

Your Guide to **Hip and Knee Replacement**



Welcome to The Christ Hospital



Thank you for choosing The Christ Hospital for your orthopaedic care. Our mission is to provide you with the finest patient experience, with the upmost commitment to your safety and your satisfaction. If at any time during your stay, there is anything we can do for you, please do not hesitate to ask.

At The Christ Hospital we embrace a patient- and family-centered model of care, which means you and your family are included in your treatment decisions. We welcome your family during your stay and have open visiting hours, because we know that having loved ones nearby is important to the healing environment.

This booklet will provide you with valuable information regarding preparation for your hip or knee replacement procedure, including how to

prepare for your surgery, what to expect while you are in the hospital and what to expect once you have returned home.

To help guide you throughout your joint replacement process, we have a dedicated Orthopaedic nurse navigator. Should you have any questions regarding your Pre-Surgery testing, discharge planning or during your hospital stay, please contact our Navigator at 513-585-0633.

Again, thank you for choosing The Christ Hospital for your orthopaedic procedure.

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About Orthopaedic Services at The Christ Hospital

SUPERIOR PATIENT OUTCOMES

As the area's volume leader in joint replacement, our world-class orthopaedics team has an established track record of excellence. We offer comprehensive care on a dedicated orthopaedic unit with nursing and physical and occupational therapy staff specialized in caring for the unique needs and expectations of our orthopaedic patients.

We also typically lead the industry with our average length-of-stay for patients after surgery; getting you back to doing all the things you love – as soon as possible. Because, studies show the earlier a patient can safely get up, get moving and get out of the hospital after surgery, the better the outcome and recovery.

SUPERIOR PATIENT EXPERIENCE

The Christ Hospital believes family and friends are an important part of every patient's healing process and we are committed to a patient- and family centered care philosophy. That means, we've not only eliminated visiting hours, we encourage loved ones to stay and to participate in care along with the patient, nursing staff and physicians. And this philosophy is working – patient satisfaction on our orthopaedic unit consistently scores in the top 5-8% of the nation and has done so for more than the last two years, according to Press Ganey.

LOOKING TO THE FUTURE

As we anticipate the future needs of our community, we are excited to grow the area's top regional orthopaedic services and expand into The Christ Hospital Joint and Spine Center. First in the region – and one of only a few in the nation – the Center will provide comprehensive, evidence-based orthopaedic and spine care through dedicated staff and facilities that include education and clinical outcomes research all in one dynamic facility located on the Mt. Auburn campus.

COMING IN
FALL 2015



What Patients are Saying About Joint Replacement at The Christ Hospital

"I would like to congratulate you on the quality of your nursing staff. Throughout my stay, I received tremendous care and help. Everyone was friendly and ready to assist in whatever way they could. I always recommend The Christ Hospital to any of my friends who are contemplating surgery. I think your nursing staff goes a long way in making it such a great place to heal and recover." - Karen S.

"'Wow' would be the best way to describe my experience over the last several days at The Christ Hospital. Not just a 'wow, they did a really nice job'. But the type of 'Wow' that one experiences as you encounter great things! I know that didn't just happen. But rather was the accumulation of you and your staff's vision, planning, hard work and efforts focused on the patient experience. It was nothing short of flawless execution!" - Eric K.

"My husband had knee replacement at The Christ Hospital. We want to thank everyone on the pre-op and post-op floor, the nurses on the orthopedic unit and to the people at pre-op desk, so kind. We will recommend Christ Hospital to everyone. Great people. Great Hospital. Thank you so much!" - Wanda C.

"This was my first experience with Christ Hospital. The treatment that I received, and the care and attention from your orthopedic unit staff, was absolutely incredible. My each and every need was promptly addressed with the utmost degree of professionalism and friendliness. Everyone was patient with me and most thorough in answering my questions and responding to my requests. Suffice it to say, should I have a need for future surgeries, Christ Hospital will be my choice." - Bob S.

"We appreciate the fact that we could drop the car off at the Valet and walk right into the hospital. That took off some of the stress. Everyone was very patient and explained things as we went along. I want to recognize all of the people who had a hand in providing care to my husband after his surgery. They were all so warm and understanding and were quick to respond when we needed assistance." - Kathy H.

"I have never been cared for so well in my life. From the lady who registered me to the nurse who discharged me, I came to know, love and appreciate them all. I received care both professionally and with compassion. My room was kept very clean and I was blown away with the food service." - Yvonne F.

"I had my right hip replaced at Christ Hospital nine weeks ago and I wanted to let you know what outstanding treatment I received from the Christ Hospital team. Everyone that I came in contact with from the surgical team to the sweet lady that wheeled me out of the hospital the next day was knowledgeable, helpful and friendly! I could not have received better care." - William H.

"Our experience exceeded our expectations in every way. From our first interactions with staff in same-day surgery to the folks who walked us out the door, we were treated with courtesy, patience, skill and an extraordinary level of warmth and concern. From EVERYONE! In addition to the care provided by individual staff, we were particularly grateful for the family conveniences provided by the facility. Guest wireless, and the family rooms on our floor and the C level were so appreciated. The nourishment center, where I gratefully made a peanut butter and jelly sandwich at 10 pm was a real amenity. It was so nice to be able to make a cup of tea for my mom and her visitors at any time. It made us feel welcome and at home." - Susan H.

How do I get to The Christ Hospital?

The Christ Hospital is located at 2139 Auburn Ave.

Scan this code with your smart phone for map



The Medical Office Building is located at 2123 Auburn Ave.

Scan this code with your smart phone for map



FROM THE WEST (I-74 EAST):

- Take I-74 East and follow signs to I-75 South.
- Keep right at fork and merge onto I-75 South.
- Take Exit 1B to I-71 North.
- Follow signs to I-71 North.
- On I-71 North, stay left and take Exit 2, Reading Rd./Eden Park Dr.
- On the ramp, stay to the right at the fork and follow signs to Eden Park Dr./Dorchester Ave.
- At the traffic light, turn left onto Dorchester Ave.
- At the top of the hill, turn right onto Auburn Ave.
- For all parking, turn left onto Huntington Place (first traffic light on Auburn).

FROM THE NORTH (I-75 SOUTH):

- Take I-75 South to Exit 7, OH-562/Norwood (Norwood Lateral).
- Take OH-562 to the exit onto I-71 South toward Cincinnati.
- Take I-71 South to Exit 3, Taft Rd.
- Continue on Taft (a one-way street).
- At the fifth traffic light, turn left onto Auburn Avenue.
- To reach P1, turn right onto Mason Street. To reach P3, turn right onto Huntington Place.

FROM THE NORTHEAST (I-71 SOUTH):

- Take I-71 South to Exit 3, Taft Rd.
- Continue on Taft (a one-way street).
- At the fifth traffic light, turn left onto Auburn Avenue.
- To reach P1, turn right onto Mason Street. To reach P3, turn right onto Huntington Place.

FROM THE SOUTH (I-71/75 NORTH):

- Take I-71/75 North to I-71 North.
- Follow signs to continue onto I-71 North.
- Stay left and take Exit 2 for Reading Rd./Eden Park Dr.
- On the ramp, stay to the right at the fork and follow signs to Eden Park Dr./Dorchester Ave.
- At the traffic light, turn left onto Dorchester Ave.
- At the top of the hill, turn right onto Auburn Ave.
- For all parking, turn left onto Huntington Place (first traffic light on Auburn).

FROM SOUTHEAST (I-471 NORTH):

- Take I-471 North to Exit 7, Liberty St.
- At the second traffic light, turn right onto Sycamore St.
- At top of the hill, take a slight left to continue onto Auburn Avenue.
- For all parking, turn left onto Huntington Place (first traffic light on Auburn).

FROM DOWNTOWN CINCINNATI (MAIN/ELM/VINE):

- Take Main, Vine or Elm north.
- Turn right onto Liberty St.
- Turn left onto Sycamore St.
- At top of the hill, take a slight left to continue onto Auburn Avenue.
- For all parking, turn left onto Huntington Place (first traffic light on Auburn).

**For assistance with directions,
contact Patient and Guest Services at**

513-585-1200

or visit TheChristHospital.com.

Parking

The Christ Hospital offers free, convenient parking options. In addition to self-parking in our garages, valet service is available at the hospital Heart Center entrance (Level C) and the Medical Office Building Mason Street entrance (Level G3). A free campus shuttle is available to drive you between the hospital and the Medical Office Building. See the valet attendant for assistance.

Orthopaedic patients coming to the campus for Pre-Surgery Testing are encouraged valet at the Mason Street Valet station or in the P1 parking garage. Orthopaedic patients coming to the campus for surgery are encouraged to utilize the valet service at the Heart Center Valet station or park in the P3 parking garage.

P1

PARKING FOR:

Hospital visitors
 Medical Office Building/
 Pre-Surgery Testing

ACCESS:

From Auburn Ave., turn onto Mason St. or Huntington Place and follow signs to P1.

The skywalk to the hospital and Medical Office Building is located on Level 1.

CLEARANCE: 8'

P2

PARKING FOR:

Vehicles that exceed the 6' 6" clearance in P3

ACCESS:

Turn from Auburn Ave. onto Huntington Place. At the end of Huntington, turn right onto Eleanor. The entrance to P2 will be immediately to your right.

A pedestrian path to the hospital is marked through P3.

A call box is located near the entrance to P2 if you need assistance.

P3

PARKING FOR:

Surgery Check-In
 (Same Day Surgery)

ACCESS:

From Auburn Ave., turn onto Huntington Place. At the end of Huntington, turn right on Eleanor and follow signs to P3.

The skywalk to hospital/Atrium Lobby is located on Level A.

CLEARANCE: 6' 6"



Finding Your Way at The Christ Hospital



FINDING YOUR WAY TO PRE-SURGERY TESTING

From the Mason Street Valet Station

From the valet station at the Medical Office Building Mason Street entrance (Level G3), upon entering the building, take the elevators up to Level 1. Turn RIGHT off of the elevator and follow the hallway to the end. Pre-Admission Testing (Suite 130) will be in front of you.

From the P1 Parking Garage

In the P1 parking garage, go to Level 1 of the garage. Follow the skywalk to the Medical Office Building. You will enter the Medical Office Building on Level 1. Pre-Admission Testing (Suite 130) will be on your left as you enter the building.

FINDING YOUR WAY TO SURGERY CHECK-IN

From the Heart Center Valet Station

From the valet station at the Heart Center entrance, you will enter the hospital on Level C. Turn LEFT as you enter. A bank of three elevators (the Heart Center Elevators) will be on your left. Take the elevator UP to Level B. As you exit the elevator, turn LEFT. You will check-in at the Same Day Surgery desk located directly ahead of you.

From the P3 Parking Garage

In the P3 parking garage, go to Level A. Follow the skywalk into the hospital building. Proceed across the Atrium Lobby, past the staircase towards the Information desk. A bank of three elevators (the Heart Center Elevators) will be to the left. Take the elevator DOWN to Level B. As you exit the elevator, turn LEFT. You will check-in at the Same Day Surgery desk located directly ahead of you.

Pre-Surgery Checklist

Prior to your surgery, there are a number of preparations that you should make to help ensure a positive outcome. Please review this checklist carefully. If you have any questions about this Pre-Surgery Checklist or about your procedure, please contact us at 513-585-0633 or your surgeon's office.

ONE MONTH OR MORE PRIOR TO SURGERY

Select the date for the surgery. This date will generally be scheduled through your surgeon's office.

The date of your surgery is _____ at _____ AM/PM.

Stop smoking. It is important to stop smoking at least one month prior to your surgery. Smoking shrinks arteries, decreases blood flow, speeds your heart rate, raises blood pressure and increases fluid production in your lungs. You will recover faster if you stop smoking prior to your surgery.

WITHIN 30 DAYS PRIOR TO SURGERY

Coordinate testing with Pre-Surgery Scheduler.

While some Pre-Surgery testing may be done at your primary care physicians' office or another laboratory, some testing may need to be completed by a Christ Hospital testing facility. In order to streamline testing and minimize the need for multiple testing visits, we recommend patients call the Pre-Surgery Testing Scheduler at 585-2418 to coordinate required testing. This should be done after you have been given the date and time of your surgery.

Your Pre-Surgery Testing may be done up to 30 days prior to surgery, but should be completed at least 7-10 days prior to surgery. If testing is not completed within 3 business days prior to surgery, the surgery may be delayed.

- All Blood Type/Screen tests must be performed at a Christ Hospital testing facility prior to the day of surgery. Note, a Christ Hospital physicians' office does not qualify as a testing facility.
- Nasal/Groin Cultures must be completed prior to surgery. We prefer this test to also be done at a Christ Hospital testing facility. If necessary, this may be completed on the day of surgery.
- A history and physical should be completed within 30 days of surgery with your primary care provider. If you see a cardiologist, please obtain clearance from that physician.

Have a Pre-Surgery office visit with your surgeon

to ask questions and see an example of the joint implant that will be used in your surgery. This may be a required visit or an optional visit, depending on your surgeon's requirement.

Attend Pre-Surgery Total Joint Replacement Class.

Have any dental cleaning or other needed dental work completed.

Dental procedures, especially routine cleanings, often result in bleeding of your gums. This can allow bacteria in the mouth to enter the bloodstream. Normally this is not a problem as your body's defenses fight off the bacteria in the blood. However, if you have a new artificial joint, it can become infected by the bacteria that have entered your bloodstream in this manner. While the incidence of infection after joint replacements is very low, this can be a very serious situation if it does. To prevent this from occurring, you should have a thorough dental checkup and cleaning before your surgery. If your dentist recommends any additional procedures these must all be done prior to your surgery as well.

Medications

- If you are taking blood thinners (including Aspirin, Coumadin/warfarin, anti-platelet aggregates or other prescription and non-prescription medications-such as Vitamin E and fish oil) obtain instructions from your cardiologist or primary care physician regarding discontinuing the use of these medications temporarily, prior to surgery.
- You may continue to take prescription pain medications, with the exception of non-steroidal anti-inflammatory drugs (NSAIDs).
- Seven days prior to surgery you should stop taking NSAIDs (excluding Celebrex)
- If you have a history of pulmonary emboli, deep vein thrombosis, or allergy to aspirin, discuss with your surgeon which blood thinner will be given at discharge. We recommend you contact your insurance company or ask your pharmacist about the coverage of these medications as some of these medications may be expensive. If you have any concerns after the conversation with the insurance company or pharmacist, contact your surgeon's office.

Discharge Planning

- Review and perform recommended exercises prior to surgery. See page 29.
- Prepare your home for returning home after surgery. See page 19.
- If you need assistance preparing for post-surgery care, please see "Pre-Surgery Planning for Your Discharge" on page 20.

ONE WEEK PRIOR TO SURGERY

- Anticipate a discharge time of approximately 11 AM on the day of discharge, please make arrangements for transportation accordingly.
- Report important observations or changes in your health. If you have any changes in your physical condition such as a fever, sore throat, abscess, persistent cough, ulcer, nausea, vomiting, diarrhea, and you question your readiness for surgery, consult your primary care physician to assess and treat.

If there is an important change to the skin or a rash where the surgery is to be performed, notify the surgeon's office as soon as possible. An important change would be an open draining wound or a localized area with swelling, redness, heat, tenderness to touch, pain or pressure.

TWO DAYS PRIOR TO SURGERY

- Take necessary measures to ensure a good bowel movement the day before your surgery. If you have no history of bowel problems, you can typically assure this with your diet. You may take a laxative or suppository of your choice two days before your scheduled surgery if you tend to need this type of treatment regularly, or on a periodic basis. Over-the-counter products are sufficient. The majority of people do not need to give themselves an enema. After your surgery, you will be given liquids and food as your stomach allows. Most people are back on a regular diet the day after surgery.
- Do not drink any alcohol for 48 hours prior to surgery, as this delays emptying of the stomach.

DAY BEFORE SURGERY

- DO NOT EAT, DRINK OR SMOKE ANYTHING after midnight the night before your surgery. You may eat a snack before you go to bed if it is before midnight.
- DO clean the surgical area with special soap recommended by your surgeon.
- DO NOT drink alcohol, including beer or wine.
- DO NOT smoke.
- DO NOT chew gum.
- DO NOT eat any type of hard candy.
- DO NOT shave the surgical area at home.
- REMOVE any fingernail or toenail polish.
- DO take medications as directed with just a sip of water.
- DO brush your teeth, but do not swallow the water.

DAY OF SURGERY

- Medications may be taken as instructed by the hospital assessment nurse on the morning of surgery. If you are on medication for high blood pressure, your heart, or asthma and have not received instructions, please call The Christ Hospital assessment nurses at 585.1720.
- The morning of surgery you may shower, bathe, and shampoo before going to the hospital.
- Wear comfortable loose fitting clothes.
- Leave valuables, including jewelry, at home.
- If you have an insulin pump for diabetes, bring in your supplies on the day of surgery.
- Bring only necessary personal items with you to the hospital.
- Go to the Same Day Surgery Check-in desk located on B-level of the hospital at the time your surgeon's office indicated that you should arrive. Generally, this is two hours prior to the scheduled start of your surgery.

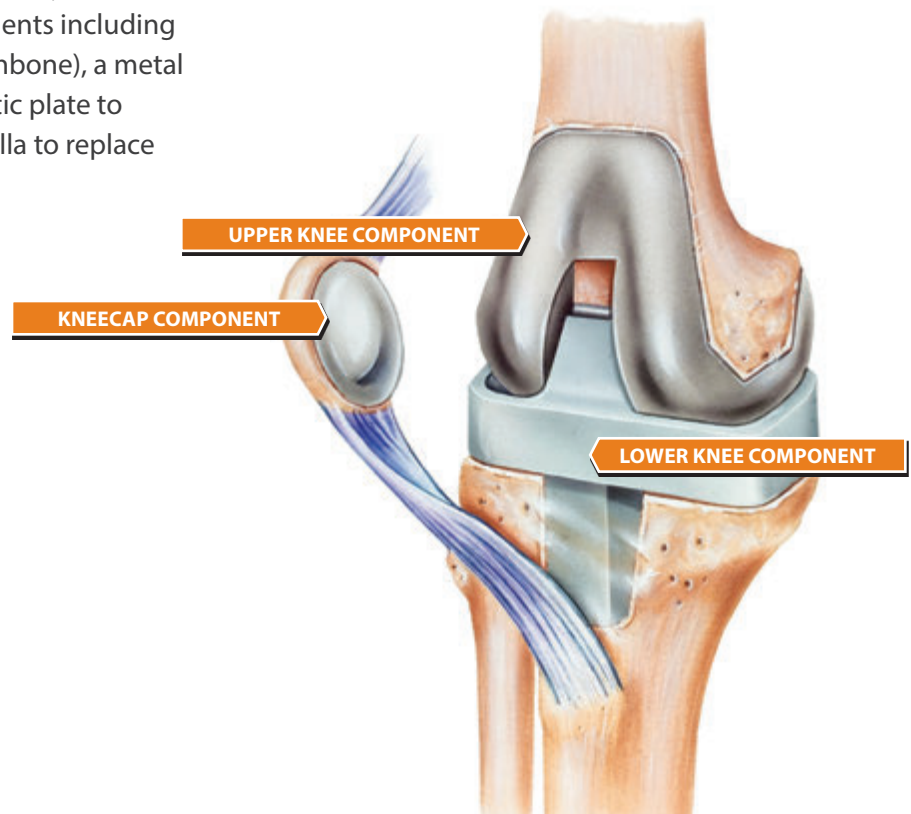
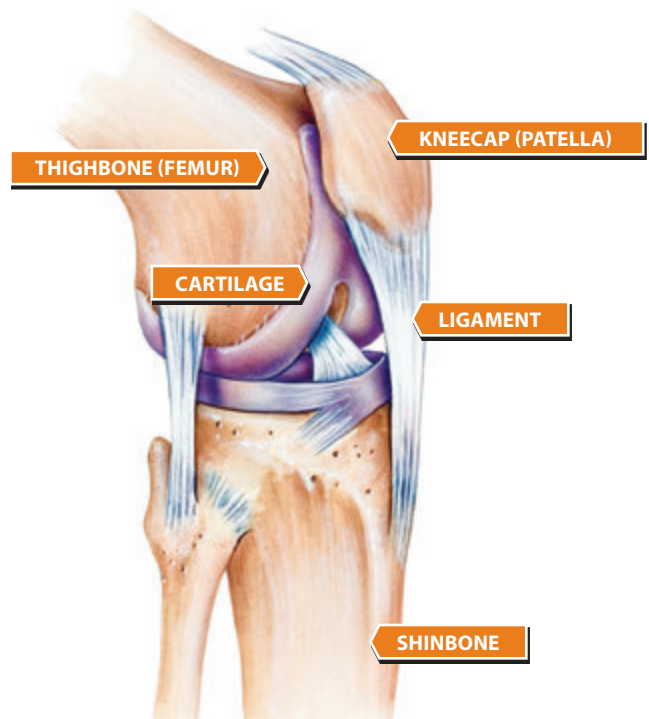


Anatomy of the Knee and Total Knee Replacement

The knee is the largest joint in your body. Three bones make up the knee as well as strong muscles and ligaments for stability. When your knee is bent or straight, the rounded end of your femur (thighbone) rolls and glides across the flat upper surface of your tibia (shinbone) and your patella (kneecap) attaches to the muscles that allow your knee to straighten.

There is a sac filled with lubricating fluid that surrounds the knee joint and a cushioning layer of spongy tissue called cartilage that prevents your bones from rubbing together. If the cartilage between the bones breaks down, the bones begin to rub together, causing friction, stiffness, and pain. Osteoarthritis, rheumatoid arthritis, traumatic injury, and avascular necrosis (loss of blood to the bone), are all conditions that contribute to deterioration of the bone surfaces.

While in surgery, your surgeon will remove the diseased/damaged bone surfaces by using meticulous instruments. The surfaces of your knee are then replaced with four components including the metal femoral component (thighbone), a metal tibial component (shinbone), a plastic plate to simulate cartilage and a plastic patella to replace the underside of the kneecap.



Anatomy of the Hip and Total Hip Replacement

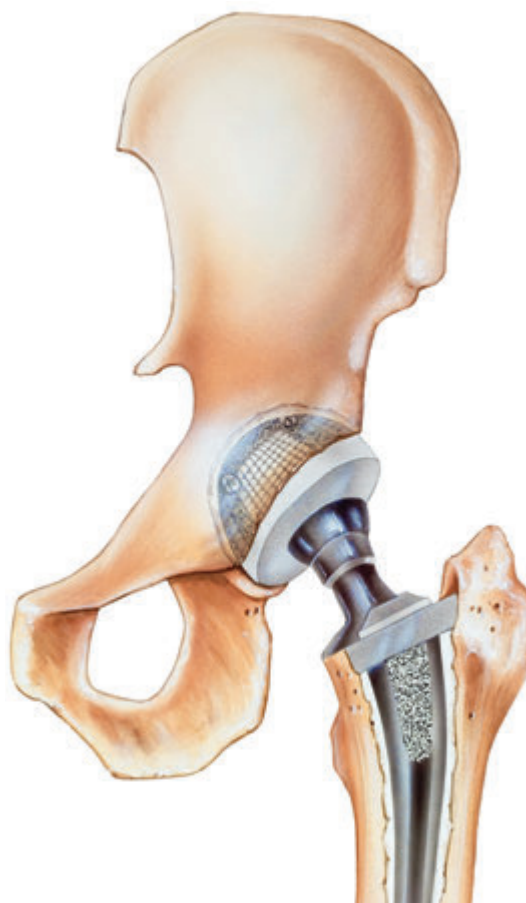
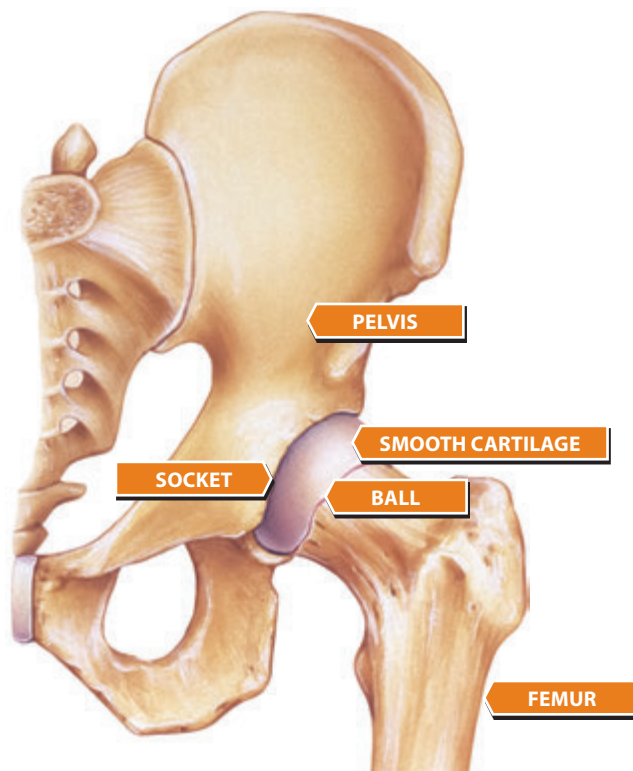
Your hip joint is one of the largest weight-bearing joints in your body. The hip is considered a ball-and-socket joint because your thighbone (femur) has a rounded head (ball) that sits in a rounded socket called your acetabulum. The underlying components in your hip consist of spongy smooth tissue called cartilage, a synovial sac which holds lubricating fluid and also ligaments and muscles that support and power the joint. These all work together to provide smooth movement to perform daily activities such as walking, running, squatting and stairs.

If the cartilage between the thighbone (femur) and socket (acetabulum) wears down, the bones may rub together causing pain, stiffness and deterioration of the bone surfaces. Joint damage can be caused by osteoarthritis, inflammatory arthritis, broken bones, and avascular necrosis (loss of blood supply to the bone).

Total hip replacement (also known as total hip arthroplasty) is the surgical replacement of the ball and socket of the hip joint with artificial parts called prostheses. Your surgeon will remove the diseased/damaged bone surface using meticulous instruments. Your hip is then replaced with four components including the cup and the liner (socket), a smooth ball (head of your thighbone), and a stem (inserted into the thighbone) to stimulate a smooth and painless movement.

TRADITIONAL APPROACH TOTAL HIP REPLACEMENT

In traditional total hip replacement surgery, your surgeon makes an incision along the side of your thigh to access your hip joint. This involves cutting a muscle on the side of your hip that is then repaired by the surgeon. This muscle then needs time to heal. As a result, there are various restrictions and precautions that must be followed to prevent dislocation of the new hip.



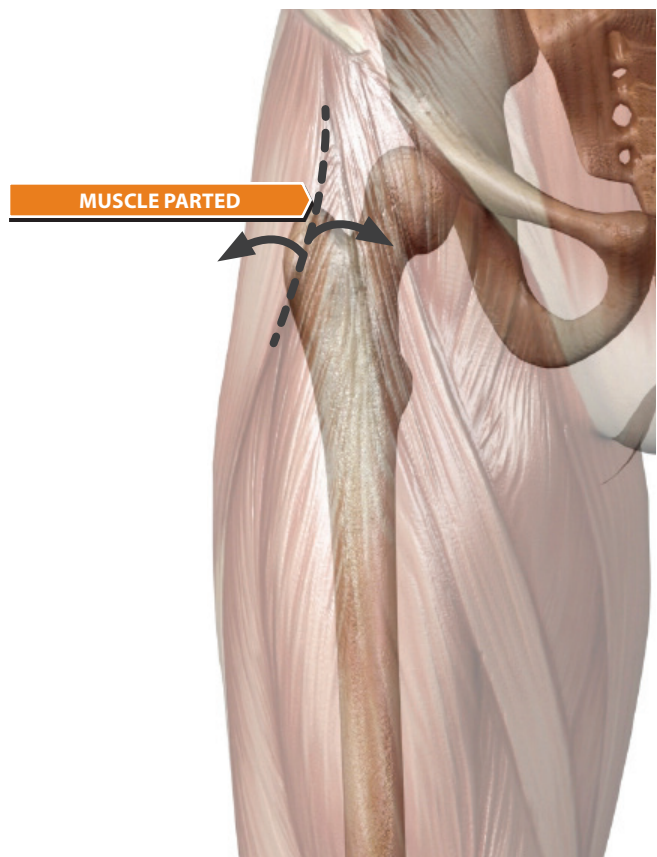
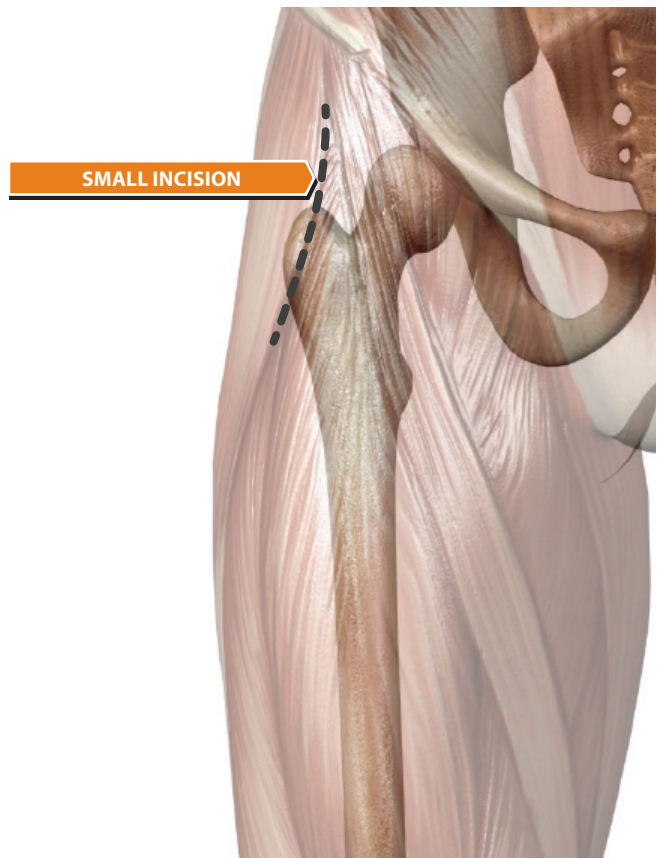
ANTERIOR APPROACH TOTAL HIP REPLACEMENT

The anterior approach is an alternative to the traditional approach. Your surgeon makes an incision on the front of your leg and is able to access your hip joint by going in between the muscles. The muscles are not cut and are relatively undisturbed. This allows faster healing, helps reduce the risk of dislocation, and post-operative restrictions are not necessary. In rare cases, some patients are not a candidate for this approach. Your surgeon will discuss that with you and recommend the most appropriate procedure.

Potential benefits of the anterior approach include the following:

- Accelerated recovery time since muscles are not detached during the operation. Each patient responds differently, but in general, activity progression is faster and the need for pain medication is decreased.
- No activity restrictions after surgery. Unless your surgeon instructs you otherwise, you may put full weight on your leg as tolerated and have no precautions to follow.
- Possible stability of the implant sooner after surgery since key muscles and tissues are not disturbed during the operation.

The anterior approach is possible because of a high-tech table and special instruments. The table has padded leg supports that can be adjusted with a great deal of precision by your surgeon to help achieve excellent alignment and positioning of the implant.



The Operating Table and Incision Line

Following anesthesia the patient is laid flat on the ProFX orthopedic table. The carbon fiber struts that support the legs will move appropriately and manipulate the operated leg during surgery. The unique capabilities of the table facilitate the operation through this smaller and less invasive surgical approach.



The procedure itself begins with the surgeon exposing the hip in a way that does not detach muscles or tendons from the bone – a key attribute of the anterior approach. The surgeon removes the diseased cup portion of the hip and replaces it with an implant. The surgeon then uses the specially designed table to rotate the operative leg so the foot points outward, extending toward the floor. This allows excellent access to the thigh bone, or femur, so the surgeon can replace the diseased portion of the bone with the stem implant. This is important since visibility is often limited due to smaller incisions.

Side-by-side television screens are used to provide X-ray views of the operative hip and the patient's opposite hip. This comparison gives the surgeon the information used to determine the best positioning for an effective, stable hip replacement implant. The combination of this X-ray imaging and the high-tech table allows the doctor to seek more precise control over the patient's leg length as well.

The incision length, which is typically smaller than with standard surgery, varies according to a patient's size, weight and other factors. The anterior approach lends itself to a relatively small incision because the hip joint is closest to the skin at the front of the hip. The muscle and fat layers are thinner than the muscle and fat tissue encountered when using other approaches on the side or rear of the thigh. The actual size of the incision for each patient varies.

Patients typically will not have any dislocation precautions to follow after surgery. Your surgeon will let you know if there are any. The anterior approach spares the major muscles of the thigh which allows patients to get back to activities of daily living with fewer limitations.

Realistic Expectations For Joint Replacement Surgery

An important factor in deciding whether to have total joint replacement surgery is understanding what the procedure can and cannot do.

More than 90 percent of individuals who undergo total joint replacement experience a dramatic reduction in knee pain and a significant improvement in the ability to perform common activities of daily living. However, total joint replacement will not make you a super-athlete or allow you to do more than you could before you developed arthritis. Following surgery, you will be advised to avoid some types of activity, including jogging and high-impact sports for the rest of your life. Additional guidelines may include:



Dangerous Activities After Surgery

- Jogging or running
- Contact sports
- Jumping sports
- High-impact sports

Activities Exceeding Usual Recommendations After Surgery

- Vigorous walking or hiking
- Skiing
- Tennis
- Repetitive lifting exceeding 50 lbs
- Repetitive aerobic stair climbing

Expected Activities After Surgery

- Recreational walking
- Swimming
- Golf
- Driving
- Light hiking
- Recreational biking
- Ballroom dancing
- Normal stair climbing

With normal use and activity, every joint replacement develops some wear in its plastic cushion. Excessive activity or weight may accelerate this normal wear and cause the joint replacement to loosen and become painful. With appropriate activity modification, joint replacements can last for many years.

Pre-Surgery Office Visits



One to two weeks prior to surgery you may go to your surgeon's office for a pre-operative appointment to make sure everything is in order. Dependent upon your surgeon this may be an optional or a required appointment.

During this visit you will have the opportunity to ask any questions that you may have about your surgery. In fact, as you read about your surgery and speak with others, it is a good idea to write down questions that raise concerns so that they may be addressed during this visit. Just bring these with you to your appointment. After addressing your concerns and being sure we know important aspects of your medical history, your planned surgical procedure, a model of the "new joint", the hospital routine, post-operative pain control, and progression of activity will all be discussed. This is also the time to be sure all of your paperwork and appointments are in order.

Generally, this pre-surgery appointment can be made during any business day. If you would like to also have direct conversation with your surgeon, it needs to be on a day when he is in the office. If you opt not to have a preoperative office visit or your surgeon does not require it, your questions and information can be exchanged over the telephone.

Pre-Surgery Testing

Your Pre-Surgery Testing should be done within 10 to 14 days prior to your surgery.

The Christ Hospital will call and schedule your testing appointment. If you need to speak to the scheduler, please call 513-585-2418.

Your Pre-Surgery Testing may be done up to 30 days prior to surgery, but should be completed at least 7-10 days prior to surgery. If testing is not completed within 3 business days prior to surgery, the surgery may be delayed.

The Christ Hospital has several Pre-Surgery Testing locations throughout Greater Cincinnati. While some Pre-Surgery testing may be done at your primary care physicians' office or another laboratory, some testing may need to be completed by a Christ Hospital testing facility. In order to streamline testing and minimize the need for multiple testing visits, we recommend patients call the Pre-Surgery Testing Scheduler at 585-2418 to coordinate required testing. This should be done after you have been given the date and time of your surgery.

A history and physical should be completed within 30 days of surgery with your primary care provider. If you see a cardiologist, please obtain clearance from that physician as well. A current medical history and physical examination are necessary for you to receive an anesthetic. Diseases such as diabetes and heart disease do not keep you from surgery, as long as they are under control.

The physical will include an electrocardiogram (EKG) of your heart beat if you are over 50 or an insulin dependent diabetic, and an analysis of blood and urine specimens. There is no special preparation for the tests. You should eat normally and take your current medications the evening before and the morning of your tests. Based on your age and medical condition additional tests may be requested.

Occasionally special X-rays or CT scans may be required prior to your surgery.

As results come in from your lab tests, a copy is sent to your surgeon's office. If there are any abnormalities that need medical attention, your surgeon's office will contact your medical doctor. Changes in EKG's may require a consultation with a cardiologist before an anesthetic can be given. For this reason, it is a good idea to have your tests done earlier rather than within a day or two of your surgery.

Blood Type/Screen tests must be performed at a Christ Hospital testing facility prior to the day of surgery. Note, a Christ Hospital physicians' office does not qualify as a testing facility.

Nasal/Groin Cultures must be completed prior to the start of surgery. We prefer this test to also be done at a Christ Hospital testing facility.

Some conditions may make the risk of joint surgery too great (chronic infection or a recent heart attack or stroke). If you have any infection, (including bladder, prostate, kidney, gums, skin ulcers, or ingrown toenails) it should be treated and cleared up before undergoing joint surgery.

If you have multiple medical problems or a history of difficulty following anesthesia from a previous operation, your surgeon may ask that an anesthesiologist evaluate you prior to your day of surgery. In this case you would be scheduled for an anesthesia consult with your Pre-Surgery testing.

Surgery and Your Current Medications

A Pre-Surgery Assessment Nurse will call you to review your medications and instruct you regarding what medications may be taken the morning of surgery or may need to be discontinued. Written instructions will also be given at your Pre-Surgery Testing visit or faxed to your primary care physician if that is where your Pre-Surgery Testing is being done. You can reach the Assessment Nurses at 513-585-1720.

If you see a specialist, such as a cardiologist, pulmonologist, oncologist, endocrinologist, you will be asked to check with them before discontinuing your medications. It is important to check with your primary care physician or cardiologist before discontinuing, blood thinners and anti-platelet medications.

Traditional non-steroidal anti-inflammatory medications (NSAIDs - pronounced EN-seeds) should be stopped seven days prior to your surgery. The Cox-II non-steroidal (i.e. Celebrex) does not need to be stopped. It is very important that you read the labels of your medications carefully to be sure you know the ingredients of each. Sometime medications may be labeled by their commercial names and some by their chemical (generic) name. These medications can be re-started as directed by your surgeon.

If you are on a prescription pain medication, you will likely be able to continue taking that prescription medication until the day of surgery. Acetaminophen (Tylenol) is the only over-the-counter pain medication which is safe to take one week prior to your surgery.

Aspirin or aspirin-containing drugs such as Percodan, Excedrin, or Anacin, should be stopped seven days prior to your surgery. It is very important that you read the product label carefully. If it contains aspirin, acetylsalicylic acid (ASA), or any form of salicylate, it meets the criteria to be stopped. Vitamin E and fish oil supplements should also be stopped seven days prior to surgery.



MEDICATION LIST

Please make a list of all medications you are taking, including over-the-counter medications, vitamins and/or supplements and bring this list with you to the hospital on the day of your surgery. Please include in this list:

- Medication name
- What is the dosage? How many pills do you take?
- What time do you take your medication? How do you take your medication?
- What are you taking this medication?
- Name of physician that prescribed this medication? How long have you been taking this medication?

Diabetes and Surgery

BEFORE SURGERY

Managing your diabetes prior to surgery is important. Controlled blood sugars can improve healing and prevent some surgical complications. In order to determine if your diabetes is well controlled, your physician may order a blood test called hemoglobin A1C (A1C). The A1C is a blood test that measures your average blood sugar over the last two to three months. The American Diabetes Association recommends an A1C of 7% or less. Discuss your A1C results with your physician.

Tips to help you control your diabetes include:

- Take your medications as prescribed
- Eat three healthy balanced meals
- Be aware of portion sizes
- Eat whole fruit instead of drinking fruit juice (Balance fruit with protein)
- Avoid high sugar drinks such as: Gatorade, Kool-Aid, regular soda, lemonade, sweet tea
- Limit high sugar foods such as: cakes, cookies, candy, ice cream
- Be physically active (Recommend: 30 minutes 5 days a week)
- Monitor your blood sugar and discuss results with your healthcare provider

Prior to surgery a nurse will call to discuss your diabetes and medications. It is important for the medical team to know what type of diabetes (type 1 or type 2) you have. It is also very important you provide detailed information about your diabetes medications and/or insulin or insulin pump/ insulin delivery device. This information will assist your physician during and after surgery to better manage your diabetes.

Make a list of all your diabetes medications and /or insulin. Include the following details:

1. Name of oral diabetes medications and/or insulin
2. Dosage of oral diabetes medication and/or insulin
3. Schedule for taking your oral diabetes medications and/or insulin
4. Manufacturer of Insulin Pump/Insulin Delivery Device and type of insulin

Medication instructions on the day of surgery:

- Ask your physician if you should take your diabetes medications prior to and on the day of surgery.
- If you take insulin, you should ask your physician if the dose will be different prior to and on the day of surgery.
- If you have an insulin pump, you should ask your physician if the insulin pump settings need to be adjusted. If you have insulin delivery device ask your physician if you can use your device during surgery.

Note: Occasionally, before/after joint or spine surgery you physician may prescribe a steroid type medication. Steroids can affect your blood sugar by making them high. Your physician will be monitoring and treating your blood sugar as needed.

DAY OF SURGERY

Your blood sugar will be monitored prior to and during surgery. If your blood sugar is higher than normal your physician may order insulin. Insulin may be administered by injection or through your IV.

AFTER SURGERY

The stress of surgery and being in the hospital may have an affect your blood sugar.

Our goal is to check and treat your blood sugar often in the day to help keep it as normal as possible. Normal blood sugar levels can help you recover from your illness quicker, improve surgical healing and experience a shorter hospital stay.

- In order to provide good blood sugar control, your home treatment plan may not be used during your hospital stay.
- If you are currently taking pills for your diabetes, they will be stopped and you will receive insulin while you are in the hospital. National research supports stopping your oral medications and using insulin. Research has shown that using insulin in the hospital setting can help provide safe and rapid control of high blood sugar levels.
- Your blood sugar will be checked frequently
- You will be asked to let your nurse know when you are going to eat a meal so your blood sugar can be checked and insulin can be given to you at the right time.
- You may receive more than one kind of insulin.
 - Rapid acting insulin (Humalog) is given before meals. It works fast to control your blood sugar after eating.
 - Long acting insulin (Lantus) is given daily. It works slowly to control your blood sugar throughout the day and night when you are not eating.

- If you feel shaky or sweaty, at any time, call your nurse or patient care assistant right away. These signs may mean your blood sugar level has dropped below normal. In order to find out if your blood sugar is low, the nursing staff will check your blood sugar and will provide treatment if needed.

If you are given insulin in the hospital, you may or may not have to use it at home. Ask your doctor if your home diabetes treatment plan will change. If you go home on insulin, you will be taught about your insulin plan and allowed to practice giving an insulin injection before you are discharged.

If you have an insulin pump or an insulin delivery device your physician may allow you to use your pump or insulin delivery device during your hospitalization. To safely use your pump or insulin delivery device during hospitalization you should be prepared to provide insulin pump manufacturer, type of insulin and insulin pump settings. Insulin pump/Insulin delivery device supplies are not available in the hospital. In order to use your insulin pump you must bring your own pump or insulin delivery device supplies to the hospital.

Additional diabetes information is available upon request. Diabetes educational videos are available on you room TV. You may request the inpatient diabetes educator to meet with you and your family. Please speak to your nurse or physician about making a referral to the inpatient diabetes educator.

Pre-Surgery Planning For Your Discharge



Discharge planning should begin prior to admission since most patients are only in the hospital between one to three nights. Your surgeon, along with your health care team, will assist you in determining your physical therapy needs at discharge. While the majority of total joint replacement patients return directly home after surgery, some patients may need a short stay in a different setting in order to continue with daily therapy. There are two levels of inpatient care available after discharge if needed. The two levels of care are:

- 1. Community based Skilled Nursing Facilities -** Most orthopedic patients who need additional inpatient care do well with a short stay at a skilled nursing facility. At the facility, occupational and physical therapy is available as well as nursing care.
- 2. Inpatient Acute Rehab Care -** This type of care is for patients who have more complex rehabilitation needs, often with additional complicating medical conditions. The Christ Hospital rehab unit meets this description.

Insurance coverage may limit your skilled nursing facility and rehab options or specify a particular agency or facility. You may wish to contact your health insurance carrier prior to admission to clarify the benefits of your policy.

The Orthopaedic Social Worker will be happy to speak with you for discussion about skilled nursing and rehab facility needs prior to surgery. Please contact 513-585-2734.

While in the hospital, if returning home, a Case Manager will meet with you during your stay and assist with your home discharge needs. See page 37–38 for more information.

DURABLE MEDICAL EQUIPMENT

Most patients will need to use durable medical equipment such as a rolling walker, crutches or cane for mobility at the time of discharge. If you have durable medical equipment at home or are planning to borrow it from a friend or family member, try to obtain it prior to surgery. You should assess the equipment to ensure it is sturdy and in the case of a walker, that it has wheels, is wide enough for you and is the correct height and weight.

If you do not have durable medical equipment to use at discharge, a Christ Hospital case manager will assist you with ordering your equipment for returning home while you are a patient in the hospital as recommended by your physical or occupational therapist. Your insurance company may or may not cover all of your durable medical equipment recommended needs. You can check with your insurance company about durable medical equipment coverage before your surgery.

PREPARING YOUR HOME

For your safety, we recommend the following, if they apply to your situation:

- Remove all throw rugs out of your path.
- Remove all footstools, plant stands and other low floor items.
- When you get home, keep pets in another area of your house until you are settled.
- Remove or tape down any cords or wires in your walking path.
- Have a non-skid mat for inside and outside of the shower.
- A handrail is recommended if you have steps leading into or in your house.
- Have a chair with arms for getting up and down easily. Recliners, soft chairs, rocking chairs, and low sofas can be difficult to get out of depending on your height.

Additional considerations that make your return to home more convenient:

- Move things you might need (magazines, medications, phone, cooking utensils) so you can reach them easily.
- Have the supplies you need at home and ready for use.
- Have an oral thermometer available.
- Have telephone numbers by each phone in case of an emergency. Have paper and pencil by the telephone to take messages and your calendar for noting the timing and dosage of your medication when you come home.
- Have a telephone near you in your living area and by your bed.
- If your bed is on a separate floor from the bathroom, you may want to consider having a bed temporarily located on the same floor as the bathroom or using a bedside commode. Please note, stairs are allowed to be performed at time of discharge.
- Place night lights in the hallways or have a flashlight handy for nighttime trips to the bathroom.
- Have some nutritious meals or frozen dinners available ahead of time.
- Be prepared to rest completely for at least one hour, two times each day. Part of this time is with your feet higher than your heart. You should not allow phone calls or visitors during rest periods.
- An apron with pockets is useful to carry small items around the house.

What to Bring to the Hospital

On the day of surgery, bring only what is essential for that day, including:

- Medical insurance card(s) and prescription card
- A list of your medication(s) including the name of each medication, dosage and frequency.
- Do not bring your own medications, unless instructed to do so by the Pre-Surgery Assessment Nurse.
- A list of important phone numbers, including those of friends or family you might want to call while you are in the hospital.
- Copy of Advanced Directives (if you have them)

If your surgery requires a planned hospital stay, we recommend you ask your family or friends to bring your other belongings the following day:

- This Guidebook
- Toiletries: Toothbrush, toothpaste, comb, etc.
- Eyeglasses, contacts, hearing aids.
- Front closing mid-calf to knee-length robe (a longer robe makes walking difficult) with loose fitting arms. Avoid over-the-head styles.
- House shoes with non-skid soles, closed heel and toe. Gym shoes are fine.
- The hospital will provide you with a gown to wear in bed, but you may bring your own pajamas.
- Underwear and gym shorts or loose fitting pants.
- Crutches or walker. If you already have these, have someone bring them to the hospital after surgery. If not, they will be provided for you to take home when you leave the hospital.
- Cell phone and charger.
- Do not bring credit cards, jewelry or valuable items.
- Insulin pump supplies.
- CPAP and supplies.



What to Expect On the Day of Surgery

On the day of your surgery, please go to the Same Day Surgery Check-in desk located on B-level of the hospital at the time your surgeon's office requested that you arrive. If you have family or friends accompanying you, they will be provided a pager and additional information regarding how to read the patient tracking system.

Upon check-in, you will be escorted to a private room on the Same Day Surgery unit to be prepared for surgery. If you choose, your family or friends may accompany you to your room. While here, you will see several staff members, including nurses, your surgeon, the anesthesiologist and other patient care assistants. To ensure your identity and safety, each staff member will ask you a series of questions:

- What is your name?
- What is your date of birth?
- Do you have any drug allergies?
- What are we doing for you today?

During preparation for your surgery, an IV will be started, a nurse will scrub the surgical site with choahexadine wipes, you will be given a mild sedative if ordered by the anesthesiologist as well as medication to prevent nausea and vomiting if indicated. Your surgeon will also mark the area where you are to have surgery. When you go into the operating room, the surgical team there will again ask you the same series of questions. Just before the incision is made, you will be given an antibiotic through your IV, which given directly before the start of surgery has been proven to prevent surgical site infections.

Once you are taken to the operating room, your family and friends will be directed to the Family Surgical Lounge. When your surgery has been completed, your family will be paged and your surgeon will meet with them to review the results of your procedure.



POST-ANESTHESIA CARE UNIT (PACU)

Following surgery, you will be taken to the Post-Anesthesia Care Unit (PACU) where you will remain for approximately two hours. Many people feel cold when they wake up from surgery, so warm blankets are available if you need them. Monitors will be applied to measure your blood pressure, heart rate and rhythm and breathing. An X-ray may be taken to check your surgery. If you experience pain tell the nurse so that they are able to help manage that pain to ensure it is tolerable for you. While you are in PACU, your family will be updated on your progress.

Once your vital signs are stable and your room is ready, you will be transferred to your room. Orthopaedic patients are generally transferred to the orthopaedic unit on 2 South or 3 South. Your family will be notified when you have been moved to your room and may see you at this time.

Information for Your Family

Once you are taken to the operating room, your family will be directed to the Family Surgical Lounge. When your surgery has been completed, your family will be paged and directed to a private consultation room. The surgeon will meet with your family in the consultation room to review the results of your procedure.

Should someone need to contact the Family Surgical Lounge that phone number is 513-585-3238.

VISITING HOURS

The Christ Hospital acknowledges the importance of family and friends in the healing process. The Orthopaedic unit offers all private room and your family or significant other is welcome to spend the night. Every effort will be made to provide sleeping accommodations. For the most part, visitors are only limited at the patient's request.

DINING

Café on A

Breakfast: 6:30 – 10:30 a.m.

Lunch: 11 a.m. – 1:30 p.m.

Snack Period: 1:30 p.m. – 3:30 p.m.

Dinner: 4 – 6:30 p.m.

The cafeteria is located on A-Level. Carryout service is provided. Café on A is open Monday through Friday.

Sara Lee Sandwich Shoppe

Open weekdays from 10:30 a.m. – 5 p.m.

Open weekends from 10 a.m. – 2 p.m.

The Sara Lee Sandwich Shoppe is located in the cafeteria on A-Level and features fresh, made-to order deli sandwiches. You may place orders for pickup by dialing 1SARA (17272) from any hospital phone.

Au Bon Pain

Open daily from 6 a.m. – 9 p.m.

Au Bon Pain is located in the main hospital lobby by the gift shop. It offers a wide variety of fresh salads, soups, sandwiches, entrees, coffees, breads and pastries. Au Bon Pain was recently ranked as one of the top five healthiest fast food chains by Health.com!

You can reach Au Bon Pain by calling 513-381-4034.

Coffee Creations

Open daily from 6 a.m. – 1 a.m.

Coffee Creations is located near the lobby on the first floor of the hospital, featuring coffees and espresso-based beverages, fresh fruit smoothies, iced beverages, pastries, tasty sandwiches and fresh salads. Individual built-to-order pizzas are available from 6 p.m. – midnight.

Classic Cuisine

We offer room service for all inpatients during their hospital stay. Patient guests may also order from the room service menu. A Classic Cuisine Ambassador will visit the patient's room to explain the ordering process and deliver a customized menu. Meals may be ordered daily between 6:30 am and 7 pm and will be delivered within 45 minutes of order placement by calling 52100 from the patient room. Pricing for guest meals includes:

- Breakfast - \$5
- Light breakfast - \$3
- Lunch and dinner - \$10
- Light lunch or dinner - \$6

Please talk with the Classic Cuisine Ambassador to make selections and arrange payment by cash or credit card.

JOSEPH-BETH AT THE CHRIST HOSPITAL

Our Joseph-Beth gift shop features a selection of merchandise including gifts for babies and children, inspirational items, jewelry, greeting cards, books, magazines, flowers and snacks.

Open weekdays from 7 a.m. – 7 p.m.

Open Saturday and Sunday from 10 a.m. – 5 p.m.

BANKING

Fifth Third Bank and US Bank AT Ms are located on Level 1 near the patient tower elevators.

CHAPEL

The chapel is located on Level 1 near the patient tower elevators. It provides a quiet spot for prayer and reflection, 24 hours a day. A Catholic Mass is celebrated every day at 11 a.m., except Wednesdays. Protestant worship services are held every Sunday at 9:30 a.m.

FAMILY RESOURCE CENTERS

Family resource centers are located throughout the hospital to provide a relaxing atmosphere and as a source for information, education, support and Internet access. Resource center locations include:

- C-Level of the Heart Center, near Registration and Diagnostic Services
- The Sharron Moore Eckel Cancer Resource Center, D-Level of the Heart Center
- Medical Intensive Care Unit, 7 West
- 4 West Resource Center
- The Women's Imaging Center, Medical Office Building, Suite 324

NO SMOKING POLICY

The Christ Hospital is a tobacco free campus. To maintain a healthy environment for patients, staff and visitors, the use of tobacco products is not permitted anywhere on hospital property.

PREPARING FOR PATIENT DISCHARGE

All hip and knee replacement patients will need a ride home from the hospital. The anticipated discharge time for your family member is 11 AM. Your family member will have to reach certain goals before leaving the hospital. If these goals have not been reached by 11 AM, your family member may need to stay longer into the day.



What to Expect Following Your Surgery

ANESTHESIA

You will meet your Anesthesiologist on the day of your surgery. Prior to this time your history and physical exam and any important information about you have been reviewed. Questions and concerns about your anesthesia or previous anesthesia experiences can be discussed with the Anesthesiologist during preparation for your surgery, on the Same Day Surgery unit. The Anesthesiologist will likely order a mild sedative prior to surgery and other medications to help prevent nausea after surgery.

PAIN MANAGEMENT

Your surgeon will request an Anesthesiologist administer a pain block before surgery or your surgeon may choose to give you a pain block during surgery. You will also receive extended released pain medications prior to going to surgery and will continue on a scheduled time after surgery. Expect some discomfort following surgery, but with the current pain management modalities, we can greatly reduce the amount of pain you feel following total joint replacements. Relieving your pain allows you to increase your activity and participate in physical therapy. This is an important step towards a faster recovery.

Your surgeon will select one or more of the following pain management options for you:

Peripheral Nerve Blocks

A small catheter is placed in the groin area using a nerve stimulator and an ultrasound machine. You will receive one or more of these injections depending on your joint surgery. This block will numb a specific nerve.

Peri-articular injection

Your surgeon will inject numbing medication around your new joint with other medications to help control your pain.

Combination

Your surgeon will use a combination of numbing medication from a peripheral nerve block and a peri-articular injection to help control your joint pain.

Spinal

A spinal may be given for the surgery. This will keep you numb from the waist down for a couple of hours. This will be used instead of general anesthesia. The Anesthesiologist will also give you medication through the IV to keep you sleepy.

Post-Surgical Pain Management

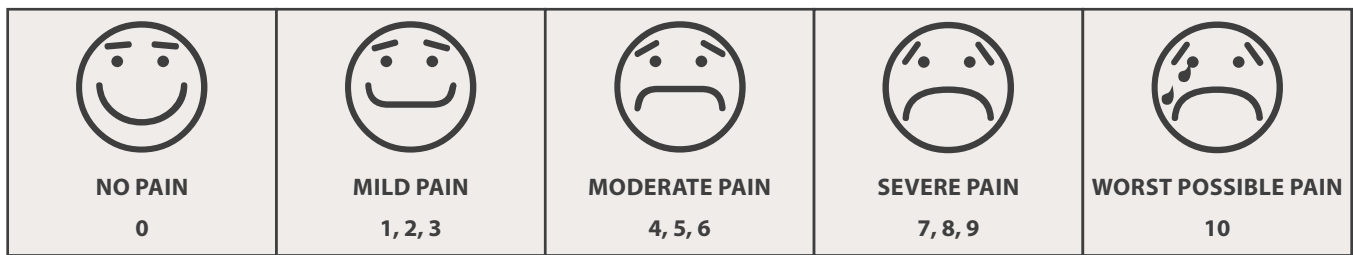
Because patients may feel very little pain after surgery, some may feel comfortable moving around shortly after surgery. It is very important that you NEVER get up by yourself, ALWAYS call for assistance. While you may not feel significant pain, your joint has undergone considerable trauma and medications may also move you feel lightheaded and dizzy. If you get up without assistance, you will fall. YOU DO NOT WANT TO FALL.

The key to getting the best pain relief is talking to your surgeon and nurses about your pain so they can help you manage your pain while you are in the hospital. The goal is to stay ahead of the pain - don't let the pain get ahead of you!

Repositioning your leg and cold therapy can also help alleviate pain.

While in the hospital, you will need to take pain medication 45 minutes prior to your physical therapy appointment, unless you have already taken pain medication in the last 4 hours. After discharge, it is also a good idea to take pain medication prior to going to outpatient therapy. As your surgery heals, your pain will improve and you will take less pain medication over the next couple of weeks until you won't need pain medication any longer.

Use this pain scale to describe your pain to your nurse and surgeon.



EATING AGAIN

You will be returned to your normal diet gradually after surgery. You will be started on a liquid diet then advanced to a regular diet later in the day. A good diet is important to promote the healing process. Drink plenty of fluids to keep your kidneys flushed and your bowels regular.

Classic Cuisine

Your meal will be made just for you and delivered to your room, similar to room service in a hotel. Upon admission, your physician will enter a diet order into the computer system specifically designed to meet your nutritional needs. After the diet order is entered, a Classic Cuisine Ambassador will visit you in your room to explain the ordering process and deliver your customized menu.

Meals may be ordered daily between 6:30 a.m. to 7 p.m. and will be delivered within 45 minutes of order placement. If you have any questions about this service during your stay, please dial 52100 from your room phone to speak to a Classic Cuisine Ambassador.

Patient guests may also order from the room service menu.

- Breakfast - \$5
- Light breakfast - \$3
- Lunch and dinner - \$10
- Light lunch or dinner - \$6

Please talk with your room service ambassador to make selections and arrange payment by cash or credit card.

DRAINAGE TUBES

Suction drainage tubes are sometimes placed at the surgical site to remove any excess blood or fluid that collects. These drains are removed the day after surgery.

Your surgeon may or may not order a tube to be placed in your bladder (Foley catheter) during surgery. Some patients have difficulty passing urine right after surgery due to anesthesia and other urological health problems. If a Foley catheter has been placed, it will be removed once you are able to walk to the bathroom or at the latest the second day after your surgery.

DRESSING

Your incision will be covered with a waterproof dressing while at the hospital. You may shower with this dressing. Specific instructions on how to care for your incision will be given at discharge by the nurse.

PREVENTING RESPIRATORY COMPLICATIONS

Deep Breathing and Coughing

Your lungs consist of many air sacs, which get larger when you breathe. When awake we periodically take a deep breath and blow off extra fluid from these tiny air sacs. When you are sleeping more because of the anesthesia and pain medications, you do not take these deep breaths. Fluid and mucus tend to build up in the air sacs. If allowed to collect, pneumonia can develop and slow down your recovery. After surgery you must make a conscious effort to “deep breathe and cough” to help prevent postoperative pneumonia.

Incentive Spirometer

Upon arrival from the Post-Anesthesia Care Unit (PACU), you will receive an incentive spirometer. You will be instructed to use 10 times each hour. This device will also promote inflation of your lungs to help prevent pneumonia.

How to Use the Incentive Spirometer:

1. With the unit in an upright position, place your lips tightly around the mouthpiece and exhale normally.
2. To achieve a deep and sustained breath, inhale at a rate sufficient to raise the ball in the chamber.
3. Exhale. After performing the exercise, remove the mouthpiece from your lips.
4. Relax and breathe normally for a moment after each deep breath.
5. Repeat this exercise 10 times every hour.



PREVENTING BLOOD CLOTS

After total joint replacement surgery, clots, called deep vein thromboses (DVT) may form in the leg veins. In rare cases, these clots travel to the lungs where they may cause additional symptoms. To prevent and reduce the incidence of clot formation, mechanical devices (foot or calf pumps) are used while you are in the hospital to squeeze the leg muscles, thus maintaining blood flow in the veins. Also, a medication to minimize clot formation, such as Coumadin, Lovenox or Aspirin, will be prescribed and you will have thick white support stockings on after surgery. These stockings are used to help compress the veins and decrease the chance of blood clots. You will continue to wear these upon discharge.

Leg Swelling

Following total knee replacement, most patients develop swelling in the operated leg. Although the amount of swelling can vary from patient to patient, the swelling itself, in the leg, knee, ankle, or foot, is normal and may be accompanied by “black and blue” bruising that will usually resolve gradually over several weeks.

For the first month after your operation, prolonged sitting with your foot in a down position tends to worsen the swelling. You should not sit for more than 30 to 45 minutes at a time. Periods of walking should be alternated with periods of elevating the swollen leg. When elevating the leg, the ankle should be above the level of the heart. Lying down for an hour in the late morning or afternoon helps reduce swelling.

To prevent or reduce leg and ankle swelling:

- Elevate operated leg
- Avoid sitting for more than 30 to 45 minutes at a time
- Perform ankle exercises
- Apply ice for 20 minutes a few times a day (before and after exercises)

MEDICATIONS

While in the hospital medications may be ordered for fever, blood replacement, constipation, antibiotic coverage, sleep, and nausea.

If you develop a fever, you will be given Regular Strength Tylenol (acetaminophen). Please note, the majority of joint replacement patients run a temperature up to 99.5 or even 100 degrees in the first few days after orthopedic surgery. If your fever rises above 101 degrees, it starts to be a source of concern.

Your blood count (hemoglobin and hematocrit) will be monitored on a daily basis for a few days, and you will be given iron supplements and blood transfusions as necessary. All patients taking iron also get stool softeners, but many patients still develop constipation and need a mild laxative on the second or third day after surgery. Talk to your nurse if you need a laxative.

You will be given antibiotics to prevent infection. The antibiotics are first administered just before the start of surgery and continue for 24 hours after surgery.

If you are having difficulty sleeping, you may ask for sleeping pills. The nurses will not automatically give them to you.

Some people experience nausea from extensive bone surgery, as well as from the anesthetic or pain medication. If this occurs, there are medications to help reverse this effect.

COLD THERAPY EQUIPMENT

An ice wrap or ice pack will be applied after surgery to your surgical site. During ice wrap therapy, cold gel packs will be exchanged about every four hours. Please take home all four cold gel packs and the wrap at discharge.

FALLING AFTER SURGERY

Certainly, no one plans on falling, but orthopedic surgery patients are the most common type of patient to suffer a fall while in the hospital. Falling after joint replacement surgery can be very dangerous and will likely cause a major setback in your recovery. Falls most often occur when a patient tries to get out of bed or a chair without help. **It is very important that you do not get out of bed, out of the chair, or even off the toilet without calling for assistance!** Please use the call light and wait for help prior to getting up. Take your time when sitting up and sit for a moment before standing. If you wear glasses, make sure you have them on and are wearing non-skid slippers or shoes when walking.

ACTIVITY

At a minimum, you will be assisted to the edge of the bed or into the chair beside your bed on the day of surgery. Your surgeon will determine when physical and occupational therapy will start.

The physical therapist will get you up on the day of surgery or the next day after surgery as directed by your surgeon. The therapist will remind you about the amount of weight to put on your operated leg. Usually you can put as much weight as is tolerated. If your weight-bearing is limited, your surgeon will instruct you when you can put more weight on it. Generally, this decision is made after follow up X-rays and evaluations.

ADDITIONAL NEEDS

Your surgeon may determine a knee immobilizer and/or a CPM (Continuous Passive Machine) is required in your post operative care with total knee surgery. If these items are needed, the staff will instruct you on their use.

DISCHARGE GOALS

In order to be discharged, certain goals must be met to ensure it is safe for you to return home. These goals include:

- Ambulating the halls with a physical therapist with an assistive device
- Able to climb stairs
- Tolerating diet
- Urinating after urine (Foley) catheter is discontinued
- Tolerating your pain medication by mouth
- Vital signs are stable
- Stable lab results

DISCHARGE TIME

Anticipated discharge time for you will be 11 AM. In order to be discharged to home, you must reach the discharge goals. If these goals have not been reached by 11 AM, you may need to stay longer into the day. Please arrange for a ride home around this time unless told otherwise.



Physical Therapy

To help promote a speedy recovery and to help prevent problems after surgery, there are some routines and exercises that you will be taught and are necessary for you to continue at home.

Physical therapy will help you develop the strength and range of motion necessary to get in and out of bed, walk and climb steps. The physical therapist will get you up on the day of or the first day after surgery. They will remind you about the amount of weight to put on your operated leg as instructed by your surgeon. Usually you can put as much weight as is tolerated. Initially, you will be instructed in walking with a walking aide, such as a rolling walker, crutches or cane. Prior to discharge, physical therapy will instruct you in exercises and techniques to develop your strength and range of motion, even at home. If your weight bearing is limited, your surgeon will instruct you when you can put more weight on your leg. Generally, this decision is made after follow up x-rays and evaluations.

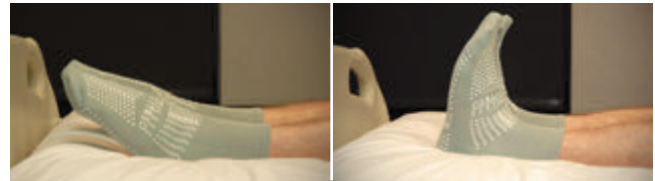
Beginning the first full day after surgery, you will receive physical therapy twice daily. During physical therapy you will experience some discomfort during the therapeutic exercises and walking training. This is normal. You may request pain medication 30-60 minutes prior to your scheduled therapy appointment. Your appointment time should be listed on the information board in your room. The exercises and mobility should become easier and more comfortable each day as you get more familiar with how to move, comfortable with your new joint and have less surgical pain and swelling.

ANTI-EMBOLIC EXERCISES

Anti-embolic exercises, including ankle pumps, quad sets and gluteal sets are necessary to insure proper muscle tone and blood circulation to protect against blood clots. Perform these exercises 10 times every hour that you are awake. Start them as soon as possible after surgery.

Ankle pumps

These can be done with your leg elevated, leg straight while in bed, or sitting in a chair. Move your foot up and down or make circles with your ankle without turning your leg, make circles to the right and to the left.



Quad Sets

Lie on your back with your legs straight. Tighten your thigh muscle by pushing your knee down into the bed. Hold for a count of five, then relax. Don't hold your breath.



Gluteal Set

Lie on your back. Squeeze your buttocks together. Count to five, and then relax.

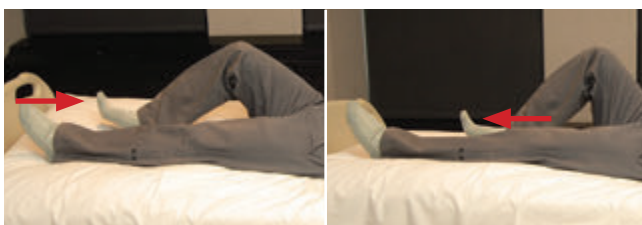


STRENGTHENING EXERCISES

Please practice these exercises prior to surgery as tolerated. After surgery, to regain control of moving your leg, you will be instructed to perform these exercises 10-15 repetitions 2-3 times a day.

Heel Slides

Lie on your back with your legs straight. Begin to bend one knee and slide your heel toward your body. Slowly slide your foot down, returning to starting position.



Seated Knee Extension

Sit at the edge of the chair or bed. Straighten your knee as far as possible. Hold for a count of three, then slowly lower to starting position. Perform 1 set of 15 repetitions, twice daily.



Seated Knee Flexion

Sit in chair with a towel under your foot. Pull your involved foot back to increase bend of knee. Hold for a count of 5. Slowly slide your foot forward to starting position. Perform 1 set of 15 repetitions, twice daily.



Short Arc Quad

Lying on your back or sitting propped up, place a fairly firm support six to eight inches high under your knees so they are slightly bent. Keeping your thigh and knee on the support, raise your lower leg (extending your knee fully). Hold your quad (thigh muscle) as tight as possible, pushing down into the support, for a count of five. Relax, lowering your foot completely. Repeat.



Straight Leg Raises

Lying on your back, with your operated leg straight and your unaffected knee bent, do a quad set. Lift the entire leg up off the bed about six inches. Do not take it higher than the other knee. Hold it as straight as possible for five seconds. Lower your leg gently and relax. Repeat as instructed.



Getting Around After Total Joint Replacement Surgery

POSITIONING AND TURNING

While in bed, you may lie on your back or on either side; whatever is most comfortable for you. Do not place a pillow under your operated leg. If the pillow is positioned under your knee, the knee is bent slightly. If it is left bent for a prolonged period of time it will be difficult for you to achieve full extension or straightening of the knee later. When lying on your side, we recommend you place one or two pillows between your legs for comfort.

GETTING OUT OF BED

Prop yourself up onto your elbows and slowly bring your legs off the edge of the bed, one at a time. Once your legs are off the edge of the bed, push up onto your hands and scoot forward until you are sitting on the edge of the bed.



GETTING IN BED

Sit on the edge of the bed. Slide back onto the bed and lift one leg up onto the bed and then the other with a leg lifter or the non-operated leg to assist if needed.



RISING TO A STANDING POSITION

Scoot toward the edge of the bed. Position the walker in front of you. Place both hands on the mattress or arm rests of the chair and push up using your hands. When able, move your hands, one at a time, to the walker.



SITTING DOWN WITH A WALKER

Back up until you feel the chair or bed on the back of your legs. Then, reach back with both hands for the mattress or arm rests and slowly lower yourself to a sitting position.



WALKING

While in the hospital, please ask for assistance from the nursing staff to walk when not in therapy. You will need to use a walking aide following your surgery. When walking with your walking aide, remember to move the device forward first, followed by your operated leg, then your non-operated leg. Try to place one foot ahead of the other.

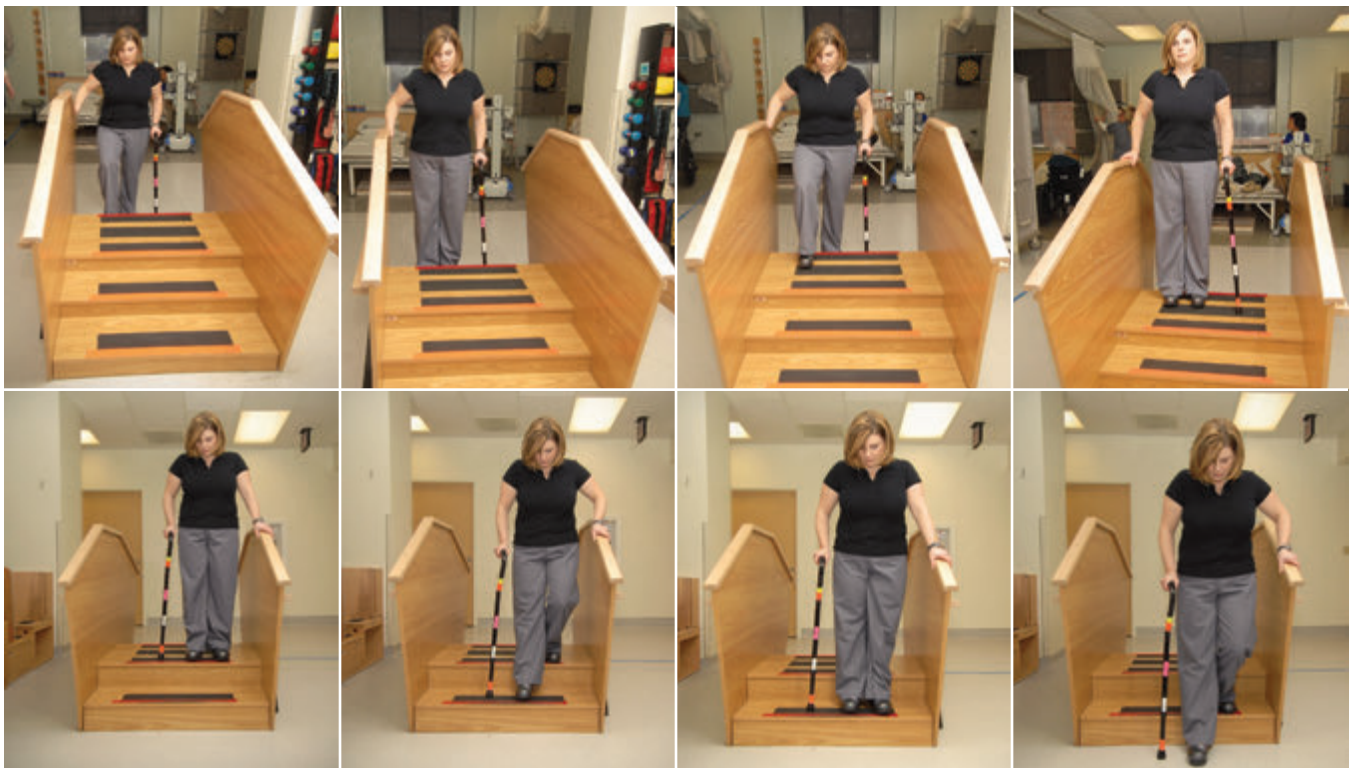
STAIRS

There are several ways to climb the stairs. The one you select will depend on the type of walking aide you use, and whether or not there is a handrail on the steps you will be climbing. Your therapist will teach you how to climb stairs prior to going home. In general, remember to lead with your non-operated leg going up, and lead with your operated leg going down. Remember, “up with the good, down with the bad”.

Option 1



Option 2



OTHER CONCERNS

Many people perceive their operated leg as longer immediately after joint replacement surgery. This is called apparent leg length discrepancy. Usually this perception is due to advanced arthritis in your old joint or muscle imbalances. It usually disappears with muscle strengthening and stretching within 6 months. If this is a concern, please address it with your surgeon or physical therapist.

Occupational Therapy

An Occupational Therapist will visit you on the first day after surgery to assess how well you are able to complete self-care activities and functional transfers necessary for returning to daily living. If needed, the occupational therapist may recommend and educate you on adaptive equipment for bathing and dressing or durable medical equipment to promote your functional independence.

USING THE TOILET

Sitting on the toilet is much the same as sitting down in a chair or on the side of the bed. To ease your transfer, it may be helpful to use a raised toilet seat with grab bars.



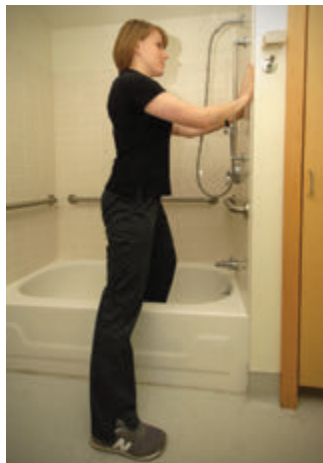
TRANSFERRING INTO AND OUT OF A CAR

Have the car parked 3-4 feet away from a curb. Back up to the car with your walker until you feel the car frame against the back of your legs. Using your hands for support on the back of the car seat or the dash board, lower yourself slowly onto the seat. Never use the car door to stabilize yourself. Back onto the seat in a semi-reclining position. Bring in one leg at a time. Reverse the steps for getting out of the car.

BATHING

Your surgeon may allow you to shower after surgery. If not, you may need to sponge bathe until cleared by your surgeon. Soaking baths are not permitted. The occupational therapist will make specific recommendations based on your shower type at home. If need be, a shower chair or bench may be recommended.

To transfer into a tub/shower or walk-in shower, turn towards your operated side. Place your hands on the wall if grab bars are not available to steady yourself. Side step into the tub or shower leading with your non-operated leg first, followed by your operated leg.



Precautions After Hip Replacement

Following some hip replacement surgeries, your surgeon may want you to follow a few guidelines to protect your hip and ensure proper healing of the surgery site. If these restrictions are required, you will be instructed on them by your physical or occupational therapist. The following is a list of your precautions:

FLEXION PRECAUTION

- Do not bend at the waist past 90 degrees.
- This includes any motion where you bring your knee toward your chest.
- Do not sit on low chairs, couches or toilets.
- Kick your operated leg out in front of you before you stand up and sit down.

INTERNAL ROTATION PRECAUTION

- Do not let your leg roll inward.
- Do not pivot toward your surgical side as this will turn your hip inward.
- When in bed, keep your toes pointed up toward the ceiling.

EXTENSION PRECAUTION

- Don't bring your leg behind you.
- It is okay to walk normally with alternating feet.

ADDUCTION PRECAUTION

- Do not cross your legs.
- This includes crossing your legs when lying, standing and sitting.
- Use a pillow between your legs if you prefer sidelying in bed.

EXTERNAL ROTATION PRECAUTION

- Do not turn or rotate your hip away from midline.
- Don't pivot away from your surgical side with foot planted as this will turn your hip outward.
- Do not let your leg roll outward.
- When in bed, keep your toes pointed up toward the ceiling.



Discharge Instructions



You will be allowed to go home when your temperature is normal, when you are able to get in and out of bed, and when you can walk to the bathroom with staff standing by. Most patients reach this goal within one to three days.

It is better if someone can be at home with you for at least portions of each day to assist you with getting things, meal preparation, shopping, etc. Constant nursing care is rarely needed at home.

Before you go home, it is important that many of the things that have been discussed or mentioned are well understood. At discharge It is important for you to know :

- Physician office contact information.
- When and where your follow up appointments are.
- What medications to take, those from before your surgery, those since your surgery, and, if on
- Coumadin, when your next blood test will be.

The discharging nurse will review your discharge instructions and medication list at discharge. You will also receive a written copy of the instructions and medication list to take home. Instructions will include:

- How to care for your incision. If it has drainage, know how to take care of it and the supplies needed.
- What exercises to do and how much weight you should put on your leg.
- All the equipment you will need in relation to your leg, including walker and/or crutches, bedside commode, reacher, sock helper, long sponge, bath bench, and hospital bed with trapeze. These can be ordered while at the hospital.
- What to do if your leg swells (pages 16 – 17).
- Things to report to us: fever, change in pain, new drainage from your wound or drain site or change in the character of the drainage you are having.

Discharge Therapy Options

Once you are discharged from the hospital, your surgeon will determine if additional physical therapy is needed. If your surgeon determines additional physical therapy is needed, there are three basic options for physical therapy:

- Outpatient physical therapy
- In-home physical therapy
- Inpatient physical and occupational therapy in a skilled nursing or rehab facility

OUTPATIENT PHYSICAL THERAPY

Early outpatient physical therapy is generally preferred. This can be done at a Christ Hospital Physical and Occupational Therapy Center in your area. If one of our locations is not convenient or you have a relationship with a therapist, an alternate location is acceptable. Physical therapy should begin as soon as possible after discharge and continue two to three times per week for six weeks.

HOME BASED PHYSICAL THERAPY

If transportation is not practical for outpatient PT or your physical therapist recommends home PT, home therapy can be arranged for you. Your Case manager will assist with these arrangements if you are home bound. Home therapy is usually 2–3 times per week for 1–2 weeks or until mobility allows you to travel to outpatient PT.

SKILLED NURSING OR REHAB FACILITY

The two levels of care are:

- 1. Community based Skilled Facilities** - Most orthopedic patients who need additional inpatient care do well with a short stay at a skilled nursing facility. At the facility, occupational and physical therapy is available as well as nursing care.
- 2. Inpatient Acute Rehab Care** - This type of care is for patients who have more complex rehabilitation needs, often with additional complicating medical conditions. The Christ Hospital rehab unit meets this description. If going home is not an option, a skilled nursing or rehab facility stay can be arranged.

Incision Care After Total Joint Replacement Surgery

The incision will be closed with skin glue or staples. Skin glue is waterproof. Once told the dressing can be removed, a dressing is no longer needed and you may continue to shower. If the outer skin edges are held close together with staples, a waterproof dressing is necessary to shower. The staples are removed once the incision has healed, usually around ten to fourteen days after surgery. Do not soak in a tub or pool until all of the scab is off your incision, usually around four weeks after surgery.

Everybody heals at a different pace. This pace can be affected by some medications and some medical conditions. It is not unusual for there to be some drainage from your incision for 7-10 days. As long as the dressing is not saturated and it remains sealed, leave the dressing on. If the dressing becomes saturated, call the surgeon's office. It is also not uncommon to have bruising around your incision or throughout your leg. No creams or ointments should be applied on top of the incision until all of the scab has come off naturally.

Pain Relief At Home

You will be given prescriptions for pain medication when you leave the hospital. There are prescriptions that can be called in to a pharmacy and those that require a written prescription. When you get down to just over one day's worth of medication, you may call the office for a refill. Please allow 24 hours for refills. Narcotic pain medicines are not filled by the on-call physician over the weekend. There are some medications, such as Percocet, that cannot be called in and require a written prescription that someone will need to pick up at the office for you. When you call the office for a refill, please give your name, the date and type of surgery you had, the name and dose of your medication, and the telephone number of your pharmacy.

As you get farther out from your surgery, your need for pain medicine will decrease. Narcotic pain medicine is very constipating and your stomach will be much more comfortable when you take less of it. Instead of taking two tablets at a time, you may find taking one is enough. If two is too much and one is not enough, look at the label of your bottle. The letters "APAP" indicate that your medicine has acetaminophen (Tylenol) in it. The number after these letters indicates how much acetaminophen it contains. For example, 5/325 means you have five milligrams (mgs.) of the narcotic pain medicine and 325 mgs. of acetaminophen. You may find that taking one prescription pain pill with one acetaminophen tablet helps more than one pain pill by itself.

It is important to take the medication as prescribed. Taking more tablets than directed at one time or at more frequent intervals causes some concern. If you become overly medicated, you could fall and injure your surgical site. In addition, taking too much acetaminophen can damage your liver.

The day after you finish your blood thinning medications, you may go back on your regular arthritis medications (also called anti-inflammatory medications). This helps reduce the amount of narcotic pain medication that you need. It also helps decrease the amount of soft tissue swelling and warmth, while you are working on stretching for your motion. If you were taking Celebrex before surgery or were given it at the hospital, you may continue it even with the blood thinner.

For total knee replacement patients, it is important to take your pain medication for your physical therapy. Patients usually cut back to taking pain medication for therapy and for sleeping at night. Once you have reached your goal of 90 degrees of bend in your knee, you may start to cut back on the pain medication.

Ice is very helpful in pain control. Applying an ice pack for 20-30 minutes at a time can give significant pain relief. You need to put a towel between your skin and the ice pack. You may use the ice pack provided for you at the hospital or a large bag of peas or corn conforms nicely and can be reused several times. After 20-30 minutes your circulation goes back to normal and the therapeutic affect is lost. Putting ice on and off frequently is better than keeping it on continuously around the clock.

Potential Complications of Total Joint Replacement Surgery

Total Joint replacement surgery has a very high success rate. Complications are relatively uncommon considering the complexity of the procedure.

However, with any surgery there are the risks of anesthesia, of bleeding too much and of infection occurring. With total joint replacements, the most common complication is blockage or blood clots in the legs, the most serious complication is infection, and the most serious long-term complication is loosening of the prosthesis.

GENERAL COMPLICATIONS

Anesthetic Complications

Anesthetic complications can occur. When your anesthesiologist sees you before surgery, the risks involved with the type of anesthesia you will have can be discussed and any concerns addressed.

Bleeding Complications

Bleeding complications are usually due to the fact that small blood vessels are cut or a larger blood vessel is injured during the course of the operation. All care and precautions are taken to avoid blood loss or injury to surrounding tissues. The small blood vessels are cauterized to control bleeding. Injuries to larger vessels are repaired. Your blood pressure and the amount of blood loss are monitored continuously. Your blood count is checked prior to surgery as well as after for a few days. Bleeding into the wound is drained and monitored.

Infection

Any time our skin is cut, bacteria can enter our bodies and is fought off by our immune system. Despite routine surgical procedures, infection from surgery of any type is always a risk. Special precautions are taken to avoid introducing an infection at the time of joint replacement surgery, including a special ventilation system used in the operating room, and antibiotics administered before and for 24 hours after the operation.

Some individuals are more prone to develop infections, such as people with an immune system impaired by certain medical conditions, people that need to take certain medications that delay wound healing, people who have an infection in the affected joint or anywhere else in the body at the time of surgery. Infections of the bladder, prostate, kidneys, gums and skin ulcers should be cleared up by appropriate treatment well before the day of surgery.

The artificial joint can become infected many years after the operation. Bacteria can enter and travel through the blood stream from a source elsewhere in the body, such as from an infected wound, through our mouths during dental procedures, or a gallbladder infection.

Blood Clots

Blood clots in the veins (deep venous thrombosis) of the legs are the most common complication of knee replacement surgery. Swelling from the surgery and decreased activity lead to slowed circulation in the affected leg. The speed at which our blood clots varies from individual to individual. If clots develop and remain in the legs, they are a relatively minor problem. Occasionally, they dislodge and travel through the heart to the lungs (pulmonary embolism). This is a potentially serious problem, since (very rarely) death can result from embolism. Ankle exercises, early mobility, use of blood thinners, and attention to swelling are all aimed at avoiding and preventing blood clots from forming or progressing.

Blood clots can occur despite all these precautions. They are usually not dangerous if appropriately treated, but may delay your recovery, your discharge from the hospital, or be a cause for readmission once you have gone home.

Loosening of the Prosthesis

Loosening of the prosthesis from the bone is the most serious long-term problem. How long the bond will last depends on a number of factors. Ongoing research and technological developments continuously work at advancing what is known about the fixation of the components and how best to accomplish it. Some of the factors are influenced by what the patients do. We know that excessive force on the implant can cause the bond to loosen. The other important factor you control is your weight. For every pound you gain, it adds three pounds of force across the knee with each step you take.

Fracture of Bones

Fracture of one of the bones rarely occurs during joint replacement. If it occurs, it is more common during revision knee surgery. One of the bones can fracture later from any trauma, such as falling down stairs.

Pressure Sores

Pressure sores on the tailbone and heels may develop if you stay in one position too long. Normally we move frequently in our sleep and all during the day. This changes the amount of pressure over our bony parts. With the reluctance to move because of the medication or for recuperation in general, this ability to change position frequency on your own is diminished. Pressure sores can be avoided by changing your position every two hours. With orthopedic surgery, this also helps with your pain control. A position that feels really good when you first get there will soon be uncomfortable because your body wants to move. When you need help to change your position, call the nurses to help you until you have learned how to do it on your own.

Residual Pain and Stiffness

Residual pain and stiffness can occur. This is pain that lasts beyond your recovery. The completeness of the pain relief and the degree of mobility reached is partially determined by your knee problem before surgery. Generally with total joint surgery people get back the motion they had before surgery. Rarely, patients have pain after surgery that cannot be explained.

In virtually all cases the surgery will make a significant improvement in your pain and mobility. While there is always a risk of complication, every effort is made to prevent them. Should you develop a complication, we will give every effort to ensure a good result. In most cases, you will have a pain-free joint, and it will feel "normal." This transition to normalcy can take up to nine to twelve months.



TOTAL KNEE REPLACEMENT-SPECIFIC COMPLICATIONS

Limits to Range of Motion

The primary reason most people have total knee replacement surgery is pain relief. Regaining the ability to do things and increased motion are added benefits when they occur. A knee that is ultimately stiffer is an undesired result. Some individuals regain their motion with little difficulty, while others are stiff and sore and must work hard to reach the goal of 90° of bending by six weeks. In day to day functioning we need a bit more than 90° to do stairs, get up out of chairs, and get in and out of cars easily. While you are still anesthetized and with the new knee in place, your surgeon checks the amount of motion at your knee, aiming at getting it out straight and with a bit more than a 90° bend.

If after all of your hard work, you have not reached the goal of 90°, your surgeon may feel you would benefit from a manipulation. For this you come back to the hospital, and under anesthesia, he bends your knee for you. Following this, sometimes you stay in the hospital a few days for therapy but usually you go home and have outpatient physical therapy the next day. You may be put into a continuous passive motion (CPM) machine that gently moves your leg back and forth. When you go home, you continue with therapy and the use of the CPM machine until you reach and maintain 90° of bending.

TOTAL HIP REPLACEMENT-SPECIFIC COMPLICATIONS

Dislocation of the Hip Replacement

Dislocation of the hip replacement occurs in a small percentage of patients, typically less than four percent. Dislocation happens when the metal ball slips out of the socket. In the first weeks after surgery, the ball is only held in the socket by muscle tension. It is during this time as muscle strength is returning that the hip is most likely to dislocate. As the incision heals, scar tissue forms around the joint and makes a snug enclosure or capsule. How soon this healing occurs is at an individual pace. Replacements in people who are grossly overweight, replacements in people with poor muscle strength, and revision hip replacements are more likely to dislocate. Occasionally, some patients that suffer a hip dislocation may go on to develop repetitive dislocations, requiring either a brace to be worn for several months and/or further surgery to correct the problem.

If the hip does dislocate, it is usually a simple matter for the physician to pull on the extremity and put the hip back into place. In the event of a dislocation, you may be put in what is called a hip spica cast or brace that holds the hip in a fixed position for six weeks, enabling the soft tissue swelling inside the joint area to do down and to minimize the possibility of any further dislocation.

Nerve Irritation

For reasons not completely understood, in approximately one percent of hip replacement surgeries a nerve located behind the hip joint becomes “irritated” following surgery. This tends to happen more frequently in patients who have had previous hip surgery, though it can occur in first time hip replacements as well. While many studies have been done to try to determine the cause, researchers have not been able to determine exactly what causes this irritation or why it happens. In most cases, when the nerve does become irritated, it does eventually heal.

Although the cause has not been determined, care is taken in how you are positioned and how much change in leg length is corrected during your surgery in an effort to minimize the likelihood of developing nerve irritation. While you are waking up in the PACU, a nurse will ask you a number of questions and will touch your foot and ask you to wiggle your toes to check function and sensation of the nerve. Throughout your hospital stay, your caregivers will continue to do this check. In the event the nerve has been irritated, measures will be taken depending upon the extent of your activity limitation or your inability to rest.

In addition to the nerve at the back of your hip, there is also a nerve in the front of your thigh that may be irritated by the hip incision. This nerve only affects sensation in your thigh, not function or movement and typically results in a sensation of numbness. If irritation occurs, it typically gets better over time. In very rare cases this numbness may not resolve, but it will not affect your hip or leg’s ability to function.

Extra bone formation

Extra bone formation, known as heterotrophic bone, around the artificial hip develops in approximately one percent of patients and may cause the hip to be stiffer than desired. This is most likely to occur in younger males with severe osteoarthritis. It can be treated by surgical removal of the bone once it is “mature”. Radiation therapy may be recommended to try and prevent heterotrophic bone formation. Such radiation treatment is administered in the X-ray department just prior to surgery.

Leg length discrepancy

The length of your leg may be changed slightly by your hip replacement surgery. It can be very difficult to match leg lengths during surgery and some leg length difference may be unavoidable. Shoe lifts may be necessary if the difference is more than a quarter of an inch. When the leg is more than an inch short to begin with, it may be impossible to equalize the legs for fear of damaging the nerves. In some cases, the leg will be deliberately lengthened in order to stabilize the hip or to improve muscle function. In the first weeks after surgery, some patients complain that the operated leg feels “too long” even when the legs are perfectly equal in length. This is an artificial sensation which will resolve after a few weeks.

Conditions You May Encounter At Home

EXCESSIVE SWELLING OF YOUR LEG AND FOOT

Many people do develop some swelling in the first few weeks after surgery. If this occurs, throughout the day periodically elevate your leg with your foot higher than your heart to help control swelling. While in this position, do your ankle pumping exercise. Within 10-15 minutes you should notice an improvement in the swelling, with the skin feeling less tight and your leg less puffy. While you are in bed, the head of your bed may be raised slightly as long as your leg is raised to a higher level. Your leg should also be less swollen when you wake up in the morning.

In some cases, excessive swelling of the foot and lower leg can be due to deep vein thrombosis (DVT), also known as blood clots in the veins of the leg. If pain or tenderness in the calf muscle is associated with swelling, if the swelling seems excessive, if swelling does not respond to elevation or if your leg is as swollen in the morning as the night before, your surgeon's office should be notified immediately.

CHEST PAIN OR SHORTNESS OF BREATH

Chest pain or shortness of breath following joint replacement surgery may be signs of a pulmonary embolism. Do not ignore these symptoms. Seek medical attention right away. Call 911.

DRAINAGE FROM THE INCISION

Drainage from the incision, or increasing redness around the incision, could signify impending infection. Your surgeon's office should be notified, and in most instances you will need to come in and have your incision looked at. Your dressing change routine and medications may need to be adjusted. Please cover with dry sterile gauze twice a day or as needed. If you have drainage, do not shower.

Occasionally, a pocket of fluid (a hematoma if bloody fluid; a seroma if clear fluid) develops under the closed incision. This collection of fluid can result in a hardening of the skin over this area. As the surgical wound heals, the body re-absorbs this fluid in most cases and the area softens. Occasionally, this

fluid finds an opening in the incision and drains out. Hematomas drain dark maroon colored fluid and seromas drain a clear yellowish fluid. If this drainage occurs, you should keep the area clean and call your surgeon's office.

HIGH FEVER

While it is common to run a slight fever following joint replacement surgery, a high fever could be a sign of impending infection. If you feel you have a fever, take your temperature and make note of it. At least three hours later, take your temperature again. If both readings indicate a fever of 101° or more, notify your surgeon's office. Your pain medication may have acetaminophen in it, which will help to keep your fever down. If you need to call the surgeon's office, please be prepared to provide information on recent medication you have taken and dosage.

INCREASED JOINT PAIN

Pain in your joint should be decreasing from day to day. If it seems to be steadily increasing, call your surgeon's office.

CONSTIPATION

Many patients experience constipation after surgery. Not having a bowel movement for 2-3 days following surgery can be normal. Constipation after surgery can be caused by pain medication, which contains narcotics. Also, decrease in liquid, food intake and activity contribute to constipation. While on pain medication, continue to take an over the counter stool softener. If you have had no bowel movement 2-3 days after surgery, you may need to take a laxative. If the stool softeners and laxative do not relieve your discomfort, contact your pharmacist, family doctor or surgeon for advice. In addition to these medications, you should increase your activity, water and fiber in your diet.

Routine Progression of Activity

You are not expected to stay in bed when you return home from the hospital. You should be up and about on your walker or crutches most of the time, but rest as much as needed. You should also do the exercises you have been taught and that you can do on your own.

It is not uncommon to have difficulty sleeping for the first one to two months after surgery. It is acceptable to rest during the day, but try to avoid taking long naps if you have trouble sleeping at night.

When the scab is completely off your incision, you may find participating in a local water exercise programs provides a good workout without stressing your joints. The Ohio River Valley Chapter of the Arthritis Foundation sponsors many of these programs. Call 513-271-4545 for a location listing.

DRIVING

Driving is individualized. If your joint replacement was in your right leg, you may need a longer period of time before you can drive. You should be able to bend your knee enough to get in and out of the driver's seat and no longer using narcotic pain medication during the day before returning to driving. You should check with your surgeon for recommendations when you may return to driving.

SEXUAL RELATIONS

You are not alone with your concerns and questions about resuming sexual activity. In general, it is safe to return to sexual activity by six weeks after surgery. If you choose to abstain, remember that sexual activity can include more than intercourse. It is important to communicate with your partner to minimize the impact of your surgery on intimacy. If you have any concerns, please check with your surgeon's office, therapist or nurse.

RETURNING TO WORK

You will probably not return to work for eight to 12 weeks after your surgery. Quite a few patients do return earlier, depending on the nature of their work and how flexible their workplace is for returning on a part-time basis initially. We generally tell employers eight to 12 weeks, but you may return sooner if you are physically ready. Discuss an early return to work with your surgeon. Please contact your surgeon's office if you need paperwork completed for your employer.



FOLLOW UP CARE

In the first few months after your surgery, you will have routine visits to monitor your healing and progress. Any questions, concerns, or worries can be addressed at these visits. Prior to your visit, it may be helpful to write down things you would like to discuss during the visits. Remember to note if you need a prescription refill.

It is important to talk to your physician about your follow-up plan. Below is an example of a typical schedule following hip or knee replacement:

10 to 14 days after surgery: Wound staples are removed at this visit if you have them. You may want to take pain medication before you leave home and bring a dose with you. If you have a home health nurse who will be taking out your staples, you will not need to schedule this visit.

Four to six weeks after surgery: X-rays are taken to check your healing. One view is with your leg to the side. The technician will help position it with you.

Three to six months after surgery: This appointment may or may not be required by your surgeon to monitor your progress. No X-ray is required.

One year after surgery: You will have an X-ray taken at this visit. After the one year appointment, you should follow-up every five years for an X-ray to monitor the positioning of your new joint. Problems around the surface between the components and the bone show up on X-ray before you have symptoms. Waiting until symptoms occur may lead to a more difficult treatment.

INFORMING OTHER HEALTH CARE PROVIDERS

It is important that you inform all of your health care providers that you have had joint replacement surgery. For all total joint patients, it is advised to protect the joint whenever a procedure that causes bleeding is performed. Please check with your surgeon regarding the length of time. People who have conditions that challenge their immune system are considered at risk for infections and are advised to take the antibiotic for the rest of their lives. These conditions include rheumatoid arthritis, systemic lupus, insulin dependent diabetics, cancer patients on chemotherapy or radiation therapy, hemophiliacs, and anyone who has had a previous joint infection. Should you need another procedure, emergent or elective, you should have antibiotics for routine dental cleaning and any other dental procedure. Your dentist may order them for you or you may call our office.

Antibiotics should be taken one hour prior to any dental work, including routine teeth cleaning. This does not include your daily teeth brushing. Urologic (bladder) procedures for patients identified as at risk for infection do need antibiotic coverage. Please ask the physician performing the procedure for the antibiotic.

You will be given an identification card stating your surgery and date. The security systems at the airports and government buildings will likely pick up the metal and set off the alarm. Although the cards are no longer accepted at airports, it can be used as verification whenever needed.

Frequently Asked Questions

AFTER SURGERY

I feel confused, dizzy, or very sleepy now.

What can I do?

We try to give you medications to control your pain so that you are comfortable in the hospital and once you go home. For some people, the medication dosage may be too strong, particularly once you get home and as your pain lessens. If you feel more confused or sleepy, particularly after taking your pain medication, please call your surgeon's office. Your medication or dosage may need to be changed or adjust.

I can't sleep at night, my leg is uncomfortable.

What can I do?

It is natural for our bodies to change position while we sleep. Your ability to do this on your own may be limited and you may need someone 'on-call' to help reposition your leg until you are able to do it yourself. Knee patients frequently report that if their knee is twisted as they turn in bed it is very painful.

Tips to increase comfort include:

- Turning the leg all together, like the way you roll a log on the ground, decreases the twisting effect.
- Using pillows to support the leg may be helpful.
- Ice is very helpful in pain control and decreasing pain that has increased due to a change in position. We recommend a bag of frozen vegetables (family size peas or corn) for 15-20 minutes. Place a towel between the ice pack and your skin.

I'm having muscle spasms in my thigh, especially at night. The pain medicine doesn't really help.

What can I do?

People who have maintained a pretty high level of activity prior to surgery sometimes have 'irritable' muscles in the early post-operative period due to a decrease in activity and more time spent lying down. While you may be doing some exercises, getting up out of bed and starting to walk, this may still be significantly less moving and walking than your muscles are used to doing. If you find your leg muscles are tightening up on their own or your leg is jerking in your sleep, there is medication we can give you to relax your muscles.

I haven't had a bowel movement since surgery and it's been five days now. Should I be worried?

Several changes have occurred that can disrupt your regular schedule. The post-operative pain medicine slows your stomach down tremendously. It is important to counteract this by drinking lots of fluids, eating foods that do not sit heavy on your stomach, taking a stool softener and if needed a laxative.

Before you worry about it, ask yourself how your stomach feels and if you have been eating a normal amount of food since your surgery. Chances are your appetite has not returned to normal yet and you have been eating considerably less than usual. The pain medicine can also decrease your appetite. Take the pain medicine when you need it, rather than every four to six hours around the clock in case you should need it.

They gave me a pair of compression stockings the day I left the hospital. Do I have to keep wearing them?

Compression stockings are ordered for you while you are in the hospital. Please be sure to take them home with you. You wear them during the day only as long as you are having swelling. Take them off at night and put back on in the morning before you have been out of bed long enough that your legs are starting to swell. They need to be put on so that the fabric is smooth, top to bottom. If they get bunched up they are like rubber bands around your leg and can block your circulation. Rolling down the tops is the same as being bunched up. If the stocking is a bit long, it is better to pull it down at the toes and have extra fabric there then to let the top part roll down.

My leg is swollen and it hurts. The pain medicine doesn't help. What should I do?

Swelling that comes with decreased walking should go down with elevation. If it does not and if it is the same amount of swelling, or more, in the morning as it was when you went to bed, call the office. They will schedule you for what is called a Doppler. It is a non-invasive study to give us information about how the blood is flowing through your leg. If a blockage has developed, then it needs to be managed a bit differently. This is a problem we watch for and even gave you blood thinning medication to avoid. Still in a certain percentage of people they still develop what we call deep venous thrombosis (DVT). This is a medical problem so, even though we do the test to find out if it is there, we will ask your medical doctor to manage it if the result is a positive one. A negative result means you do not have a DVT and you still need to elevate your leg periodically so that your foot is higher than your heart.

I am finished with therapy. How long do I need to keep doing my home exercise program?

A routine of regular exercise is an important part of good health maintenance. You want to progress to a program of regular walking, water exercise or your regular activity routine if you were pretty vigorous before your surgery. You have been doing two types of exercise; those exercises that put your joint through its range of motion and those that strengthen your muscles. Continuing to do your range of motion exercises will help to relieve stiffness that comes with sitting or periods of inactivity.

Strengthening exercises are the ones you do with weights or rubber bands to make your muscle work harder. You want to build up your strength so that you can walk without limping. Generally this means you have built yourself up to doing three to five sets of ten repetitions with five to seven pounds of resistance with your strengthening exercises. If you have access to exercise facilities or water exercise classes then you can progress to doing your exercises there once you reach this level.

ADDITIONAL KNEE REPLACEMENT-SPECIFIC QUESTIONS

My knee clicks. Is it falling apart?

The clicking is coming from the metal and plastic surfaces tapping against each other. Our knees naturally have a little play in them to allow us to bend them. Your new knee has a plastic button on the back of your kneecap. As you straighten your knee when rising out of a chair, going up stairs, or walking, the knee cap is pulled up against the end of the thigh bone (femur) which now has a metal surface on it. Once you have regained your thigh muscle strength, there is much less clicking or by then you have gotten used to it. Patients have also reported that they are aware of this clicking if they walk in their yards or on other uneven surfaces. Then it is the plastic tray on the shinbone and the metal piece on the thighbone that are tapping. Unlike the noises experienced in your knee prior to surgery, these noises are not associated with pain. Since you feel the vibration in your body of the tapping, you hear the noise more than the rest of us.

My knee is numb on the outside. It wasn't like that before. What happened?

When the skin incision was made down the front of your knee, the small nerves in your skin were cut. These small nerves were the ones that gave you sensation in your skin. The nerves to the tissue under your skin are still intact so there is no change to the bigger nerves in your leg. It could take nine to 12 months for this numbness to subside.

ADDITIONAL HIP REPLACEMENT-SPECIFIC QUESTIONS

My thigh is numb on the outside. It wasn't like that before. What happened?

When the skin incision was made down the front of your hip, the small nerves in your skin were cut. These small nerves were the ones that gave you sensation in your skin. The nerves to the tissue under your skin are still intact so there is no change to the bigger nerves in your leg. It could take nine to 12 months for this numbness to subside.

My leg feels longer since surgery. Should I be concerned?

Your leg length is assessed during surgery and your surgeon makes every effort to insure your leg lengths are equal. It is not uncommon to feel that the operative leg is longer after surgery. For most patients, it just takes time for this feeling to resolve. Please do not put a lift in your shoe unless recommended by your surgeon. If you are concerned and would like to discuss prior to your first follow-up office visit, please call your surgeon's office.

Contact Us

For more information or questions about your joint replacement surgery, please do not hesitate to contact our Orthopaedic Nurse Navigator at 513-585-0663 or by Email at JointCare@thechristhospital.com.

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