Your Guide

to Hip & Knee Replacement Surgery

Piedmont

Real change lives here

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Services We Provide

Welcome to Piedmont! You've come to the right place for your joint replacement surgery. We're committed to providing you with exceptional health care every step of the way.

We believe the more you know about what to expect before, during, and after your joint replacement surgery, the more you'll be able to join us in making your surgery and recovery a success.

We hope you take advantage of everything we have to offer and become an expert in your health and care in preparation for your surgery.

Our services include:

- **Orthopedic navigators (at select locations)**
  - Our navigators are your advocate. They teach Joint School, assist with pre-operative preparation, provide support throughout treatment, answer questions and address concerns.
- **Online Joint School**
  - https://www.piedmont.org/orthopedic/total-joint/total-joint-replacement
- **Online physician talks**
  - https://www.piedmont.org/orthopedic/total-joint/total-joint-replacement
- **Online physical therapy demonstrations**
  - piedmont.org/orthopedic/orthopedic-patient-education
  - piedmont.org/media/file/Knee-Replacement-Excercises.pdf
  - piedmont.org/media/file/Hip-Replacement-Excercises.pdf
- **Online and/or printed guidebook for hips and knees**
  - Guidebooks are available online and at some Piedmont hospital locations
  - piedmont.org/media/file/Hip-Knee-Guidebook.pdf
- **Piedmont My Chart** (https://www.piedmont.org/patient-tools/mychart)

  It's easy to sign up, easy to use, and it helps you:
  - Connect with your doctor
  - See your test results
  - Manage all your appointments
  - Request medication refills
  - Check in before you walk in

Thank you for choosing Piedmont. We look forward to taking excellent care of you every step of the way.

Getting Back on Your Feet

Recent improvements in materials and techniques have made total joint replacement a common and highly successful surgery. Most hip and knee replacement surgeries take between 1-2 hours. In most cases, patients are walking with a walker or cane within hours of surgery and begin physical therapy the day of surgery. A joint implant's longevity will vary in every patient based on factors such as age, weight, activity level and medical conditions. An implant is a medical device subject to wear that may lead to mechanical failure. There is no guarantee that your implant will last for any specified length of time, but in general, it should last about 20 years. More joint replacements are now done as outpatient procedures with discharge to home the same day as surgery. In rare cases patients may be required to stay in the hospital for 1-2 days.

Why Joint Replacement May Be Needed

An injury, disease or normal aging can cause articular cartilage to become thin, rough or worn. When it does, the bones begin to rub together. This results in a slow wearing away of the bone surface, which can cause pain and stiffness.

The most common cause of joint disease includes:

- **Osteoarthritis** occurs as the cartilage thins due to wear and tear that destroys the cartilage. This is the most common form of arthritis.
- **Rheumatoid Arthritis** may affect many parts of the body including the synovial membrane in joints. The diseased membrane makes large amounts of fluid, which thins the cartilage and causes the joint to swell.
- **Traumatic Arthritis** may occur at any age. This type of arthritis is from an injury to the joint, which damages the cartilage.
- **Avascular Necrosis** is the death of the bone due to a lack of blood supply.

We strive to enable patients to walk the day of surgery and resume normal activity in 6 to 12 weeks.

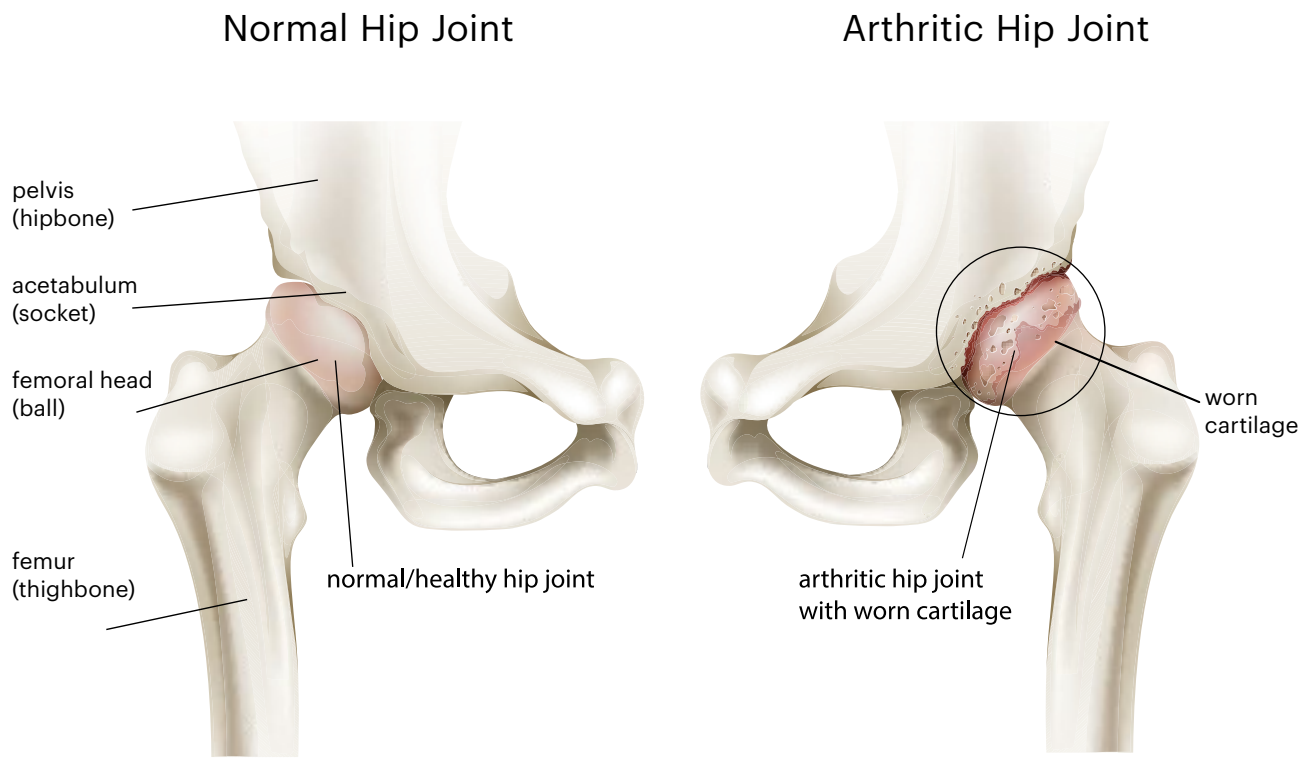
Goals of Surgery

- Relieve pain (the main reason for most people)
- Improve joint motion
- Correct deformity
- Restore independence
- Return to an active lifestyle

Understanding How the Hip Joint Works

The hip joint is a ball-and-socket joint. The ball (femoral head) is attached to the top of the femur (thigh bone). The acetabulum (socket) is curved and is part of the pelvis (hip bone). The ball rotates in the socket and allows you to move your leg in all directions.

A smooth substance called cartilage acts as a cushion between the ball and socket. A thin membrane (synovial membrane), containing synovial fluid, surrounds the joint and lubricates the cartilage. The cartilage allows the ball to glide easily inside the socket, as well as provides a smooth surface on your bones to make movement easy and painless.

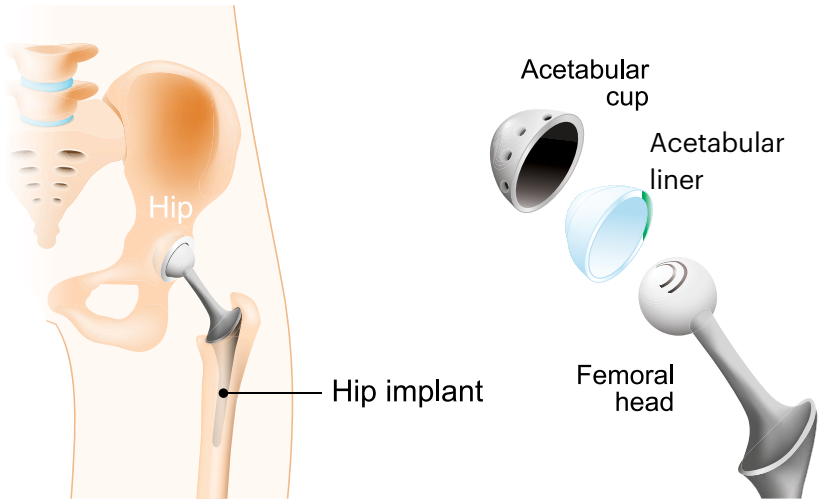


With an arthritic hip, the cartilage wears out. The bones rub together and become rough, resulting in inflammation and pain. Therefore, you have decreased range of motion and difficulty walking.

Understanding the Mechanics of an Artificial Hip Joint

With hip replacement, the weight-bearing surfaces of the hip joint are replaced with man-made materials called a prosthetic implant or hip prosthesis. The prosthesis consists of four components: acetabular component (socket), acetabular liner, femoral head (ball), and femoral stem. Once the components are aligned, movement that is more natural and less painful is restored.

- **Acetabular component (socket):** the metal cup fits into the resurfaced socket of the pelvis/ hipbone. It is usually made of metal but can also be made of plastic.
- **Acetabular liner:** the liner fits into the cup and allows the femoral head (ball) to glide easier. The liner can be made of a high-quality plastic (polyethylene) or ceramic.
- **Femoral head (ball):** the ball will fit directly into the plastic or ceramic lined socket and attach to the femoral stem. The ball can be made of either metal or ceramic or a combination of materials.
- **Femoral stem:** the stem inserts inside the femur. The stem is metal and made with either titanium, cobalt-chromium alloys, or a titanium and cobalt mixed metal.



Fixation

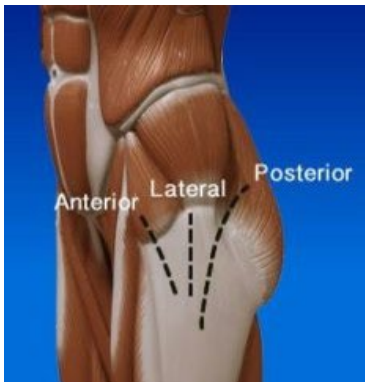
Both the acetabular component and femoral stem are attached with either cement or press-fit (cementless). When cemented in place, a fast drying cement attaches the prosthesis to your actual bone. When press-fit is used, the specially textured implant allows your bone to grow into the prosthesis and secure it into place.

Approach

There are two surgical approaches for hip replacement: anterior and posterior. The difference is how the surgeon opens the body to reach the hip joint.

- Anterior – incision is made in the front of the leg
- Posterior – incision is made on the side of the hip toward the back of the body

Talk to your surgeon about what materials, fixation and approach is best for you.

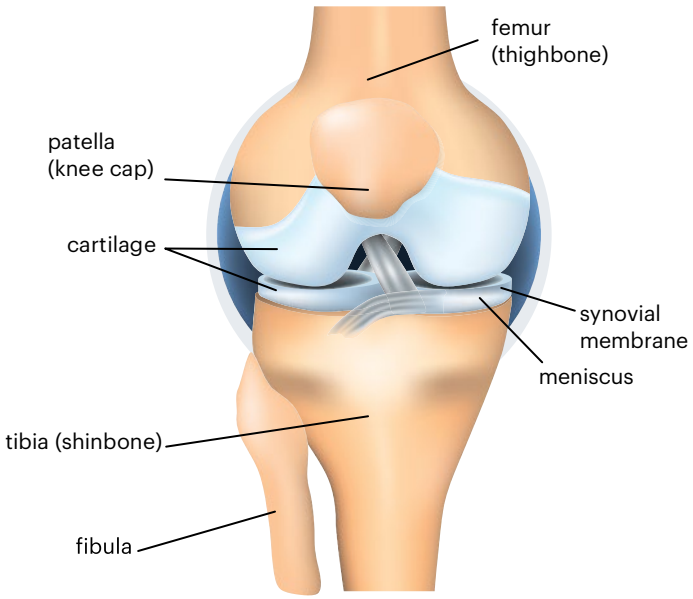


Understanding How the Knee Joint Works

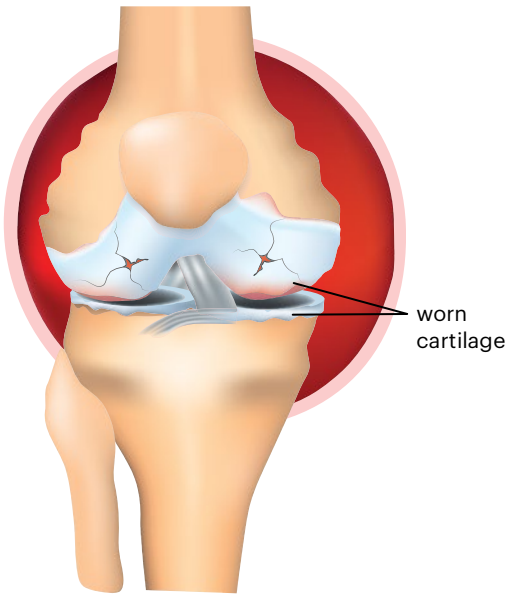
The knee is the largest joint in the body. It is made of the femur (thigh bone), tibia (shinbone), and the patella (kneecap). When you bend or straighten your knee, the end of the femur rolls against the end of the tibia, and the patella glides in front of the femur.

A smooth substance called cartilage acts as a cushion between the thigh bone and shinbone. A thin membrane (synovial membrane), containing synovial fluid, surrounds the joint and lubricates the cartilage. The cartilage provides a smooth surface on your bones to make movement easy and painless.

Normal Knee Joint



Arthritic Knee Joint

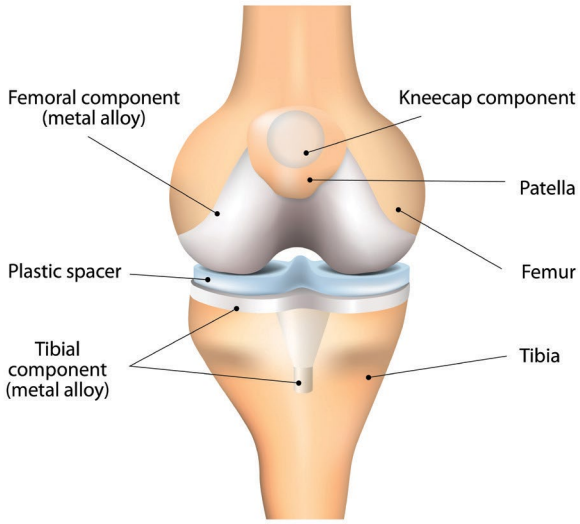


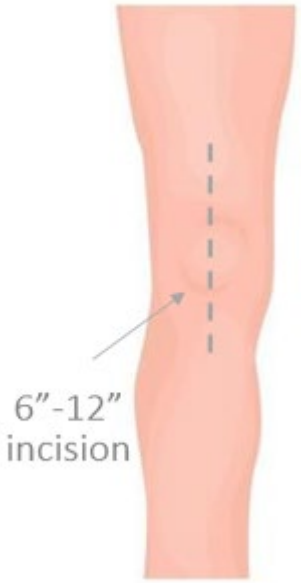
With an arthritic knee, the cartilage wears out. The bones rub together and become rough, resulting in inflammation and pain. Therefore, you have decreased range of motion and difficulty walking.

Understanding the Mechanics of an Artificial Knee Joint

With knee replacement, the weight-bearing surfaces of the knee joint are replaced with manmade materials that make up the implant/prosthesis. The prosthesis consists of four components: femoral component, 2 tibial components, and patellar component. The metal parts of the implant are made from titanium or cobalt/chromium-based alloys. In order to ensure a smooth, gliding motion, and to avoid friction, metal surfaces always move against plastic.

- **Femoral Component:** is made of metal that curves up around the end of the femur (thighbone). It has a central groove to allow the patella (kneecap) to move up and down smoothly as the knee joint bends and straightens.
- **Tibial Component:** is made up of two parts: (1) a flat metal platform or tray that secures to the top of the tibia (larger of the two bones in lower leg) and (2) a plastic (polyethylene) liner or spacer that snaps onto the top of the tray.
- **Patellar Component:** is a dome-shaped "button" piece of plastic (polyethylene) that replicates the surface of the kneecap.





Fixation

All components are attached with either cement or press-fit (cementless). When cemented in place, a fast drying cement attaches the prosthesis into your actual bone. When press-fit is used, the specially textured implant allows your bone to grow onto the prosthesis and secure it into place.

Talk to your surgeon about the details of your surgery.

Your Piedmont Care Team

Orthopedic Surgeon – performs the surgery and oversees your treatment.

Advanced Practice Professional (APP) – health care professionals (physician assistant [PA] or nurse practitioner [NP]) licensed to examine, diagnose, and treat patients in collaboration with their physician partners.

Anesthesiologist – physicians who ensure your safety and comfort during surgery.

Anesthetist – advanced practice nurses or anesthesia assistants who administer anesthesia medications.

Hospitalist/Inpatient Medical Service (IMS) – physicians who manage other health conditions not related to the surgery such as diabetes or high blood pressure while you are in the hospital.

Hospital Pharmacist – monitors medications for correct use, side effects, and potential drug interactions.

Registered Nurse or Licensed Practical Nurse (RN, LPN) – nurses who monitor you for complications and coordinate your care.

Patient Care Technician (PCT) – assists your nurse in providing daily care.

Physical Therapist (PT) – evaluate you and develop a plan to help you recover safely. They teach you exercises to regain muscle strength and how to use aids such as walkers and canes.

Physical Therapy Assistant (PTA) – assists your therapists in providing daily therapy sessions.

Occupational Therapist (OT) – teach you easier ways to do daily activities such as bathing and dressing as you heal.

Case Manager – nurses or social workers who assist with preparation for your discharge home from the hospital. They coordinate services such as home health or outpatient therapy and equipment.

Orthopedic Navigator/ Coordinators – navigators who answer questions and address concerns throughout your entire care.

Preparing for Surgery

As Soon as a Decision for Surgery is Made

- ❑ Register for Joint School
- ❑ Quit smoking
- ❑ Diabetic patients - work with your primary care provider to lower/control your Hemoglobin A1c
- ❑ Make a discharge plan
- ❑ Designate a coach and include them in your calendar of events
- ❑ Start prehabilitation (Prehab)
  - ❑ Walk at least 30 minutes daily to build up stamina
  - ❑ Start daily strengthening exercises
- ❑ Start accumulating the necessary durable medical equipment (DME)

Four to Six Weeks Before Surgery

- ❑ Attend Joint School
- ❑ Within 30 days of your surgery, complete your medical clearance with your primary care physician

One to Two Weeks Before Surgery

- ❑ Go to pre-operative visit with surgeon if necessary
- ❑ Complete pre-admission testing with hospital nurse
- ❑ Stop medications/supplements that cause internal bleeding
- ❑ Increase protein in your daily diet
- ❑ Start a stool softener if prone to constipation or sensitive to narcotics
- ❑ Begin deep breathing exercises to improve your lung function, if you received an incentive spirometer (IS), begin using that as well
- ❑ Start preparing your home for recovery
- ❑ Complete pre-registration process with hospital business office

Benefits of Joint School

This comprehensive, interactive, web-based class will prepare you and your caregiver(s) for a successful surgery and recovery. Patients who attend Joint School at Piedmont prior to their surgery are 25% less likely to be readmitted within 30 days and have a 50% reduction in their complication rate.

To register for a class please visit https://classes.inquicker.com/?ClientID=12422.

Joint School Topics

- Understanding your procedure
- What to expect before & after surgery
- Physical/occupational therapy
- Pain management
- How to care for yourself at home
- Role of the coach/caregiver
- Discharge planning

Designate a family member or friend to be your coach

During your joint replacement experience, the involvement of a friend or relative participating as your "coach" is very important. Your coach should be with you from pre-admission testing, through your stay in the hospital, and after your discharge to home. They are encouraged to attend Joint School, give support during your therapy sessions, and keep you focused on healing. They will ensure that you continue your exercises when you return home, and that your home remains safe during your recovery.

Discharge Plans

Most of our patients are discharged on the day of surgery, though some may be discharged 1-2 days afterward based on medical necessity. Believe it or not, discharge planning started the moment you decided to have surgery. One of the benefits of having elective surgery (a surgery scheduled in advance because it does not involve a medical emergency) is being able to select a date that is convenient for you and your support system. Preparing a plan for discharge is very important for your recovery. You should plan to recover at home (people tend to eat, sleep, move around more and heal better at home) with assistance from friends or family members after leaving the hospital. It is critical that you identify someone to be your "Coach" who will be available to drive you home from the hospital and stay with you for the first 24 hours, and then be readily available to you for an additional 10-14 days.

Have your transportation arranged. You will receive discharge instructions concerning medications, activity, and care of your surgical incision.

You will be discharged from the hospital when:

- Your medical condition is stable
- Your pain is tolerable with oral pain medication
- Your discharge arrangements are complete
- You successfully meet therapy goals

Medications and Supplements

- Non-Steroidal Anti-Inflammatory Drugs (NSAIDS) need to stop at least 7-10 days before surgery. Over-the-counter NSAIDS are medications such as Ibuprofen (Advil, Motrin), Naproxen (Aleve), Aspirin (if your Aspirin is prescribed by a cardiologist or neurologist, talk to them before stopping). Prescription NSAIDS are medications such as Celebrex, Meloxicam/Mobic, Diclofenac/Voltaren, Indomethacin/Indocin, and Nabumetone/Relafen.
- Herbal supplements need to stop at least 2 weeks before surgery. The following supplements can increase the risk of bleeding (list is not exhaustive): Omega 3 fatty acids/fish oil, Vitamin E, Chondroitin, Glucosamine, Turmeric, Capsaicin, Cumin, Valerian, Garlic, Ginkgo, Ginseng, Licorice, Ginger, St. John's Wort, Ephedra, Goldenseal, Feverfew, Saw Palmetto, and Kava-Kava.
- Prescription Anticoagulation/Blood Thinner Drugs: such as Coumadin, Xarelto, Eliquis, Pradaxa, Plavix, and physician ordered Aspirin, will need to be held according to your prescribing physician's directions.
- Follow instructions provided by your surgeon's office and/or the hospital on when to stop GLP-1 agonist used for weight loss and diabetes management (ex: Trulicity, Ozempic, Wegovy, etc.).

Health Care Decisions

Advance Medical Directives are printed instructions that communicate your healthcare wishes if you are unable to communicate them for yourself. This document may be called an Advance Directive, Healthcare Power of Attorney or Living Will. The Georgia Advance Directive combines these into one document.

The Healthcare Power of Attorney (also known as Healthcare Agent or medical decision maker) allows you to designate someone to make healthcare decisions for you if you are unable to make them yourself. Some of the decisions you may allow your healthcare agent to make include medical interventions, organ donation, and autopsy.

The Living Will portion communicates your healthcare wishes if you have a terminal condition or are in an irreversible coma AND unable to speak for yourself. Some of the healthcare instructions included are related to life sustaining equipment, medications, hydration and nutrition.

You may complete an Advance Directive on your own. An attorney or notary is NOT required in the state of Georgia. If you have an Advanced Medical Directive, bring a copy of the document with you to the hospital. A Registration Clerk will scan it into your electronic medical record.

Prehabilitation (Prehab) – BEFORE Your Joint Surgery

Many patients with arthritis of the hip or knee avoid using their painful leg. Muscles become weaker, making recovery slower and more difficult. To speed your recovery up, it is important to get in the best physical shape possible for your surgery. The aim is to prevent going into surgery weak and deconditioned.

Goals of Prehab

Improve fitness level: Increases overall stamina and improves the rate of healing and recovery.

- Start walking a minimum of 30 minutes daily
- Other conditioning programs are water aerobics, swimming, stationary cycling, and Tai Chi

Improve muscle strength: Builds strength and flexibility by preparing the muscles for an increased workload during the months of recovery.

- Begin isometric exercise (Exercises are on pages 16-18)
- Perform 5-10 repetitions of each exercise 2 times a day
- Can be performed at home without exercise equipment

Improve nutrition: The nutrients from food provide us with the strength, energy and ability to heal. People who are well nourished are less likely to develop infection and heal faster. Protein aids the body in repairing damaged tissues.

- Eat foods high in protein: meats, poultry, seafood, eggs, peas, nuts, soy, seeds, dairy products
- Start drinking high protein supplements 5 days before and 30 days after surgery

Protein loses occur during surgery from tissue breakdown and blood loss. Increased protein intake helps prevent muscle loss and promote wound healing. Protein is vital to combat the effects of the surgical stress response, promote immune heath, and reduce the risk of muscle catabolism.

Weight	Regular Daily Protein Requirement	After Surgery Daily Protein Requirement
150 pounds	54 grams	82 grams
170 pounds	61 grams	93 grams
200 pounds	72 grams	109 grams
230 pounds	83 grams	125 grams
250 pounds	90 grams	136 grams
Increase protein by 30gm/day at least 1 week before and 30 days after surgery.		

Food	Measure	Grams of Protein
Black beans, canned	1 cup	15 g
Peanuts	1 cup	39 g
Seeds, sunflower	1 cup	27 g
Soybean	1 cup	33 g
Cheese, mozzarella or cheddar	1 cup (diced)	28 g
Beef	3 oz.	26 g
Turkey breast	3 oz.	26 g
Pork chop	4 oz.	24 g
Fish (tilapia, grouper)	1 filet	23 g
Fish (tuna)	3 oz.	23 g
Raw tofu	1/2 cup	10 g
Chicken	4 oz.	22 g
Pork sausage	3 oz.	14 g
Cottage cheese	4 oz.	13 g
Milk	1 cup	10 g
Lowfat yogurt	6 oz.	9 g
Egg	1 large	6 g

Commercial Name	Serving Size	Amount of Protein
Premier Protein	11 fl. oz.	30 grams
Ensure Max Protein	11 fl. oz.	30 grams
Ensure Clear	8 fl. oz.	8 grams
Orgain Organic Nutritional Shake	11 fl. oz.	16 grams
Isopure Protein Drink	20 fl. oz.	40 grams
Kate Farms (vegan)	11 fl. oz.	16 grams
Fairlife High Protein	11.5 fl. oz.	30 grams
Boost Max Protein	11 fl. oz.	30 grams
Protein20 Protein Infused Water	16.9 fl. oz.	15 grams

These products may not be appropriate for individuals with diabetes. Please consult with your surgeon if you have diabetes prior to purchasing protein supplements.

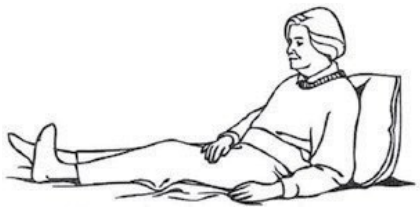
Pre-Operative Exercises

Total Knee and Hip Replacement Exercises

Video demonstrations are available online at **piedmont.org/orthopedics** under Patient Education

Below are descriptions of exercises recommended before, during, and after your surgery. There are twelve (12) exercises for both hip and knee replacements, three (3) additional exercises specifically for knee replacements, and two (2) additional exercises specifically for hip replacements. Each exercise has a video demonstration on our website **piedmont.org/orthopedic/orthopedic-patient-education** performed by a Piedmont physical therapist. Practice the exercises along with the videos to make sure you are doing them correctly. You can also download the PDF of the exercises and print a 1-2 page copy to put by the bed or your favorite chair for easy reference.

Perform the exercises slowly. Start with 5-10 repetitions of each exercise twice a day on both legs. Increase the number of repetitions each week - make 20 repetitions your goal. Expect to be sore at the beginning. **STOP** any exercise that causes extreme pain.



1. Ankle Pumps

Gently point toes up towards your nose and down towards the surface. Do both ankles at the same time or alternate feet.

Coach's note: *Perform throughout the day, 10 per hour while awake.*

2. Quad Sets

Slowly tighten thigh muscles of legs, pushing knees down into the surface. Hold for 5 count.

Coach's note: *Look and feel for the muscle above the knee to contract. As strength improves, the heel should come slightly off the surface.*

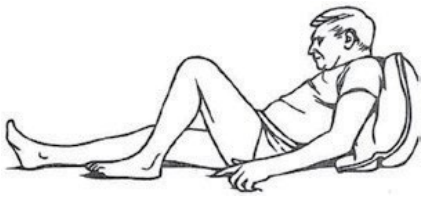
3. Gluteal Sets

Squeeze the buttocks together as tightly as possible. Hold for 5 count.

Coach's note: *Patient can place hands on right and left gluteal (buttocks) area and feel for equal muscle contractions.*

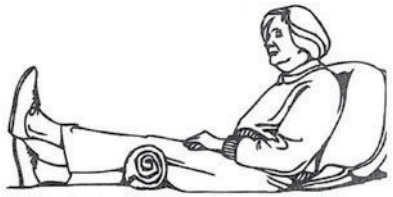
4. Abduction and Adduction

Slide leg out to the side. Keep kneecap and toes pointing toward ceiling. Gently bring leg back to pillow. May do both legs at the same time.



5. Heel Slides

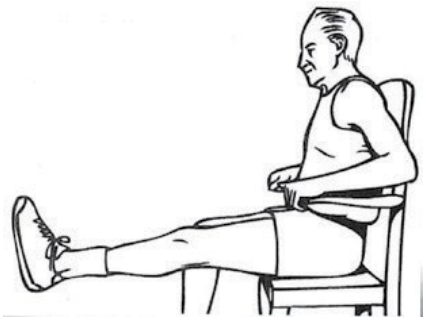
Bend knee and pull heel towards buttocks. If needed, assist by pulling with a bed sheet placed under the foot for increased knee bend.



6. Short Arc Quads

Place a large rolled towel (about 8" diameter) under the leg. Straighten knee and leg. Hold straight for 5 count.

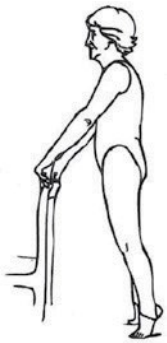
Coach's note: *Work for full extension (straightening) of the knee. Assist with hand under heel, encouraging lifting the foot from the hand.*



7. Knee Extension - Long Arc Quads

Slowly straighten operated leg and try to hold it for 5 count.

Coach's note: *Encourage patient to completely straighten knee.*



8. Standing Heel Raises

Hold on to a walker or chair. Rise up on toes slowly for 5 count. Come back to foot flat on the floor.

Coach's note: *When lifting up, do not lean backward.*

9. Standing Knee Flexion

Holding on to a walker or chair, bend the knee, lifting foot toward buttocks. Hold for 2 count.

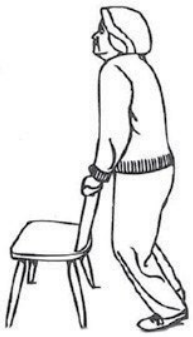
Coach's note: *The tendency is for the hip to come forward as the knee is bent. Encourage a straight line from the shoulder to knee.*

Additional Exercises Specifically for Hip Replacement

10. Standing Rocks

Holding onto the walker or chair, place your surgical leg behind you. Rock weight back and forth over the surgical leg keeping the knee straight. Do **NOT** lift the heel.

Coach's note: *The tendency is for the knee on the surgical leg to bend. Encourage a straight knee on that leg and equal weight bearing through both legs.*



11. Standing Partial Squats

Holding onto the walker or chair, slowly squat by bending your knees and slightly pushing your buttocks out (act like you are about to sit down). Keep both feet on the floor.

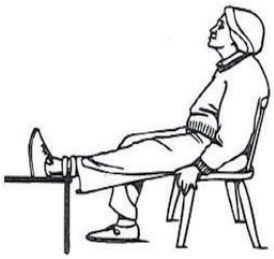
Coach's note: *Encourage erect posture with eyes forward. Do not bend at the waist.*

Additional Exercises Specifically for Knee Replacement

12. Straight Leg Raises

Bend good knee, securing heel on surface. Keep affected leg as straight as possible and tighten muscles on top of thigh. Slowly lift straight leg 10 inches from the surface and hold for 2 count. Lower it slowly, keeping the muscle tight.

Coach's note: *Make sure the straight leg is maintained and the knee does not bend with the lift. Go slowly. If needed, put hand under foot as in #6.*



13. Extension Stretch

Prop foot of operated leg up on a chair. Put a roll under your ankle. Sit back and try to relax. You may apply ice at the same time. Stretch for 5 minutes.

Coach's note: *When sitting for any length of time, prop your foot as shown. Do not sit with your knee bent more than 2 hours at a time without changing positions.*

14. Sitting Knee Flexion

Keeping feet on floor, slide foot of operated leg backward, bending knee. Hold for 5 count.

Coach's note: *Each time bend to the point of pain and then just a little more. Slide foot underneath chair, keeping hips on chair.*

Support for Using a Walker or Cane

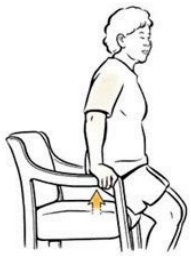
These exercises help build upper body strength. You will need to rely more on your arms to help move yourself around (using a walker/cane, getting up from a chair or bed) after surgery. Be sure to exercise both arms. Add 1-5 pounds of weight. There is no need to purchase special equipment. Therapy recommends using a can of soup or bags of rice or beans as weights.

Biceps Curls

- Sit up straight in a chair. Keep your elbow close to your body and your wrist straight.
- Bend your arm, moving your hand up to your shoulder. Then slowly lower your arm.

Triceps Curls

- Sit, leaning forward from the waist.
- Bend your elbow, so that your forearm is parallel to the floor. Then straighten your elbow as you extend your arm behind you.



Seated Press-Ups

- Sit in a sturdy chair with armrests.
- With palms flat on the armrests, press down to lift your buttocks from the chair. Hold for a few seconds.
- Bend your elbows to slowly ease back down.

Recommended Durable Medical Equipment (DME)

There is equipment that therapy recommends you use for 2-4 weeks after surgery. Some items are required and some are optional. Start accumulating the equipment you will need prior to surgery so you can have everything in place when you return home. A good place to start locating equipment is in friends or relatives attics/basements; other great places are GoodWill, Salvation Army, and thrift stores. Equipment is also available at specialized DME stores, pharmacies, and on websites like Amazon.

Rolling Walker

Required

Cane

Optional (Usually graduate to a cane after walker)

Elevated Toilet Seat

Optional (Can also be used in the shower as a shower chair)

Tub Transfer Bench

Optional (Expect to sit to shower at first)

Handheld Shower and Grab Bars

Optional

Hip Kit

Required for posterior hips; Optional for anterior hips and knees

Home Safety Preparation

Begin preparing your home to maintain your independence and increase your safety after surgery.

Minimize Tripping and Falling Hazards:

- Install railings on both inside and outside stairs
- Remove plants and other items from both inside and outside stairs
- Remove slick mildew or ice from outdoor steps
- Remove throw rugs, electrical cords and clutter from pathways
- Ensure the inside of your home is well lit
- Use night lights, particularly on the way to the bathroom
- Ask a friend or family member to care for your pets

Furniture:

- Chairs or recliners versus sofas or couches are easier to sit down on and rise from after surgery
- Chairs should have a firm back and arm rests
- Ideal surface height is two inches above knees
- Add an extra firm cushion to low chairs
- Add another mattress or place the bedframe on blocks for low beds
- If your bedroom is upstairs, a second walker is convenient
- Temporarily rearrange furniture to make larger passageways while using a walker

Bathroom Safety:

- You will be sitting to shower for the first 2-4 weeks after surgery
- Obtain a shower chair for walk-in showers or transfer tub bench for bathtubs

Or

- Temporarily remove sliding glass doors from bathtubs to use bench
- Install grab bars in or near your shower or bath (towel racks do not prevent falls)
- Be sure that your shower or tub has a non-slip coating or mat
- Install a hand-held shower attachment for easier bathing
- Temporarily move frequently use items to waist height to prevent reaching and squatting

Kitchen Safety & Food Preparation:

- Stock up on prepared and canned food and other staples
- Buy frozen meals or prepare your own and freeze
- Reorganize cabinets/pantry/refrigerator so frequently used items are easy to reach
- Put a high stool in the kitchen to sit on while doing counter top activities

Pre-Op Checklist

Items to Purchase Before Surgery

- ❑ 6-8 oz. bottle of Chlorhexidine Gluconate or CHG (Hibiclens) soap (if not provided at PAT visit)
- ❑ 35 bottles of protein supplement (Ensure/Boost/Premier/ Etc.)
- ❑ One 20 oz. and one 36 oz. bottle of Gatorade/Powerade/sports drink (zero sugar version if diabetic), any color is okay
- ❑ Rolling walker with two wheels on front (if you don't have one)
- ❑ Bedside commode to place over your toilet to add extra height (NOT required, but very helpful)

Two Days Before Surgery

- ❑ Drink at least 8 glasses of water per day
- ❑ Bathe/shower with special CHG (Hibiclens) soap
- ❑ Pack hospital bag
- ❑ Stop shaving your legs

Night Before Surgery

- ❑ Follow pre-admission testing instructions
- ❑ Bathe/shower with special CHG (Hibiclens) soap
- ❑ Drink 36 oz. high-carbohydrate sports drink before bed (zero sugar version if diabetic)
- ❑ Gather items to bring on the day of surgery

What to Pack in Your Hospital Bag

- ❑ Personal hygiene items (toothbrush, deodorant, battery-operated razor, etc.)
- ❑ A list of all the medicine you take including the name of the medication, dosage, instructions, and reason for taking the medication
- ❑ A list of any allergies you have (to food, clothing, medicine, etc.) and how you react to each one
- ❑ Loose-fitting clothes (shorts, T-shirts)
- ❑ Flat shoes or tennis shoes with enclosed heels and non-slip soles
- ❑ CPAP machine (if needed for sleep disorder)
- ❑ Contacts, glasses, hearing aids, etc. with cases
- ❑ Personal electronic devices (i.e. cellphone) and chargers
- ❑ Rolling walker (we can adjust it for you)

Day of Surgery

- ❑ Bathe/shower with special CHG (Hibiclens) soap before going to the hospital
- ❑ Continue drinking clear liquids until 3 hours before surgery
- ❑ Consume 20 oz. sports drink (zero sugar version if diabetic), if you are unable to drink all 20 oz. stop when you feel full **Make sure you are finished drinking it 3 hours before your surgery*
- ❑ STOP drinking water and clear liquids 3 hours before your surgery
- ❑ Follow hospital provided fasting instructions
- ❑ Take only the medications instructed by pre-admission testing

What is a clear liquid?

A clear liquid is anything you can see through, such as:

- water
- ginger ale
- tea
- chicken broth
- Sprite
- Gatorade
- apple juice
- popsicles
- Jello
- black coffee (sweetener is ok, but NO creamer)

Important Information

- ❑ Arrival times are usually 2 hours before surgery to allow enough time to prepare you for surgery
- ❑ Wear loose-fitting clothes and flat shoes or tennis shoes with enclosed heels and non-slip soles
- ❑ Do NOT wear makeup, lotion, finger and toenail polish or jewelry
- ❑ Leave personal belongings in the car until after surgery
- ❑ Check in with the registration clerk at sign-in and provide:
  - Advance Directive if completed and witnessed
  - Patient Financial Responsibility if required (co-payment or deductible)
  - Insurance card, photo ID or driver's license

At the Hospital

- ❑ Apply nasal swab provided by pre-op staff to kill any MRSA bacteria in your nose
- ❑ Comply with pre-op warming protocols to maintain your body temperature and help reduce the risk of getting an infection

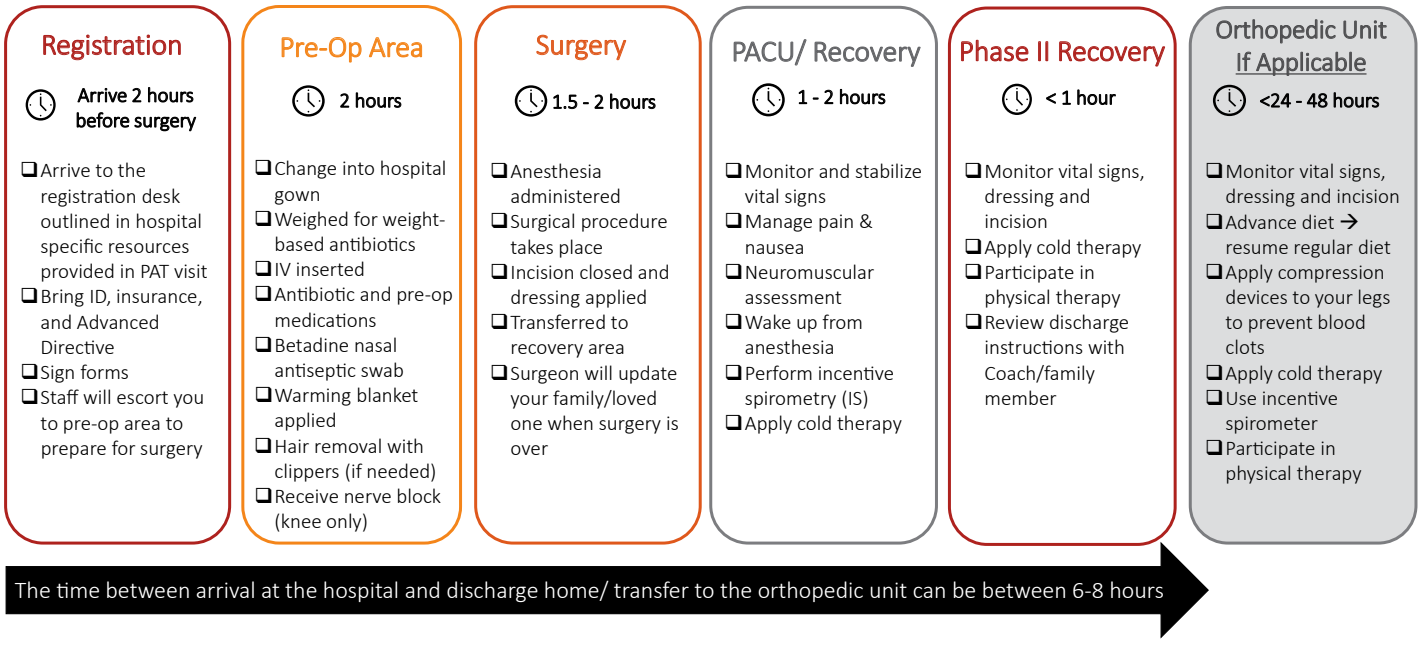
Anesthesia

The Operating Room and Post Anesthesia Care Unit (PACU) at the hospital are staffed by board certified and board eligible anesthesiologists. You will meet with the anesthesiologist prior to surgery to discuss the risks and benefits associated with each anesthetic option, as well as complications or side effects that can occur. They will consider your surgical procedure, your medical history, and current medications and allergies to determine which type of anesthesia is best for you. This time will allow you the opportunity to ask questions and give you the information you need to make decisions about receiving regional nerve blocks.

Types of Anesthesia

- General anesthesia - produces temporary unconsciousness and unresponsiveness for the entire body using medication through your IV
  - You will be completely asleep throughout your surgery with an airway device to help you breathe
  - Possible adverse risks include, but are not limited to: postoperative delirium or cognitive dysfunction, malignant hyperthermia, breathing problems after surgery, post-operative drowsiness, nausea/ vomiting, and minor sore throat
- Spinal anesthesia - involves the injection of a local anesthetic in the lower back to provide numbness, loss of pain, and loss of sensation from the waist down
  - Lasts for the length of your procedure and up to a few hours after
  - You will be provided sedation medicine during the surgery so you take a nap but breathe on your own
  - Possible adverse risks include, but are not limited to: headache, urinary retention, mild bruising where needle was placed, and in very rare cases nerve damage
- Regional nerve block (spinal blocks and leg blocks) - involves a numbing injection near the nerve to provide numbness, loss of pain, and loss of sensation to a particular area of the body
  - May last up to 24 hours, a change in pain level will occur when the block wears off
  - Beneficial for pain control during/after procedure, reduces need for narcotics, increases ease of participation in PT, and early recovery after surgery
  - Possible adverse risks include, but are not limited to: itching and/or pain at the injection site, and in very rare cases nerve damage

Day of Surgery Timeline



Call, Don't Fall

If you need to get up for anything, call your care team using the nursing call system. **While in the hospital, do not rely on family or friends for assistance getting up.** Our healthcare providers have been properly trained to assist with your needs. After you go home, use your rolling walker and rely on your coach for assistance.

Movement is Medicine

It is important for you to get out of bed, sit in a chair, and walk as soon as possible. While in the hospital your nurse or physical therapist will help you move around safely. Moving as soon as possible after surgery helps decrease your risk of complications, shortens your recovery time, reduce stiffness, and helps you return to your pre-surgery baseline sooner.

Clean Your Hands

Cleaning your hands can prevent the spread of germs. **Always clean your hands before caring for your wound, and ask your provider/care team to do the same.**

Ask visitors to clean their hands before and after visiting you, and do not let them touch your wounds or dressing(s).

After surgery, you should expect to be:

- Out of bed
- Dressed in your own clothes (shorts/t-shirts are best)
- Sitting in a chair for meals
- Participating with physical and/or occupational therapy

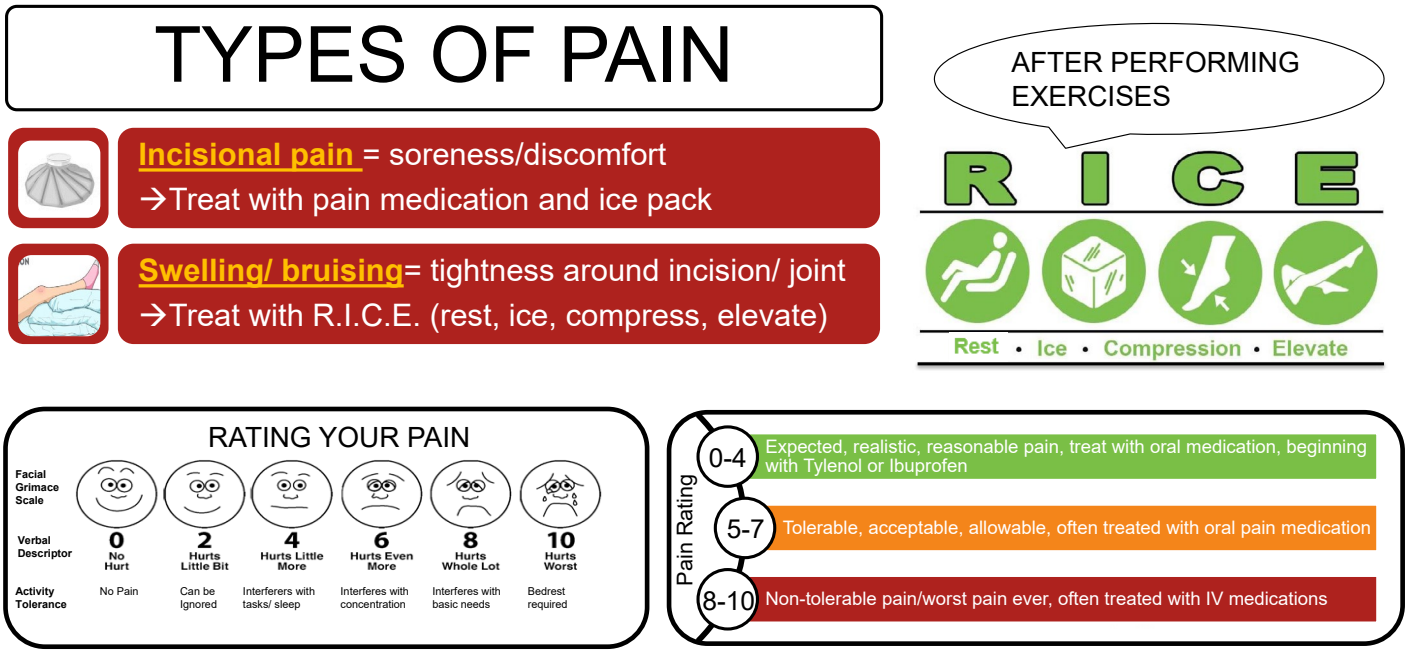
Understanding Pain

Recovery from any surgery involves pain and discomfort. Pain management begins with you. Pain control following surgery is an important part of your care. The goal is to recognize and treat your pain quickly, which allows you to participate in the therapy program. Pain can be chronic (lasting a long time) or acute (lasting a short period of time) — and will change as you recover.

Zero pain is not realistic following surgery. The goal is to use multiple methods (oral medications, cold therapy, frequent position changes, physical therapy, walking, etc.) to keep your pain at a tolerable level that allows you to move and participate in therapy.

Using a number to rate your pain can help your care team understand and help manage your pain. "0" means no pain and "10" means the worst pain possible. With good communication, your team can make adjustments to make you more comfortable.

What to Expect After Surgery - Pain Management



It is important to take your pain medication on a regular basis and let your surgeon's office know if your pain is not being managed effectively.

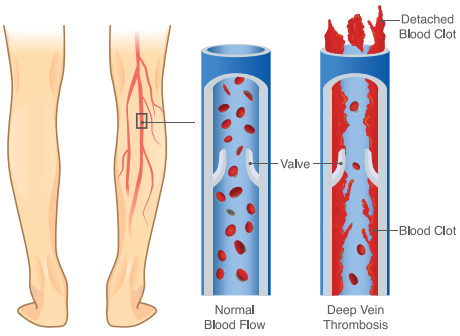
Tips for Managing Pain

- ❑ Keep a log of your pain medications and the time you take your medications at home
- ❑ Stay on schedule
- ❑ Do not add Tylenol (acetaminophen) if your prescription pain medication has acetaminophen in it
- ❑ Do not take multiple NSAIDs together (Mortin/Advil (ibuprofen), Aleve, prescription NSAIDs)
- ❑ Follow any instructions from your surgeon's office

Recovery at Home

Common Post-Operative Complications and Preventive Measures

Although not all post-operative complications can be prevented, many can be avoided with your help. It's important to follow your doctor's discharge instructions to include adequate exercise and proper hygiene. This will decrease your odds of complications. These complications and preventative measures will be looked for and followed in the hospital, but they should be done at home as well.



Blood Clots
(Legs – Deep Vein Thrombosus; Lungs – Pulmonary Emboli)

- Get up and move
- Do ankle pumps
- Drink plenty of fluids
- Take blood thinner medications as prescribed by your surgeon

You will be given a blood-thinner to avoid blood clots in your legs and lungs. The length of time that you will take the blood-thinner will be determined by your surgeon.

Contact your surgeon's office immediately if you have signs of a blood clot - redness, warmth, swelling, pain, and tenderness (NOT at your incision site).

CALL 911 if any of these signs are accompanied by difficulty breathing, anxiety, sharp chest pain, and sweating.

Pneumonia

- Get up and move
- Use incentive spirometer and complete cough and deep breathing exercises

Ileus (bowels go to sleep)

- Get up and move
- Drink plenty of fluids
- Prevent constipation

Infection

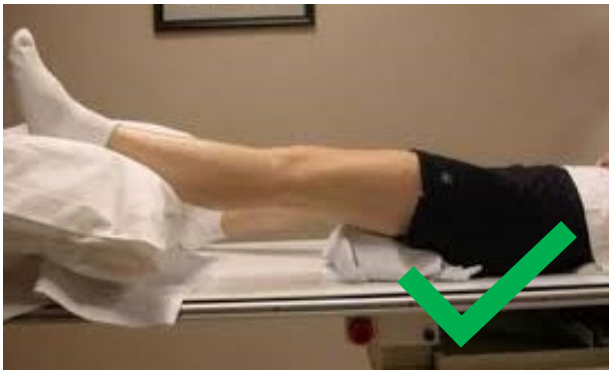
- Keep your incision clean and dry
- Wash hands frequently, and before and after dressing changes
- Eat or drink enough daily protein
- Change clothes daily until your incision is healed
- Monitor your surgery site for changes and notify surgeon if needed

Remember:
Movement is Medicine

Knee Precautions

It is very important to follow precautions after knee replacement to ensure complete range of motion after recovery. Precautions are aimed at making sure you can fully straighten your leg after it heals.

- Do not place pillows or rolls under/behind your knee
- If elevation or support is needed, place it under the heel
- Keep your knee out straight while lying down



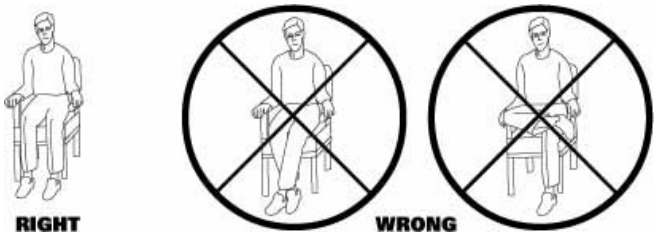
Posterior Hip Precautions

Not all hip replacements have precautions. Always follow your surgeons specific instructions. If your surgeon used a posterior approach for your surgery, it is important to follow hip precautions to prevent dislocation.

NO **T** **T**wisting your body or turning your leg inward

NO **L** **L**eaning forward past 90º

NO **C** **C**rossing legs (even at ankles)



Caring for Yourself at Home

- Change position and get up and walk frequently (every 45 minutes - 1 hour) to prevent stiffness and swelling.
- Follow your surgeon's instructions for incision and dressing care.
- Use cold therapy (ice cooler or packs provided by hospital) as needed either a couple of times a day or continuously to reduce swelling and relieve pain. Do not put ice packs or cooling pads directly on your skin. Use a towel or pillow case between you and the ice.
- Leg swelling is normal and will usually resolve gradually over several weeks. Prolonged sitting with your foot in a down position tends to worsen the swelling. To prevent or reduce leg and ankle swelling, elevate operative leg and perform ankle pumps.
- Do not place a pillow behind/under the knee after total knee replacement.
- Prevent constipation by drinking plenty of water, eating fiber and taking stool softeners. Over the counter laxatives, suppositories and/or enemas may be necessary.
- If pain prevents you from completing your daily exercises or participating in therapy, pain medication is most effective when taken 30-60 minutes before the activity begins.
- You may chose not to take prescription narcotic/opioid pain medications. Talk to your surgeon about alternatives.
- Try not to nap during the day so you will sleep at night.

I am doing well…

- Pain is controlled with medications
- Physical therapy is going well
- Incision is clean and dry, no signs of redness or unusual swelling
- Normal incision swelling and bruising

Continue your physical therapy

I feel worse…

- Pain not well controlled with medications
- Fever of 101º or greater
- Physical Therapy not going well
- Drainage from or opening of incision
- Increase in swelling- can still bend hip, knee, or ankle
- Dark redness or streaking on the operative leg
- Signs of a blood clot
- Fall WITHOUT injury or increased pain

Call your surgeon and tell them your symptoms

I feel in danger…EMERGENCY

- I had a fall WITH injury and increased pain
- Short of breath
- Chest pain
- Non-surgical reasons: sudden onset of numbness/tingling, severe bleeding, serious injury

Immediately call your doctor and seek emergency care (go to emergency room or call 911)

Precautions for Opioid Medications

- Take your medications exactly as prescribed and read all instructions that come with your medication.
- Taking more than the prescribed amount or using with alcohol, benzodiazepines or other drugs can cause you to overdose or stop breathing.
- Opioids slow reaction time, cause drowsiness, and cloud judgement. It is unsafe for you to drive or operate heavy machinery while taking.
- Opioids are at risk of being diverted by anyone with access to your home. They should be stored in a safe and secure place such as a locked cabinet or safe.
- Unused opioids should be disposed of by either flushing down the toilet or turning in to a designated take-back location.
- Be alert to side effects of some pain medications including sleepiness, dizziness, nausea, itching, and constipation.

Opioids are powerful medications used to treat moderate to severe pain and should be taken for the shortest period of time as possible. Using opioids may cause addiction. While addiction is more common in people with a personal or family history of addiction, it can occur in anyone. If you are concerned about addiction, or have a history of substance abuse with alcohol or any drug, talk with your surgeon.

Moving Forward

Guidelines for Your Long-Term Health and Safety

What to Do:

- Notify your dentist or other physician/surgeon in advance if you are having dental work or other invasive procedures – cardiac cath, bladder exam, etc. Generally, prophylactic antibiotics are taken prior to a procedure.
- Although risks are low for post-operative infections, the risk remains. A prosthetic joint could possibly attract bacteria from an infection located in another part of your body. Call your primary care physician promptly if you have any signs of infection–urinary tract infection, abscessed teeth, etc. Early treatment is necessary.
- If you develop a fever of more than 101.0 degrees Fahrenheit or sustain an injury such as a deep cut or wound, you should clean it as best you can, put a dressing or adhesive bandage on it, and notify your physician. The closer the injury is to your prosthesis, the greater the concern. Occasionally, antibiotics may be needed. Superficial scratches may be treated with topical antibiotic ointment. Notify your physician if area is painful or reddened.

Take good care and *keep moving!*

Frequently Asked Questions

How long will I be at the hospital?

- Majority are only at the hospital 6-8 hours on the day of surgery
- Some stay overnight
- A few stay more than 1 night in the hospital

How long do I need help at home?

- Must have someone drive you home from the hospital and stay with you the first 24 hours after you are discharged from the hospital
- Have support system to help as needed 10-14 days after surgery
  - You will need transportation to your surgeons office for your first post-op visit
  - You will need transportation to Outpatient Physical Therapy the first few weeks after surgery

When can I drive?

- Not until released by your surgeon
  - Typical time frame:
    - Left leg surgery is 2-3 weeks after surgery
    - Right leg surgery is 3-4 weeks after surgery

When can I bear weight on my surgical leg? When can I walk up and down stairs?

- You will be able to bear full weight on your leg the first time you get up after surgery
  - On rare occasions, your surgeon could change your weight bearing for a period of time
- You can safely use stairs the day of surgery

What activities will I be able to do after surgery?

- Walking about the house with your walker
- Provide your own personal hygiene care and toileting
- Light chores, such as washing dishes, fixing light meals, and laundry

How long will I be in pain?

- Pain is personal – some people will have more pain than others
- The day of surgery has the least amount of pain because of the numbing medications and anesthesia given to you
- The day after surgery is more painful
  - The worse pain is typically the first 1-2 weeks after surgery
- Not everyone will get to zero (0) pain after healing

When will I get prescriptions for pain medications?

- Home pain medications are prescribed by your surgeon and filled at your local pharmacy
  - Some surgeons give pain prescriptions before surgery at the pre-op office visit (do not start taking before surgery)
  - Others give pain prescriptions the day of surgery

Frequently Asked Questions

Will I be on blood thinners after surgery?

- Everyone is at high risk for blood clots after this surgery and will be prescribed a "blood thinner" by their surgeon to take for 30 days after surgery
  - Most surgeons use Aspirin twice a day (starts the morning after surgery)
    - Ask your surgeon what they are prescribing for you

Will I have issues with constipation after surgery?

- An expected side effect of narcotic pain medication is constipation
  - Home remedies:
    - Drink plenty of fluids
    - Walk around
    - Increase fiber in your diet
    - Stool softeners will not help after the fact but are helpful once bowels start moving
    - Use over-the-counter laxatives, enemas, and/or suppositories – sometimes takes all of it before you get results
      - Miralax is the most popular laxative (tasteless powder you mix in any type of drink) – can use 2-3 times daily if needed
      - Milk of Magnesia followed by warm prune juice is very effective
      - Senokot or Dulcolax tablets are popular
      - Fleet enemas
      - Glycerin or Dulcolax suppositories
- *If it's been more than 5 days and nothing is working, you need to call your surgeon or primary care physician.*

What type of dressing will I have after surgery?

- Most Piedmont facilities use a water-proof occlusive dressing that stays on 7-10 days after surgery
  - Your surgeon may use a different dressing. Always follow the instructions given to you by your surgeon for dressing/incision care.

When can I start showering?

- It's OK to start showering the day after surgery with the waterproof dressings
  - It's best to sit to shower the first 2-3 weeks after surgery

Do I purchase DME (Durable Medical Equipment) or will it be provided?

- Best to obtain DME before surgery
  - Only required piece of equipment is the 2 wheeled walker – covered by insurance in some cases if you have an order from your surgeon
  - Other equipment such as shower chairs, bedside or elevated commodes, tub transfer benches, hip kits are as needed – most insurance providers do not cover

How long will I be out of work?

- Typically 4-12 weeks depending on the type of work you do

Convenient Locations

Piedmont Athens Regional
1199 Prince Avenue
Athens, Georgia 30606

Piedmont Atlanta
1968 Peachtree Road NW
Atlanta, Georgia 30309

Piedmont Augusta
1350 Walton Way
Augusta, Georgia 30901

Piedmont Cartersville
960 Joe Frank Harris Pkwy
Cartersville, Georgia 30120

Piedmont Columbus Regional
Midtown Campus
710 Center Street
Columbus, Georgia 31901

Piedmont Columbus Regional
Northside Campus
100 Frist Court
Columbus, Georgia 31909

Piedmont Eastside
1700 Medical Way
Snellville, Georgia 30078

Piedmont Fayette
1255 Highway 54 West
Fayetteville, Georgia 30214

Piedmont Henry
1133 Eagle's Landing Parkway
Stockbridge, Georgia 30281

Piedmont Macon
350 Hospital Drive
Macon, Georgia 31217

Piedmont Macon North
400 Charter Boulevard
Macon, Georgia 31210

Piedmont McDuffie
2460 Washington Road
Thomson, Georgia 30824

Piedmont Mountainside
1266 Highway 515
Jasper, Georgia 30143

Piedmont Newnan
745 Poplar Road
Newnan, Georgia 30265

Piedmont Newton
5126 Hospital Dr NE
Covington, Georgia 30014

Piedmont Rockdale
1412 Milstead Avenue
Conyers, Georgia 30012

Piedmont Walton
2151 West Spring Street
Monroe, Georgia 30655

Piedmont West Surgery Center
Piedmont West Medical Office Park
1800 Howell Mill Road, Suite 250
Atlanta, Georgia 30318

Notes

Notes


Piedmont
Real change lives here
piedmont.org/orthopedics
10876-1023