

HOSPITAL
FOR
**SPECIAL
SURGERY**



Your Pathway to Recovery

Unicondylar Knee Replacement

Patient Education Series



Your Pathway to Recovery

Unicondylar Knee Surgery

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The HSS Approach to Unicondylar Knee Replacement Surgery

At HSS we believe that patient and family education is a critical component of providing excellent patient care. Therefore, we designed this book to help guide you through your Unicondylar Knee Replacement journey from beginning to end. Its objectives are three fold:

1. To help prepare you for your surgery and hospital experience.
2. To optimize your participation in the surgical processes while in the hospital.
3. To prepare you for initiating and maximizing your recovery at home.

The HSS team has established this book to better prepare you for surgery. The team consists of orthopaedic surgeons, physician assistants, anesthesiologists, physical therapists, registered nurses, research scientists, nutritionists, and case managers/social workers. These teams are at the forefront of research, surgical techniques, rehabilitation and nursing care for knee surgery. In an atmosphere that nurtures your well-being, your team will employ the best technological and educational strategies which are appropriate with the goal of returning you to a higher level of function.

This book is your team's general guide to your surgery, and then, to initiating rehabilitation afterwards. However, not all patients have precisely the same conditions or needs. Therefore, your physician, physical therapist, or nurse may make changes or additions to this book. Their changes take precedence.

You will help achieve your optimal recovery from your surgery by becoming an active, helpful part of the HSS team, before, during and after surgery. Of course, the long range benefit of your surgery depends very much on the success of your continuing rehabilitation at home. Therefore, we expect that you will continue to practice what your team has taught you long after you have left us.

This book structures your participation from this moment forward. Therefore, it is extremely important that you and your home care helper(s) read this book carefully now, and then refer to it as you progress through the various phases of Unicondylar Knee Replacement Surgery.

Sincerely,

The HSS Health Care Team



What is Unicondylar Knee Replacement Surgery?

Unicondylar knee replacement surgery, also known as unicompartement knee replacement surgery, is a partial replacement of an arthritic knee with an artificial metal and plastic implant or prosthesis. Unlike total knee replacement surgery which replaces the entire arthritic knee, this surgery is designed for use in knees where only a portion is arthritic and the remainder of the knee is relatively normal. Based on X-rays and other radiographic studies and your examination, your surgeon has determined that you are a candidate for partial replacement. The area replaced is usually the medial or inner part of the knee but occasionally can involve the lateral or outer part of the knee. Replacements of the kneecap or bicondylar replacements require incisions similar to full knee replacement and are not covered in this discussion.

The key difference to unicondylar replacement is the incision is smaller, the postoperative pain is less and the recovery much quicker than a full knee replacement since most of the knee is not touched during the surgery. In fact most patients walk the same day of surgery and go home the following day. The typical recovering patient is switching to a cane within a week after surgery with outpatient rehabilitation at that point and near full motion by six weeks. Many patients feel the knee is more “natural feeling” and the results are quite good for pain relief, range of motion and return to function. The need for transfusions is rare because blood loss is minimal in most cases. The limitations for unicondylar knee replacements have to do with progression of the arthritis in the other parts of the knee resulting in the need for a full replacement later on in some cases.

Complications are uncommon but can happen. Occasionally at the time of surgery, the surgeon finds the other parts of the knee are too arthritic, or the ligaments insufficient to support a partial replacement and therefore a full replacement is required. Infections and blood clots also known as DVT (deep vein thrombosis) are less common in partial replacements compared to total knee replacement but you will receive medications and treatment to minimize their occurrence. Fractures or loosening of the prosthesis can happen rarely but can be treated as well but may require further surgery.

Partial knee replacement has allowed thousands of patients to return to healthy, productive lives while minimizing postoperative pain and recovery time. For the appropriately selected patient it is also a durable operation with good long term results.

If you have further questions or concerns about this operation feel free to speak with your surgeon about them.



Pre-Operative Preparation and Checklist

At HSS, we have learned that a patient who understands the entire course of their surgery will be less apprehensive, and thus be able to progress more rapidly and efficiently. This booklet will provide you with the information in preparation for pre-surgical screening and for your hospitalization.

- **Discuss with your surgeon:**
 - What to expect while undergoing Unicondylar Knee Replacement Surgery
 - Any special concerns related to your personal condition
 - The need for routine dental examination. To minimize the risk of infection, it is important to have a routine dental examination performed by your dentist prior to surgery. Any tooth or gum problems need to be treated. Your surgeon may request a written confirmation that all necessary work has been completed.

- **Your surgeon's office will notify you of the date and time of your Pre-Surgical Screening Appointment and your physical examination:**
 - **Pre-Surgical Screening Appointment:**
Date _____ Times _____ Location _____
 - Diagnostic testing
 - Patient Data Base profile
 - **BRING A LIST OF YOUR CURRENT MEDICATIONS AND DOSES, AND MEDICAL HISTORY INFORMATION**

- **Internist appointment:**
 - Medical/physical examination
 - Review of diagnostic testing
 - Medical clearance for surgery

- **Follow medication regime prescribed by your Physician**

- **Complete Your Health Care Proxy**



The Day BEFORE Your Surgery:

- **Where and when do I arrive at HSS?** The nurse from the Same Day Surgery Admissions Unit will call you in the afternoon on the business day prior to your surgery to confirm your expected time and place for admission. The nurse will tell you: what time you need to be at the hospital: review your Pre-OP instructions; answer your questions; and direct you to the appropriate floor. Also, the nurse will advise you as to what medication you **NEED** to bring to the hospital. Your actual admission will begin in the Same Day Surgery Admissions Unit which is located on the 4th Floor Room 450 of the East hospital building.
- **Betadine Sponge Preparation:** The night or morning before surgery, use the Betadine Sponge to bathe the surgical area. Rinse the area well. You will receive the Betadine Sponge when you come for your Pre-Surgical Screening appointment, or you can purchase it from your local pharmacy.
- **Food/Beverage Intake Prior to Surgery:**
 - **The Day Before Surgery:** Do not eat any solid food after midnight
 - **The Day of Surgery:** Take clear fluids only up to 2 hours before surgery or up until arrival at the Hospital. Do not eat or drink anything after arriving at the hospital.

Clear Fluids

Allowed	Not Allowed
<ul style="list-style-type: none"> • Water • Apple, Cranberry & Grape Juice • Gatorade • Black Coffee or Tea • Clear Broth • Gingerale and Seltzer • Jello and Italian Ice 	<ul style="list-style-type: none"> • 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



What to Bring to the Hospital

- X-rays and lab reports (if requested)
- Health Care Proxy
- Your cane or crutches (Wheelchairs are available at the hospital entrance)
- Flat supportive rubber sole athletic or walking shoes
- Sweat suit or loose, comfortable fitting clothes to wear home. (They must fit over dressings) Personal articles and clothing should be limited to those which fit in to a single, small piece of luggage. There is very little storage space in your in-patient room.
- Personal toiletries: (essential toiletries will be provided)
- Eyeglasses instead of contact lenses. (They are easier to take care of and less likely to be lost in the hospital)
- Dentures: We will provide a container which you must use. When you remove them, make sure to keep the container on your bedside table or in a drawer, not on the bed or a food tray. As with glasses, we cannot be responsible for loss items.
- Your *Pathway to Recovery: Unicondylar Knee Replacement* Booklet
- Bring a written list of the medications including doses you have been taking (Include any you may have stopped in anticipation of surgery.)
- Bring only medications you have been instructed to bring
- Small amount of money for newspapers, magazines, etc. Cash in excess of \$20.00 or credit cards should be deposited in the hospital safe when you arrive, or sent home with your family. Although we respect your property rights, the hospital staff can not guarantee security for your personal property
- Credit card, checks, or cash for TV and telephone services
- One small suitcase or bag only please
- **DO NOT** bring to the Hospital:
 - Valuables, Jewelry, Credit Cards other than one for the TV, etc., above.
- .Electric razors and battery-operated appliances are the only appliances you may bring to the hospital. This is for safety of yourself and other patients.
- **Relaxation items:** A walkman, your favorite tapes, reading materials, or any personal articles that may help you to relax. **Arrange for these to be brought to you in your in-patient room.** TV and telephone service are available in your room (at an additional charge).
- **Medications:** The area of pharmaceuticals continues to grow rapidly. It's impossible to keep all medications in stock within our hospital pharmacy. If we don't have your medication available, the Nurse from the Same Day Surgery Admission Unit will inform you during the Pre-Op phone call and ask you to bring that particular medication with you. They will tell you what medication you will **Need** to bring to the hospital. If told to bring in a medication, please bring it in the original vial/container.
- **Women:** Your surgery may trigger a change in your menstrual cycle. Sanitary pads are available and will be provided by the hospital.



Your Day of Surgery

When you arrive at the HSS main lobby, the receptionist at the information desk will direct you to the 4th floor admitting area where your Unicdylar Knee Replacement Surgery will be performed. The admitting assistants will complete your admission process and give you an I.D. bracelet. You and your designated companion (and other family members) will remain in the waiting area until you are called to the pre-surgical area. Family members may stay in a nearby Family Waiting Room.

- In the pre-surgical unit you will be greeted by the nursing staff and change into a hospital gown. Your clothes and personal possessions will be labeled and held by the staff. Next, your temperature, pulse, respiration and blood pressure will be taken. Your knee will be shaved and washed with antiseptic soap.
- When you are ready for surgery, your medical team will introduce themselves to you. These include the nurse, physician assistants, anesthesiologist, and assisting physicians. They will discuss aspects of your health, explain the procedures and answer any questions you may have.
- “Sign your site.” Prior to surgery, your surgeon will sign his or her initials on the knee to be operated on. Two other team members will also confirm the site before surgery.
- An intravenous infusion (IV) will be started. The IV line provides a route for fluids, medications, and antibiotics, as necessary, and also for sedatives.
- The anesthesiologist will see you prior to surgery in order to review your physical condition and discuss the anesthesia you will receive. Anesthesia is fully reviewed on the next section.
- Initial sedation: You will be mildly sedated (via the IV) to reduce possible anxiety and tension and to minimize pain from the regional anesthetic injection which follows.



Introduction to Anesthesia

You will meet your anesthesiologist in the Same Day Surgery Admission Unit just prior to your surgery. All HSS anesthesiologists are Board Certified/Board Eligible and offer extensive and complete peri-operative service. Your anesthesiologist is involved in all aspects of your care, including preoperative evaluation of your specific needs, managing your physical status during the operation, postoperative care and acute pain control.

Overview

- After you meet your anesthesiologist, he/she will discuss the anesthetic options and outline the plan for your operation. Most patients undergoing a uni-compartmental knee replacement surgery are administered a form of regional anesthesia. Regional anesthesia is made up of highly specialized techniques designed to provide a partial or total loss of sensation to specific parts of the body. Examples of these techniques include a spinal, an epidural or a nerve block
- A regional anesthetic produces anesthesia (elimination of feeling or pain) in a given region of your body. Thus the lower part of your body will be affected for this surgery. The anesthesiologist will inject a local anesthetic medication to “block” a group of nerves that otherwise would carry pain sensation from the surgical site. Before receiving this injection, you will be mildly sedated to minimize the pain from the injection and reduce possible anxiety and tension.
- In addition to this, your anesthesiologist might also administer a special nerve block called a femoral nerve block. The primary reason for adding this technique to your anesthetic is for post operative pain control. Because the femoral nerve block doesn’t numb the back of the knee, it is inadequate for anesthesia for surgery.
- Regional anesthesia is preferred over general anesthesia, which provides total loss of sensation in the whole body. General anesthesia is associated with more uncomfortable side effects, such as nausea, vomiting, and a sore throat which may require a longer recovery time after surgery.

Anesthesia

Your regional anesthesia procedure:

- IV line inserted: Before administering any regional anesthetic it is necessary to have an intravenous (IV) line in place. Your IV line provides a route for fluids, medications, and antibiotics, as necessary, and also for sedatives, including the one used for your initial sedation.
- Initial sedation: In the operating room, before receiving the injection for regional anesthesia you will be mildly sedated (via the IV) to reduce possible anxiety and tension, and to minimize pain from the local injection which paves the way for the administration of the regional anesthetic.



Anesthesia (continued)

Your regional anesthesia procedure

- Administering regional anesthesia: If the anesthesiologist is planning to use a femoral nerve block, an area in the groin on the side of the planned surgery will be cleaned with an antiseptic solution. The femoral nerve will be located and a long acting anesthetic will be injected to “numb up” the nerve. Next, the anesthesiologist will inject a very small amount of local anesthetic in your lower spine. This is usually performed while you are on your side or in a sitting position. He or she will then typically administer a spinal block. This consists of placing a very small needle into the spinal sac and injecting some local anesthetic into the spinal fluid. Then a tiny tube called an epidural catheter may be inserted to be used for your pain control after surgery. Because of the initial sedation and local anesthetic, you will feel very little discomfort as this is done. You will gradually lose feeling in your legs and be unable to move them until the anesthesia wears off after surgery.
- What to expect during surgery with regional anesthesia: A sedative is given through your IV line which generally make you unaware of the surgical procedure. Your anesthesiologist will be monitoring your condition throughout the surgery. While in the operating room, you are monitored constantly by your anesthesiologist. The monitoring includes EKG, blood pressure, pulse oximetry and temperature. Additional IV lines may be placed for monitoring based upon your medical history.
- Your anesthesiologist will discuss this with you on the day of surgery. The level of sedation and anesthesia will be kept at a minimum necessary level, allowing you to awaken quite soon after surgery. You will wake up in the post anesthesia care unit (PACU) to recover and will remain there until your regional anesthesia wears off.

Your recovery

In the recovery room your anesthesiologist and the recovery room team will monitor your safe transition from the effects of anesthesia. You will remain in the PACU until you are stable and ready to be transferred to an inpatient unit. This can take several hours. Your leg will feel numb because of the femoral nerve block. The numbness lasts an average of 16 hours, however, the effect can last up to 24hours. While very effective for pain relief, the femoral nerve block alone may not provide sufficient pain relief so oral pain medicines will also be given. You may also be given a patient controlled pain pump to self administer intravenous pain medicines if indicated.

- Don't try and “tough it out” with pain: Take your oral pain medication before the pain becomes severe. You will rest more comfortably and be better able to carry on with your healing process.



Post-Operative Management **The Recovery Room or Post Anesthesia Care Unit: (PACU)**

After the surgery, the nursing staff, a physician assistant and an anesthesiologist will monitor your return to full awareness.

- **Vital Signs:** Your vital signs, which consist of blood pressure, pulse, respiratory rate, temperature, and oxygen saturation, are taken frequently after surgery. The circulation of blood and motion in your legs will also be assessed regularly.
- **Breathing and exercise:** You will be asked to breathe deeply, to use your incentive spirometer (described on following pages) and to move your ankles/feet up and down frequently to prevent complications.
- **Surgical dressing and drainage:** You will have a bulky dressing around the surgical site until the morning after surgery. You may also be connected to a drain which is a very thin tube inserted into the surgical site and attached to a drain. The drainage tube may be necessary at the surgical site to collect any bloody fluid that has accumulated under the skin and muscle. This will be determined by your surgeon and if present, it will be removed the morning after surgery.
- **Pain Medication:** You will receive pain medication for any discomfort as the anesthesia wears off. Pain Medication is a critical element after Unicondylar Knee Replacement surgery. Initially, it is important to take your pain medication consistently in order to maximize your recovery and participate in your rehabilitation program.
- **Venodyne Device:** Often the first sensation patients' have is a "squeezing" of their calves/feet. This is caused by the Venodyne compression sleeve placed on your feet or calves for your circulation while in bed. These foot wraps attach to a pneumatic compression device. This modern technology is designed to facilitate lower limb blood flow. The foot wraps are to be worn after surgery when in bed, during your hospital stay.
- **Physical Therapy:** It is critical to initiate mobility a few hours after surgery. A Physical Therapist will see you in the recovery room to assess your strength and sensation. Based on their evaluation, you may either dangle at the bedside or walk at bedside with the assist of a walker in the recovery room. You may require a "brace" while standing/walking and this will be determined based on the strength of your operated leg after surgery and whether or not you received a Femoral Nerve Block (your anesthesiologist will discuss this with you prior to surgery)
- **Diet:** Your diet will progress to your normal eating pattern as quickly as medically indicated after surgery.
- **Urination after surgery:** A foley catheter may be inserted into your bladder to remove urine based on the type of anesthesia you receive. If an epidural catheter is present, your foley catheter will then be removed at the time the epidural catheter is removed.



Post-Operative Management

- **Blood Transfusion:** It is highly unlikely that you will need a blood transfusion after surgery. However, if your surgeon thinks you meet the medical criteria, your surgeon may ask you to donate a unit of autologous (your own) blood prior to surgery and you will receive it in the recovery room after surgery.
- During your surgery, family and friends will be in the Family Atrium. They will be informed when you are out of surgery and will visit in accordance with the PACU visiting policy.

Help Prevent Circulation Problems

Soon after surgery, you will be asked to perform gentle exercises. These exercises, such as ankle pumps, quad sets, and gluteal sets, will help prevent circulation problems. They will also strengthen your muscles. Other exercises appropriate for you will be taught by the physical therapist and nursing staff.

To enhance your circulation, you will be expected to perform these exercises 10 times each, every hour while awake.

- **ANKLE PUMPS:** Bend your feet toward you (use your ankles to flex your feet) and away from you (point your feet).

Help Prevent Lung Problems

- After your surgery, it is important to exercise your lungs by taking deep breaths. Normally, you may take deep breaths each hour, usually without being aware of it. They are spontaneous, automatic, and occur in the form of sighs and yawns.
- However, when you are experiencing pain or drowsiness from anesthesia, or from your pain medication, your normal breathing pattern can change. Therefore, you will be provided with an incentive spirometer by the nursing staff. A member of the staff will show you how to use your incentive spirometer.
- Using the incentive spirometer will force you to take the deep breaths which are necessary to expand the small air sacs of your lungs and help clear the air passages of mucous.
- We recommend that you use your incentive spirometer 10x every hour while awake after your surgery.



Using the Incentive Spirometer

- With the unit in an upright position, exhale normally; then place your lips tightly around the mouthpiece.
- To achieve a slow sustained maximal inspiration, inhale at a rate sufficient to raise the white bar to the yellow indicator on the right.
- For a higher flow rate, heighten the yellow indicator and inhale at a rate sufficient to raise the white bar at that higher level.
- Exhale: After performing the exercise, remove the mouthpiece from your lips and exhale normally.
- Then relax: Following each prolonged deep breath, take a moment to rest and breathe normally.

- **Coughing:** Another excellent way to help breathe and clear your lungs. Coughing is one of nature's important methods for clearing your lungs at any time...not just after surgery.
 1. Breathe in deeply through your nose.
 2. Hold your breath and count to 5
 3. Breathe out slowly through your mouth.
 4. On the 5th deep breath, cough from your abdomen as you breathe out.
 5. Make a habit of doing this 2-3 times hourly, especially when it is inconvenient to use your incentive spirometer

- **Anticoagulation Therapy Phlebitis** (inflammation of the veins of the legs) or Deep Vein Thrombosis (DVT), which refers to blood clotting in the veins of the leg, is a possible risk after joint replacement surgery.

For the prevention of Deep Vein Thrombosis (DVT) after surgery, many patients will be prescribed an oral anticoagulant. The purpose is to prevent your blood from clotting.

Type of Anticoagulation Medication

- **Asprin:** Some patients are prescribed Enteric Coated Aspirin (ECASA) twice per day. However, depending on certain risk factors and/or past medical history, some patients may receive a prescription for Coumadin® or warfarin (generic name), as the oral anticoagulant or Lovenox which is a subcutaneous injection.
- **Coumadin:** If you are prescribed Coumadin® post-operatively, the venipuncture technician will draw your blood daily so we can monitor your International Normalized Ratio (INR). The INR measures the time it takes for a clot to form. Your doctor may compare your time to a standard, then determine the effect Coumadin® has had on your clotting time, and adjust your dosage accordingly.
- **Lovenox:** If you are prescribed Lovenox® post-operatively, the nurse will teach you how to self inject the medication prior to discharge



Rehabilitation after Unicondylar Knee Replacement

➤ **Your Daily Physical Therapy Session**

You will be seen by a physical therapist on the day of surgery or early morning the first day after surgery. The physical therapy schedule is posted on each nursing unit by 8:30 am so you will know what time you are having therapy. Your therapist will instruct you in your home exercise program, which is directed toward increasing knee range of motion, improving quadricep strength and initiating a mobility or walking program.

➤ You will benefit from taking pain medication at least thirty minutes prior to a physical therapy session. You should discuss this with your nurse and/or therapist.

➤ **Most patients are independent with their mobility within 24 hours after surgery and are discharged home the next day with the assistance of cane, crutches or a walker.**

➤ **Beginning to Walk:** Your therapist will assist you in sitting up with your feet over the bedside on the day of surgery. You will then stand with the use of a walker and the continued help of your therapist. As soon as your operated leg can tolerate it, you can bear full weight and begin 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.

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.

➤ **Stair Climbing:** You will practice stair climbing several times prior to discharge. You will use steps in the physical therapy treatment room.

Managing stairs:

1. Upstairs

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

2. Downstairs

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

Home 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.

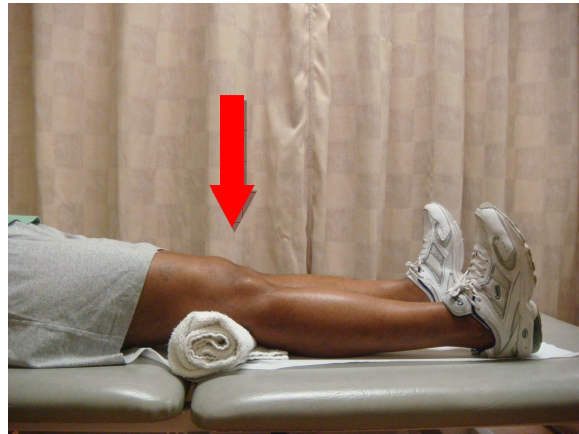


Physical Therapy Home Exercise Program

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 on you.**

1. Quadricep Set

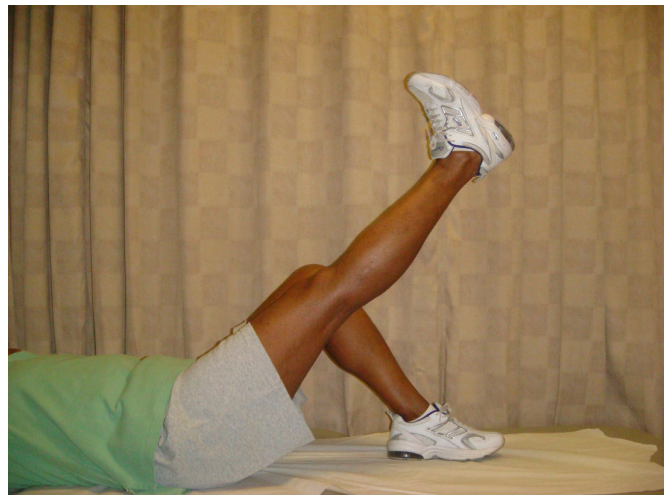
- Lie on your back and place a small towel roll under your operated knee.
- Press the back of your knee downward and tighten thigh muscle.
- Hold for _____ seconds
- Repeat _____ repetitions _____ sets daily.



THIS IS THE ONLY TIME A TOWEL ROLL SHOULD BE PLACED UNDER YOUR KNEE

2. Straight Leg Raise (SLR)

- Lie on your back with operated knee straight and the other knee bent as shown.
- Raise the operated leg up to the level of the other knee. Keep your operated knee completely straight.
- Hold _____ seconds and slowly lower.
- Repeat _____ repetitions _____ sets daily.





Physical Therapy Home Exercise Program

3. 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 easier.

-Bend operated knee as far back as you can using your muscles.

-Hold _____ seconds.

-Repeat _____ repetitions _____ sets daily.



4. 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 _____ seconds.

Repeat _____ repetitions _____ sets daily.



5. Active Knee Extension

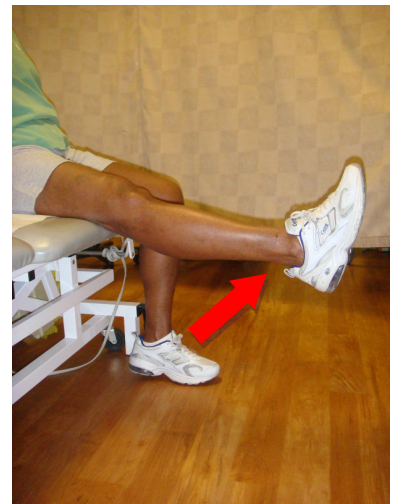
-Sit on chair or bed with your thighs supported on the surface

-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 approximately _____ seconds and slowly relax your leg.

-Repeat _____ repetitions _____ sets daily.

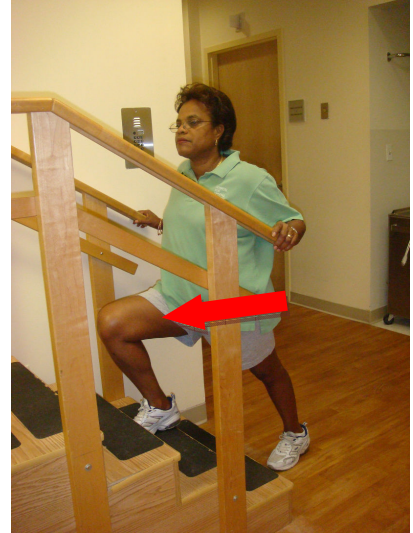




Physical Therapy Home Exercise Program

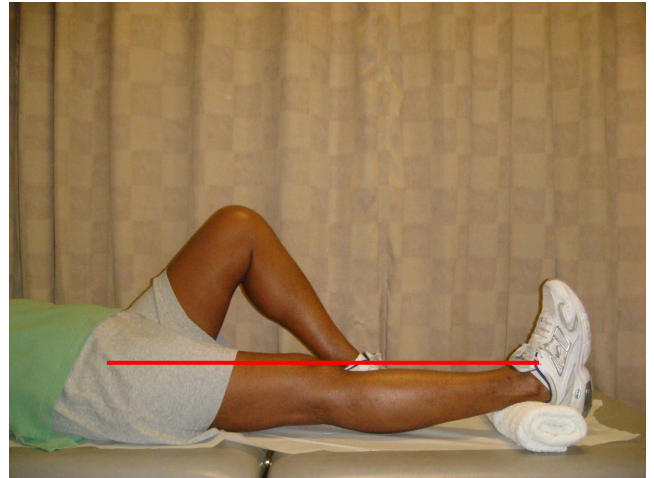
6. Stair Stretch

- Place operated leg on the 2nd step of your stairs.
- Hold onto the hand rails or wall.
- Lean forward while bending your operated knee
- Hold approximately _____ seconds and slowly relax your leg.
- Repeat _____ repetitions _____ sets daily.



7. 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.

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.



Using Cryotherapy during Rehabilitation

- Cryotherapy, the use of cold to treat your Unicondylar Knee Replacement surgery, 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 deleterious effects of swelling to enhance your recovery. If you advance your activity too soon or “over do it”, your operated knee or leg may be 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 # 7
- **Showering/Dressing:** You cannot take a bath or shower until your staples or sutures are removed which is generally 10-14 days after surgery. Your surgeon’s office will give you specific instructions.
- **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.
 - As you know, much of what you normally do each day does not require bending your knee(s) to maximum. However, both showering and dressing do require extra bending of your knee(s). So please take advantage of this situation to repeatedly work on your knee range of motion as a normal part of your daily routine.
- **When to Begin Driving:** Most patients are able to resume driving by about four 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.



NUTRITION AND UNICONDYLAR KNEE REPLACEMENT RECOVERY

GENERAL NUTRITION

- **Prior to Surgery**
Nutrition is an important part of your overall health, and is even more important at this time. Your nutritional status, in part, determines your ability to recover and heal properly from surgery.

- In order to maximize nutritional status, a variety of foods should be eaten daily and in accordance with the food guide pyramid. As illustrated on the following pages, a nutritionally balanced diet consists of whole grains, fresh fruits and vegetables, lean meats and dairy products on a daily basis.

- **After Surgery**
Due to the surgical process and anesthesia, the first thing you will be allowed to eat or drink after surgery is liquids. Once your physician and nurse determine it is appropriate, you will be allowed to begin solid foods. Unless a special diet is ordered by your physician, you will be given a regular diet and a menu will be provided daily.

- **During Your Hospital Stay**
It is important to continue a balanced, nutritious diet. You should concentrate on consuming adequate calories and protein. This will enable your body to replenish proteins depleted from surgery. It will also help you heal with less risk of complications, such as infection or poor wound healing. Examples of high protein foods: eggs, lean meats, poultry, fish, low fat dairy products, and legumes. Include grains, fruits, vegetables and carbohydrates for energy.

- **Your Weight After Surgery**
Keep in mind that your body is healing at this time. You require extra nourishment and protein for tissue repair and regeneration. The hospital visit is not a good time to begin weight loss. Once your body has done most of its critical healing, at approximately four weeks after your surgery, you may begin a weight loss diet if that is appropriate and approved by your physician.



SPECIAL CONSIDERATIONS

➤ **Special Diets**

If you follow a special diet it is important you convey this information before your hospital stay. Upon admission, you will be seen by a member of the Food and Nutrition Department to discuss your diet, food allergies, and other nutritional needs.

During your hospital stay, a special/restricted diet may be ordered for you. Examples of special/restricted diets include: Diabetic (Consistent Carbohydrate), Sodium Controlled, Low-Fat, Pureed, or Gluten-Free. If a special/restricted diet is ordered for you, a nutritionist or dietetic technician will provide you with diet education and make sure that your menu selections are appropriate.

➤ **Controlling Your Weight**

Following a healthy diet can help you reach or maintain a healthy weight. It is an important factor in reducing your risk of chronic disease and complications after surgery.

If you are overweight, weight loss can minimize stress on all weight bearing joints, such as your hips and knees. Your physician may recommend a weight loss program for you. Always consult with your physician before starting a diet and exercise plan. If you would like more information on a diet plan, contact the Department of Food and Nutrition Services as (212) 774-7638 to schedule an appointment with a nutritionist.

DISCHARGE FROM THE HOSPITAL

Upon discharge from the hospital, your body will continue to heal. A balanced, nutritious diet at this time will help in your recovery. The food guide pyramid on the next page can be a useful resource.

You may also wish to see a nutritionist. If you would like more information on nutrition or would like to schedule an appointment with a nutritionist, contact the Department of Food and Nutrition Services as (212) 774-7638 or (212) 606-1293.



How HSS Case Managers Can Help You Before and After Surgery

- The Case Managers at HSS are an integral part of your health care team. They assist you in addressing these and other related concerns. They provide emotional support and counseling regarding illness and disability, as well as assistance with transitional care planning to meet your needs after you leave the hospital.
- **What problems or concerns, which you or your family may have, can the HSS Case Managers assist you with?**
 - You may contact an HSS Case Manager anytime before, during or after your hospital stay. **We strongly suggest that you contact us at the earliest possible time after you recognize a concern, so that we can most effectively provide assistance in meeting you needs.**
 - Case Management Services are available before admission. The Preadmission 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 for 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. After surgery, when you are in your room, your nurse will be able to help you contact your Case Manager.
- **Planning for recovery and living at home**
 - You may have specific questions about your needs after surgery and upon discharge from HSS. As a patient, you will want to know how you can care for yourself once you go home. Following this type of surgery we recommend that, at least during the first week, you arrange to have a family member or a close friend be available to assist you with the routine of daily living: shopping, meal preparation, cleaning, etc. This will help ease your transition from hospital to home. In this way you can resume these tasks when you feel most capable of doing so.



Discharge Planning (continued)

- **What if I do not have family or friends available to assist me?**
 - Some patients qualify for Certified Home Case services. If your doctor prescribes physical therapy and/or skilled nursing care at home after discharge, and your insurance covers these services, you may qualify for some personal care assistance. This assistance is time-limited, but is available if covered by your insurance company for as long as you need this level of care. We can help you make the arrangements.
 - If skilled care is not medically indicated, the Case Manager can assist you with a referral to a proprietary home health agency which, for a fee, can provide you with assistance for your activities of daily living.

- **Will I need further treatment after leaving the hospital?**
 - So that you can plan ahead, we recommend that, before your surgery, you ask your doctor if he/she expects that you will require any special medical care after discharge.
 - For most patients, the care required is in the form of physical therapy. Most patients will obtain this care in one of the following ways:

- **Independent Exercise Program:** The HSS health care team gives many patients instructions for an exercise program which they can perform independently at home. Often, this is the only rehabilitation necessary. Obviously, this program requires self-discipline on your part, in order to optimize your recovery.

- **Out-patient Physical Therapy:** Some patients may require out-patient physical therapy. This can be provided at HSS, if you can arrange transportation to our physical therapy center on 70th Street. If this is not convenient, we can make a referral for out-patient 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.**

- **Physical Therapy at Home:** In a few cases, people receive this care at home. This is advisable only if your doctor prescribes physical therapy for you and you are unable to travel to a physical therapy center near your home. If your doctor prescribes this for you and your insurance approves these services, an HSS Case Manager will consult with you and coordinate a referral to a certified home health agency which can provide physical therapy at your home. These arrangements can be made while you are still in the hospital.



Discharge Planning (continued)

- **Please note:** Your need for physical therapy (or medical care) other than the exercises you can do at home may not become apparent until after your surgery. Therefore, we strongly suggest that, if such concerns become apparent to you in the hospital, you discuss them with your doctor as soon as possible.
- **Rehabilitation Hospital and Subacute Rehabilitation Facility Programs**
 - **Please be aware that acute rehabilitation hospitals are usually not authorized for unicondylar knee replacement surgery.**
- **Hope for improvement in your quality of life**
 - For most of our patients, Unicondylar Knee Replacement surgery provides opportunity for improvement in their quality of life. At each phase of this challenging process, the HSS Case Managers are here to help ease your transition from admission to HSS through recovery and discharge from the hospital. Feel free to contact us at any point during this process by calling:
212-606-1271 Monday – Friday, 8AM – 4PM

Your Case Manager can be an invaluable resource in helping you assess your personal needs, and then, in making appropriate, realistic decisions and plans for your continuing care and choice of life-style.



Discharge Instructions

Medication Prescriptions: Prior to your discharge from the hospital, your doctor or physician assistant will write a pain prescription for you to get filled at your own pharmacy. If any of your personal medications are with the nurse or stored at the hospital, **make sure you get them back at this time.**

Surgical Site Care:

Infections rarely happen after surgery, but you must remain alert to the possibility.

- Check the surgical site daily for signs of wound infection. **These symptoms include:**
 - Increased redness
 - Increased swelling
 - Increased pain
 - Drainage
 - Oral temperature greater than 100.5°F
 - Foul odor
 - Decreased sensation
- **If your sutures or staples have been removed, you may shower.** Make sure you dry the surgical site gently, but completely. Don't peel steri-strips from the incision. They will fall off on their own
- **If you are discharged with sutures or staples in place, you may not shower unless otherwise advised by your surgeon.** Please keep surgical incision dry at all times. DO NOT wear tight fitting clothes over incision.

Pain Management

- Continue to apply ice packs to surgical site for 15-20-minute intervals a few times a day, especially after activity. Cold therapy will continue to reduce post-operative swelling and provide you with greater comfort.
- Take your pain medication as prescribed by your physician. Remember to take it before the pain becomes too severe. It will help reduce the pain sooner.
- In the event that the pain medication does not work, or you are experiencing unpleasant side effects, do not hesitate to contact your surgeon.
- If you are taking pain medication, please AVOID alcoholic beverages.



Long Term Protection against Infection (Antibiotic Prophylaxis)

- Although it is very rare, an artificial joint can become infected by the bloodstream carrying infection from another part of the body. Therefore, it is important that every bacterial infection (pneumonia, urinary tract infection, abscess, etc.) be treated promptly by your medical doctor. The routine cold and flu, as well as cuts and bruises, do not need to be treated with antibiotics.
- Antibiotic prophylaxis is recommended prior to undergoing any urological procedure or any routine dental work (including cleaning and root canal). Inform your healthcare provider about your knee replacement prior to any procedures.
- If you have any questions about germs or infections, you should call your orthopedic surgeon or rheumatologist.

Managing Constipation

- Constipation may occur after surgery because of very limited activity and use of pain medication. To resolve this problem:
- Increase your fluid intake. Drink at least 8 glasses of fluid daily.

Increase fiber in your diet:

- eat whole grain breads and cereals which include 100% whole wheat, rye, oats, or bran as the first or second ingredient
 - choose fresh fruit and vegetables instead of juices
 - eat fruits and vegetables with peels or skin on
 - eat dried fruit; add to cereals and salads
 - have brown or wild rice instead of white rice
 - enjoy beans more often! Add dried beans and peas to casseroles or soups
- If you are taking calcium or iron supplements check with your doctor or nutritionist. You may be able to take smaller amounts several times a day.
 - Consuming yogurt with probiotic bacteria daily allegedly relieves constipation. On yogurt labels look for the “live active culture” seal.

Follow-up Appointment: It is important to make a follow up visit with your surgeon 4-6 weeks after surgery so your progress can be monitored. Please make a follow-up appointment with your surgeon. Call the office to arrange a mutually convenient date and time.

