



Holy Cross
Orthopedic Institute

The Leone Center
for Orthopedic Care



Preparing For Your Total Hip Replacement



*We combine leading-edge
technology with good
old-fashioned care
where the doctor-patient
relationship is as
important as
the treatment.*

Introduction to Hip Replacement Surgery

The purpose of this booklet is to help you better understand the procedure for your total hip replacement, from what to expect before surgery to post-operative care.

At The Leone Center, we repeatedly see that those patients who are more informed and prepared for their surgery have a better experience and a faster, smoother recovery.

Our goal at The Leone Center for Orthopedic Care is to achieve the best possible clinical result while respecting your time and dignity.

We want you to know that you are our priority from the moment the first appointment is made. We will make your entire experience as comfortable and pleasant as possible.

What Is a Total Hip Replacement?

A Total Hip Replacement (THR) refers to the replacement of the worn and damaged bones that make up your hip joint with artificial parts.

There are two implanted components that replace the deteriorated joint surfaces:

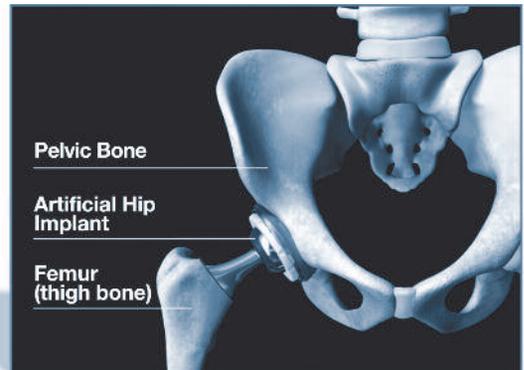
The FEMORAL COMPONENT

consists of a metal stem inserted into the upper femur (thigh bone). A metal or ceramic ball is placed on top of this stem. It is critical that the stem remain absolutely stable within the upper femur. This is accomplished by encouraging bone to grow into and onto the stem or by use of bone cement.

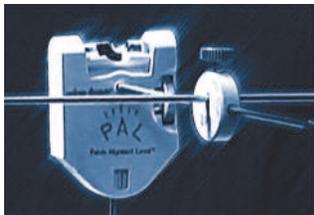
The ACETABULAR COMPONENT

consists of a hemispherical shell made out of titanium that is precisely positioned within your hip socket. First, your natural socket is prepared and reshaped, so after placement any mechanical abnormality that led to the arthritic condition is corrected and bone grows into and onto the titanium shell.

A plastic liner with special wear characteristics is then implanted into this new cup and the prosthetic ball is placed into the new socket. Now the arthritic surfaces no longer rub together and the ball can move freely as motion is restored.



The “art” is to optimally position the components and balance the surrounding tissues so that pain is relieved and the hip functions normally again.



PELVIC ALIGNMENT LEVEL™ (PAL)

I use a device that I invented called the Pelvic Alignment Level™ (PAL) to assist in optimizing acetabular cup positioning. This surgical device allows me to measure and correct for pelvic movement during the operation and directly measure cup implantation angles, which are absolutely critical. Also, very importantly, I am able to

measure my patient’s leg length before and after the total hip reconstruction, so I can reliably re-create equal leg lengths after surgery.

How Hip Replacement Surgery Can Benefit You



During my more than 25-year career, I have helped thousands of people from around the world, as the art and science of joint replacement surgery has continuously evolved. THR has proven to be a powerful and predictable way to relieve pain and improve function.

At The Leone Center for Orthopedic Care, we offer you both the latest as well as the most time-tested innovations in joint replacement.

First, a diagnosis is made based on your personal history, a thorough physical examination and state-of-the-art imaging. I then choose an implant that is best suited to your medical and lifestyle needs. I perform as minimally invasive surgery as possible, emphasizing precise component positioning, meticulous soft tissue handling and closure. This results in less soft tissue trauma and as rapid a recovery as possible.

The goal of a total hip replacement is to relieve pain, correct any deformity and help you restore your quality of life, with pain-free walking and the ability to resume activities that you enjoy. The vast majority of my patients have excellent outcomes and many return to activities such as tennis, swimming, golfing, bowling, dancing, biking, hiking and skiing.

As with any surgical procedure, there are potential risks. I will discuss with you in detail the specific risks associated with this surgery.

Hip replacement surgery is not just about restoring mobility; it's about giving people back a quality of life and the ability to fulfill their dreams and ambitions.

Procedures for Pre-Operative Medical Clearance

Once a decision is made to proceed with surgery, we make every effort to help you navigate the pre-operative educational and medical clearance processes as efficiently and easily as possible. My entire team will be available and involved in every step of the process to assist you with completing all necessary medical forms, managing pre-operative medical clearance and arranging for private rooms with VIP meals and for other enhanced services if desired.

First: Our staff will help you make an appointment with your own physician or another physician who is associated with Holy Cross Hospital. That individual will also be available to see you after surgery if appropriate. If your own physician clears you for surgery but does not have privileges at Holy Cross Hospital and you need other medical specialist to help manage your care post operatively, then we will make arrangements for appropriate specialists to see you. Please schedule your appointment for surgical clearance 2–3 weeks prior to your scheduled surgery in case more studies or the need to see another medical specialist should be required. This helps to prevent your surgery from being delayed or cancelled. However, your lab studies must be conducted within 30 days prior to your surgery.

Next: You will return to our office approximately one week prior to your scheduled surgery. We will review your pre-operative clearance, post-operative discharge plan and any special concerns or needs you might have. You will also be given specific instructions about which medicines to take and which to stop taking pre-operatively.

It is critically important that your pre-operative work-up which includes the consultation from your medical physician “clearing” you for surgery, all labs, chest X-ray report, EKG, and any other studies are sent to our office via fax to 954-489-4584 at least 7 days prior to surgery. Because this is so important, we encourage you to be fully involved in this process by calling both your primary care physician and our office to confirm that all necessary information has been received.

Not completing the pre-operative clearance or not getting the information to our office in time is a common cause for delay or cancellation of surgery.

Take our Pre-Operative Class

Patients from The Leone Center attend a very popular and informative Pre-Operative Class. During the class, you will meet key members of the hospital team with whom you will be interacting once admitted for surgery and after your surgery. They will review everything, from admission to discharge and aftercare, using personal stories to help you relate to the entire process, decrease anxiety and make the process much smoother. Repeatedly, patients share with us how much they enjoyed and appreciated this interaction prior to their surgery.

Pre-operative class:

My staff will register you for this pre-operative class when you schedule your surgery. Please notify my office if you need to change this appointment. This is also an opportune time to **pre-register**.

During the class:

- Types of anesthesia and specific strategies to prevent and control any post-operative pain will be discussed.
- You will learn about post-operative activities which start the day of your surgery with standing and walking.
- Therapists and nurses will help organize the post-surgical rehabilitation process.
- Case managers will help you understand exactly what your insurance will cover and care options after discharge.
- You will be aided in developing a specific post-discharge plan.

Pre-Operative Exercises

A series of exercises should be done at home before surgery to strengthen your muscles and better prepare you for post-operative rehabilitation. These exercises are outlined on the next few pages.

Avoid any particular exercise that causes pain. Our hope is that these exercises will strengthen your muscles for a faster, easier recovery, not aggravate your underlying condition.

Ankle Pumps

Point and flex your feet by pushing your toes away from your chin, then pulling them toward your chin. This helps to keep blood flowing in the leg veins and assists in preventing blood clots.

Repeat at least 20 to 30 times, 3 times a day.

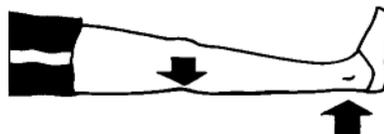


Quadriceps Sets

Lie or sit on a flat surface with your legs out straight. Tighten your knees making your legs as straight as possible.

Hold for 5 seconds.

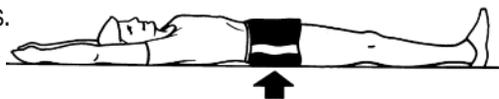
Repeat at least 20 times, 3 times a day.



Gluteal Sets

Squeeze your buttocks and hold for 5 seconds. Then, relax.

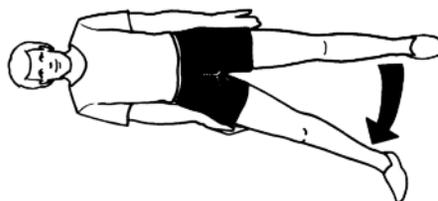
Repeat at least 20 times, 3 times a day.



Hip Abduction

While lying down, slide your leg out to the side, then return to mid-line while keeping your leg straight and pointing your toes to the ceiling.

Repeat 20 times, 3 times a day.

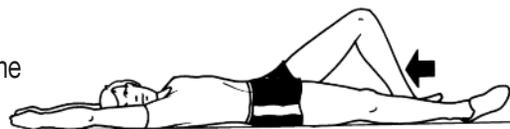


Pre-Operative Exercises

Hip Flexion

While lying down, slide your heels one at a time toward your buttock by bending and then extending your knee.

Repeat at least 20 times, 3 times a day.



Swimming Pool Exercise

Walking in a pool against the resistance of the water strengthens everything. It also helps to reduce swelling. The temperature of the water is not important. We suggest a waist-high water depth. If you enjoy swimming, this also is a wonderful way to condition your body prior to surgery.

Begin with 15 minutes each day, slowly increasing up to 45 minutes daily.

Coughing and Deep Breathing

Slowly take a deep breath; hold it for 1 to 2 seconds and then slowly breathe out. Do this 3 or 4 times and then take a deep breath and cough deeply.

Repeat 4 times a day.

Exercise is very important and will help you to recover more quickly.

What you can do to assure an optimal experience after surgery

Creating a plan for after hospitalization:

Going into surgery with a well thought out and easy to follow discharge plan decreases anxiety and makes the entire process much smoother, even if it is necessary to modify the plan after your surgery.

The vast majority of our patients go directly home after their surgery. Home is usually the safest and most comfortable place to recuperate and where patients are happiest.

When going home:

- Often we arrange for a physical therapist and home health nurse to visit you in your home. For some patients, travelling to an out-patient facility to continue their rehabilitation is more appropriate while others may prefer to continue the rehabilitative process on their own at home.
- Dr. Leone and his team will review your discharge plan and all necessary arrangements will be made prior to you being discharged.
- If your plan is to continue physical therapy at an outpatient facility after discharge, it is best to make those arrangements including securing a specific appointment before you have your surgery so your therapy will not be delayed or interrupted. My team will provide the prescription.
- If possible, arrange for a caregiver to be present when your discharge plans are being reviewed and to assist you.

When going to a rehabilitation facility:

If you are going to be discharged to an in-patient rehabilitation facility, then learning what rehab facilities are available under your insurance plan and visiting those facilities prior to your surgery is optimal. My staff can help you with this process.

Pre-Operative Medication/Instructions

START TAKING

- Vitamin C, 1000mg, once a day, will improve iron absorption and the ability of your tissues to heal.
- Iron, Slow Fe is recommended, twice a day with meals.
 - Please note: iron may cause constipation or diarrhea and your bowel movements may appear black. If this occurs, you may need to decrease or stop the iron.
 - Do not eat dairy products one hour prior to or after taking iron because dairy hinders iron absorption.

STOP TAKING

If you regularly take a blood thinner, you will be given specific instructions by your medical physician and by our team when to stop taking this medication and also instructed if a different, shorter-acting blood thinner needs to be substituted until your surgery. This will reduce the risk of increased bleeding during your surgery, while still keeping you safe.

- **DO NOT TAKE** Vitamin E, fish oil, NSAIDs, or other aspirin-like anti-inflammatory medicines for at least 14 days prior to hospitalization. You may continue to take Tylenol if needed.
- There are many natural herbs, bioceuticals and even vitamins including Vitamin K that also can increase bleeding and affect bioavailability and the metabolism of other drugs and should be stopped 14 days pre-operatively.

DO NOT EAT OR DRINK LIQUIDS AFTER MIDNIGHT THE DAY PRIOR TO YOUR SURGERY.

Morning of the Surgery

- If you routinely take medications, our team will instruct you which to take and which to discontinue the morning of your surgery. You may take any approved medications with a sip of water.
- You will be instructed to wash using a special surgical soap called *Hibiclens* the night before and morning prior to your surgery. Use regular soap first and thoroughly wash. Then again wash your entire body from neck down with *Hibiclens* paying special attention to the area around your hip but don't scrub. Allow to remain on your skin for 5 minutes before rinsing.

Other Important Information

- It also is very important to maintain a healthy diet rich in fruits, vegetables, lean proteins, such as chicken or fish, and whole grains. This helps build up your blood levels and nutritional strength prior to surgery and helps the healing process.
- DO NOT neglect routine dental work, including oral cleaning. If a dental problem develops, correction is preferable prior to your hip surgery.
- We hope that you do not smoke; however, if you do, it is important to stop 3 weeks prior to your surgery. This will make the operation much safer for you and improve your healing.

Blood Transfusions:

- The need for a blood transfusion is much less common than just a few years ago. Surgical and anesthetic techniques continue to be refined, which has resulted in much less blood loss during and after surgery. Specific medications are administered just prior to surgery and during the post-operative period which decrease bleeding. Further, patients who have their surgery with a regional or spinal anesthetic tend to bleed less and are less likely to need a transfusion than those cared for with general anesthesia. Also, the threshold for when to transfuse has been lowered, as traditional benchmarks have been challenged and refuted in the medical literature.
- Maintaining the fluid volume in your vascular system with fluid other than transfused blood is emphasized. This begins with you receiving IV fluids in the pre-operative area to improve hydration even before your surgery starts.
- Autogenous blood transfusion (blood which the patient donates for themselves before surgery) is no longer recommended because the risks do not outweigh the benefits.

The Hospital

What to Bring to the Hospital

- Current list of medicines (name, dosages, frequency)
- Insurance information
- Living Will or advanced directives
- Comfortable clothing, such as a workout outfit or tee shirt and shorts (plan on getting dressed the morning after your surgery)
- Shoes with a rubber sole and a closed heel
- Personal toiletry items
- Leave all jewelry and other valuables at home

The Day of Admission for Surgery

Arrive the Holy Cross Hospital Main Entrance
4725 N Federal Highway (next to the Chapel and Cancer Center)
at the time instructed by Dr. Leone's team (please be early)

Registration process will be completed (first floor)
You will be escorted to the preoperative holding area

Preoperative holding area (third floor)

- I will see you the morning of surgery and ask you to confirm on which hip I will be operating and then I will place my initials and the word "yes" on that hip.
- You will meet with your anesthesiologist, who will discuss different types of anesthesia and their part in your care.
- An IV will be started and you will receive fluids, antibiotics as well as a number of other medicines to minimize post-operative pain and make you more comfortable.
- You will experience many checks and re-checks to confirm all important information is correct. This consistent attention to detail makes the entire procedure safer for you.

The entire team at the Leone Center for Orthopedic Care is sensitive to the needs and expectations of our patients. We partner with Holy Cross Hospital to make your stay exceptional.

SURGERY (Third Floor)

In the operating theater:

- My team and I work in a special laminar flow operating room which filters the air in the room to make it cleaner.
- We also wear body exhaust suits (they look like a space suit) which completely isolate our breathing from you, to reduce further the risk of infection.
- Your incision will be meticulously closed with a running suture (as opposed to conventional staples). In my experience, this suturing technique provides a superior seal and extra protection against infection. It is performed like plastic surgery, using a single stitch.
- A special sterile surgical dressing is applied in the operating room that allows the incision to breathe. You will awaken in the recovery room with a foam splint between your legs to protect your hip. This will be replaced with a pillow when you fully awaken.

At the Leone Center, we have learned that each step we take to prevent infection makes the operation safer for you.

PACU (post anesthesia care unit) or recovery room

You will be transported from the operating room to the PACU after your operation is complete. This is where you will return to consciousness as your anesthesia wears off.

Post-operative area Phase II

If you are going home the same day as your surgery, then you will be transferred to our Phase II area. If you have family or friends waiting, they are welcome to join you here. You will be visited by a physical therapist and can go home when you can walk, eat and go to the bathroom.

4 West Orthopedic Unit

If you are going to stay in the hospital after your surgery, then you will be transferred to 4 West which is our specialty orthopedic floor. An orthopedic nurse specialist and nurses aide will be assigned to care for you. This team will make sure you are stable, comfortable and have everything you need. You will receive daily visits from me and from my team. A general medical doctor or other specialist may also be part of our team depending on your needs.

After the Surgery

The Day of your surgery:

Most patients get out of bed and start walking with supervision the day of your surgery. This is wonderfully therapeutic. Getting out of bed so quickly after surgery helps your circulation, protects your skin against pressure sores and results in an “I can do it” attitude and confidence that results in a faster recovery.

The Day following your surgery:

The morning after your surgery you are encouraged and assisted getting out of bed for breakfast, changing out of a hospital gown into your own clothes, and walking to the bathroom to wash up for your day.

You will receive physical therapy and occupational therapy. You will practice standing, sitting, walking, getting in and out of bed, going up and down steps and even getting into and out of a car.

You will receive instructions on how to use a walker and then progress to a cane or other ambulatory device when appropriate, with the goal of walking device-free as soon as possible. The physical therapist also will provide instructions in the use of reachers or “grabbers” and sock aids, as needed.

Occasionally a patient is not ready to go home the first day after their surgery and will benefit from another day or two in the hospital. This decision is individualized for each patient with their unique and specific needs and desires.

Hip Precautions

Dr. Leone and his team will give you specific guidelines regarding body positions to avoid the morning after surgery depending on his assessment of the stability of your hip during surgery. These are not the same for everyone and tend to be much less restrictive than in years past. The goal is to encourage the new prosthetic ball to remain fully seated within the new socket until the surrounding tissues heal and mature which provides stability.

Managing Post-Operative Pain

As part of The Leone Center surgical protocol, we work to stay ahead of the pain curve. We emphasize pre-empting pain rather than playing “catch up.” Pain is more effectively managed with a multi-modal approach that includes everything from the type of anesthesia used to the pain medications given before, during and after your surgery, and prior to physical therapy.

Medications administered the morning prior to or during surgery include:

- Tylenol to lower your sensitivity to pain as well as decrease the amount of pain.
- Neurontin which also helps to decrease postoperative pain by affecting chemicals and nerves in your body that are involved in pain pathways.
- Medicines which decrease anxiety and make you drowsy.
- A long-acting narcotic to dull pain receptors before pain sets in, as well as medication to prevent nausea following surgery.
- An IV steroid just prior to the start of your surgery and postoperatively.
- After implanting the components, the tissues around the new joint are injected with a “cocktail” including a long-acting local anesthetic, morphine and an NSAID. This combination has greatly reduced post-operative pain and the need for narcotics. This has resulted in our patients routinely getting out of bed the day of surgery and walking.
- You will receive tranexamic acid just prior to surgery and postoperatively. This medication decreases intra- and post-operative blood loss.
- IV antibiotics before and after surgery to lower the risk of infection.

In the recovery room, you will receive an IV NSAID called Toradol.

This is a super-version of aspirin that works to decrease pain via an alternate “pathway” in the body and has proven to be remarkably effective.

Narcotics are prescribed as a backup but are being used in smaller amounts and with less frequency. Narcotics are avoided whenever possible because they tend to cause nausea, constipation and occasionally confusion. Also Tylenol as well as a NSAID is continued on a regular schedule.

Our entire team is very sensitive to your post-operative pain. You will be encouraged to take pain medication initially on a schedule and prior to your therapy to help stay ahead of the pain curve.

Now That You Are Home

- Continue your exercises faithfully to reduce pain and swelling and improve motion.
- Dr. Leone will discuss with you specific positions to avoid after surgery and for how long. Each patient is different. Most patients are given permission to sleep on either side right after surgery with a regular pillow between their legs.
- My staff will call you a day or two after your surgery to confirm that you are doing well and answer any question that you have. You will also be encouraged to come to my office if you would like for us to check you.
- You will have been given an appointment to come to our office two weeks after your surgery for suture removal.
- Pool exercises and swimming after surgery are encouraged. You will be instructed when to start these activities once your suture is removed.
- You will be discharged from the hospital with a special “Aquacel” dressing covering your hip. This dressing can remain in place for the full two weeks. You may shower with this Aquacel dressing covering your hip once you are home.
- Elevate your legs three times each day for 45 minutes. You may stop when you no longer see any ankle or lower leg swelling.

HINT: Rest your feet on a soft pillow, placed on top of two couch pillows. Your ankle needs to be higher than your heart.

Frequent, gentle and persistent exercise is more effective than forcing exercise once or twice a day.

More Helpful Hints

- Be sure to inform your dentist that you have a total hip replacement because you will need to take an antibiotic prior to any dental work, including a cleaning.
- Many patients will experience “start-up” stiffness in their operated hip that occurs when they first stand and walk and then disappears after 5 or 6 steps. This is common and disappears on its own with time.
- You can stop using your cane when you walk as well without it and find that you’re “forgetting it”.
- Those patients that get well the fastest and stop limping the quickest are usually those that start exercising in a pool as soon as their suture is removed.

Summary

As you read through this booklet, you may find words or terms that you don’t understand. You might also have questions you would like to ask regarding your total hip replacement. We encourage you to view our website, which has even more detailed information. Our staff is dedicated to your care, so please do not hesitate to call our office if you have any questions.

Questions for My Doctor

1. _____
2. _____
3. _____
4. _____
5. _____



Our goal is to empower you with knowledge and insight about your care before your surgery, so you will have a faster and more confident recovery as well as an overall better experience. We are here for you and our entire team is dedicated to providing great care for you.



Holy Cross
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