




**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.

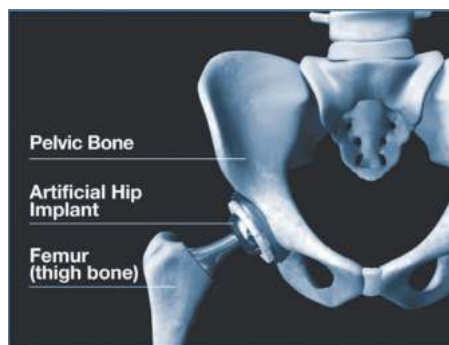
We want you to know that you are our priority from the moment the first appointment is made. We will make your entire experience as comfortable and pleasant as possible.

# What is 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:

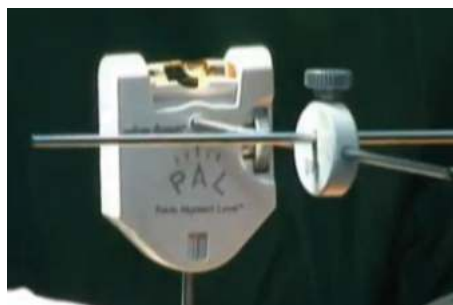
**The FEMORAL COMPONENT** consists of a metal stem inserted into the upper femur (thigh bone). A metal or ceramic ball is placed on top of this stem. It is critical that the stem remains absolutely stable within the upper femur. This is accomplished by encouraging bone to grow into and onto the stem 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 recreate equal leg lengths after surgery.



# How Hip Replacement Surgery Can Benefit You

During my extensive 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 Health. 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 Health and you need other medical specialists 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.

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.**

## Procedures for Pre-Operative Medical Clearance

**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.
- Instructions will be given how to wash your operative leg using Hibiclens the evening before surgery and again the morning of your surgery.
- You will be reminded not to eat or drink after midnight prior to your surgery.
- 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.
- You will be aided in developing a specific post-discharge plan.
- If you would like, we will help you arrange for a private room with concierge meals and extra services ahead of time.
- We will also be happy to address any questions you have about your insurance coverage and care options after discharge.

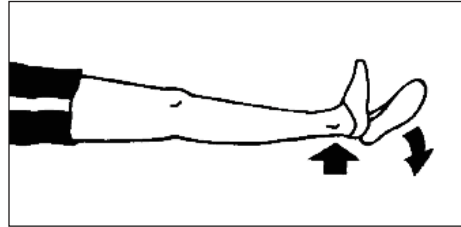
# Pre-Operative Exercises

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 and not aggravate your underlying condition.

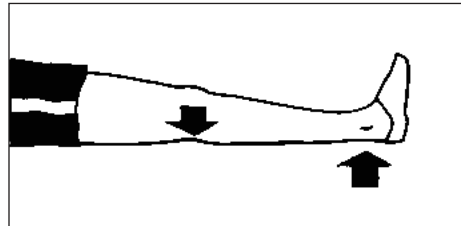
## Ankle Pumps

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, 2-3 times a day.



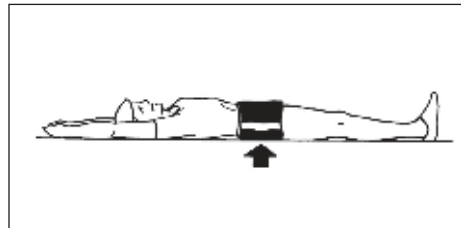
## Quadriceps Sets

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, 2-3 times a day.



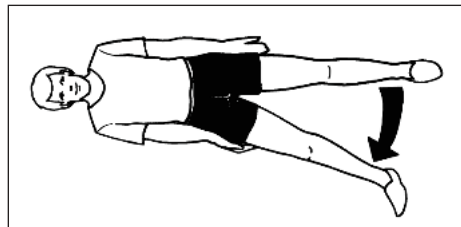
## Gluteal Sets

Squeeze your buttocks and hold for 5 seconds. Repeat at least 20 times, 2-3 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, 2-3 times a day.



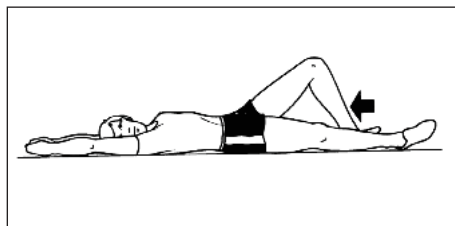


## Pre-Operative Exercises

### Hip Flexion

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

*Repeat 20 times, 2-3 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 2-3 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. Most go home the same day as 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 in their own home.
- Dr. Leone and his team will review your discharge plan and all necessary arrangements will be made prior to you being discharged.
- Some patients prefer traveling to an outpatient facility to continue their rehabilitation after going home. Others prefer to continue their rehab in their own home. We base this decision on each individual's needs.
- 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, twice 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 7-10 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 7-10 days pre-operatively.

## **DO NOT EAT OR DRINK 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.

## Pre-Operative Medication/Instructions

### 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 at least 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 medicines are administered just prior to and at the conclusion of your surgery 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 risk do 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 loose workout outfit or tee shirt and shorts
- Shoes with a rubber sole and a closed heel
- Personal toiletry items if you plan to stay overnight in the hospital after your surgery
- Leave all jewelry and other valuables at home**

## The Day of Admission for Surgery

Arrive at the Holy Cross Health Main Entrance

4725 North 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 Health to make your stay exceptional.*

## The Hospital

### **SURGERY (Third Floor) In the operating theater:**

- In the operating theater my team and I 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 dressing will be applied in the operating room that allows the incision to breathe.
- A reuseable ice pack is placed over the dressing which decreases pain and swelling.

### **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 awaken 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 recovery. 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 nurse's 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.

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

# After Your Surgery if You are Admitted

## **The day of your surgery:**

Most patients start walking with supervision just hours after their 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:**

For those patients who did not go home the day of their surgery, you will be assisted 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.

*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.*

## Hip Precautions

After your surgery, you will be instructed whether or not it is important to avoid certain positions with your body, until the soft tissues around your hip heal. Most patients do not have any restriction. Occasionally patients do, depending on their specific anatomy, past history and the surgery needed to implant their new hip.

### **"No" hip restriction group:**

***You are encouraged to listen your body and move as you feel comfortable. You may flex, rotate, or even cross your legs to comfort.***

### **"Yes" hip restrictions:**

***We ask patients in this group to avoid certain positions for a period of time (typically 6-8 weeks to allow the tissues that surround your new hip to heal)***

**Hip flexion:** Avoid bending your hip more than 90°. This includes when you bend down to your feet or when you bring your leg up towards you.

**Crossing legs:** Avoid crossing your legs when sitting, standing or lying down.

When putting on your shoes and/or socks or shaving your legs, work between your legs, so you can see the inside of your thighs. You never want to see the outside of your thigh.

When picking something off the floor, use a reacher or keep the operative leg extended or held backward (like the professional golfers on TV) as you bend to the floor.

**Sitting:** Avoid sitting in low, soft chairs, rocking chairs, stools, or sofas. Sit in a firm chair with a straight back and armrest. Your hips should always be higher than you knees.

**Sleeping:** you may sleep in any position. Keep a regular pillow or an abductor pillow between your legs for the first 6 weeks after surgery.

You will receive written information after your surgery which clearly explains whether you have specific restrictions or not. We encourage you to show this information to your physical therapist so they understand your specific needs. They may not understand that some patients **do not need "hip precautions"**.



## 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. You will also receive a NSAID.
- A steroid just prior to the start of your surgery and after your surgery.
- The tissues around your new hip are injected with a “cocktail” consisting of four medicines from different classes of drugs, which further reduce postoperative pain and result in our patients routinely walking just hours after their surgery.
- IV antibiotics are given which 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 also prescribed, but are being required in smaller amounts and with less frequency. Narcotics are avoided whenever possible because they tend to cause nausea, constipation, and occasionally confusion. Tylenol and a non-anti-inflammatory are continued on a regular schedule.

## Now That You Are Home

- Continue your exercises faithfully to reduce pain and swelling and improve motion.
- We no longer “restrict” your positions after surgery unless you are specifically instructed to do so. We encourage you to listen to your body and move so you are comfortable. Remember, your tissues need to heal. Everyone gets well at their own pace.
- My staff will communicate with you soon after your surgery to confirm that you are doing well and answer any questions that you have. You will also be encouraged to come to my office if you would like for us to check you.
- You will be given an appointment to come to our office two weeks after 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 dressing covering your hip. This dressing can remain in place for the full two weeks. Many patients have this first surgical dressing removed and replaced with another 5-7 days after their surgery. You may shower with this 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

- Inform your dentist that you have a total hip replacement. Many patients are asked to take an antibiotic prior to dental work or 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 may stop using your cane or walker when you walk as well without it and you are "forgetting it".
- Those patients that get well the fastest and stop limping the quickest are usually those that go into surgery in better physical shape. We encourage you to do the preoperative exercises outlined in this booklet. Exercising in a pool after your sutures are removed is also a wonderful way to rehabilitate.

### 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 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. \_\_\_\_\_



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