HIP REPLACEMENT

Patient Information

Anderson Orthopaedic Clinic

A Center of Excellence for Orthopaedics

SINCE 1941

A MESSAGE FROM YOUR SURGEON

We hope this booklet will be helpful as you prepare for your upcoming hip replacement. You are encouraged to take this booklet to the hospital and record any notes you wish to keep regarding your individual care plan.

"Everything my team does centers on improving our patients' lives. Whether it is individualizing patient care, innovating hip replacement techniques, or performing influential research, our team is committed to making our patients better in everything we do."

Dr. Robert "Bob" Sershon specializes in anterior hip replacement, robotic hip replacement, and outpatient hip replacement. His expertise allows him to also serve as referral source for complex and revision joint replacements.

The pioneer of the robotic surgery program at Anderson Clinic, Dr. Sershon and his team are dedicated to developing and investigating operative techniques with potential to enhance recovery and improve patient outcomes. An NCAA swimming national champion (turned running enthusiast), Dr. Sershon understands the importance of providing patients the ability to return to the activities they love in a safe and timely fashion.

Dr. Sershon is a dedicated researcher. He has received national recognition and multiple honors for his work in joint replacement. An active member in several local and national organizations, he has been invited to present his research across the country and has published over 100 peer-reviewed publications, book chapters, and abstracts.

A Chicago native, Dr. Sershon grew fond of the Mid-Atlantic during his tenure at Johns Hopkins University. Following completion of his undergraduate degree with honors, Dr. Sershon returned to Chicago for nine years to complete his medical education and orthopedic surgery residency training at the world-renowned Rush University Medical Center. Dr. Sershon then completed his fellowship in knee and hip replacement surgery at the Anderson Orthopaedic Research Institute, at which time he was invited to join the practice.

In his free time, Dr. Sershon enjoys running, spending time outdoors with his family, and refurbishing furniture. He is happily married (Jenny) with two sons (Axel and Jack) and a dog (Beans).

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Anderson Orthopaedic Clinic

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INTRODUCTION

Welcome to the Anderson Orthopaedic Institute, one of the foremost U.S. institutions specializing in joint replacement surgery. Over the past 40 years our highly specialized surgeons at The Anderson Orthopaedic Clinic have performed more than 30,000 joint replacements. Our long-term experience has allowed us to prepare this manual, which will help you familiarize yourself with the hip replacement procedures performed by the surgeons at Anderson Clinic.

In this booklet, we will explain the steps you will take to prepare for surgery, what will occur on the day of your surgery, and what you can expect during your postoperative recovery period. We also describe your home care after surgery. Once you and your physician have decided that a hip replacement surgery is needed, you will naturally have many questions.

Experience has taught us that each patient has different expectations. It is important to us that all of our patients know what to expect preceding and following surgery.

TOTAL HIP REPLACEMENT

Total hip replacements are performed with the goals of reducing pain, improving function, and improving our patient's quality of life. Approximately 450,000 patients undergo hip replacements annually in the United states to hip conditions caused by osteoarthritis, rheumatoid arthritis, congenital deformities, fractures, trauma, and other hip-related problems. The surgery involves replacing the damaged surfaces of the hip. The head and the neck of the femur (thigh bone) are removed and replaced with a ball and stem, called the femoral component. The damaged hip socket is then lined with a metal "cup", and a liner is placed into the cup. The liner can be made from different materials and is usually plastic or ceramic. The ball can also be made of different materials, such as metal or ceramic. The ball of the femoral component fits into the liner of the cup.

In 1977, surgeons at The Anderson Clinic pioneered the utilization of a hip replacement design that allowed a patient's bone to "grow into" the implant. Prior to this, all hip replacements around the world required cement for stable fixation. Since the adoption and popularization of this "cementless" design by The Anderson Clinic, 90-95% of hip replacements performed in the United States are performed without the use of cement.

The Anderson Clinic has continued to innovate, investigate, and popularize the adoption of new implants and surgical techniques around the world for over five decades. Our data has shown excellent long-term outcomes in over 90% of patients, and we will continue our commitment to excellence moving forward.

Rapid Recovery Anterior Total Hip Replacement

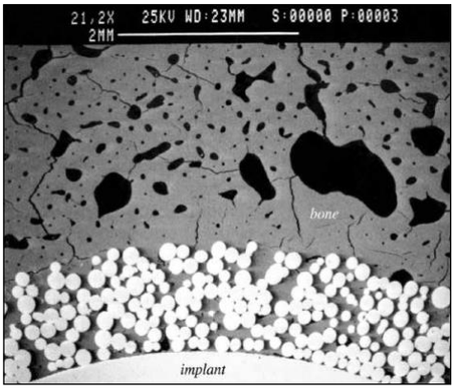
At the Anderson Clinic, we believe in a team-based approach to provide patients an enhance and rapid recovery. This team approach includes patient education, presurgical planning, multimodal anesthesia, less traumatic surgery, and better pain control that results in faster return of function.

The specialists at Anderson Clinic have been working on minimally invasive techniques for many years and use specially designed instruments that allow all patients to have the least amount of tissue damage possible. We must make the incision long enough to do your surgery safely, however, and your body habitus plays a big part in how long your incision will be.

Dr. Sershon utilizes the Anterior Hip Replacement due to its muscle-sparing characteristics that research has shown to result in less pain, faster recovery, and lower dislocation rate. Most patients benefit from this minimally invasive technique and go home the day of surgery or after one night in the hospital. We strive to have patients walking and moving their hip on the day of surgery.

Bearing Surfaces

Hip bearing surfaces consist of a ceramic ball, a titanium stem, and a titanium cup with a polyethylene liner. The titanium stem and cup are coated with highly porous metal that allows the body to attached to the implant. Before your surgery, your surgeon will measure your x-rays and select the implant best suited for you. In most cases, a bone-preserving hip implant is able to be utilized. Over several months the body will grow into the metal parts of the implant, rendering the implant stable for decades. The medical grade plastic bearing contained within the cup wears at a rate of 0.01 mm/year with an anticipated lifetime of over 20 years.



Electron microscopic photo of a porous-surfaced implant showing the bone (top gray area) growing into the beads (white) covering the implant surface.

REVISION HIP REPLACEMENT

Preparation for revision surgery is more complex than for an initial surgery. Revision patients who had their primary surgery at another institution can help us by obtaining detailed records of previous surgeries so we know exactly what types of parts need to be replaced. Revision surgery can be relatively straightforward when it involves just the exchange of a ball and liner. However, the procedure is complex when it involves replacing a stem or cup. Because revision procedures are more involved that first time replacements, a longer surgery and time to full recovery should be anticipated.

SURGICAL COMPLICATIONS

Along with the advantages of hip replacement, the possibilities of complications exist. Complications may include infection, hip stiffness, nerve palsies, blood-clot formation, leg length inequality, hip dislocation, or fracture of the femoral or pelvic bone. We hope by making you aware of these potential problems, and by discussing them openly, you will have more confidence in our expertise and ability to avoid complications.

Patients with arthritic hips often develop shortening of the affected leg. One of our goals with hip replacement is to equalize leg-length as much as possible. While this is possible in over 90% of our cases, it may not be feasible when there are large differences in leg-length preoperatively. In a small number of patients, it is possible the operative leg actually has to be made slightly longer than the nonoperative leg in order to maximize hip stability. In some revision cases, muscle and bone loss associated with surgery requires us to lengthen your leg to optimize hip stability.

Dislocation occurs when the ball comes out of the hip socket. This is seen in less than 1% of anterior total hip arthroplasties and more frequently in revision arthroplasties. Dislocations are treated initially without surgery, and most patients who dislocate never require further surgery.

Less than 1% of primary and revision patients have femoral or sciatic nerve injuries, and most individuals with such injuries recover with time.

Fractures occur during surgery in less than 1% of patients. In almost all of these cases, the fractures consist of very small cracks in the bone. These heal rapidly and do not interfere with the patient's normal recovery from joint replacement. If the fracture is large, it may require operative treatment and restricted weight bearing for a longer period than a standard, uncomplicated hip replacement.

Infection occurs in less than 0.5% of primary hip patients and in 5% of revision patients. If the infection is diagnosed quickly, a thorough washout of the hip may be all that is needed to cure the infection. If it develops into a chronic infection, then the implants must be removed for a 2 month minimum to allow treatment with antibiotics. After the infection is cured, new hip components can be reimplanted. Patient risk factors for developing a joint infection include morbid obesity (BMI > 40 kg/m2), diabetes (A1c > 8), malnutrition, smoking, anemia, and colonization with MRSA. In an effort to decrease your risk for infection, your surgeon may provide recommendations for optimizing your healthy prior to undergoing a joint replacement.

Other complications of any hip surgery are a deep venous thrombosis (a blood clot in the leg). To avoid this complication, we treat patients with blood thinners and/or pneumatic compression devices. Risks from anesthesia also exist and vary for different patients and types of anesthesia. We encourage patients to discuss their options with the anesthesiologist on the day of surgery.

We believe well-informed patients approach the surgical procedure and postoperative experience with greater enthusiasm and less apprehension. By discussing your procedure, its risks and benefits, as well as our techniques, alternative treatments, and expected outcomes, we hope to reassure you that we are committed to your well-being.

PREPARING FOR A HIP REPLACEMENT

Your Joint Replacement Team

A team of professionals will help you through all phases of your surgery. This team includes your physician and their clinical staff, physical therapist, case manager, physician assistant, nurse and support personnel. Other important members of our Joint Replacement Team include our four orthopaedic Fellows. Having completed their orthopaedic training, these surgeons have dedicated a year to further professional development in total joint replacements with the Anderson Clinic. They are among the brightest young orthopaedic surgeons in the country. You may meet one of these doctors on your visits to our office. Under the supervision of Anderson Clinic Physicians, each Fellow assists in the clinic and in surgery, provides postoperative patient care with daily rounds, and participates in our research.

Scheduling Surgery

If you do not schedule surgery at the time of your office visit, our scheduling secretary, who will help you select a surgery date, is available to answer any questions. To allow adequate time for the necessary preparations, a surgery date is usually set well in advance of your decision to proceed with hip replacement surgery. You will initially get a date for surgery, but the time of your surgery will not be determined until the 1-2 days before the surgery date.

Preoperative Planning

Once you have a surgery date, you will need to prepare for surgery. This includes preoperative interviews and tests which will need to be completed within thirty days prior to your surgery date. We encourage all of our patients to have a designated "coach" or advocate. Your "coach" is the main person that will help you complete the required tasks before surgery and be there to support you after surgery.

Discharge Planning

Most patients recuperate much better at home with the help of family and friends; therefore, our care plan promotes discharge to your home. Your team will assist in identifying the kind of help you may need after discharge and advise you of care options. It is important that your discharge plan be worked out with the team before surgery.

Blood Donations and Iron Supplements

We no longer advise patients to donate their own blood before surgery. With less invasive surgery techniques, there is less than a 1% chance you will need to be transfused. Patients with anemia (Hemoglobin < 12.5 g/dL) may be recommended to take an iron supplement prior to surgery in an effort to reduce their risk for a transfusion.

Medical Clearance

All patients must be evaluated by a medical doctor prior to surgery to determine if it is safe to proceed. This visit will include a medical history, physical examination, and basic laboratory tests. You may also need a chest x-ray and electrocardiogram that has been completed within the past year. Additional testes may be required if you have other specific medical problems. The examination must be completed within 30 days prior to your surgery.

Reducing the Risk of Infection

Any source of bacteria within your system must be eliminated before your surgery. Abscessed teeth and pending dental work should be taken care of prior to your hip surgery. A urinary tract infection is an additional source of contamination. Although frequency, urgency, and burning are symptoms of a urinary tract infection or prostate problems, you may have an infection without symptoms. The doctor who clears you for surgery may order a test of your urine. If an infection is found, antibiotic treatment may be required prior to your hip operation.

Our goal is to reduce the number of bacteria you carry on your skin prior to surgery. We will instruct you to use an antibacterial wash in the days prior to surgery. Because certain bacteria are carried in your nostrils, we may instruct you to use an ointment to treat these bacteria. Furthermore, the skin around your hip and operative extremity should be free of any open lesions such as cuts, scrapes, bug bites, etc. If you have any questions, please call your physician's office.

Stopping Medications Before Surgery

If you are taking blood thinners, such as Plavix, Coumadin or Pradaxa, these also can create bleeding problems; it is important to discuss their use with the prescribing physician to determine the dosage program that will best prepare you for surgery.

Ten days prior to the surgery, you should also discontinue the use of most herbs/supplements, such as echinacea, ephedra, feverfew, garlic, ginger, gingko biloba, ginseng, goldenseal, kava, saw palmetto, St. John's Wort, valerian, vitamin E, glucosamine chondroitin, and fish oil.

We will often prescribe celecoxib or meloxicam prior to surgery. You should stop taking any other non-steroidal anti-inflammatory medicines ten days before surgery to avoid increased bleeding associated with these medications. You may take Tylenol for pain during this time.

Financial Arrangements

The Anderson Orthopaedic Clinic accepts multiple insurance plans and cash. Patients hoping to pay for their care through a cash-plan should contact our office directly to discuss the available payment options. The Anderson Orthopaedic Clinic will make every effort to assist you in meeting the policy requirements of your insurance company. You need to determine whether your insurance requires pre-authorization for surgery and if a second opinion is required. A call to your insurance carrier will answer these issues, if they are not clearly stated in your policy.

We accept a number of health care plans with fixed fee schedules. The Anderson Orthopaedic Clinic will bill Medicare or your commercial insurance for the cost of the surgery. You as a patient are responsible for the balance stipulated by your type of insurance. The Anderson Orthopaedic Clinic will also bill you for the services of the Fellow who assists during surgery, throughout your hospital stay, and with your follow-up care. The Anderson Clinic billing office and our staff are available to assist you with questions about reimbursement and billing procedures. Your hospital or surgery center bills are handled by the individual facility's billing offices. If you are responsible for a deductible associated with the surgery, you will be responsible for paying this prior to the date of surgery.

Physical Therapy

Because of the many months of pain and decreased physical activity you may have experienced before surgery, your muscles may not be in the best condition. We have found that

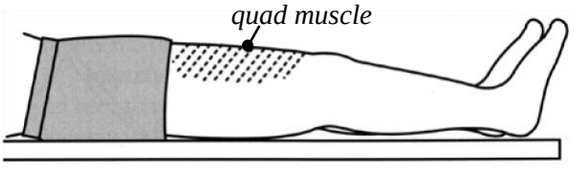
patients potentially do better after surgery if they do exercises before. In the following section, we list several exercises that will enhance your recovery.

Preoperative Exercises

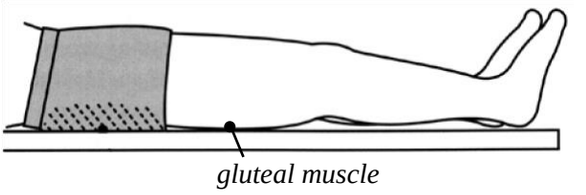
Many of the preoperative exercises are the same exercises that will be part of your postoperative therapy program. We recommend you work on the following exercises several times throughout the day. If necessary, start out gradually and build up the number of repetitions. If you are unable to tolerate any of the exercises due to pain, DO NOT continue.

1. **Ankle Pumps:** Move your foot up and down. Repeat up to 25 repetitions, twice daily.

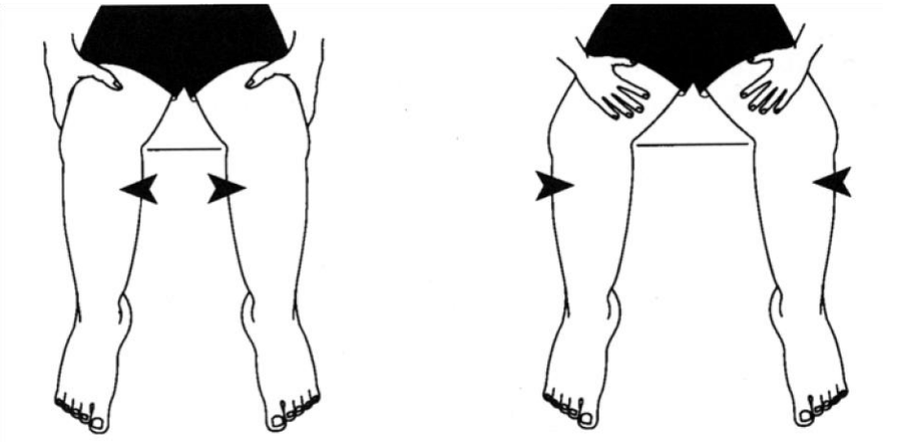
2. **Quad Sets/Knee Tighteners:** Lying on your back with your legs straight, push down the back of the knee against the bed. Maintain the muscle contraction in the thigh for five seconds. Relax. Repeat up to 25 repetitions, twice daily.



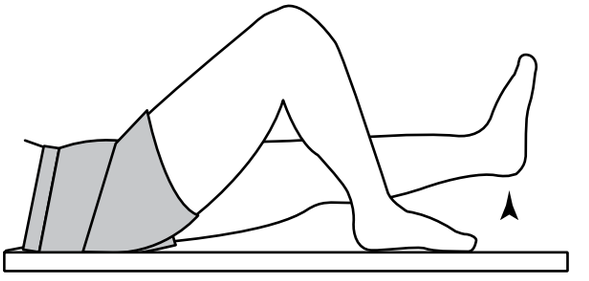
3. **Gluteal Sets/Buttock Tighteners:** This exercise can be done lying down, sitting, or standing. Squeeze the buttock muscles together and hold for five seconds. Relax. Repeat up to 25 repetitions, twice daily.

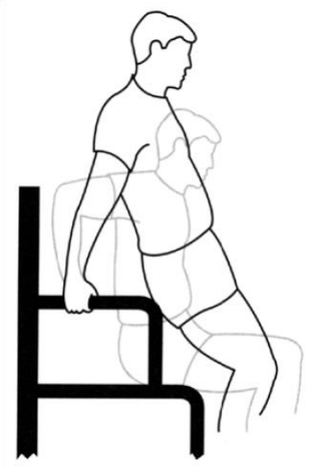


4. **Isometric Adduction/Abduction:** Sitting in a chair, place your hands along the outside of your thighs. Tensing your thighs, pretend as if you are trying to push your thighs apart; maintain the tension for 5 seconds. Then, place your hands on the inside of your thighs and pretend you are pushing your thighs together by tensing them for 5 seconds. You should be exerting your thigh muscles, not your hands or arms. Repeat up to 25 repetitions, twice daily.



5. **Straight Leg Raise:** Lie on your back with your right leg bent. Tighten your left knee and thigh and lift your left leg off the bed. Hold for the count of three. Repeat the exercise using your right leg. Repeat up to 10 repetitions, twice daily. Do not perform this exercise if it causes you pain. Tighten your left knee and thigh and lift your left leg off the bed. Hold for the count of three. Do the same exercise with the opposite leg. Repeat the exercise using your right leg. Repeat up to 10 repetitions, twice daily. Do not perform this exercise if it causes you pain.





6. **Chair Push-Ups:** Sitting in a chair with arm rests, push yourself up using your arms. Begin by using your feet to assist you, then progress to putting more weight onto your arms to lift yourself. Hold three seconds. Repeat up to 10 repetitions, twice daily.

DAY OF SURGERY

Reporting to the Hospital or Surgery Center

On the day of surgery, you will report to the Registration Desk. Bring your photo ID and Insurance Cards for verification. You will be escorted to an area where you will change into a hospital gown. An identification bracelet will be placed on your wrist. An admissions nurse will make sure that your medical work-up has been completed. You will then be escorted to an area where a nurse will make you comfortable and provide warm blankets. An intravenous line will be started. You will see your surgeon and the anesthesiologist before going into the operating room.

Clothing

Hospital gowns are suggested during the day of surgery. You are encouraged to bring loose fitting jogging clothes, t-shirts, pajamas, sweatpants, or shorts for the rest of your stay, so that you will be more comfortable when you are walking around. Tennis shoes, loafers, or comfortable support shoes should be worn; we do not recommend bringing new shoes.

Anesthesia

On the day of surgery, you will meet with the anesthesiologist and anesthesia staff (nurse anesthetist) to go over your medical history and the type of anesthesia that will be utilized for the surgery. Most patient will receive spinal or epidural anesthesia and will also be given medication that allows them to sleep during the procedure. This avoids the use of a breathing tube during the operation. However, there are some situations in which may dictate general anesthesia be utilized, and the anesthesiologist will discuss any such situation with you.

Post-Anesthesia Care Unit (PACU)

A typical hip replacement operation takes approximately one and one-half hours. Revision surgery often takes longer because it is more complex. After surgery, you will be moved from the operating room to the post-anesthesia care unit (PACU), often referred to as the recovery room. Here, the nurses will monitor your vital signs and oversee your recovery from anesthesia. Your stay in the PACU lasts at least 1-2 hours. You may receive oxygen through nasal breathing tubes. Pneumatic compression boots are also placed on both feet to help improve circulation and help prevent blood clot formation.

Family Waiting Area

Family members are usually not permitted to visit with patients in the PACU. At the end of the surgery, the surgeon or the Fellow will discuss the details of the procedure with your family members. If family members leave the waiting area, they should let the staff know where they will be. If members of your family are unable to be present on the day of surgery and would like to talk with your surgeon, they should leave a phone number where they can be reached.

POSTOPERATIVE COURSE

Force Therapeutics

During your recovery, you will utilize our digital care platform called Force. This electronic platform provides education materials, patient monitoring, communication with our staff, focused physical therapy, and guides you through your recovery pathway. Our patients have Force this to be an invaluable resource that has enhanced their overall joint replacement experience.

Pain Management Regimen – Handout at the End of the Book

We want you to be comfortable but also awake and alert enough to do exercises, including breathing exercises to prevent lung congestion and leg exercises to prevent blood clots. When you have recovered from anesthesia, your pain usually is managed by oral pain medications.

We recognize that post surgery pain is a significant source of fear for patients. Adequate pain control is very important to us. We have designed a comprehensive program to improve your experience by decreasing pain with a "multimodal" pain program. This process starts before surgery, using a combination of different medications that work together to reduce the number of narcotic medications you require and to maximize your pain control. The narcotic medications can cause side effects such as nausea, itching and constipation, which we would like to avoid.

Wound Care

Your incision will be covered by a water-resistant dressing after surgery. This dressing should be removed after 7 days. As long as there is no active drainage from the wound, you may shower with this dressing in place once you get home. After the dressing is removed, it is not recommended to apply any cream, ointment or lotion to the wound unless specific instructions are given by your surgeon. Most of the time, your stitches will be under the skin and will dissolve on their own. If you have staples they can be removed 10-14 days after surgery as long as there is no drainage.

If the wound is draining, the dressing should be changed once it becomes saturated. The wound should be dry and without drainage by about 7 days postoperative. If there is persistent drainage from the wound after this time period, you should call our office. If there is worsening redness around the incision, you should also call the office.

Other common concerns after hip replacement surgery include swelling and bruising. These can be quite significant in nature and can appear anywhere from the thigh to the toes. These are typically worse at night which can contribute to trouble sleeping comfortably for more than one to two hours at a time.

REHABILITATION

Regaining muscular control of your leg is an important goal after surgery. All patients receive therapy to help strengthen muscles and learn proper walking mechanics in the postoperative period. We want to encourage your independence and discharge to the comfort of your own home.

Family members or friends who may be assisting you after discharge are encouraged to attend all therapy sessions to learn about the appropriate techniques and the amount of assistance

that they should offer you after your joint replacement. By being independent, you will be using your own muscles to strengthen and protect your new joint.

Before discharge you should have practiced and be able to:

- Dress yourself
- Get in and out of a bed, chair, shower, or bathtub
- Use bathroom adaptive equipment if needed
- Walk with a walker or crutches
- Go up and down stairs
- Manage pain
- Do your home exercise program

Your Rehab Team

We believe that your family is an important part of your rehabilitation team that will work with you to develop goals based on your individual needs. The rehab team includes your surgeon, the Fellows, nurses, therapists and case managers. Family members or friends are urged to attend your therapy sessions to learn appropriate techniques of care and how to assist you at home.

Postoperative Physical Therapy

A comprehensive physical therapy regime is important to your full recovery. Self-directed therapy will start the day of the surgery and continue at home. Your first session will include a group of simple exercises in bed, standing at the side of the bed, and walking as soon as you are able. You can expect to use a walker, 2 crutches, or a cane for your weeks after surgery.

Therapy following hip replacement surgery is performed exclusively at home for the majority of our patients. This is done by using our mobile phone-based application, which contains written instructions and video demonstrations of the recommended exercises. Most patients are allowed full weight bearing with the initial use of a walker or a cane for support. In the weeks following surgery, transitioning off of your assist-device is encouraged as you begin to feel more comfortable with walking. Therapy programs may vary for patients depending on the clinical scenario and findings during surgery. Your surgeon or hospital therapist will individualize your plan accordingly. It is important you understand the specifics of your program prior to discharge.

The physical therapist reviews the list of activities you can and cannot do after surgery and provides practice sessions to reinforce precautions, to improve arm and leg strength, and to increase overall endurance before you go home.

Preventing Postoperative Hip Dislocations

Many patients hip joints are so stable after surgery that they do not have dislocation precautions. If you are one of these patients, the therapist will tell you not to worry about dislocation. However, you should still avoid extreme bending and twisting. Dislocations are rare, but if they occur, they most often occur the first 3 months after surgery. The use of hip precautions is largely surgeon and patient dependent, without a one-size-fits-all approach. Your therapist will go over any precautions with you after your surgery.

DISCHARGE INFORMATION

Final Discharge Instructions/Prescriptions

Your nurse will see you before discharge and answer any questions you may have. At the time of discharge, the nurse will review your prescriptions and discharge instructions. Once home, you should begin to decrease the number of narcotic medications you take and increase the interval of time between doses. Pain medication should be taken before therapy. For mild pain, a non-narcotic medication should be used. Applying ice to your hip after therapy also helps to control discomfort.

Written Discharge Instructions

You should receive a copy of our discharge instructions. If you have not received discharge instructions, please contact our office immediately (703-619-4400) to obtain instructions.

Going Home by Car

Patients are able to go home by car after hip replacement surgery. If your trip will take more than two hours, plan on allowing one or more stops for walking and exercising your legs. Please be sure to arrange your ride home prior to surgery.

By Airplane

If you need to travel by air, it is important to request a bulkhead or first-class seat, so that you will have enough room to stretch out your leg during the flight. It is advisable to have a travel companion, who can help with your luggage and with getting on and off the plane. Occasionally, your surgeon may recommend that a long airplane ride be postponed for several days after discharge from the hospital.

Getting into Your House & Using Stairs

The physical therapist will teach you how to go up and down steps. You should have someone help you with steps until you are comfortable and secure with them. Remember that when you use a staircase, your crutches go under your arm on the opposite side from the railing. To go up the stairs, start with your unoperated leg; to go down, begin with crutches and the operated leg.

RETURNING FOR YOUR FIRST POSTOPERATIVE VISIT

Our physician assistants commonly see our postoperative hip replacement patients approximately 4-6 weeks from the time of their surgery. Our staff will arrange this for you.

This first follow-up visit will include an examination of the hip. X-rays of the operated hip will be obtained to evaluate the alignment and fixation of the implant. You will receive new instructions concerning your allowed activities and the amount of weight you can put on the operated leg. Arrangements can be made on an individual basis for out-of-state patients.

LONG-TERM CONSIDERATIONS

Use of Antibiotics to Prevent Hip Infections

Each year in the United States more than 1 million knee and hip replacements are performed. The infection rate for these procedures is very low. Joint replacement surgeons attempt to lower the infection rate by using prophylactic antibiotics during surgery. In the past, antibiotics were routinely recommended prior to dental work for patients who have had a joint replacement to prevent infection. Currently, the available evidence suggests the chance of oral bacteria causing a joint infection is extremely low. If you are a diabetic with poor blood sugar control, immunocompromised, or have a history of a joint infection, then antibiotics may be indicated for your dental work. We recommend you discuss this with your dentist. Finally, if you are having an invasive/major surgical procedure, we recommend taking antibiotics for prophylaxis against infection. When antibiotics are used, we recommend 2 grams of amoxicillin one hour prior to the procedure. For patients with a penicillin allergy, 600mg clindamycin one hour prior is appropriate.

Follow-up Visits

We strongly recommend a return visit to the Anderson Clinic to confirm that your prosthesis is functioning well. These visits are important whether or not you are having problems with your hip. The plastic liner of your implant may eventually show signs of deterioration. This can only be determined by studying your follow-up x-rays and doing a physical examination.

Ongoing Resources

Anderson Orthopaedic Research Institute

Founded in 1972, the world-renowned Anderson Orthopaedic Research Institute (AORI) is a not-for-profit organization dedicated to scientific research and progress in the field of joint replacement. AORI project directors, Anderson Clinic physicians, and the Engh Fellows collaborate on long-term outcome studies of hip replacements. AORI maintains a clinical database of over 20,000 patients. Before surgery and at each postoperative office visit, the doctors ask their patients to fill out a questionnaire. Important information from your physical examination, your postoperative x-rays, and the patient satisfaction questionnaire is documented. Analysis of this data allows us to accurately inform our patients about the expected long-term outcomes of hip replacement surgery. This information also helps us to modify the joint replacement program to ensure the highest quality of care and patient satisfaction.

Our work has received many prestigious awards and continues to change clinical practice patterns of orthopedic surgeons around the globe. We thank you, the patient, for part in helping us continue our tradition of excellence and innovation in joint replacement research.

The Joint Journal Newsletter

Several times a year, AORI produces the *Joint Journal*, a patient newsletter that provides up-to-date information about knee and hip replacement topics. In each issue, we brief you on the progress of some of our past Anderson Clinic patients and inform you of the research at AORI. Following your surgery, your name will be added to the *Joint Journal* mailing list. We invite you to send interesting information or general questions about hip replacement for us to include in the newsletter. Your personal experiences with hip replacement surgery often are of interest to our other readers. You may contact the editor by mail or email at **Research@aori.org**.

FREQUENTLY ASKED QUESTIONS

Disclaimer: These questions and answers are specifically for Dr. Sershon's patients at The Anderson Orthopaedic Clinic. Different surgeons may have differing opinions.

Prior To Your Joint Replacement

What Is A Hip Replacement?

Total hip replacements are performed with the goals of reducing pain, improving function, and enhancing quality of life. Hundreds of thousands of patients undergo hip replacements annually in the United States to treated hip conditions caused by osteoarthritis, rheumatoid arthritis, congenital deformities, fractures, trauma, and other hip-related problems.

The surgery involves replacing the damaged surfaces of the hip, which is a ball-and-socket joint. The head and neck of the femur (thigh bone) are removed and replaced with a ceramic ball and titanium stem. The damaged hip socket is then lined with a titanium "cup" into which a plastic liner is inserted. The junction of the ceramic ball and plastic liner creates a new, movable joint.

What Is An Anterior Total Hip Replacement?

Dr. Sershon performs the muscle-sparing anterior approach for total hip replacement. Doing so enables him to perform a hip replacement without cutting the muscles surrounding the hip or traumatically dislocating the joint. Patients are typically walking 1-2 hours after surgery and go home the same day or next day. The goal of the procedure is to provide a stable, functional, and pain-free hip with minimal trauma during surgery.

How Do I Know When It Is Time For A Hip Replacement?

Patients with painful, degenerative hips often present with decreased function, continued pain, and diminished quality of life due to their joints. These individuals have often attempted and failed nonoperative treatment including weight loss, anti-inflammatory medication, acetaminophen, therapy, injections, and/or activity modification. The final decision rests with the patient and is based on the pain and disability from the joint influencing their quality of life.

What Is Outpatient Joint Replacement? Am I A Candidate?

Dr. Sershon performs outpatient hip and knee replacement surgery in both surgery center and hospital settings. Patients arrive for surgery 1-2 hours prior to their replacement and typically spend 6 hours in total at the facility. Candidates are healthy individuals with a strong social support system. Investigations performed by Dr. Sershon and his colleagues at The Anderson Orthopaedic Research Institute have shown outpatient joint replacement to be safe and effective with high patient satisfaction.

How Long Does It Take To Recover From A Hip Replacement?

Everybody recovers at their own pace. As a general rule, most patients are walking with significantly improved pain by 2-4 weeks after a hip replacement. Maximum benefit is often achieved by 6 months; however, continued improvement in strength, endurance, range of motion, and function can be expected up to twelve months following surgery.

How Long Will My Joint Replacement Last?

The Anderson Orthopaedic Research Institute data suggests over 90% of hip replacements will be well-functioning 20 years after surgery. Current data suggests hip and knee replacements have an annual failure rate between 0.5-1.0%

Is There Such A Thing As Being Too Young For A Joint Replacement?
No, there is no such thing as being "too young" to undergo of a joint replacement. In fact, literature suggests that patients younger than 50 years old are highly satisfied with their joint replacement. Certain conditions, such as hip dysplasia or hip impingement, predispose patient to early joint degeneration and end-stage arthritis. When this occurs and nonoperative treatment has failed, a joint replacement is a perfectly reasonable solution.

What Is My Hip Replacement Made Of?
Hip replacements most commonly consist of titanium, plastic and ceramic without the use of cement. Certain replacements have an additional hydroxyapatite coating that is believe to enhance cementless implant fixation to the bone. Nearly all elective joint replacements in our practice are performed without the use of cement.

What Are The Risk Of Joint Replacements?
Major complications are rare following hip and knee replacement surgery, occurring in 1-5% of patients. The most common surgical complications include infection, implant failure, bleeding, blood clots, fracture, nerve injury, leg length differences, tendon/ligament injuries, continued pain, and stiffness. Medical complications such as heart attack, stroke, kidney failure, and gastrointestinal bleeding are also rare but can occur. Each patient will have a unique risk profile based on their medical history. Dr. Sershon makes efforts to help patients optimize their health prior to surgery in order to diminish the chance of complications occurring.

How Long Will I Have To Take Off Work?
This heavily depends on the physical nature of your job. Individuals with sedentary jobs can return as early as 2 weeks following surgery if their pain is controlled, the feel they are progressing appropriately, and they no longer require narcotic medication. Those with labor-intensive jobs often plan on taking 6-12 weeks off of work prior to returning.

How Much Therapy Will I Need Following My Hip Replacement?
The Anderson Orthopaedic Institute has formulated a home therapy program for hip replacement patients that is safe, effective, and convenient. Because of the success we have had with this program, over 90% of our patients do not require formal physical therapy following their hip replacement.

Preparing for Your Joint Replacement

What Exercises Should I Do Prior To My Joint Replacement?
Walking and low impact exercises (biking, swimming, elliptical) that elevate the heart rate while improving muscle endurance are the best exercises to perform prior to a joint replacements. Formal physical therapy prior to surgery ("prehab") is not required for most patients. Bottom line: any exercise that does not cause significant pain is a good exercise.

What Can I Do To Improve My Health Prior To My Joint Replacement?
Maintaining a healthy weight and well-balanced diet will improve your outcome following surgery. If you are already healthy, keep it up! If you have active or chronic medical issues, you should work with your primary care provider or health coach to optimize your health prior to surgery. Common health problems with room for improvement include obesity, malnutrition, diabetes, anemia, heart failure, kidney disease, and smoking.

What Should I Eat While Preparing For My Replacement?
A well-balanced diet is important leading up to surgery. Increasing protein intake is encouraged, as higher protein levels improve healing and recovery following surgery. Avoid processed foods,

soda, and other foods/drinks with added sugar. Having stable/controlled blood sugars will decrease your risk of complications following surgery.

How Should I Prepare My Home For My Upcoming Joint Replacement?
- Prepare a comfortable area with your normal essentials nearby.
- Pick up throw rugs and anything on the floor that you believe may trip you.
- Move long phone and electrical cords out of the way.
- Place non-skid surfaces in place in tubs and showers.
- Use footwear with non-skid soles.
- Install a handrail in your staircase if you must use the stairs and do not have one.
- Night-lights in the hallways and bathrooms.
- Flat, firm mattresses are preferred.
- Prepare meals ahead of time.
- Have fresh linens on your bed for when you return home.
- If you have pets, make sure you arrange for their care as well.
- Carry a phone with you to call for help in case of an emergency.
- Arrange transportation for groceries, follow-up visits, and other essentials.

What Equipment Will I Need Following My Joint Replacement?
- You will need cane, walker, and/or crutches depending on your comfort level with each. During the first few days, we encourage a walker or two-crutches for balance.
- Compressive ice wrap, ice machine, or bags of ice for knee replacements
- An elevated toilet seat is often convenient, but not mandatory.
- A reaching tool for picking items off the floor can be helpful.

After Joint Replacement Surgery

What Can I Expect Immediately After My Surgery?
The first week following joint replacement surgery is often the hardest time during your recovery. It is normal to experience pain, swelling, fatigue, and weakness. Recovering from a joint replacement is a marathon, not a sprint! During your first week, you should rest, frequently ice and elevate leg, walk every hour, take your medications as instructed, and use our Rally Recover app to guide you through the recovery process.

How Can I Decrease Pain and Swelling After Surgery?
It is normal have pain and swelling in your legs after surgery. Elevating, icing, taking your medications as instructed, walking every hour, and doing your exercises will help improve pain and swelling.

How Should I Take My Medications?
For detailed instructions, please refer to our Medications For Surgery link. Some patients may have received medications that differ from this list, which means that we discussed a specialized plan for you during your office visit.

How Often Should Ice Therapy Be Used?
For a minimum of 10 days, you should ice and elevate your operative extremity for 20 minutes every 1-2 hours you are awake. This will help decrease swelling and inflammation, which will speed your recovery and decrease your pain. You may continue doing this for as long as you find it to be helpful.

How Should I Apply Ice My Leg?
There are multiple ways to properly apply ice to your leg. Ice machines, cold-compression

wraps, and standard ice wrapped in a cloth will all do the trick! Remember to never place ice directly onto your skin.

How Should I Elevate My Leg, And Does Elevating My Leg Help My Recovery?
Elevating your legs decreases swelling and inflammation through improving blood flow back to the heart. Proper elevation entails laying on your back with your legs elevated 1-2 feet in the air. If sitting in a recliner, make sure to place several pillows under your calf (not under your knee) to ensure your ankle is above the level of your heart.

Why Has My Pain Increased 10-14 Days After Surgery?
"Over-doing it" is common! As you increase your activity level, it is common to have 1-2 days of increased pain and swelling. This is a normal part of recovery and will occur less often as time passes.

Why Do I Feel Clicking In My Joint Replacement?
Clicking sensations are common immediately following joint replacements. Fortunately, these sensations decrease over time.

What Should I Eat During My Joint Replacement Recovery?
A high protein, low sugar diet with plenty of vegetables is strongly encouraged. Cut out soda, juice, processed foods, and other high-sugar foods. Drink at least 8 glasses of water daily to stay hydrated, decrease nausea, and help your body heal. Protein supplementation drinks are fine to take, so long as they contain low sugar content.

Incision Care

When Should I Remove My Dressing?
You should remove your dressing 7-10 days after surgery. It should peel off like a band-aid. There is no need to cover the incision after this.

What Should My Incision Look Like?
Early on, your incision should be slightly raised and covered in surgical glue. Your sutures are under the skin and will dissolve over time. As this happens, your incision will flatten out, swelling will subside, and things will become more cosmetically pleasing.

Can I Get My Incision Wet?
Yes...to a certain extent. You may begin taking showers the day following surgery with your dressing in place, allowing the water to run down the leg. Once the dressing is taken off, you may allow the water to run down your operative leg, but please do not scrub the incision. Do not submerge the incision in water (bath, pool, ocean, etc.) until after your 4-week visit.

Can I Apply Anything On My Incision?
Do not apply anything to your incision until after your 4-week postoperative visit.

Activities

What activities can I do during the first month after a joint replacement?
Walking is the best exercise. You may walk as much as you can comfortably tolerate. Be careful not to "overdo it". Activities such as riding a stationary bike, walking on a treadmill, and modified yoga (no range of motion extremes) are encouraged. Chipping and putting is permitted for golfers. Please refrain from higher-impact activities and activities that cause increased torque on your new replacement, such as running, tennis, squash, or racquetball.

When can I return to higher-impact activities after a joint replacement?
After your four-week postoperative visit, you will be allowed to partake in any activity you feel comfortable performing that does involve jumping or running. This includes hiking, bicycling outdoors, swimming, golf, tennis, squash, racquetball, or horseback riding. Activities that involve running are discouraged until 3 months postoperatively.

How Should I Navigate Stairs After A Joint Replacement?
The general rule with stairs: up with the good, down with the bad. When going up stairs, use a railing and lead with your non-operative leg. When going down stairs, use a railing and lead with your operative leg. Have somebody available to help you perform stairs until you are confidence and comfortable with performing them on your own.
For a visual demonstration, please visit: https://www.youtube.com/watch?v=sKGrD46gd_k

When Can I Drive?
Literature suggests reaction time for driving returns approximately 2 weeks following a hip replacement and 4 weeks following a knee replacement. Patients must be off narcotic medication at this time and walking without an assistive device (cane/walker) prior to attempting driving.

When Can I Have Sex?
We recommend avoiding sex until at least 2 weeks following surgery. Patients with hip replacements should avoid extremes of flexion or extension of their hip during intercourse. Knee replacements should avoid kneeling on their incision. Being positioned on the bottom is preferable for the first month. The basic recommendation is to start slow and stop if you are experiencing pain or uncertainty.

What positions are safe for sleeping after surgery?
Sleeping can be difficult following a joint replacement. Patients undergoing an anterior hip replacement should avoid sleeping on the side of their surgery until their 4 week postoperative appointment. Sleeping on your back or on your non-operative side with a pillow between your legs are often the most comfortable positions.

Dr. Robert Sershon

Hip and Knee Replacement Specialist

Joint Replacement Medication Schedule Example

Please refer to the **HOW TO TAKE YOUR MEDICATIONS** handout for an explanation of each medication.

Tylenol, anti-inflammatories, and icing are ***ESSENTIALS*** for pain control. These should not be stopped before your 4-week visit unless you have been instructed otherwise. Narcotic medications will not control your pain unless you are routinely taking Tylenol, an anti-inflammatory, and icing.

Medication Schedule Example – Weeks 1 & 2						
	Wake	Breakfast	Lunch	Dinner	Bedtime	Night
Aspirin 81mg		1 tab		1 tab		
Celecoxib 200mg		1 tab				
Tylenol 500mg	2 tabs		2 tabs		2 tabs	
Tramadol 50mg	1-2 tabs		1-2 tab	1-2 tab		1 tab
Oxycodone 5mg		1-2 tabs	1-2 tabs	1-2 tabs	1 tab	1 tab
Senna-S 50-8.6mg	2 tabs			2 tabs		
Zofran 4mg		1 tab	1 tab	1 tab		

*** Ice therapy for 20 minutes every hour ***
*** Oxycodone and tramadol are taken as needed for moderate-severe pain ***

Medication Schedule Example – Weeks 3 & 4				
	Breakfast	Lunch	Dinner	Night
Aspirin 81mg	1 tab		1 tab	
Celecoxib 200mg	1 tab			
Tylenol 500mg	1-2 tabs	1-2 tabs	1-2 tabs	
Tramadol 50mg	1 tab	1 tab	1 tab	1 tab
Oxycodone 5mg	1 tab	1 tab	1 tab	1 tab
Senna-S 50-8.6mg	2 tabs		2 tabs	
Zofran 4mg	1 tab	1 tab	1 tab	

*** Ice therapy for 20 minutes every 1-2 hours***
*** Oxycodone and tramadol are taken as needed for moderate-severe pain ***

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HOW TO TAKE YOUR MEDICATIONS

- **Pick up your medications from the pharmacy you provided us 5-7 days prior to surgery.**
- **Unless instructed otherwise, the only prescribed drug(s) taken before surgery are the anti-inflammatory medication (Celecoxib, Etodolac, Meloxicam) and Flomax if prescribed.**
- **Remember to pick up Aspirin, Tylenol, and stool softener. These are over-the-counter.**

For certain patients, the medications prescribed will differ from those shown in the table below. This is because The Anderson Orthopaedic Institute personalizes each patient's medications.

Pain Control **In order of importance:* Tylenol, Anti-inflammatory, Tramadol, Narcotic *Non-Narcotic:* Acetaminophen, Anti-inflammatory *Narcotic:* Tramadol, Oxycodone, Hydrocodone, Dilaudid	
Acetaminophen (Tylenol) *Mild, moderate*, and *severe* pain	Tylenol should be taken as directed until all of your pain is gone. Tylenol is the last medication you should wean from. Do not exceed 3 grams/day.
Celecoxib (Celebrex) **Meloxicam (Mobic)** **Etodolac (Lodine)**	Taken as directed for 1 month following surgery. These medications are very effective at decreasing pain and inflammation. Do not stop taking this prior to 1 month unless you no longer need Tylenol, Tramadol, and Oxycodone.
Tramadol (Ultram) *Moderate* and *severe* pain	If Tylenol by itself is not sufficient for pain control, then take Tramadol. Tramadol is the second medication you should wean from.
Oxycodone 5mg *Severe* and *breakthrough* pain	If Tylenol and Tramadol together are not adequately controlling your pain, then add oxycodone as your rescue pain medication. This is the first medication you should wean from.

Blood Clot Prevention **Only one of the medications listed below will be prescribed*	
Aspirin **Rivaroxaban (Xarelto)** **Warfarin (Coumadin)**	Take as directed for 1 month following surgery. Do not stop taking this prior to 1 month unless otherwise instructed.

Other Helpful Medications	
Colace 2-in-1 **Senna-S 50-8.6mg** **MiraLAX**	For *constipation*. If you are not constipated, you do not need this. For patients who suffer from *chronic constipation*, you should continue your stool softener until the day of surgery.
Ondansetron (Zofran) 4mg	For *nausea*. If you are not nauseous, you do not need this.
Tamsulosin (Flomax)	For select males, Flomax is prescribed to prevent *urinary retention*.