



Dear Total Joint Patient,

Congratulations!

You have made the first step in recovery from your hip or knee pain. We are pleased that you have chosen St. Luke's for your joint replacement surgery. We are committed to making your recovery a comfortable and successful one.

This manual is your guide and we urge you to read and refer to it frequently. It will provide you with a comprehensive overview of your upcoming experience. We urge you to bring this guide to your Total Joint Education class and along with you during your hospital stay.

Members of our team are dedicated to your well-being and satisfaction. Each attending surgeon is supported by a staff of physician assistants, orthopaedic residents, anesthesiologists, nurses, physical/occupational therapists, case management staff and administrative personnel. The staff is here to serve you. Help us help you; any medical concern should be discussed with your surgeon and team of physicians. Your active participation in treatment is vital to your full recovery.

We welcome your comments and input to help improve our Total Joint Program. On behalf of all of the members of our service, we hope that this educational booklet helps answer many of the questions regarding your condition, treatment and what to expect before and after your surgery.

Please feel free to contact the patient education staff at 484-526-1900 if you have any questions or require additional information.

Sincerely,

William De Long, Jr., MD  
Chief of Orthopaedic Surgery

Nikki Alderfer, RN  
Patient Care Manager, P9



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## Important Phone Numbers

St. Luke's University Hospital – Bethlehem .....	484-526-4000
Patient Care Manager – P9 .....	484-526-1941
Physical Therapy .....	484-526-8576
Case Management.....	484-526-4234
Pastoral Care.....	484-526-4772
St. Luke's Orthopaedic Specialists .....	484-526-1735

## Schedule of Follow Up Visits

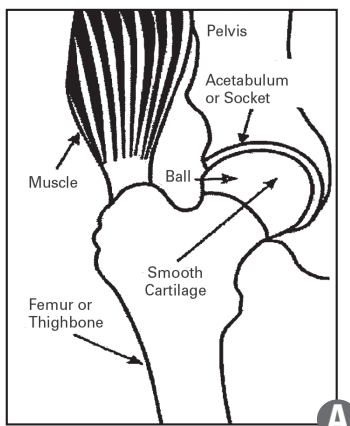
Expect to have routine follow up visits at your surgeon's office. The follow up visits may vary slightly from patient to patient and surgeon to surgeon. Your initial follow up visit should be arranged for you when you schedule your surgery. These follow up visits are important to your full recovery.

- Initial follow up visit 2-5 days after discharge
- Staple removal 10-14 days after surgery
- 3 months following joint replacement surgery
- 1 year following joint replacement surgery
- 3 years following joint replacement surgery
- 5-6 years following joint replacement surgery



## A Closer Look at Total Hip Replacement (THR)

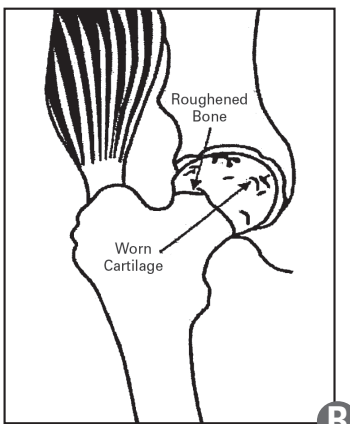
To understand THR, you should be familiar with the structure of the hip joint, a ball-and-socket joint. The ball component is attached to the top of the femur (long bone of the thigh). The acetabulum (socket) is part of the pelvis. The ball rotating in the socket permits you to move your leg forward, backward and sideways.



**A.** With a healthy hip, smooth cartilage covering the ends of the thigh bone and pelvis allows the ball to glide easily inside the socket.

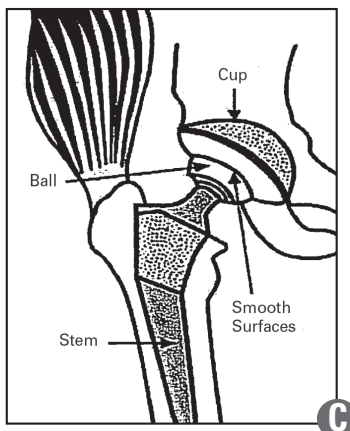
**B.** With a problem hip, the worn cartilage no longer serves as a cushion. As the diseased or damaged bones rub together, they become rough, and the resulting pain causes difficulty in walking.

**C.** THR consists of replacing the worn out socket with a durable plastic or polyethylene cup with or without a metal titanium shell. The femoral head is replaced with a chromium-cobalt alloy metal ball that is attached to a metal stem of titanium or chromium cobalt metal alloy.



There are several ways to fasten the components (implant to the bone) during the hip replacement procedure. With a cemented THR, the prosthesis is held in place by bone cement. In a non-cemented THR, fixation occurs as the bone grows on and into the implant surface.

Bearing surfaces include metal-on-polyethylene (plastic), ceramic-on-ceramic, and metal-on-metal. The most commonly used FDA approved bearing surface is metal with highly cross-linked polyethylene. The best bearing surface for you will be decided in consultation with your surgeon.

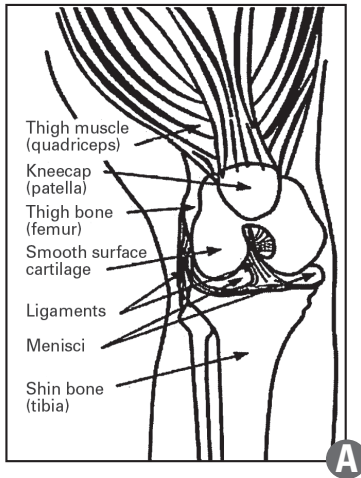


Clinical and biomechanical research has steadily improved the methods and materials available for THR. Prosthesis durability varies with the usage demands of each patient.



## A Closer Look at Total Knee Replacement (TKR)

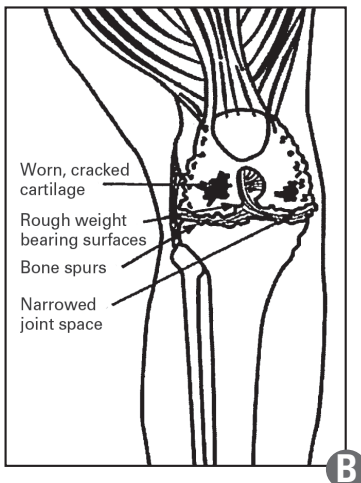
To understand TKR, you should be familiar with the structure of the knee joint.



**A.** 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.

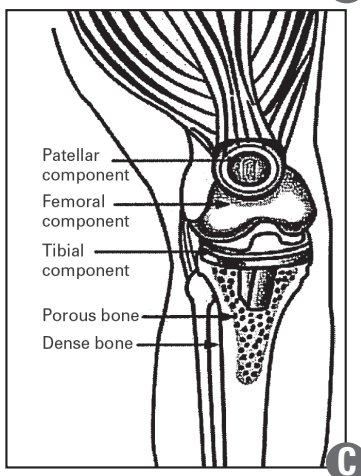
**B.** With a healthy knee, smooth, weight-bearing surfaces allow for painless movement. Muscles and ligaments provide side-to-side stability.

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



**C.** The weight-bearing surfaces of a total knee replacement are smooth, as in a normal knee. A femoral component covers the end of 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.



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## Pre-Surgery Checklist

- Complete Pre-Admission Testing
- Medical/Cardiac Clearance (if ordered)
- Take medications as prescribed.
- Discontinue nicotine products
- Discontinue vitamins/nutritional supplements.
- Attend Joint Class
- Review instructions on Infection Control precautions
- Review Bloodless Program information
- Prepare meals for after surgery
- Obtain DME for post-operative care
- Follow infection control precautions as prescribed by your physician
- Please do NOT chew gum, eat hard candies or mints the day of surgery
- Please do NOT wear make-up, nail polish or any jewelry when you arrive for your procedure.
- Please do not bring any money, credit cards, jewelry or other valuables.  
The hospital cannot be responsible for the security of personal property.
- Beginning at Midnight on the night prior to your procedure, do NOT eat or drink anything, including water, coffee, tea unless otherwise instructed by your physician. You will receive a call between 4 – 6 pm on the day prior to your surgery with an arrival time. If you have not received a call by 6 pm on the day prior to your procedure, please call the Ambulatory Surgery Center at 484-526-4441.



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## Things to Bring When You Come to the Hospital

### Checklist for a Two or Three Day Stay

- A legal picture identification (driver's license)
- Your insurance cards
- Durable medical equipment for post-op care
- A list of current medications with dosages
- Total Joint Replacement Manual
- Non-slip, flat supportive athletic or walking shoes
- A pair of pajamas or a short nightgown and a short, light weight bathrobe
- Personal Toiletries
- Eyeglasses, not contact lenses

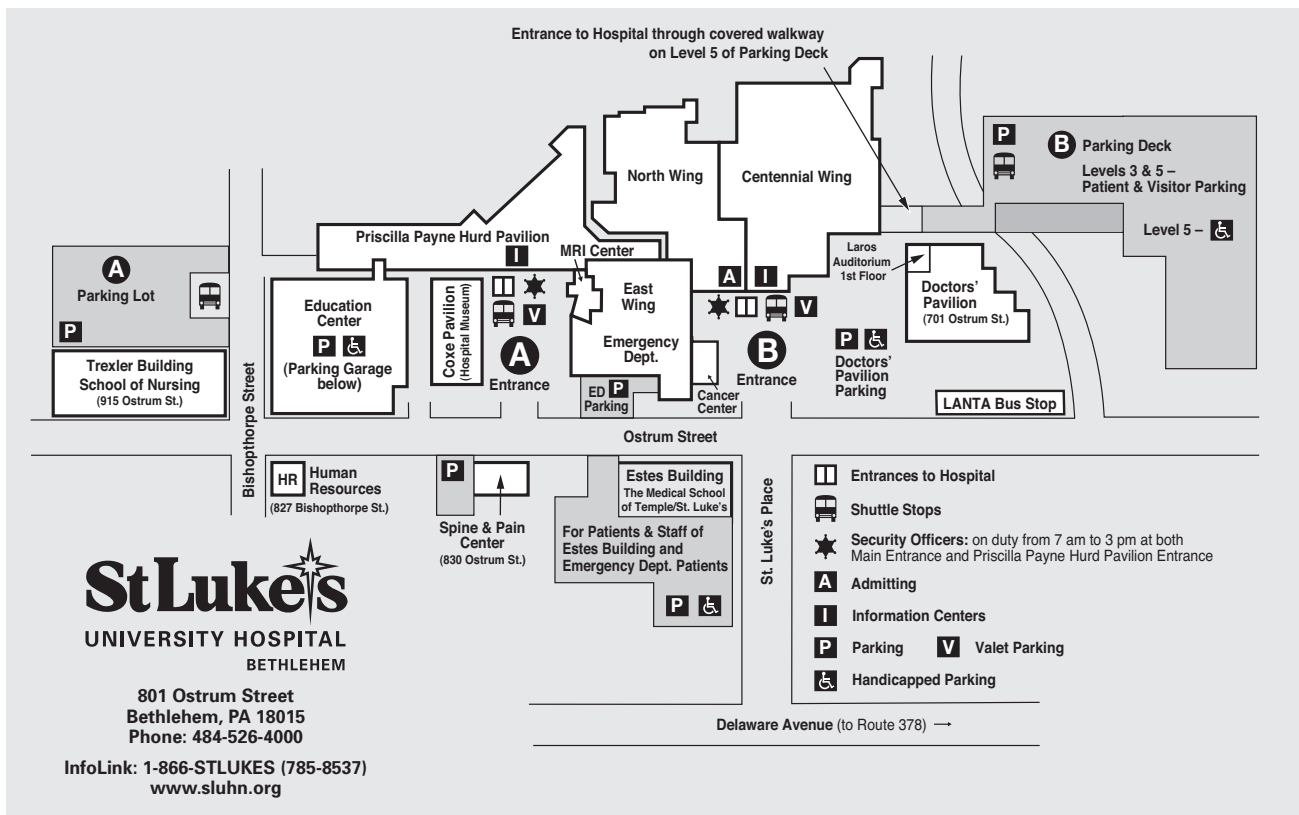
### Please do not bring the following:

- Medications
- Valuables
- Jewelry



## Your Surgery Day

- Traveling to St. Luke's University Hospital, Bethlehem, PA
- You and your family, or the person accompanying you should come to the Ambulatory Surgery Unit located on the first floor of the Centennial Wing at Entrance B of the Hospital. Valet Parking is available at Entrance B. For additional patient parking, please use Parking Garage B.





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## During the wait

### Pastoral Care

St. Luke's University Hospital has a interfaith chapel, which is open 24-hours-a-day for patients, visitors and staff. The chapel is located on the second floor inside Entrance A at Priscilla Payne Hurd Pavilion adjacent to the lobby. Worship is offered on a regular basis in the chapel. A book is located in the chapel for anyone wishing to leave a prayer request. To contact the Pastoral Care Department, please call 484-526-4772.

### Cafeteria

The 1872 Food Court Cafeteria at St. Luke's University Hospital, Bethlehem is self-service and open daily to both visitors and staff of St. Luke's. It is located on the first floor of the North Wing. The cafeteria features hot entrees, grilled specials, pizza and a wide variety of beverages. It also offers deli, salad, soup and dessert bars daily. For your convenience, there is an assortment of snack foods and ice cream novelties.

**1872 Food Court Cafeteria Hours:**

**Monday – Friday: 6 am – 8 pm**

**Saturday & Sunday: 6 am – 7 pm**

### Gift Shop

St. Luke's University Hospital has two gift shop locations for the convenience of visitors and patients. The Wishing Well Shop is located at Entrance B of the hospital and The Wishing Well South is located at Entrance A. Both shops carry a variety of gift items including stuffed animals, new baby items, jewelry, flowers, cards and balloons. They also have a selection of candy and snack items, newspapers and magazines.





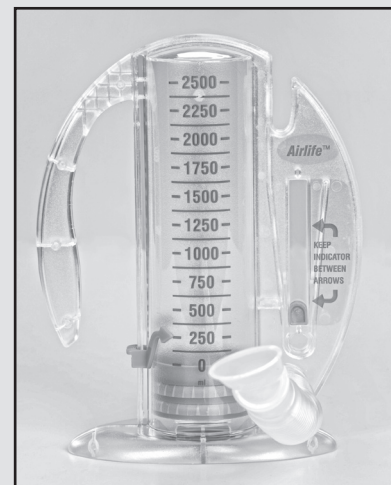
## Managing Pain

- Recovering from any surgery involves pain and discomfort. The hospital team's approach to pain management can help reduce your discomfort and this will speed your recovery. Pain management begins with you. Since no objective tests exist to measure what you are feeling, you must help the staff by describing pain, pinpointing the location and judging its intensity. While it is reasonable to expect some discomfort following surgery, the current treatment options can reduce the level of pain that most patients have. Your pain level may change at times.
- Pain Control following surgery is an important part of your care. The team will use a multifaceted approach to manage your pain including nerve blocks, oral medications, IV medications and possibly a catheter connected to computerized pumps with a button that is controlled by the patient (PCA or Patient Controlled Analgesia). The goal is to try to recognize and treat your pain quickly, which allows you to participate in the exercise program.
- 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 more easily controlled if you do not allow it to become severe before taking pain medication.

**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 (pills, patch, pump).**

### How to Use an 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.





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## **Enoxaparin Sodium Solution for Injection (Lovenox)**

### **What is this medicine?**

Enoxaparin (ee nox a PA rin) is used after knee, hip or abdominal surgeries to prevent blood clotting. It is also used to treat existing blood clots in the lungs or in the veins.

This medicine may be used for other purposes; ask your health care provider or pharmacist if you have questions.

### **What should I tell my health care provider before I take this medicine?**

They need to know if you have any of these conditions:

- bleeding disorders, hemorrhage or hemophilia
- infection of the heart or heart valves
- kidney or liver disease
- previous stroke
- prosthetic heart valve
- recent surgery or delivery of a baby
- ulcer in the stomach or intestine, diverticulitis or other bowel disease
- an unusual or allergic reaction to enoxaparin, heparin, pork or pork products, other medicines, foods, dyes, or preservatives
- pregnant or trying to get pregnant
- breast-feeding

### **How should I use this medicine?**

This medicine is for injection under the skin. It is usually given by a health care professional. You or a family member may be trained on how to give the injections. If you are able to give yourself injections, make sure you understand how to use the syringe, measure the dose if necessary, and give the injection. To avoid bruising, do not rub the site where this medicine has been injected. Do not take your medicine more often than directed. Do not stop taking except on the advice of your doctor or health care professional.

Make sure you receive a puncture-resistant container to dispose of the needles and syringes once you have finished with them. Do not reuse these items. Return the container to your doctor or health care professional for proper disposal.

Talk to your pediatrician regarding the use of this medicine in children. Special care may be needed.

**Overdosage:** If you think you have taken too much of this medicine contact a poison control center or emergency room at once.

*NOTE: This medicine is only for you. Do not share this medicine with others.*



### **What if I miss a dose?**

If you miss a dose, take it as soon as you can. If it is almost time for your next dose, take only that dose. Do not take double or extra doses.

### **What may interact with this medicine?**

**Do not take this medicine with any of the following medications:**

- aspirin and aspirin-like medicines
- heparin
- mifepristone
- warfarin

**This medicine may also interact with the following medications:**

- cilostazol
- clopidogrel
- dipyridamole
- NSAIDS, medicines for pain and inflammation, like ibuprofen or naproxen
- sulfapyrazone
- ticlopidine

This list may not describe all possible interactions. Give your health care provider a list of all the medicines, herbs, non-prescription drugs or dietary supplements you use. Also tell them if you smoke, drink alcohol, or use illegal drugs. Some items may interact with your medicine.

### **What should I watch for while using this medicine?**

Visit your doctor or health care professional for regular checks on your progress. Your condition will be monitored carefully while you are receiving this medicine. Contact your doctor or health care professional and seek emergency treatment if you develop increased difficulty in breathing, chest pain, dizziness, shortness of breath, swelling in the legs or arms, abdominal pain, decreased vision, pain when walking or pain and warmth of the arms or legs. These can be signs that your condition has gotten worse.

Monitor your skin closely for easy bruising or red spots, which can be signs of bleeding. If you notice easy bruising or minor bleeding from the nose, gums/teeth, in your urine or stool, contact your doctor or health care professional right away. The dose of your medicine may need to be changed.

If you are going to have surgery, tell your doctor or health care professional that you are taking this medicine.

Try to avoid injury while you are using this medicine. Be careful when brushing or flossing your teeth, shaving, cutting your fingernails or toenails, or when using sharp objects. Report any injuries to your doctor or health care professional.

### **What side effects may I notice from receiving this medicine?**

**Side effects that you should report to your doctor or health care professional as soon as possible:**

- allergic reactions like skin rash, itching or hives, swelling of the face, lips or tongue
- black, tarry stools
- breathing problems
- dark urine
- feeling faint or lightheaded, falls



## Rehabilitation in the Hospital

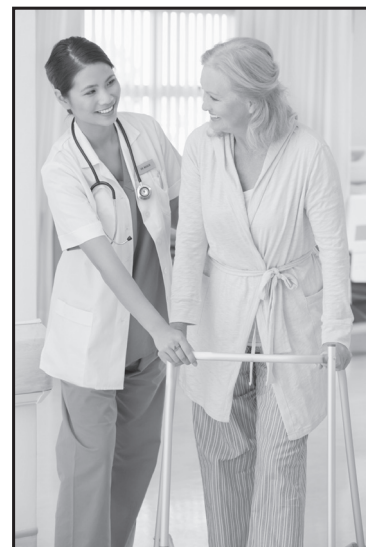
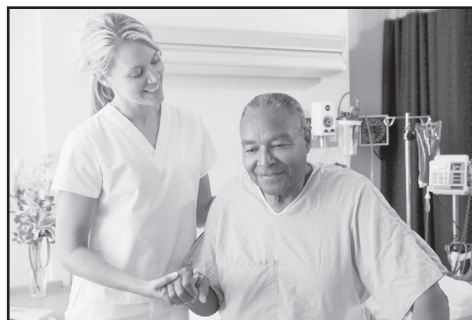
Your rehabilitation program will begin once you are medically stable. For most patients, it will begin the day of surgery, for some it will start the day after surgery. Everyone will begin rehabilitation within 24 hours of surgery.

During your therapy sessions you will work on all the things that you will need to do to leave the hospital safely and successfully. You will be seen for therapy by the rehabilitation team twice a day for the duration of your hospital stay.

### **The physical therapist will assist you in the following activities:**

- Sitting bedside with your legs dangling
- Transferring in and out of bed safely
- Walking with the aid of a walker or cane
- Climbing stairs

As the days progress, you will increase the distance and frequency of walking. It is critical to understand that motivation and participation in your physical therapy program is a vital element in the success of your surgery and your overall recovery. It is imperative that you play an active role in your recovery and rehabilitation from the start!





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## Preparing to Return Home

The majority of patients who undergo a joint replacement surgery are usually discharged from the hospital within two days after the surgery and many of them are able to return to their home environment. Our goal is to have you discharged by 2 pm on your last day at the facility.

## Case Management

The Case Management Department consists of nurse and social work case managers who will follow your progress. A case manager will assess your care and discharge needs. The Case Management team will provide assistance in making arrangements prior to your discharge.

### **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

The case manager will discuss your post-discharge needs in consultation with your surgeon and other members of your primary health care team. Your involvement is essential in formulating a discharge plan that will suit your needs. Please ask your case manager for more details on the range of services that can help in planning your discharge.



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## Medical Equipment Order Information

Many of the adaptive equipment items that will assist you at home can be purchased at our HomeStar Pharmacy located in the lobby of Entrance B. Your physical therapist at the hospital can assist you in determining what your needs may be at discharge.

### **The following is a list of items available for purchase should you need them:**

- Shoe Horn
- Long-Handled Sponge
- Stocking Aide or Sock Aide
- Easy-Up Cushion
- Plastic Shoelaces
- Shower Chair with Back
- Standard Reacher
- Gel Cold Pack, Standard
- Gel Cold Pack, Oversized
- Cryocuff (cold therapy)

## Prescription Refills

Our retail pharmacy located on the St. Luke's University Hospital campus provides prescribed medications for patients discharged from the hospital. Our experienced pharmacists will fill your prescriptions accurately in a prompt, courteous and professional manner. They are always accessible to answer your questions as well as provide you with reliable medical information.

### **For your convenience, HomeStar Pharmacy provides:**

- Prescriptions, including hard-to-find medications
- Over-the-counter medications
- Access to home medical equipment
- Ability to speak with a pharmacist directly



## Final Steps: At Home

### Guidelines for Recovering at Home

Please do not hesitate to contact your surgeon with any questions you have about your discharge instructions. Consult with your internist about duration and dosage of iron (ferrous sulfate) after your discharge.

### Caring for the Surgical Site

- 1) A dry sterile dressing can be applied over the incision until your staples or sutures are removed. The incision can often be left open to air without a dressing.
- 2) After suture or staple removal, leave the incision uncovered unless instructed otherwise.
- 3) 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) Do not drive while taking pain medication.
- 6) It is important to notify your surgeon's office if you require additional pain medications. It will take a few days to process your prescription so call the surgeon's office before your supply runs too low.
- 7) 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.



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## **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.

### **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 immunosuppression
- Other patients
- Insulin dependent (Type 1) diabetes
- Two years following joint replacement
- Previous prosthetic joint infections
- Malnourishment
- Hemophilia

**Please be sure to tell your internist and dentist that you have an artificial joint so that they can prescribe antibiotics prior to certain procedures. If you have questions or concerns, please call your surgeon’s office.**





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## **Your New Joint 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. 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 joint replacement usually become fully evident 6 to 8 months after surgery.

## **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.

## **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 proper seating surface (seat/bench) for your safety. You can discuss this with the home therapist that comes to you when you return home.

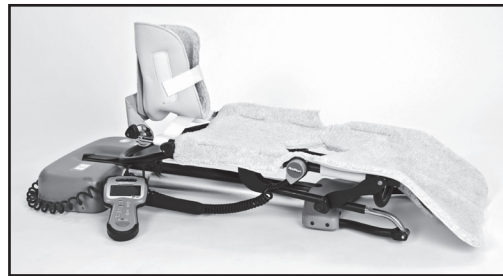
## **When to Begin Driving**

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.



## At Home Instructions for the CPM – Total Knee Replacements

During your hospital stay, your surgeons may order that you use a CPM machine. The CPM machine will be part of your recovery at home as well. Below are some important instructions for your use of this machine at home.



The CPM should be placed in the middle of the bed and be propped against a headboard or a wall to prevent the machine from sliding out from under your leg. If you have any questions regarding malfunction of the unit, please call the company providing the CPM. The name and number will be given to you prior to discharge from the hospital. Please call the company when you are done using the machine and a representative will arrange pick up.

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 “bent knee” button (flexion) and the up arrow button sign in 5-10 degree increments.
- To decrease the angle, press the “straight knee” button and the down arrow button.
- 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.