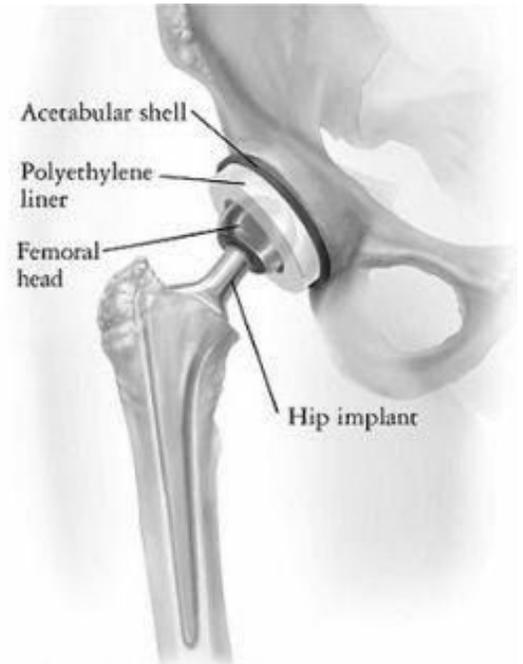


WHAT IS JOINT REPLACEMENT?

Joint replacement surgery removes the worn-out cartilage and underlying bone and replaces the area with implants that provide a new wear-resistant surface. The vast majority of individuals who have joint replacement surgery experience a dramatic reduction in joint pain and a significant improvement in their ability to participate in daily activities and low impact sports.

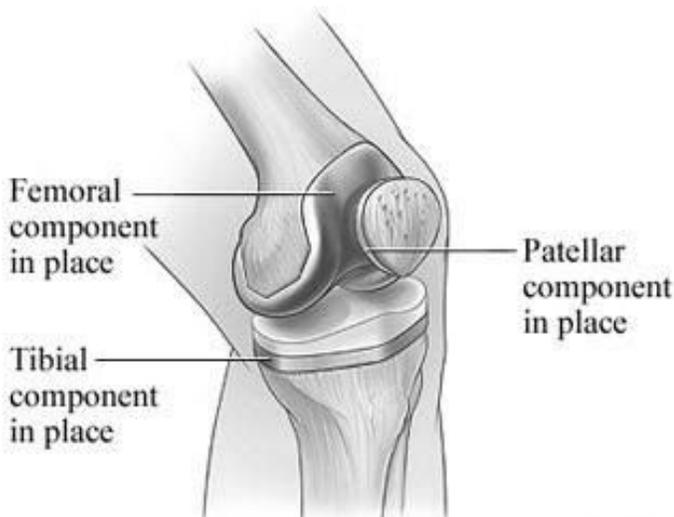
Total Hip Replacement

Hip replacement involves replacing the head of the thigh bone (femoral head) and the hip socket (acetabulum) with implants that resemble your existing anatomy. A femoral stem is secured inside the upper end of the thigh bone. Depending on bone quality, the metal stem (made of alloy) will be inserted without cement using a rough surface that promotes bone attachment. When osteoporotic or weak bone is encountered, a cemented implant might be used. The femoral head is connected to the top of this stem and is made out of Ceramic. The outer shell of the hip socket is made out of titanium metal and is often secured with screws, provisionally the bone will grow to the shell. The inner lining of the socket is made out of highly cross linked polyethylene, an advanced medical grade plastic.



Total Knee Replacement

In total knee replacement, all 3 worn out compartments of the knee are replaced with implants that resemble the shape and contours of a normal knee. The femoral component is made of Cobalt Chrome metal and has a curved shape that fits on the end of the thigh bone. The tibial component is made of metal with a medical grade polyethylene plastic that locks into the metal plate. The polyethylene serves as the "cushion" or cartilage space between the metal femoral implant and the tibial base. The underside of the knee cap is resurfaced with polyethylene that articulates with femoral implant. The components are often inserted without cement to allow bone growth onto the implant.

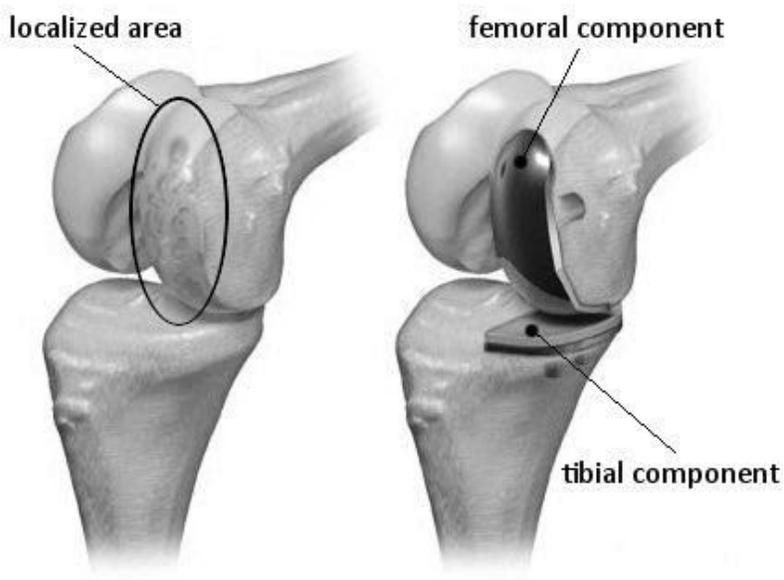


MAKOPLASTY

Makoplasty is a partial knee resurfacing for patients who suffer with localized pain and arthritis that affects one area of the knee joint. Only one of the three compartments of the knee is replaced with a combination of metal and plastic. The femoral component is made of metal and has a curved shape that matches the natural contour of the knee. The tibial component has a metal base that is secured to the bone and a polyethylene plastic insert that acts as the cushion. Both femoral and tibial components are attached using cement. This surgery is performed with robotic and computer assistance through a minimally invasive incision, that provides anatomic, balanced knee range of motion.

PATELLOFEMORAL PAIN WITH PATELLA RESURFACING MAKOPLASTY

In certain cases, the patella and trochlea can be resurfaced using the robotic technique.



BEFORE SURGERY

Pre-Op Testing and Physical Exam

All patients will have routine blood work and urinalysis performed about 1 to 2 weeks before surgery. In addition, a chest X-ray and EKG will be completed. A physical examination will be done by your medical doctor within 1 month of surgery. Dr. Leighton's staff will help coordinate all necessary labs, tests, and office visits and can make suggestions if you don't already have a medical doctor.

Dental Care

It is important to see a dentist on a regular basis to maintain proper dental hygiene. This is especially important if you are preparing to have a knee or hip replacement since your mouth could be a source of infection. If it has been over 1 year since your last dental visit, it is highly recommended that you see a dentist prior to surgery. Dental procedures such as extractions and periodontal work should be completed before joint replacement to reduce the potential of infection.

Pre-Op Joint Replacement Class

Most hospitals offer a pre-operative class in which you and your family members will receive instructions for each phase of your surgical experience. You will meet team members from nursing, physical therapy, anesthesia, and case management.

Jupiter Medical Center REQUIRES all patients to attend the pre-operative class, either in-person, or via a pre-recorded internet program at www.jupitermedorthospine.com. If you have any questions about the Jupiter class, including times or location, please contact the Jupiter Orthopaedic Coordinator at 561-263-3633.

Blood Donation

Patients do not donate their own blood. Research has shown that this is not beneficial and does not reduce the need for additional blood transfusion. If necessary, the patient will receive blood from the hospital blood bank. Hospitals follow universal guidelines in screening blood and blood products to assure the patient's safety as much as possible in this situation.

Medications

Continue taking your routine medications unless your medical doctor makes adjustments. At least 5 days before surgery, stop taking Aspirin and NSAIDs (Advil, Ibuprofen, Aleve, Naproxen, Mobic, Diclofenac) since these medications will affect bleeding. In addition, stop taking Fish Oil and Vitamin E at least 1 week before surgery.

Stop taking Coumadin or Plavix at least 5 days before surgery. Patients taking Coumadin, may require Lovenox for the 5 days before surgery, and should consult their medical doctor or cardiologist during their physical exam visit.

It's OK to continue taking Tylenol since it's not an NSAID and won't affect bleeding.

Bring your list of medications and doses to the pre-operative hospital appointment that will be scheduled about 1 week before surgery. You will be told which medications to take the morning of surgery. You should take these medications with the least amount of water necessary. Be prepared to tell the admitting nurse the medication and dose that you may have taken on the morning of surgery.

Night Before Surgery

You should not eat or drink after midnight on the day of your surgery. You should take only the medications as instructed during your pre-operative hospital visit on the morning of surgery.

In addition, you will be given a bottle of Chlorhexidine antiseptic soap from the hospital during your pre-op visit and interview with anesthesia. You **MUST** take a shower with this soap the night before **AND** if possible the morning of surgery to reduce your risk of infection. Apply the soap to your entire body from the neck down (do not put the soap on your face or in your hair).

Items to Bring to the Hospital

All patients should bring with them personal toiletries and shaving gear (if desired), loose fitting, comfortable clothing, non-skid shoes or slippers (slip on type with closed back preferred), a list of their current medications (including dosages), and any paperwork the hospital may have requested. Please be advised that the hospital provides gowns, slipper socks, and a small toiletries supply. If you have a C-PAP machine to help sleep, bring it.

When to Arrive at the Hospital for Surgery

Patients are generally instructed to arrive at the hospital 2 hours prior to the scheduled surgery time. This allows time for you to go through the admission process, change into hospital clothing, and meet the anesthesiologist and nursing personnel who will be with you during your surgery and will be able to answer your questions. The hospital will contact you the evening before surgery to provide the exact time and location to arrive.

Family Members

Family members may stay with patients until the patient is taken to the operating room. A family member will often be able to see the patient in the recovery room about 1 to 2 hours after surgery. If desired, a family member can spend the night in the patient's hospital room. All 3 hospitals have private patient rooms.

DAY OF SURGERY

Type of Anesthesia

Most cases are performed under spinal anesthesia with sedation. Special circumstances or personal preference may indicate the use of general anesthesia. You will be meeting with the anesthesiologist on the day of surgery and at that time any questions or concerns regarding anesthesia will be addressed.

For Total Knee Arthroplasty, an Adductor Canal Block is done preoperatively. This lasts 6-12 hours and allows for pump prescriptions the day of surgery.

Length of Surgery

Surgery times may vary depending upon the difficulty of your case. Generally, you may spend 50 minutes in surgery and 1 to 2 hours in the recovery room.

Meeting with Family Members

Dr. Leighton will meet and discuss the procedure with your family members immediately after the surgery. If for any reason your family members are unable to stay, Dr. Leighton would be happy to contact them by phone to discuss the surgery.

HOSPITAL STAY

Pain Control

Dr. Leighton uses a multi-modal pain prevention regimen. You will be given Celebrex in the hospital prior to surgery to help with pain and inflammation. This medication when taken before surgery, reduce your body's pain response and will decrease the amount of pain felt after surgery.

During surgery, Dr. Leighton injects the joint and tissue around your incision with a combination of anti-inflammatory, numbing, and pain medication. This dramatically reduces the amount of immediate post-operative pain. Dr. Leighton's patients are no longer requiring PCA pain pumps after surgery. After surgery, you will have Hydrocodone (Norco), Tramadol, IV Dilaudid, and IV Tylenol available to help manage your pain.

Blood Clot Prevention - Anticoagulation

You will be started on a blood thinner after surgery to prevent blood clots. A full strength Aspirin 325mg will be given twice per day, and MUST continue for 10 days after surgery. Dr. Leighton prefers Aspirin (instead of Coumadin or Lovenox) for blood clot prevention due to the proven effectiveness with reduced risk of developing surgical site bleeding and hematomas. An alternative blood thinner will be utilized if you have a history of blood clots, or if you were already taking a blood thinner before surgery – this needs to be discussed with Dr. Leighton.

Physical Therapy

You will receive physical therapy as early as the same day of surgery. You will be getting out of bed and attending physical therapy sessions twice per day beginning on the first postoperative day. The physical therapists will teach you the exercises needed for your optimal recuperation and instruct you on weight bearing technique using a walker. You will also be instructed on activities such as bathing, dressing, using the bathroom, transfers from bed to chair, ambulation, and stair climbing. Instructions for traveling by various modes of transportation will also be discussed.

Foley Catheter

Some patients may have a foley catheter placed during surgery. This catheter is placed in patients with urinary retention issues. The catheter will be removed the morning after surgery.

CPM Machine for Total and Partial Knee Replacement

The use of CPM machines after surgery is discouraged by the Joint Commission for Hospital Accreditation. Dr. Leighton has followed these recommendations, and has limited the use of CPM machines, since research has not proven a benefit for most patients.

Your knee range of motion will be evaluated by the Physical therapist, and if you have more than 80 degrees of bend on the 1st day after surgery, a CPM machine is NOT required.

If you have limited flexion after surgery, a CPM machine may be utilized in the hospital and also after your discharge. If you are being discharged to a rehab center, a CPM machine will be utilized as part of your physical therapy program. If you are going home, the case manager will make arrangements for a CPM machine to be delivered to your house for 3 to 4 weeks. The CPM should be used 1 to 2 hours twice per day for a total of 2 to 3 hours per day, with gradual increase in the flexion up to 120 degrees. We rarely need to use a CPM machine.

Seeing your Doctor while in the Hospital

Dr. Leighton or his Physician Assistant will see you on a daily basis to discuss your progress and address any questions. The case manager will also meet with you (and family members if necessary) in order to assure the proper discharge plan for your particular case.

Length of Hospital Stay

For total knee or hip replacement surgery, most patients stay in the hospital for 2 or 3 days (not counting the day of surgery). Some patients may leave on Thursday, otherwise it will be Friday. If you are undergoing Makoplasty partial knee replacement, you can be discharged as early as the next day, but occasionally patients stay for 2 days after surgery.

Discharge to Home vs. Rehab Facility

Discharge to home is preferred. A physical therapist and nurse will come to your house for the initial 2 weeks, to provide strengthening, range of motion, and walking exercises. The home care team will also change your dressing and contact Dr. Leighton if there are any concerns during your recovery. While not required, it is highly recommended to have someone assist you at home for the first 48 to 72 hours after discharge on a full-time basis, and perhaps part-time the first week or two after this.

If you live alone, you could consider placement in a rehabilitation center. Patients stay in these facilities for approximately 5 to 6 days, with an emphasis on returning the patient home in a short period of time. The choices available depend upon the patient's insurance coverage and, therefore, will need to be discussed by the patient, family members, and the case manager.

Home physical therapy and nursing will be arranged prior to your discharge to home. Patients will often receive 2 weeks of home therapy then transition to outpatient physical therapy. We can assist you in choosing the location for your outpatient physical therapy.

AFTER DISCHARGE AND RECOVERY

Pain Medication

Expect to be on a prescription narcotic pain medication for 2-4 weeks after discharge. Most patients take these medications on a regular basis for the first couple weeks. It is highly encouraged to take pain medication before physical therapy sessions. Pain control is very important to your recovery and ability to fully participate in physical therapy.

Blood Clot Prevention - Anticoagulation

You MUST continue taking a blood thinner (most often Regular Strength Aspirin (325 mg) twice per day for 10 days) after your discharge, to prevent blood clots and pulmonary embolism. If you were already taking a blood thinner before surgery (Plavix, Xarelto, Coumadin, etc) you will be given instructions at discharge regarding the appropriate blood thinner and dosage.

Aspirin 325 mg is available as Enteric coated for those with sensitive stomachs, and is safe in combination with Celebrex. Please tell Dr. Leighton if you have a history of previous blood clot or pulmonary embolism or if there is a family history of blood clots, since this will change the type of blood thinner given after surgery.

Physical Therapy

Physical therapy will continue for 4 to 8 weeks after you've been discharged from the hospital. If you are at home, a therapist will visit you for the initial 2 weeks. Your therapist will work with you to improve motion, strength, and ambulation. At the first follow-up visit, you will discuss the timing and location of outpatient physical therapy with Dr. Leighton. If you are staying at a rehab center, you will discuss the timing of your discharge to home, and making arrangements for home physical therapy.

CPM Machine for Total and Partial Knee Replacement

A CPM machine is not usually necessary after discharge, unless this was discussed and arranged during your hospital stay. If a CPM is recommended, it should be used for 1 to 2 hours twice per day for a total of 2 to 3 hours per day. The goal is gradual increase in the flexion up to 120 degrees over the course of 3 to 4 weeks.

Walker, Crutches and Cane

A walker (or crutches) is normally used for the first 1 to 2 weeks after surgery. You and your physical therapist will determine when you're ready to start using a cane, based upon your motion, strength, and balance. Patients then use the cane for the next several weeks based upon recommendations by the physical therapist as well as your comfort.

Showering and Bathing

It is OK to get in the shower, and get your dressing wet. Pat the dressing dry with a towel. You may remove the dressing the Saturday after surgery and leave the incision open to the air. There isn't any need for further dressings at this point. Sometimes you may experience drainage and you can apply a dry dressing on the area for 1-3 days. This can be purchased at CVS or Walgreens.

TED Hose – Compression Stockings

TED (Thrombo Embolic Deterrent) Hose are compression stockings that reduce the amount of lower extremity edema that normally occurs after joint replacement surgery. Dr. Leighton recommends that you wear knee high TED hose for at least 2 to 3 weeks after surgery.

The stockings should be worn during the daytime and taken off at night. It is important to put on the TED hose when you awake, before starting the day, since this is when edema most often occurs. You can stop wearing the stockings once the swelling has resolved and you no longer have edema with standing and walking.

Ice Management and Swelling

The use of ice or a cryo-cuff/ ice management system is extremely important for healing, pain control, and helping to reduce swelling. Elevation of the leg is also important to reduce swelling.

Patients will be provided a cryo-cuff knee or hip wrap system in the hospital. This device belongs to the patient and should be taken to rehab or home. To prevent frostbite and skin sensitivity, an empty pillow case or washcloth can be applied over the knee, before placing the cryo wrap. The system should be used during times of rest and after physical therapy for 2 to 4 weeks after surgery.

Climbing Stairs

Stair climbing will be practiced in the physical therapy program before you leave the hospital or rehab. You are allowed to climb stairs at home, and this can be done one or two times per day after discharge.

Going Outside and Making Local Trips

To reduce the chance for infection, falls, and excessive swelling, Dr. Leighton recommends that you stay at home for the first 2 to 4 days after discharge from the hospital. Comfort and safety should be the primary guidelines for going outside your house. It is suggested to start with short trips as the passenger, perhaps to physical therapy or your local supermarket or church if nearby. Gradually increase the number and length of outside activities as you feel more comfortable.

Driving

The type of surgery, side of surgery (right vs. left leg), and your overall general condition must be taken into account when deciding to drive. Other important considerations are whether you have stopped taking your narcotic pain medication during the daytime and if you can walk with ease either with or without cane. Most patients are able to drive at 2 weeks after surgery on the left leg and 3-4 weeks after surgery on the right leg.

Return to Work

Returning to work varies with each patient, the type of surgery, and the particular job duties. The amount of time can vary between 2 to 8 weeks, and is most dependent on the level of activity expected of the patient. Dr. Leighton will discuss the details about your return to work and will provide out of work and return to work notes when required.

Return to Sports

Initially patients return to low impact, less strenuous activities such as walking, stationary cycling, and swimming. As your physical therapy progresses and your strength and balance return, patients gradually return to hiking, doubles tennis, cycling, and golf at 2 to 3 months. High impact activities such as running, racquetball, and basketball should be avoided.

First Office Visit After Surgery

Your first post-op office visit with Dr. Leighton will be about 9 days after surgery. X-rays will be taken in the office. Your incision will be checked as well as range of motion and your ability to walk. Additional visits will be made at one month, 3 months, 6 months and one year after surgery.

TAKING CARE OF YOUR JOINT REPLACEMENT

Dental Visits

Good dental hygiene is important and you should see your dentist for regular dental care, whether or not you are having a dental problem. Dental procedures as well as procedures involving your gastrointestinal tract or genitourinary area can result in the circulation of bacteria within your bloodstream. Antibiotic prophylaxis prior to these procedures is an important part of your continued care after a total joint replacement. The following antibiotics are recommended and can be obtained through our office or by your dentist or surgeon:

- Keflex 2 grams by mouth one hour prior to the procedure (prescribed as 500mg tablets)
- If you have a true Penicillin allergy: Clindamycin 600 mg by mouth one hour prior to the procedure

Routine Orthopaedic Follow-Up

Routine follow-up with Dr. Leighton at the 1 year, 2 year and 5 year mark, it is important to ensure that your joint replacement continues to function properly. X-rays will be taken to monitor the parts for any wear or loosening. If you experience a new onset of pain or swelling in the joint please make an appointment as soon as possible to see Dr. Leighton.