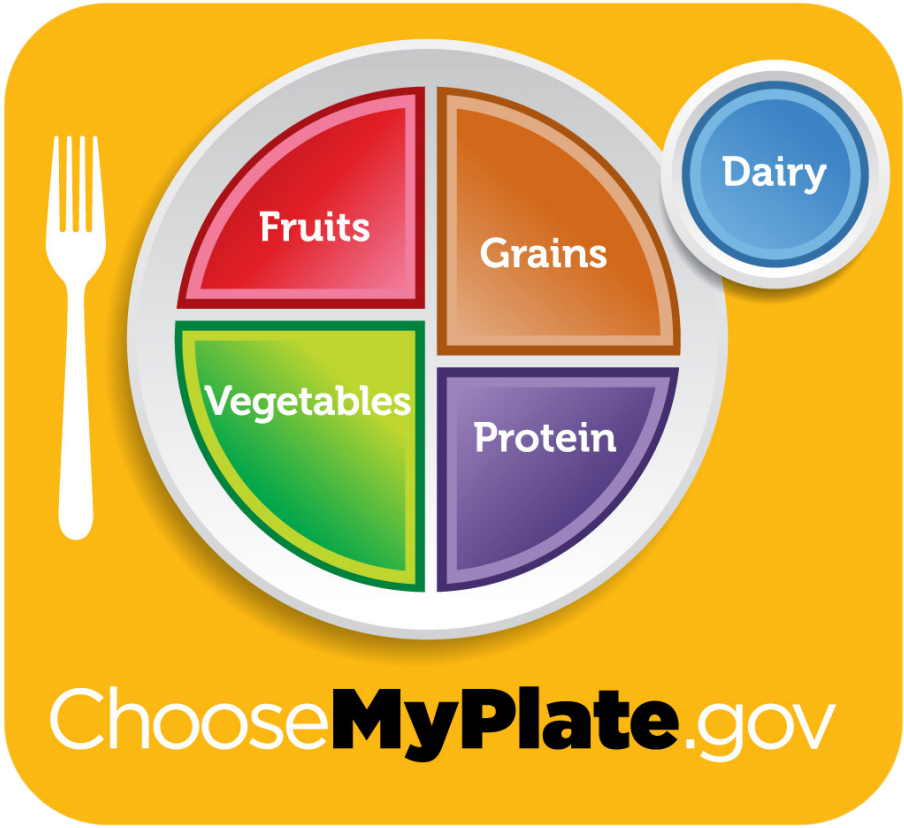
- Water
- Apple, Cranberry & Grape Juice
- Gatorade
- Black Coffee or Tea
- Clear Broth
- Ginger Ale and Seltzer
- Jello and Italian Ice

NOT ALLOWED

- Milk or Dairy Products (including in coffee and tea)
- Citrus Juices
- Prune Juice
- Juices with Pulp
- Any food or beverage not listed in the "allowed" column

MyPlate

MyPlate is the current nutrition guide published by the United States Department of Agriculture. It helps you to choose a healthy meal plan. It is divided into sections of approximately 30% grains, 30% vegetables, 20% protein and accompanied by a smaller circle representing dairy. MyPlate emphasizes portion control while providing the necessary nutrients you need and the right amount of calories to maintain a healthy weight.



When You Come to the Hospital

A Checklist for an Average Two Night Stay

- [ ] A legal picture identification (ie driver's license, passport, birth certificate, social security card, green card/permanent resident card, military i.d.)
- [ ] Your hospitalization insurance cards
- [ ] X-rays or laboratory reports (if instructed by the staff)
- [ ] A cane, if you use one, for your therapist to evaluate
- [ ] Your completed Health Care Proxy form
- [ ] Paperwork, including consent forms, sent to you by your surgeon. Also bring a list of your current medications with dosages, and medical information from your physician.
- [ ] This manual: *Total Knee Replacement: Your Pathway to Recovery*
- [ ] Non-slip, flat, supportive athletic or walking shoes
- [ ] Personal toiletries
- [ ] A small amount of money for newspapers
- [ ] One credit card to purchase necessary medical equipment, or for transportation services
- [ ] A book, magazine, or hobby item to occupy time
- [ ] Eyeglasses, NOT contact lenses

Please Do Not Bring

- [ ] Medications including narcotic substances(unless instructed by your HSS pharmacist). Self-medication during your hospital stay may lead to unsafe conditions like overdoses and or drug interactions.
- [ ] Valuables (except those mentioned above)
- [ ] Jewelry: Remove and leave at home all piercings and jewelry, including wedding rings to ensure your safety during surgery. Otherwise, they may need to be cut off.

Your Surgery and Hospital Stay

The Day of Surgery

Traveling to HSS

The hospital is located at 535 East 70th Street on the Upper East Side of Manhattan, between the East River and York Avenue. For physicians, patients, and families visiting from out of town, the hospital is readily accessible by automobile and taxi via all of the major bridges and tunnel routes. Garage parking is available nearby; street parking is subject to local restrictions.

The Day of Surgery

You and the person accompanying you, should come to the Family Atrium on the 4th floor of the hospital. When you arrive, the admitting staff will process your admission, issue you an identification bracelet, and direct you to the Family Atrium. The Family Atrium is equipped with comfortable chairs and offers amenities that include a coffee bar, food cart, television services, and computer access. The area has Wi-Fi and cell phone use is allowed. Please note, due to space issues, **we can only accommodate one person accompanying you the day of surgery.**

Members of the SDS nursing staff will greet and escort you and one person accompanying you to the pre-surgical holding area. This is where you will meet a Physician Assistant (PA) who will reassess your condition and medical/surgical history. PAs are healthcare professionals licensed to practice medicine with physician supervision. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order and review tests, counsel on preventive healthcare, assist in surgery, and prescribe medications. PAs work closely with other members of the Operating Room (OR) and Anesthesia team to finalize your pre-surgical preparations.

The SDS nursing staff will complete your admission process, check your identification band, and assist you with changing into our hospital gown. Your belongings, which should fit in one small bag, will be gathered and labeled, and will stay with the security department until you are in a room. You should ask the person accompanying you to hold onto your eyeglasses and hearing aids, and to return them following surgery.

The SDS nursing staff will wash and prepare the surgical site area. They will also start an intravenous (IV) line. The IV provides a route for fluids, medications, and blood products, if necessary. It is also the main route for your antibiotics to prevent and reduce the risk of infection. Your IV will be in place for approximately 48 hours and will be removed when your medication is complete, when your normal diet is resumed and tolerated, and when the team feels you no longer require it.

A PA and other members of your surgical team will take your latest information and perform some additional safety cross-checks and tasks. They will review the surgical consent with you, and have you sign the actual consent paperwork. Your surgeon will confirm your identity, review, and then sign your surgical site and ID bracelet with a surgical marker. These steps are an important part of the process designed to ensure patient safety.

Members of your Anesthesia team will review and explain the plan for anesthesia, including the type of anesthesia (epidural or spinal), your level of sedation, and your post-surgical pain management. The anesthesiologist will also ask you to sign the consent to perform anesthesia. A majority of our TKR patients will receive IV sedation and a combined spinal or epidural anesthetic, in which a narrow catheter (tube) is inserted in the lower spine and allows a continuous flow of anesthetic medication to block all feeling during the surgery. The level of sedation and anesthesia is tailored to your specific needs and will allow you to awaken very soon after the surgical procedure is completed.

Members of the OR staff will recheck that all of the appropriate paperwork and tasks have been performed. They will then escort you on a gurney or stretcher into one of the operating room suites. Your family member will be instructed to return to the Family Atrium.

TKR surgery generally takes approximately 1 to 1½ hours, but the actual elapsed time from operating room to post-anesthesia care unit is usually about 2½ hours. Your surgeon will provide more specific details and will make arrangements to contact your family following surgery. Please provide the surgeon with specific contact information as to where and how your family can be reached.

After Surgery

In the Post-Anesthesia Care Unit (PACU), also called the Recovery Room, you may be given oxygen, and your vital signs (respirations, heart rate, and blood pressure) and IV will be monitored. The team will also focus on managing your pain and will begin your rehabilitation. Once in the PACU, the person accompanying you will be provided an update. To maintain patient privacy, as well as to reduce the risk of infection, PACU visits are limited, but will be facilitated through the Family Atrium patient liaisons.

When the anesthesiologist determines that you are sufficiently recovered, usually a few hours after surgery, you will be transported to an inpatient unit. While most patients are transferred to inpatient units, some remain overnight in the PACU for additional observation and monitoring.

Spiritual Support

HSS formally recognizes the role that spiritual support can play in coping with and recovering from physical illness. To help meet your spiritual and emotional needs, HSS provides a Chaplaincy Service as an integral part of the healthcare team. The chaplains are here to serve you and your family and can provide spiritual support in any faith. Please call 212.606.1757 to contact the Spiritual Care Office.

Private Nursing Service

If you wish to have a private nurse during your hospital stay, the hospital can arrange this service for you. Please call 212.774.7187.

Recovering in the Hospital

The knee will have a large, bulky elasticized bandaged dressing and may have a thin tube inserted at the surgical site during the operation and attached to a drain and suction device to prevent accumulation of blood around the muscles and bones of the knee. The tube and drain are removed the day after surgery, and the bandage is removed the first or second post-surgical day.

Some surgeons will recommend the use of a continuous passive motion machine (CPM), which helps the knee regain flexion. Members of the nursing staff will position you in bed and help you turn until you are able to move on your own. Regional anesthesia may temporarily inhibit bladder function after surgery. A catheter may be inserted into the bladder to monitor your urinary output.

In collaboration with you and your family, the healthcare team will plan, provide, and monitor your care.

Exercise

Gentle exercises to improve your range of motion can help prevent circulation problems as well as strengthen your muscles. Very soon after surgery, a physical therapist will teach and review your exercise program.

Deep Breathing

It is extremely important to perform deep breathing exercises after surgery to rid your airway and lung passages of mucus. Normally, you take deep breaths almost every hour, usually without being aware of it, whenever you sigh or yawn. When you are in pain or are drowsy from anesthesia or pain medication, your breathing may be shallow. To ensure that you breathe deep daily, the nursing staff will provide you with a device called an incentive spirometer, along with instructions on its use.

HOW TO USE THE INCENTIVE SPIROMETER

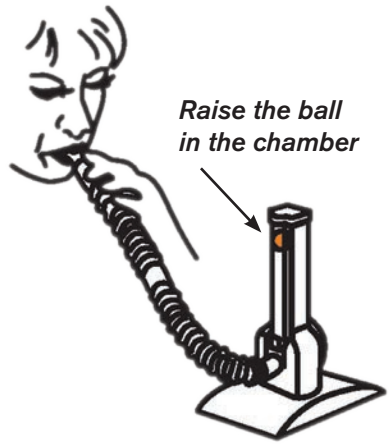
1. With the unit in an upright position, place your lips tightly around the mouthpiece and exhale normally.

2. To achieve a deep and sustained breath, inhale at a rate sufficient to raise the ball in the chamber.

3. Exhale. After performing the exercise, remove the mouthpiece from your lips.

4. Relax and breathe normally for a moment after each deep breath.

5. Repeat this exercise 10 times every hour.



Managing Pain

How Does it Feel?

Recovering from any surgery involves pain and discomfort. The hospital's team approach to pain management can help reduce your discomfort and thus speed your recovery. Pain management, however, begins with you. Since no objective tests exist to measure what you are feeling, you must help the staff by describing the pain, pinpointing its location, and judging its intensity, as well as reporting any changes. Pain may be constant or sporadic, as well as sharp, burning, tingling, or aching. A pain scale is used to help you and the staff gauge the level of pain and effectiveness of treatment.

People used to think that severe pain after surgery was something they "just had to put up with." While it is reasonable to expect some discomfort following surgery, the current treatment options greatly reduce the level of pain most patients have.

Your description will help us provide you with a plan of care. Even under your personal Pain Management Program, your pain level may change at times. Be sure to tell your nurse if it becomes worse.

You will be asked to rate how much pain you have on the Pain Scale below:

PAIN SCALE

Your Treatment Plan

Pain control following surgery is an important part of your care. The pain management team will use a multi-faceted approach to manage your pain. This may include a combination of nerve blocks, oral medications, injections, IV medication and catheters connected to computerized pumps that are controlled by the patient (Patient Controlled Analgesia or PCA). We try to refrain from giving injections, but sometimes this is unavoidable. The goal is to try to recognize and treat your pain quickly, which allows you to participate in the exercise program.

The goal is to transition you to oral pain medications. Usually the oral pain medication is an opioid or narcotic, but whenever possible, an anti-inflammatory medication will be ordered as well. This transition is usually a smooth one, enabling you to progress with your activities with minimal discomfort.

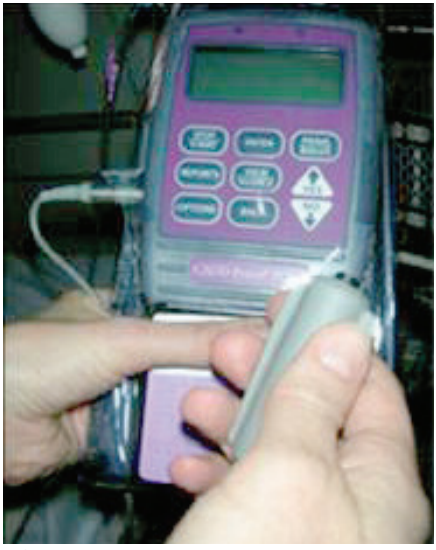
Every patient's experience is unique. So, if you need pain medication, tell your nurse as soon as the pain starts. Keep in mind that your pain is easier to control if you do not allow it to become severe before taking pain medication. Usually medications are available every three to four hours as needed.

Regardless of which pain relief method is started, **if you are not getting pain relief**, please notify your nurse or doctor. We want you to be as comfortable as possible while you heal. Being able to participate in your own recovery activities is a goal of the recovery process.

It is extremely important that you inform your anesthesiologist about any problems encountered with medications of any type in the past and if you are currently using prescription medications for pain.

What is Patient Controlled Analgesia (PCA)?

PCA is a type of pain medication delivery system which utilizes a microprocessor (computerized pump) to administer a prescribed amount of medication at desired intervals. This pump is prepared and programmed for you at Hospital for Special Surgery by an anesthesiologist. A special pain management team consisting of anesthesiologists, nurses, and pharmacists supervise your use of the medication.



PCA Pump

The pump is programmed to deliver a pain medication either when you push the button (demand dose) or by a continuous flow (basal rate). It can be attached through either your intravenous line or epidural tubing in your back during your surgery. It is called "Patient Controlled" because, if needed, you can press a button attached to the pump to give yourself a dose of pain medication.

Precautions against an overdose have been incorporated into PCA. The pump is programmed not to deliver the dose of pain medication requested if it is not time to safely do so. There is an hourly limit of medication available. The PCA system automatically records both the doses delivered and denied. Your nurse checks this machine frequently and records the amount of medication used. If you are having pain after using your PCA hourly limit, tell your nurse. The nurse can call the anesthesiologist or other members of the pain management team who will check on you and adjust the medication or PCA settings as needed.

The nurses regularly check on you to evaluate your level of pain relief and assess for side effects. An anesthesiologist visits daily when you are on the PCA pump, even if your pain management is going well. If any problems arise, an anesthesiologist is on call 24 hours a day, 7 days a week.

Epidural PCA

Patients who have surgery on the hips, knees, or ankles will usually have epidural anesthesia. After a local anesthetic injection, a catheter (very thin tubing) is placed between the bones of the back for administering the anesthesia for your operation. Afterwards, by starting a flow of pain medicine through this catheter, pain relief can be continued into the post-operative period. The PCA is attached to the epidural catheter in your back. As described above, you will be able to give yourself an extra dose of medication, if needed, in order to make the pain tolerable.

IV PCA

If the anesthesia used for your surgery was not epidural anesthesia, or if your surgeon and anesthesiologist feel an IV is the preferred method of applying pain control, the PCA pump will be attached to IV tubing. This means that the PCA pump will be programmed to inject pain medication directly into your blood stream. Again, you can give yourself an extra dose of medication, if needed, just by pressing the button attached to the PCA pump. This PCA method should keep you comfortable most of the time.

Local Injections During Surgery

Some surgeons prefer to treat pain during the surgical procedure by injecting a combination of medications directly into the tissues close to the surgical site (local).

Nerve Block

Your anesthesiologist may include a nerve block as part of the pain management regimen. Your nurses and therapists will need to assist and support you while standing during the first day after a nerve block as you may have a tendency to buckle your knee. It is important for your safety that you do not try to get out of bed on your own. This one time injection is given while you are in the operating room and provides additional pain relief that lasts an average of 16 hours.

Oral Medication

Approximately 24 to 48 hours after surgery, as pain decreases and your activity level increases, you will be given oral pain medication, which controls discomfort without restricting activity or mobility.

Cold Therapy and Repositioning

The application of cold has been shown to reduce swelling and pain associated with inflammation associated with the surgical site. Ice packs or cold pads should be applied for 15 minute intervals every 3 to 4 hours on a daily basis for the first few weeks following surgery.

If you are uncomfortable, repositioning your surgical leg may also decrease pain. Please call your nurse if you're feeling discomfort to the area and the nurse can assist with repositioning for comfort.

Rehabilitation in the Hospital

Your Daily Physical Therapy Session

You will be seen by a physical therapist on the day of surgery or the next morning after surgery. Your therapist will instruct you in your exercise program, which is directed toward increasing range of motion and strength of your legs. For the first few days after surgery, some patients benefit from taking pain medication thirty minutes prior to their therapy session. However, be sure to take your pain medicine when it is due, not only thirty minutes prior to a physical therapy session. You should discuss this with your nurse and/or therapist.

Beginning to Walk

Your therapist or nurse will assist you in sitting up with your feet over the bedside (we call it dangling). You will then stand with the use of a walker and the continued help of your therapist. As soon as possible, you will be allowed to bear full weight on the operated leg and then attempt walking.

As the days progress, you will increase the distance and frequency of walking. Most patients progress to a straight cane within a few days after surgery.

Stair Climbing

You will practice stair climbing several times prior to discharge. You will use steps in the physical therapy treatment room.

Looking Ahead

Before leaving, you will be instructed in an exercise program for home.

Remember, You Make the Difference!

It is extremely important that you understand that your motivation and your participation in your physical therapy program is a vital element in the speed and success of your long-range rehabilitation as well as getting ready to go home.

Your participation in a physical therapy program is essential to the success of your surgery. The more committed and enthusiastic you are, the quicker your improvement will be.

Soon after surgery, a physical therapist will visit you with an exercise program to increase range of motion and strength in your leg muscles.

The physical therapist will assist you in the following activities:

- Sitting at bedside with your legs dangling
- Transferring in and out of bed safely
- Walking with the aid of a walker or cane
- Climbing stairs
- Performing muscle strengthening and range of motion exercises

Dos and Don'ts After Your Total Knee Replacement

Below is a general list of precautions to follow after your total knee replacement. If additional precautions are warranted, the staff will provide instructions.

☑ DO

- Position your knee comfortably as you go about your daily activities.
- Walk and perform range of motion exercises every day.
- Use an ice pack if your knee begins to swell.
- Elevate your leg one hour twice a day if your knee, calf, ankle or foot begins to swell.
- At home, you can use a grab bar or shower chair for added safety, comfort, support, and stability.

☒ DON'T

- Twist your knee. Turn your entire body instead.
- Jump or otherwise put sudden, jarring stress on your knee.
- Never put a pillow or a roll directly under your knee. Always keep the knee out straight while lying down in bed.

Preventing Blood Clots

After total knee replacement surgery, clots, called deep vein thromboses (DVT), may form in the leg veins. In rare cases, these leg clots travel to the lungs where they may cause additional symptoms. To prevent and reduce the incidence of clot formation, mechanical devices (foot or calf pumps) are used while you are in the hospital to squeeze the leg muscles, thus maintaining blood flow in the veins. Also, a medication to minimize clot formation, such as Coumadin, Lovenox, or Aspirin, will be prescribed for approximately 4 to 6 weeks.

Leg Swelling

Following total knee replacement, most patients develop swelling in the operated leg. Although the amount of swelling can vary from patient to patient, the swelling itself, in the leg, knee, ankle, or foot, is normal and may be accompanied by "black and blue" bruising that will usually resolve gradually over several weeks.

For the first month after your operation, prolonged sitting with your foot in a down position tends to worsen the swelling. You should not sit for more than 30 TO 45 MINUTES at a time. Periods of walking should be alternated with periods of elevating the swollen leg. When elevating the leg, the ankle should be above the level of the heart. Lying down for an hour in the late morning or afternoon helps reduce swelling.

To prevent or reduce leg and ankle swelling:

- Elevate operated leg
- Avoid sitting for more than 30 to 45 minutes at a time
- Perform ankle exercises
- Apply ice for 20 minutes a few times a day (before and after exercises)

Preparing to Return Home

The majority of patients who undergo a total knee replacement are usually discharged from the hospital in approximately two nights after the surgery and many of them are able to return to their home environment.

How the Hospital Can Help

As soon as you decide to have a total knee replacement, you must look ahead, and plan for discharge and home recovery. Preparing enables you to concentrate on your main task—getting well. To help you plan for discharge and home recovery, the hospital's Case Management Department is available at your request.

A Case Manager is available to you prior to surgery to address any concerns you may have about your discharge from the hospital. The case manager will review the alternatives available to you based on your medical condition, home and healthcare needs, care arrangements you have already made, geographic location, insurance coverage, and financial situation.

Some of the ways the hospital Case Manager can assist you include:

- Counseling to help you cope with illness or disability
- Discharge planning
- Long-term planning
- Assessing your eligibility and advising you on benefits you may be entitled to, including SSI (Supplemental Security Income), SSD (Social Security Disability), Medicaid, and New York State Disability

The Case Manager will discuss your post-discharge needs in consultation with your surgeon and other members of your primary healthcare team. Your involvement is essential in formulating a discharge plan that will suit your needs.

The hospital's Case Management Department (TEL 212.606.1271) is available to assist you in planning your discharge and home recovery.

Final Steps: At Home

Guidelines for Recovering at Home

Please do not hesitate to contact your surgeon with any questions you have about the following instructions.

Caring for the Surgical Site

1. A dry sterile dressing may be placed over the incision. The incision can often be left open to air without a dressing.
2. Please inform your surgeon if you notice increasing redness or drainage from your incision.

Pain Medication

1. Take your pain medication as prescribed.
2. To control pain, take your pain medication before the pain becomes severe.
3. If your pain medication seems weak or you are experiencing unpleasant side effects, do not hesitate to call your surgeon's office.
4. If you are taking pain medication, avoid alcoholic beverages.
5. It is important to notify your surgeon's office if you require additional pain medications. It will take a few days to mail you a new prescription, so call the surgeon's office before your supply runs too low. Call when you have 1 week supply to be safe.

If you experience discomfort during your ongoing physical therapy, take your pain medication at least 45 minutes prior to your subsequent therapy sessions. This will allow enough time for the medication to take effect.

Preventing Infection (Antibiotic Prophylaxis)

It is very important that you protect your artificial joint from potential infection. Some patients have increased risk following total joint surgery as an infection can spread to the new joint through the bloodstream (the medical term for this is "hematogenous" spread) from another source in your body. Please tell all of your health providers that you have an artificial joint as they may need to prescribe antibiotics before treatment. This is especially important before dental procedures and invasive urinary procedures. If you are not sure whether a procedure you are having is invasive, play it safe and inform your surgeon, who will provide additional instructions.

The following is based on the American Academy of Orthopaedic Surgeons (AAOS) guidelines and recommendations published in The AAOS Bulletin, July, 1997, and also in the *Journal of American Dental Association*, 1997, 128:1004-1008 to help show when antibiotic treatment is indicated.

Patients at potential increased risk of hematogenous total joint infection include:

Immunocompromised/immunosuppressed patients

- Inflammatory joint arthritis, rheumatoid arthritis, systemic lupus erythematosus
- Disease, drug or radiation-induced immunosupression

Other patients

- Insulin dependent (Type 1) diabetes
- Within the first two years following joint replacement
- Previous prosthetic joint infections
- Malnourishment
- Hemophilia

There is a higher incidence with certain dental procedures (procedures more likely to have bacteria enter the bloodstream):

- Dental extractions
- Periodontal procedures including surgery, subgingival placement of antibiotic fibers/strip, scaling and root planning, probing, recall maintenance

- Dental implant placement and reimplantation of avulsed teeth
- Endodontic (root canal) instrumentation or surgery only beyond the apex
- Initial placement of orthodontic bands, but not brackets
- Intraligamentary local anesthetic injections
- Prophylactic cleaning of teeth or implants where bleeding is anticipated.

For at least two years following surgery, please be sure to tell your internist and dentist that you have an artificial joint so that they can prescribe antibiotics prior to the above procedures. If you have any questions or concerns, please call your surgeon's office.

THE SUGGESTED ANTIBIOTIC REGIMEN IS AS FOLLOWS:

For patients not allergic to Penicillin:
- Cephalexin, Cephradine or Amoxicilin 2 grams orally 1 hour prior to the dental procedure

For patients not allergic to Penicillin but unable to take oral medications:
- Cefazolin 1gram IM/IV 1 hour prior to the dental procedure

For patients allergic to Penicillin:
- Clindamycin 600mg orally 1 hour prior to the dental procedure

For patients allergic to Penicillin and unable to take oral medications:
- Clindamycin 600 mg IM/IV 1 hour prior to dental procedure

All total joint replacement patients should adhere to this regimen for two years following joint replacement surgery. Some surgeons will prefer and may recommend using antibiotics for longer than two years and will communicate that to their patients. Immuno-compromised patients, including those with inflammatory arthropathies, rheumatoid arthritis, drug or radiation induced immuno-suppression, insulin-dependent diabetes, or any other major medical problems, should follow this antibiotic routine indefinitely.

Antibiotics may reduce the risk of infection but cannot completely eliminate that risk. Preventing infection must be the concern of you the patient and all the healthcare professionals who treat you.

The lower incidence of bacteremic dental procedures (procedures less likely to have bacteria enter the bloodstream) occurs with the following dental procedures and therefore **not indicated for antibiotics prophylaxis**:

- Restorative dentistry (operative and prosthodontic) with/without retraction cord
- Local anesthetic injections (non-intraligamentary)
- Intracanal endodontic treatment; post placement and buildup
- Placement of rubber dam
- Postoperative suture removal
- Placement of removable prosthodontic/orthodontic appliances
- Taking oral impressions
- Fluoride treatments
- Taking oral radiographs
- Orthodontic appliance adjustment

Please note that these are guidelines for suggested regimens. The clinical judgment of the care provider may indicate antibiotic use in selected circumstances with procedures that may create significant bleeding.

Sports Activities

After full recovery, some patients enjoy light sports activities. Activities you can enjoy after total knee replacement include walking, bicycling, bowling, swimming, golf, and doubles tennis. Skiing may be allowed but likely on green and blue trails only. Avoid high-impact activities, such as jogging, running, or jumping.

Your New Knee is Different

Recovery from surgery takes time. You will likely feel tired and fatigued for several weeks and this is a normal response. It is important to plan periods of rest throughout the day. You may experience skin numbness around your incision and knee stiffness, particularly with excessive bending activities such as getting in and out of a low chair or a car. This is normal. Though possibly uncomfortable, kneeling is

not harmful. At times, you may notice clicking. This is common and is due to the plastic and metal implant surfaces rubbing together. These symptoms will gradually improve over several weeks and months. The benefits of total knee replacement usually become fully evident 6 to 8 months after surgery.

Rehabilitation after Total Knee Replacement

Your Daily Physical Therapy Session

You will be seen by a physical therapist on the day of surgery or the next morning after surgery. The physical therapy schedule is available to your nurse by 8:30AM so you will know what time you are having therapy. Your therapist will instruct you on how to initiate a mobility or walking program and instruct you in a home exercise program, which is directed toward increasing knee range of motion and improving quadricep strength.

Take your pain medicine when it is due, not only thirty minutes prior to a physical therapy session. You should discuss this with your nurse and/or therapist.

Beginning to Walk

Do not get in or out of bed by yourself! Your therapist will assist you in sitting up with your feet over the bedside (also called 'dangling') on the day of surgery or early the next morning. You will then stand with an assistive device and the help of your physical therapist. As the days progress, you will increase the distance and frequency of walking. **Remember: Call Don't Fall!**

Gradually increase your walking distance daily over the next few weeks after surgery and remember not to walk with a "stiff" knee, bend it as you normally would when you walk. When you are sitting, it is important to sit with your knee flexed or bent to a comfortable range of motion. Do not sit for an extended period of time. After 30-45 minutes, it is recommended that you get up and walk around to avoid stiffness.

Stair Climbing

You will practice stair climbing prior to discharge. You will use steps in the physical therapy treatment room.

Upstairs

a. The unoperated leg goes first.
b. The operated leg goes second.
c. The cane goes last.

Downstairs

a. The cane goes first.
b. The operated leg goes second.
c. The good leg goes last.

Physical Therapy Exercise Program

Post-operatively, it will be important to perform the following exercises. Your goal is to improve the overall strength of your operated leg, minimize swelling, and obtain full range of motion. Therefore, it is critical that you work on bending and straightening your knee throughout the day. Please perform the following exercises with the appropriate number of repetitions as instructed by your physical therapist.

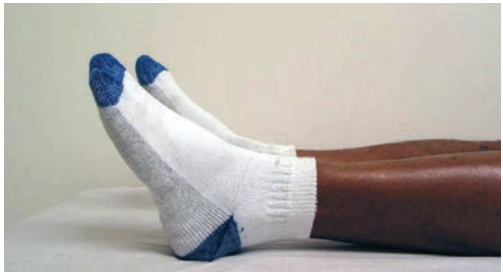
The following is a list of the exercises you should do at home. You should try to establish at least two to three sessions lasting 15-to-20 minutes per day. Your physical therapist will instruct you in which exercises are appropriate for you. It is normal to experience some discomfort while doing your exercises. Take your pain medication prior to doing your exercises in order to make it easier for you.

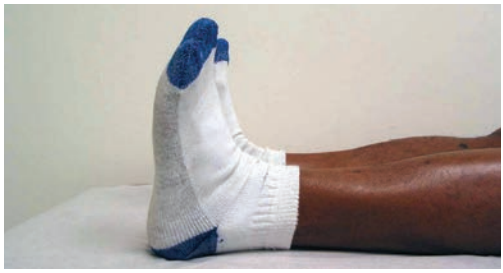
1) Ankle Pumps

- Lie on your back and keep legs flat on the bed, then move both your ankles up and down.

- Repeat_____ repetitions

  _____ sets daily.





2) Gluteal Set

- Lying on your back, squeeze buttocks together.

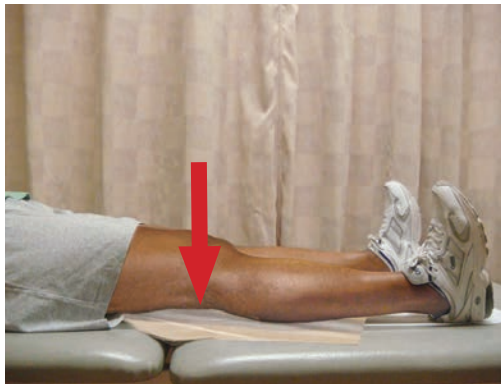
- Hold for _____seconds (do not hold your breath)

- Relax

- Repeat _____

  repetitions _____sets daily.

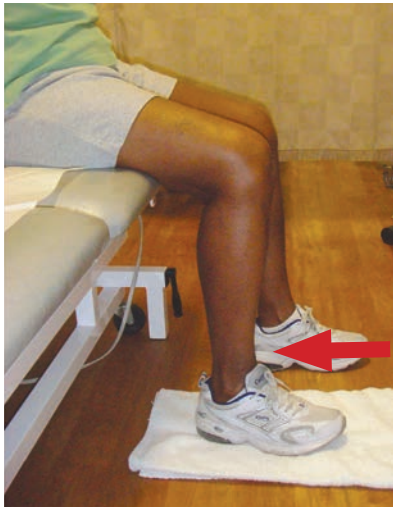
3) Quadricep Set



- Lie on your back.
- Press the back of your knee downward and tighten thigh muscle.
- Hold for _____ seconds
- Repeat _____ repetitions

  _____ sets daily.

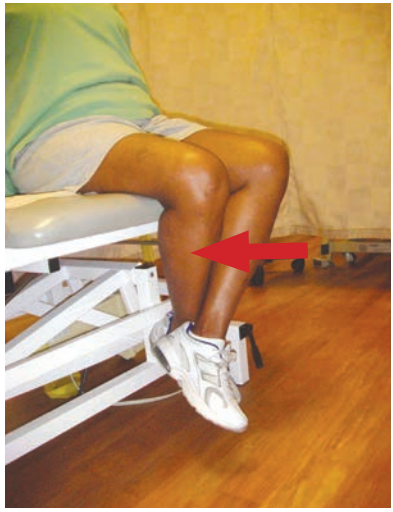
4) Active Range of Motion (AROM)



- Sit in a chair, rest your foot on the floor on a paper towel or pillow case to allow your foot to slide more easily.
- Bend operated knee as far back as you can using your muscles.
- Hold for_____seconds.
- Repeat _____ repetitions

  _____sets daily.

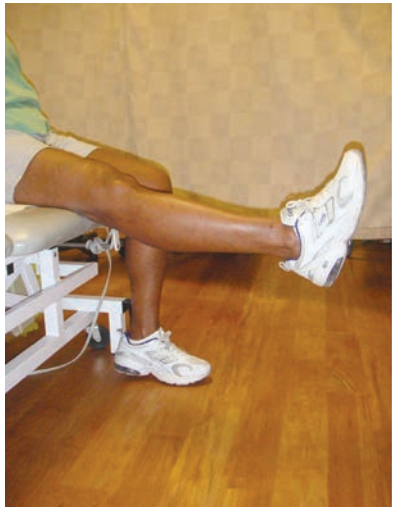
5) Active Assisted Range of Motion (AAROM)



- Sit in chair and allow operated leg to dangle or you may sit with your foot on floor as described in exercise #3.
- Bend operated knee as far back as you can using your muscles.
- Then cross your non-operated leg on top and give it a gentle stretch back. Keep your pelvis level and do not lift your hip off the surface you are sitting on.
- Hold for_____seconds.
- Repeat _____ repetitions

  _____ sets daily.

6) Active Knee Extension

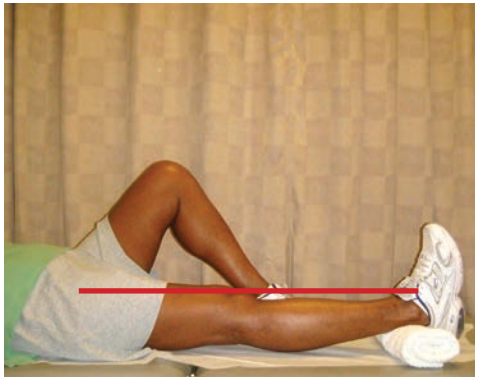


- Sit on chair or bed with your thighs supported on the surface.
- Extend your operated leg up by tightening your thigh and pulling your toes up. Try to fully straighten your operated knee.
- Your thigh should maintain contact with the surface you are sitting on.
- Hold for_____seconds and slowly relax your leg.
- Repeat_____ repetitions_____sets daily.

7) Stair Stretch

- Place your operated leg on the 2nd step of your stairs. If you cannot reach the 2nd step use the 1st.
- Hold onto the hand rails or wall.
- Lean forward while bending your operated knee. Do not bounce.
- Hold for_____seconds and slowly relax your leg.
- Repeat_____repetitions _____ sets daily.

8) Passive Extension



- Lie down with a towel roll under your ankle. Allow your knee to stretch into full extension
- Place an ice pack on your knee.
- Stay in this position for _____ minutes as tolerated.
- Repeat _____ times per day.

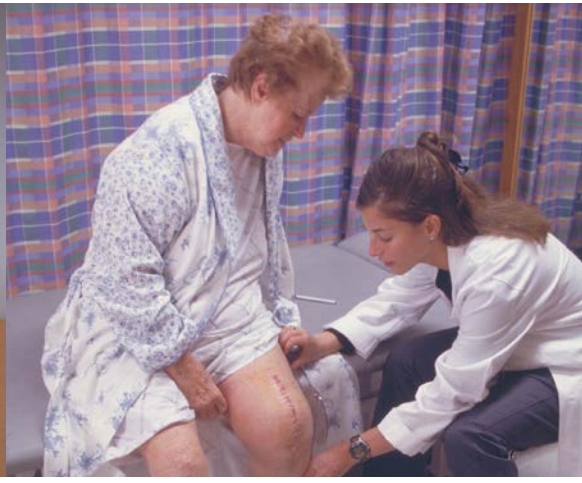
It is important to get your knee fully straight after surgery. While in this position, it is important to keep your toes and kneecap pointing up towards the ceiling. This position can become very uncomfortable. You can make the towel roll smaller if it is too painful or gradually build up to 15-20 minutes over time.

Outpatient Physical Therapy

Some patients may require outpatient physical therapy. This can be provided at HSS, if you can arrange transportation to our physical therapy center on 70th Street, TEL 212.606.1213. If this is not convenient, we can make a referral for outpatient physical therapy at a physical therapy center in your community. To obtain services at these facilities, you will need a prescription from your surgeon, and in most cases, authorization from your insurance provider.

Remember, *You* Make the Difference!

It is extremely important that you understand that your motivation and your participation in your physical therapy program is a vital element in the speed and success of your long-range rehabilitation.



Using Cryotherapy During Rehabilitation

Cryotherapy, the use of cold to treat your Total Knee Replacement, is an important element of your post-operative rehabilitation. Cryotherapy can help decrease pain while reducing swelling and inflammation.

Swelling is common after knee surgery. It is important to minimize the harmful effects of swelling to enhance your recovery. If you advance your activity too quickly or "over do it", your operated knee or leg may become more swollen. The more swelling you have in your leg/knee, the more pain you may have, the more difficult it may be to bend, straighten or even lift your leg and it may be more uncomfortable to weight bear. Monitor the swelling and elevate your leg if this occurs. Also, you should continue to pump and move your ankles up and down while lying in bed. Please discuss with your surgeon or physical therapist if you have any specific concerns regarding post operative swelling.

Ice may be in the form of ice wrapped in bags or towels, commercial cold packs or cold compression cuffs.

You can apply ice while you are stretching your leg as described in exercise #8.

Showering

The nurse will discuss showering with you before you leave the hospital.

Showering in a Tub/Shower

Transferring in and out of the shower may be difficult initially after surgery. However, in both the short and long run, you should be concerned with safety as you enter and leave a tub/shower. You may want to equip your tub/shower with safety handrails and a non-slip surface to maximize your safety. Please arrange for this to be done before your surgery, if possible.

Showering/Dressing

As you know, much of what you normally do each day does not require bending your knee(s) to its maximum. However, both showering and dressing do require extra bending of your knee(s). So please take advantage of this situation to repeatedly work the range of motion of your knee as a normal part of your daily routine.

When to Begin Driving

Most patients are able to resume driving about four to six weeks after surgery. It depends upon which leg was operated on, your range of motion, strength, and coordination. Always check with your surgeon before you resume driving. You should not be driving if you are still taking pain medication.

Continuous Passive Motion Machine (CPM)

In some instances, a continuous passive motion machine will be ordered for you to use while in the hospital after your total knee replacement.

- The Continuous Passive Motion machine promotes knee flexion after surgery. The CPM should be used between 4 and 6 hours a day in 1.5-2 hour increments. This should be spread out throughout the day.
- If you are having bilateral knee replacement (both knees replaced) it is recommended that you use the machine for 3 hours on each leg.
- Your head should be flat or slightly elevated when on the CPM machine.
- Do not use the CPM machine when you are sleeping at night.
- To increase the flexion (knee bend), press the upper right hand button (flexion) and then press the plus (+) sign in 2-3 degree increments. To decrease the angle, press the upper right hand button and then the minus sign.
- The machine should be stopped when your operated leg is straight and the angle is at or near zero. You should not leave the machine on your leg when you are not using it.
- When you are out of the CPM, a towel roll should be placed underneath your ankle with your knee straight for 10-15 minutes or as tolerated to promote knee extension.



Medical Equipment Order Information

Biodynamic Technologies has been supplying HSS and its patients with medical equipment for many years. However, you can also find these items in your local surgical supply store if you prefer.

If you would like to use Biodynamic Technologies, you can call 1.800.879.2276 to order medical equipment that you will need after your hospital stay. The equipment will be delivered to you during your hospital stay or it can shipped to your home.

Payment must be made at the time of delivery by cash, check or credit card. If you do not see what you need, please ask.

Shoe Horn	$9.40
Long-Handled Sponge	$8.40
Stocking Aide or Sock Aide	$11.50
Easy-Up Cushion	$50.00
Elastic Shoelaces	$5.00
Shower Chair with Back	$85.00
Standard Reacher	$16.95
Gel Cold Pack, Standard	$26.95
Gel Cold Pack, Oversized	$40.00

Prices may vary. Most insurances do not cover these expenses.

Sexual Relations and Intimacy

The following questions and answers respond to the common concerns of patients and their partners after knee replacement surgery.

Will I be able to resume sexual relations now that my knee has been replaced?

The vast majority of patients are able to resume safe and enjoyable sexual intercourse after knee replacement. Patients whose sexual function has been impaired by preoperative knee pain and stiffness usually welcome their new pain-free mobility. However, gaining full confidence with your new knee may take several weeks.

When can I resume sexual intercourse?

In general, intercourse can be resumed safely approximately 4 to 6 weeks after surgery. Though individual recovery time varies greatly, this timeframe allows the incision and the muscles around the knee to heal. If you recuperate rapidly, you will be able to resume sooner, as long as you are free of pain.

What positions are safe during intercourse?

Total knee replacement precautions need to be observed during all daily activities, including sexual intercourse. In general, follow the don'ts outlined in the previous pages.

Most patients, male and female, prefer passive intercourse, in the bottom position, an option some find less fatiguing. As your knee heals, you may resume a more active role. After a few months, patients can resume sexual activities in any comfortable position.

What should I tell my partner?

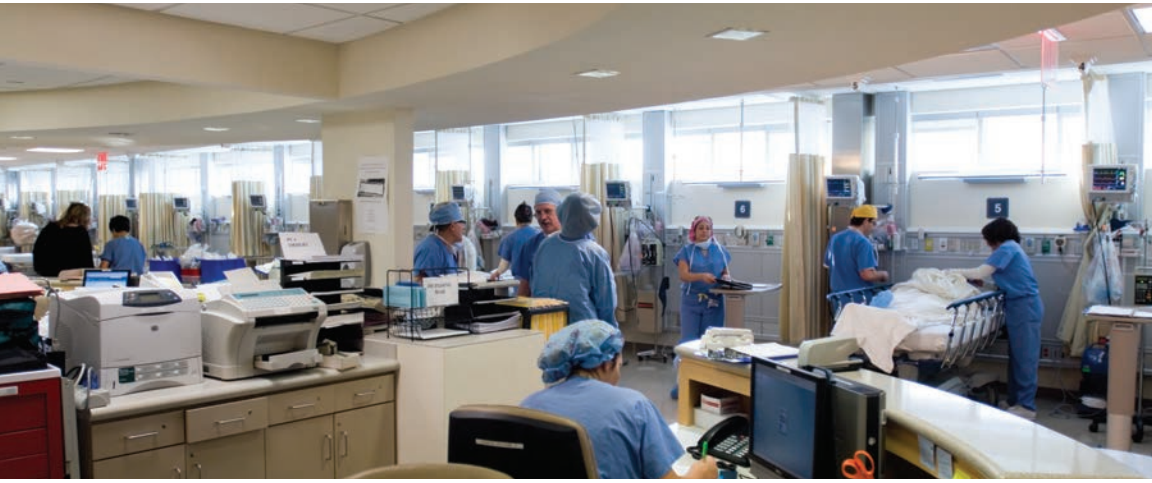
As good communication is essential, you may want to share information in this booklet with your partner. In addition, you can discuss the knee precautions that the hospital staff reviewed with you.

Conclusion

The patient education staff and members of the ARJR Service at HSS hope that you find this booklet helpful on your journey to recovery. The process of a total knee replacement is indeed a journey; its endpoint—improved health and mobility—is well worth the effort. We stand ready to assist you every step of the way. If you have any questions, please feel free to ask any member of our staff. Your well-being is our first concern. We encourage you seek out additional information that is located on the HSS website at **www.hss.edu**. There will be many opportunities to review the material provided in this booklet. During each visit, the staff will be reinforcing the information and will likely provide additional and more specific instructions. In addition, our Patient Education staff will review the information during the pre-operative education class and will respond to any questions that you may have.

Can We Help Someone Else?

Now, or later, you may have family members or friends who may need the services of an orthopedist (in any specialty area) or a rheumatologist. An easy way for them to get in touch is to call the **HSS Physician Referral Service at 1.800.854.0071.**



Providing Feedback to HSS

You may be able to help us!

As you may know, Hospital for Special Surgery has achieved a national reputation for excellence in patient care in orthopedics and rheumatology. We arrived at this position through excellence in individual performance and teamwork.

Feedback from our patients has been a critical component in achieving this excellence. We listen. And we respond...especially when we learn of new opportunities for further improvement.

But another important part of achieving excellence is to know when things go right! Knowing when our staff members—anyone, or all—have performed to your satisfaction.

When you have a moment to reflect, we would appreciate your feedback. You can, of course, send a letter or note to any HSS staff person, or to your doctor. You already know your doctor's address. He or she appreciates hearing from you.

To address a hospital staff person whom you know, you can write to that person at the hospital's address below. Or, you can contact us through the Hospital's website. Otherwise, please feel free to address your feedback to:

Louis A. Shapiro, FACHE
President & Chief Executive Officer
Hospital for Special Surgery
535 East 70th Street
New York, NY 10021

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