Welcome

Thank you for choosing Atrium Health Navicent Musculoskeletal Care Orthopedics to help restore you to a higher quality of living with your new prosthetic joint.

Annually, over 700,000 people undergo total joint replacement surgery. Primary candidates are individuals with chronic joint pain from arthritis that interferes with daily activities, walking, exercise, leisure, recreation, and work. The surgery aims to relieve pain, restore your independence, and return you to work and other daily activities.

Total joint replacement patients recover quickly. Patients are up and walking the afternoon of their surgery. Generally, patients are able to return to driving after the first post op office visit with their surgeon.

Musculoskeletal Care Orthopedics has developed a comprehensive planned course of treatment. We believe that you play a key role in ensuring a successful recovery. Our goal is to involve you in your treatment through each step of the program. This patient guide will give you the necessary information needed for a safe and successful surgical outcome.

Your team includes physicians, nurses, orthopedic technicians, and physical and occupational therapists specializing in total joint care. Every detail, from pre- operative teaching to post-operative exercising, is considered and reviewed with you. The Joint Care team will plan your individual treatment program and guide you through it.

We sincerely thank you,

Atrium Health Navicent Musculoskeletal Care Orthopedics

Atrium Health Musculoskeletal Orthopedics Care

Notebook for Total Joint Replacements

You are scheduled for the following surgery at Atrium Health Navicent The

Medical Center: _____

Your surgery date: _____

Important phone numbers and dates:

Pre-op Surgical Nurse:_____Phone Number: (478) 633 - 2919

Date:_____Time:_____

Joint Care Navigator: Jennifer Nelson, RN Phone Number: (478) 633 – 7722

Date:_____Time:_____

Primary Physician's Office:_____Phone Number: _____

Orthopedic Physician's Office:_____Phone Number: _____

1-800-426-7164 after 4:00 p.m. for arrival time to hospital.

Please Bring This Book With You To:

- Surgical pre-op visit
- Visit with the Joint Care Navigator/ Pre-Surgery Class
- The hospital on admission

Introduction

We are pleased that you have chosen Musculoskeletal Care Orthopedics for your joint replacement. We appreciate your confidence. The Joint Care Team will strive to provide you with the highest quality care available.

We realize that choosing to have a joint replacement is a decision that took place after weighing the pros and cons of surgery. We also realize that it is a decision that affects every aspect of your family life. Over time, we have found that a team approach to surgery provides the highest quality of care. The center of that team is you, the patient. We want to surround you with quality teammates to make your surgery and recovery a success.

The steps in the process of joint replacement can be separated into 3 phases: pre-operative, operative, and post-operative/recovery. Within each phase there are important steps to be met. Sometimes it can seem overwhelming, but we think that proper preparation leads to good results. Every phase has team members. The team consists of preoperative nurses, operative nurses, anesthesiologists, nurse anesthetists, recovery room nurses, floor nurses, physical therapists, joint care navigators, and physicians. We all have undergone specialized training for your benefit.

This guidebook gives an overview toward successful recovery of the phases. Every patient is unique. Every patient may not need to follow every recommendation in this guidebook. However, we encourage you to read it and feel free to ask questions. Each person will progress at his/her own pace, but the common goal is for all patients to improve their quality of life. Again, thank you for your confidence in our joint care program.

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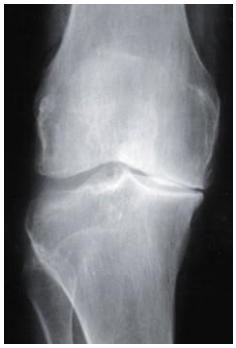
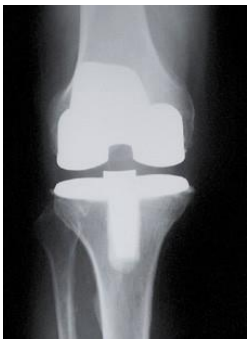
GENERAL INFORMATION FOR JOINT REPLACEMENT

We are glad you have chosen Atrium Health Navicent Musculoskeletal Care to assist you with your knee or hip problem. Patients may have many questions about total knee or hip replacement. In this notebook we will provide you basic information to help guide you through the process. If there are any other questions that you need answered, please ask your surgeon or a Joint Care Nurse. We want you to be completely informed about this procedure.



BEFORE:
Raw bone rubbing



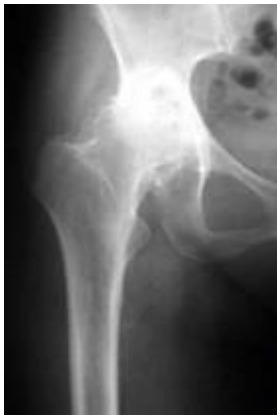
AFTER: A new surface creates a smooth functioning joint.

What is arthritis and why does my knee hurt?

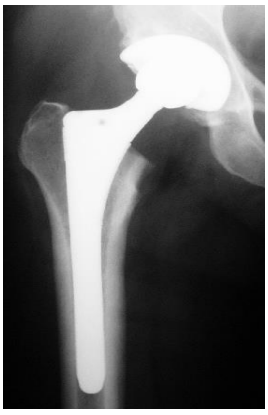
In the knee joint there is a layer of smooth cartilage on the lower end of the femur (thighbone), the upper end of the tibia (shinbone) and the undersurface of the kneecap (patella). This cartilage serves as a cushion and allows for smooth motion of the knee. Arthritis is a wearing away of this smooth cartilage. Eventually it wears down to bone. Rubbing of bone against bone causes discomfort, swelling and stiffness.

What is a total knee replacement?

A total knee replacement is really a bone and cartilage replacement with an artificial surface. The knee itself is not replaced, as is commonly thought, but rather an artificial substitute for the cartilage or implant is inserted on the end of the bones. This is done with a metal alloy on the femur and plastic spacer on the tibia and kneecap (patella). This creates a new smooth cushion and a functioning joint that does not hurt.



BEFORE: Raw bone rubbing on raw bone



AFTER: A New Surface creates a smooth functioning joint

What is arthritis and why does my hip hurt?

In the hip joint there is a layer of smooth cartilage on the ball of the upper end of the thigh bone (femur) and another layer within your hip socket. This cartilage serves as a cushion and allows for smooth motion of the hip. Arthritis is a wearing away of this cartilage. Eventually it wears down to bone. Rubbing of bone against bone causes discomfort, swelling, and stiffness.

What is a total hip replacement?

A total hip replacement is an operation that removes the arthritic ball of the upper thigh bone (femur) as well as damaged cartilage from the hip socket. The ball is replaced with a metal or synthetic ball that is fixed solidly inside a metal or synthetic shell. This creates a smoothly functioning joint that does not hurt.

ROLE OF THE JOINT CARE NAVIGATOR

A Joint Care Registered Nurse will be responsible for your care needs from the pre-operative course through discharge and post-discharge follow-up.

The Joint Care Navigator will:

- Act as a liaison and resource person for patients and families as preparations for surgery are made and while in the hospital
- Assist you in navigating through the entire joint replacement process: from pre-operative education to follow up during recovery
- Assist with any special needs for patients and their family members during hospital stay
- Schedule and teach the pre-surgical education class for joint replacement patients and their families
- Work with discharge planning to ensure that referrals and transition from hospital care to outpatient services, home healthcare, or transfer to a rehab facility occur smoothly
- Answer questions and coordinate your hospital care with Joint Care team members. You may call the Joint Care Navigator at (478) 633-7722.

Please feel free to contact the Joint Care Navigator with any questions or concerns before or after surgery.

Shortly after your surgeon's office has scheduled you for joint surgery you will be contacted by the Surgeon's Nurse or the Pre-Op Surgical Nurse who will:

- Coordinate pre-op scheduling for preoperative total joint class and verify appointments for medical testing.
- Act as a liaison for coordination of your pre-operative care between the doctor's office, the hospital and the testing facilities, if necessary.
- Verify that you have made an appointment if necessary with your medical doctor and have obtained the pre-op tests your doctor has ordered.
- Answer questions and direct you to specific resources within the hospital.

You may contact the Joint Care pre-op nurse at (478) 633-2919 with any questions regarding pre-op.

PRE-OPERATIVE PHASE CHECKLIST

What to do after your surgery is scheduled:

Most doctors' office staff handle pre-authorization, pre-certification, second opinions, or a referral form if it is required. Medicare does not usually require a pre-certification. Please discuss your particular case with the doctor's office staff, and you may choose to contact your insurance company directly. A tentative discharge plan needs to be in place before arrival to the hospital.

If you do not have insurance, please notify the registration staff when they call you for pre-registration that you will need help in making payment arrangements.

Pre-Register at the Hospital

Registration for the hospital will take place at the pre-op visit with Atrium Health Navicent staff. You will need to have the following information ready:

- Full legal name and address, including county
- Home phone number
- Religion
- Marital status
- Social Security Number
- Insurance card
- Employer information (address, phone number and occupation)
- Emergency contact information (Name, number, and address)
- Bring home medication bottles or a detailed list to the pre-op appointment so that the nurse can verify the name and dosages of each current medication. Please include all over-the-counter products and herbals. **Do not bring your medicine to the hospital day of surgery. The hospital will provide any medications needed from pharmacy during your hospital stay.**
- Bring a list of all your pharmacies that you use with the phone number of the pharmacies.

Start Pre-Operative Exercises

Many patients with arthritis favor their joints and thus become weaker. This interferes with their recovery. **It is important that you begin an exercise program before surgery.** (See page 15)

Schedule Pre-Operative Appointments:

- Hospital pre-op
- Checkup with your doctor for clearance
- Visit surgeon's office for final check before surgery
- Check and sign permit

Register and Attend Pre-Operative Class (on site or online)

A class is held each Monday for patients scheduled for joint surgery. The class is held from 9am-10am in the Physical Therapy Gym on the 7th floor at Atrium Health Navicent. Parking is free in the Parking Decks and snacks are provided. The Joint Care Navigator, Pre-Op Nurse, or Joint Care Secretary will help schedule this class for you once your surgery date has been determined. You will only need to attend one class. Members of the "team" will be there to answer your questions.

It is strongly suggested that you bring a family member or friend to act as your "coach." The coach's role will be explained in class. If it is not possible for you to attend in person, you can also complete the class online. If you take the online class, please remember to submit your name in the competition form below the class video. The class will prepare you for each phase of the joint replacement process: Pre-Operative Phase, Operative Phase and Post-Operative Phase. The class concludes with a quick tour of the Joint Replacement floor. Please call 478-633-7722 to sign up. Or visit online at:

https://www.navicenthealth.org/service-center/center-for-joint-care

Review "Exercise Your Right"

The law requires that everyone being admitted to a medical facility has the opportunity to make advance directives concerning future decisions regarding their medical care. Please refer to the appendix for further information. Although you are not required to do so, you may make the directives you desire.

* **If you have advance directives, please bring copies to the hospital on the day of surgery.**

Important Information about Vaccinations

Please speak with your surgeon regarding when you should receive your influenza and/or pneumococcal vaccine prior to surgery.

What to do 4 weeks before surgery:

Obtain Medical and Anesthesia Clearance

When you were scheduled for surgery you should have received a medical clearance letter from your surgeon. This will tell you whether you need to see your primary care physician and/or a specialist. Please follow the instructions in the letter and your clearance has to be within 30 days of your surgery date. If you have any questions, please contact your surgeon.

Obtain Laboratory Tests

Your orthopedic surgeon orders specific tests to be done before surgery. These tests can be done your physician's office or at your pre-op visit with the nurse. Any testing done at the hospital will be part of your hospital bill and not billed separately.

Start Multivitamins

Prior to your surgery you may be instructed by your surgeon to take a multivitamin. Multivitamins help you fight infection, help with wound healing and better prepare your body for surgery.

Read "Anesthesia and You" (Appendix)

Total Joint Surgery does require the use of either regional anesthesia and/or general anesthesia. Please review "Anesthesia and You" (see appendix) provided by our anesthesia department. If you have questions or want to request a particular anesthesiologist, please contact Mednax at 478-633-1190 or your surgeon's office.

Stop Smoking

It is essential to stop smoking before surgery. Smoking impairs oxygen circulation to your healing joint. Oxygen circulation is vital to the healing process. If you need a nicotine patch we can have your doctor order one.

What to do 10 days before surgery:

Visit Your Surgeon Pre-Operatively

You may have an appointment in your surgeon's office one to seven days prior to your surgery. This will serve as a final checkup and a time to ask any questions that you might have.

Stop Medications that Increase Bleeding

Ten days before surgery stop all anti-inflammatory medications such as Mobic, Motrin, Naproxen, Advil, etc. because these medications may cause increased bleeding. If you are on Coumadin, Plavix, or Aspirin you will need special instructions for stopping the medication. Please speak with your surgeon about these medications.

Many herbal remedies have the potential to cause significant adverse effects associated with surgery. Herbal products can cause an increase in the risk of bleeding by interacting with Coumadin and other medications used to thin the blood. Some herbal medications can interfere with blood pressure, heart rate, blood sugar control in diabetics, and the effects of anesthetic medications used during surgery. Surgery patients should generally stop taking herbal supplements TWO weeks prior to surgery. The following is a list of popular herbal supplements that could cause complications during surgery:

5-HTP Aloe Astragalus Bilberry Black Cohosh (Remifemin) Cascara Sagrada Cat's Claw Cayenne Cranberry** Dong Quai Echinacea Evening Primrose	Fish Oil Flax Seed Oil Feverfew Garlic Ginger Ginkgo Biloba Ginseng (Asian, Korean, Siberian) Glucosamine Sulfate Goldenseal Grapeseed Extract Kava Kava Melatonin	Milk Thistle MSM Omega 3 Oil Papaya Pyridoxine Red Yeast Rice SAMe Saw Palmetto St. John's Wort Stinging Nettle Turmeric Valerian

What to do the day before surgery:

Prepare your Home for Your Return from the Hospital

You should have your house clean and ready for your arrival back home. Put clean linens on the bed. Prepare meals and freeze them in single serving containers. Pick up throw rugs and tack down loose carpeting. Remove electrical cords and other obstructions from walkways. Install nightlights in bathrooms, bedrooms, and hallways. Arrange to have someone collect your mail, take care of the lawn, and take care of pets, if necessary.

Find Out your Arrival Time at the Hospital

If you do not receive a call between 2-4 pm the day before your surgery to give you your arrival time, you can call the Surgery Center at 478-633-1191 or 1-800-426-7164 after 4 pm (or on Friday if your surgery is on Monday) to find out what time to arrive for your procedure. Your arrival time will be 1 ½ - 2 hours before the scheduled surgery to give the nursing staff sufficient time to start IV's, prep you for surgery, and answer questions. It is important that you arrive on time to the hospital because sometimes the surgical time is moved up at the last minute and your surgery could start earlier. If you are late, it may create a significant problem with starting your surgery on time. In some cases, lateness could result in moving your surgery to a much later time. Keep in mind, operating room times are estimates and start times are dependent on many factors. The majority of the time we try to start all cases by 3 pm.

Shower Prep prior to Surgery

You will need to shower with half the bottle of Hibiclens soap the night before and the other half the morning of surgery. You will receive the soap and detailed verbal and written instructions from your pre-op nurse.

Know What NPO Means – Do Not Eat or Drink

Do not eat or drink anything after midnight, unless otherwise instructed to do so. We may advise you to take certain medications with a sip of water.

What to Bring to the Hospital

- Bring any personal hygiene items (toothbrush, deodorant, etc.)
- Hand-held mirror to use at bedside
- Loose, comfortable clothes (shorts, tops, sweat pants)
- Flat shoes or tennis shoes (with a back and non-slip bottom).
- Do not bring any valuables to the hospital i.e. jewelry, cash, etc.

****If you sleep with a CPAP, you will need to bring it to the hospital with you.**

Be sure to bring the following to the hospital:

- Your Joint Notebook
- A copy of your Advance Directive (If you don't have one, we can have someone help you with those documents; see page)
- Any medications that were not verified at pre-op
- All eye drops, inhalers, birth control pills or Nitroglycerin
- A detailed list of all medications (prescription and OTC medications)

PRE-OPERATIVE EXERCISES, GOALS, & ACTIVITY GUIDELINES:

Exercising before Surgery

It is important to be as fit as possible before undergoing a joint replacement. Always consult your physician before starting a preoperative exercise plan. This will make your recovery much faster. Seven exercises are shown here that your physician may instruct you to start doing now and continue until your surgery. You should be able to do them in 15-20 minutes and it is typically recommended that you do all of them twice a day. Consider this a minimum amount of exercise prior to your surgery.

Also remember that you need to strengthen your entire body, not just your leg. It is **very important** that you strengthen your arms by doing chair push-ups (exercise #7) because you will be relying on your arms to help you get in and out of bed, in and out of a chair, walk, and to do your exercises postoperatively.

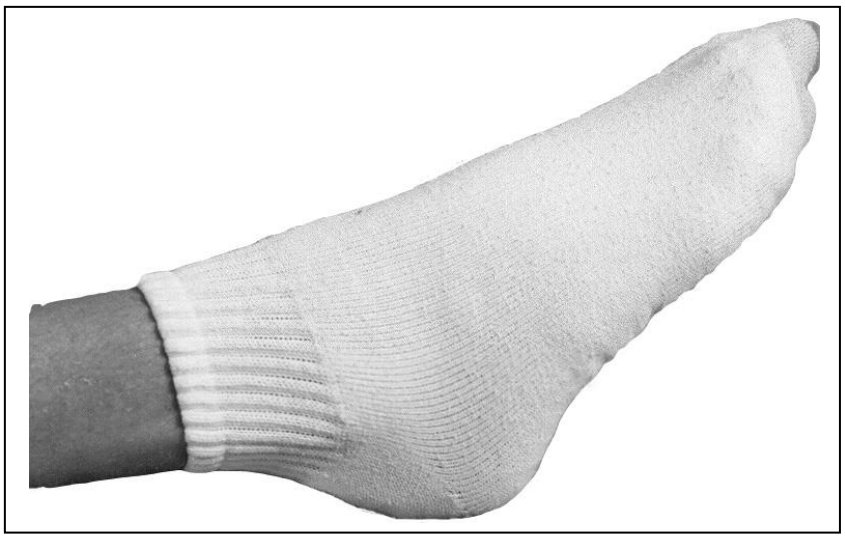
Preoperative Joint Exercises

(See the following pages for descriptions)

1. Ankle Pumps 20 reps.2 times/day
2. Quad Sets (knee push-downs) 20 reps.2 times/day
3. Short Arc Quads 20 reps.2 times/day
4. Heel Slides (slide heel up and down) 20 reps.2 times/day
5. Seated hamstring stretch 5 reps.2 times/day
6. Straight Leg Raises 20 reps.2 times/day
7. Armchair Push-ups 20 reps.2 times/day

Stop doing any exercise that is too painful!

1. Ankle Pumps

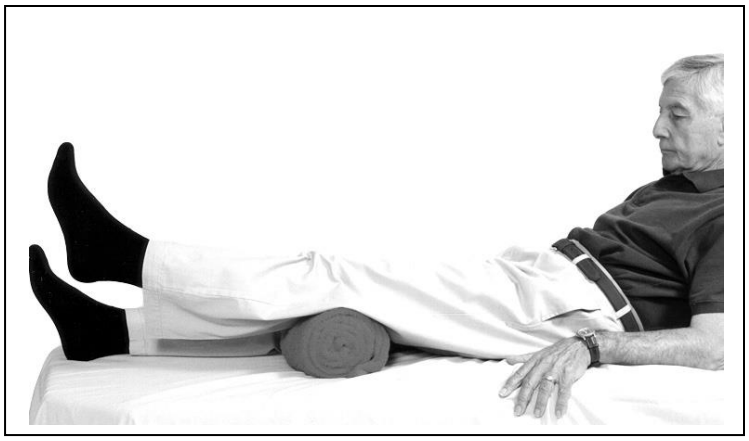


Keeping your knees straight, point your toes toward the ceiling, and then point them down toward the floor. Hold for 10 seconds. Relax. Repeat 10-20 times.

2. Quad Set

Lie on couch or bed. Press knee down into mat, tightening muscle on front of thigh. Do not hold your breath. Hold for 10 seconds. Relax. Repeat 10-20 times.

3. Short Arc Quads



Lie on couch or bed with a rolled towel under the thigh. Lift foot, straightening knee. Do not raise thigh off roll. Hold for 5-10 seconds. Relax. Repeat 10-20 times.

4. Heel Slides - Knee and Hip Flexion

Lie on couch or bed. Slide heel towards your bottom. Hold for 10 seconds. Relax. Repeat 10- 20 times.

5. Seated Hamstring Stretch

Sit on a couch or bed with leg extended. Lean forward and pull ankle up. Stretch until pull is felt. Hold for 20-30 seconds. Relax. Repeat 5 times.

6. Straight Leg Raises

Lie on back, unaffected knee bent and foot flat. Lift leg up 12 inches. Keep knee straight and toes pointed up. Hold for 5 seconds. Relax. Repeat 10-20 times.

7. Armchair Push-ups

This exercise will help strengthen your arms for walking with crutches or a walker. Sit in an armchair that is against the wall. Place hands on armrests. Straighten arms, raising bottom up if possible. Relax. Repeat 10-20 times.

OPERATIVE PHASE & HOSPITALIZATION

Morning of Surgery:

Shower with your Hibiclens soap before heading to the hospital. Please drive to the Atrium Health Navicent RED DECK on Pine Street. Valet Parking is also available at the surgery center entrance for $6. Check in at the desk at the first floor of the Surgery Center. Two family members may go with you to the pre-op area where you will be prepped for your procedure. Your family will then wait in the garden room on the 2nd floor. A patient representative will escort them up to 7 Main, Musculoskeletal Care Orthopedics, once your room is assigned. The surgeon will contact them in either location to give them an update on your progress through surgery.

What to Expect: Prepping for Surgery

In the Atrium Health Navicent Surgery Macon you will be prepared for surgery by starting an IV and scrubbing your operative site. A nurse and an anesthesiologist will talk with you about operative sedation; then you will be taken to the block room for your block. Once your block has been placed, you will wait in a pre-operative holding area prior to entering the OR. Often, this is where you will first see your surgeon and have the opportunity to ask any additional questions. After this, you will be escorted to the operating room.

Recovery:

Following surgery you will be taken to a recovery area where you will remain for at least 1-1½ hours. During this time, pain control will be established and your vital signs will be monitored. You will then be taken to the Musculoskeletal Care Orthopedics on the 7th floor of the main hospital where a total joint nurse will care for you. Only one or two very close family members or friends should visit you on this day. Most of the discomfort occurs the first 24 hours following surgery so during this time you will receive pain medication as ordered by your surgeon.

Arriving to the Center for Joint Care:

Once you are admitted to the Joint Care unit, you will be taught about your pain medications. No pain medication will take away *all* the pain. Our goal is to keep you comfortable and your pain at a level you can tolerate. Your nurse will work with you to help control your pain.

It is likely that you will walk with Physical Therapy in the afternoon. If you are unable to get up with PT in the afternoon, you may sit on the side of the bed

The evening of surgery with the help of your nurse. All of our patients are at risk for falls because you have had a major surgery and need strong pain medications to control your pain. We will set your bed alarm to remind you to call for help if you need to get up for any reason. We also have signs in your room that remind you to "call before you fall". Staff members will be making frequent rounds and will offer you the opportunity to toilet while in the room.

To prevent infection we will administer an antibiotic for 24 hours following surgery. Respiratory therapy will also be by with an incentive spirometer to encourage deep breathing to prevent pneumonia.

It is important for you to begin performing ankle pumps as soon as you are able to help prevent blood clots.

Day 1- After Surgery:

The lab will come very early to draw labs. Your catheter (if present) will be removed and IV pain medications and fluids will be discontinued. You will have oral pain medication available when needed. Your surgical dressing will be changed (if needed), and if you have a drain at your wound site it will be removed. You will be assisted with a bath and helped out of bed before breakfast every morning. If you prefer to take your bath at night, just let your clinical technician know. They will be glad to assist you. You will need to dress in loose fitting clothing you brought to the hospital.
Shorts and tops are usually best. You will be seated in a comfortable recliner whenever you are not in therapy. Your surgeon will be by to see you sometime today. The physical therapist will assist you in walking with a rolling walker, and you will begin using the bedside commode with assistance. Please request pain medication 45 minutes to 1 hour before going to therapy sessions. Your coach is encouraged to accompany you to therapy sessions and be in the room with you as much as possible. Visitors are welcome, preferably late afternoons or evenings.

For those patients that are progressing well, it is possible that you may be discharged after your therapy session.

Day 2- After Surgery:

Lab will come early to draw any labs your doctor may have ordered. You will be assisted with a bath and helped out of bed for breakfast. You will be seated in a recliner when you are not participating in therapy during the day. Therapy will continue to work with you two times today; you will have a session in the morning and an afternoon session. Please request your pain medication prior to these sessions. If your doctor and therapist feel as though you are progressing well you may be discharged today.

If you had a hip replacement Occupational Therapy will see you today and help you learn how to use items in your hip kit to bathe and dress.

Day 3- After Surgery

If the doctor has ordered lab work someone will be by early to draw them. You will be assisted with your bath and helped out of bed before breakfast. Please dress in loose fitting clothing you brought to the hospital. You will be seated in a comfortable recliner whenever you are not in therapy. Your surgeon will be by to visit you. You will have therapy in the PT gym. Please request pain medication 45 minutes to 1 hour before going to therapy sessions. You will likely be going home or to rehab after therapy. The decision to go home or to a rehab will be made collectively by you, the Joint Care staff, your surgeon, physical therapist, and your insurance company. Every attempt will be made to have this decision finalized in advance but may be delayed until the day of discharge. The discharge planner will arrange for any equipment needed for home use to be delivered to your room prior to your departure. **Please remember that all doctors involved in your care have to discharge you before your paperwork can be processed. We will do our best to get you home or to rehab in a timely manner.**

Please feel free to utilize our quick and easy prescription service to fill your medications before discharge. Just let your joint care nurse know you would like to fill your prescriptions before you go home.

If you are going directly home:

Most patients go home after joint replacement (90-95%). Someone responsible needs to drive you. You will receive written discharge instructions concerning medications, physical therapy, activity, etc. Home health services or outpatient therapy appointments will be made in advance of your discharge.

If you are going to a rehab facility (rare):

Transportation may be provided by the rehab facility where you will be transitioning. If transportation is not provided, someone responsible needs to drive you. Transfer papers will be completed by nursing staff. A physician from rehab will be caring for you in consultation with your surgeon. **Expect to stay five to seven days,** based upon your progress. Upon discharge home, instructions will be given to you by the Rehab staff. Any home equipment needs, home health services, or outpatient therapy appointments will be arranged by the discharge planner.

POST-OPERATIVE PHASE:
DISCHARGE & HOME CARE

Caring for yourself at home:

When you go home there are a variety of things you need to know for your safety, your speedy recovery, and your comfort.

Control your Discomfort

- Take your pain medicine at least 30 minutes before physical therapy sessions
- Gradually wean yourself from prescription medication
- Change your position every 45 minutes throughout the day to prevent stiffness
- Use ice for pain control. Applying ice to your affected joint will ease discomfort, but do not use more than 20 minutes at a time. It is important to ice and elevate after physical therapy and prolonged periods of activity.

A bag of frozen peas wrapped in a kitchen towel makes an ideal ice pack. Mark the bag of peas and return them to the freezer (to be used as an ice pack later).

Recognize Body Changes

- Your appetite may be poor. Drink plenty of fluids to keep from getting dehydrated. Your desire for solid food will return.
- You may have difficulty sleeping. This is not abnormal. Don't sleep or nap too much during the day to help you fall asleep at night.
- Your energy level will be decreased for the first month.
- Pain medication contains narcotics, which cause constipation. Use stool softeners or laxatives such as colace and milk of magnesia if necessary.

Caring for your Incision

- Keep your incision clean and dry.
- Keep your incision covered with a light dry dressing until your staples are removed (usually 2-3 weeks from surgery), unless instructed otherwise by your physician.
- Do not shower until the staples are removed, unless given permission by your surgeon. If you shower before staples are removed, keep incision covered.
- Notify your surgeon or visiting nurse if there is an increase in drainage, redness, pain, odor, or heat around the incision.
- Take your temperature if you feel warm or sick. Call your surgeon if it exceeds 101° F.

Dressing Change Procedure:

- Wash hands
- Open all dressing change materials
- Remove old dressing
- Inspect incision for the following:
    - Increased redness
    - Increase in clear drainage
    - Yellow/green drainage
    - Odor
    - Surrounding skin is hot to touch
- Apply adhesive island dressing to cover the incision completely, taking care not to allow any sticky tape surfaces to come in direct contact with the staples/sutures.
- Aquacel Ag dressing may stay on for 7-10 days unless it is saturated to the borders. You will be provided written instructions regarding your particular dressing at discharge.

Recognize Postoperative Swelling

Swelling is likely in lower extremities due to the incision during surgery. Large patients, those with previous lower extremity incisions, or those who have any problems with swelling or blood clots may have an increased risk for swelling. It is essential that you elevate your operative leg for 20-minute periods at least two to three times a day to reduce swelling and other potential complications associated with swelling.

Try to find a balance of activity and rest to keep swelling at a minimum. Take time out of your day to elevate the operated extremity which will hinder swelling for the first 6 weeks of your post op period.

Recognizing & Preventing Potential Complications

Infection

Surgery may be complicated by infection. The Joint Care Team will teach you how to monitor for signs and symptoms of infection and give you care notes on preventing infection post-operatively.

Signs of Infection

- Increased swelling, redness at incision site
- Change in color, amount, odor of drainage
- Increased pain in knee or hip area
- Fever greater than 101 degrees F
- A low-grade fever (less than 101°) is common after joint surgery.
- Incision visually redness and heat associated.
- If an infection occurs, antibiotics may be used as ordered by your doctor.

Prevention of Infection

- Take proper care of your incision as explained.
- Wash your hands frequently and ask people caring for you to do the same.
- Notify your physician or dentist that you having a colonoscopy, dental work, or other potentially contaminating procedures.
- Avoid elective procedures for 3 months after your surgery

Blood Clots in Legs

Surgery may cause the blood to slow and coagulate in the veins of your legs, creating a blood clot. This is why it is important for you to take blood thinners after surgery. If a clot occurs despite these measures you may need to be admitted to the hospital to receive intravenous blood thinners. Prompt treatment usually prevents the more serious complication of pulmonary embolus.

Signs of Blood Clots in Legs

- Swelling in thigh, calf or ankle that does not go down with elevation
- Pain, warmth and tenderness in calf.
- NOTE: blood clots can form in *either* leg.

Prevention of Blood Clots

- Foot and ankle pumps
- Walking
- Compression devices (worn in the hospital)
- Blood thinners such as Coumadin , Lovenox, Xarelto, Aspirin

Pulmonary Embolus

An unrecognized blood clot could break off the vein and go to the lungs or heart. This is an emergency and you should **CALL 911** if suspected.

Signs of an Embolus

- Sudden chest pain
- Difficult and/or rapid breathing
- Shortness of breath
- Sweating
- Confusion

Prevention of Embolus

- Prevent blood clot in legs
- Recognize a blood clot in leg and call physician promptly
- Do leg exercises especially while in bed
- Take a blood thinner as prescribed

Important Things to Know About Blood Thinners:

It is important to take a blood thinning agent to prevent blood clots while in the hospital, as well as for a brief prescribed time after discharge. Your surgeon will discuss which medication is right for you. Your blood thinner regimen will begin within the first 24 hours of your procedure. At discharge, you will be provided with a prescription (if needed) and detailed instructions to continue the selected medication for a specified period of time after your surgery.

Some common blood thinners that may be prescribed are listed and described below:

1. ***Coumadin*** (Warfarin) is commonly prescribed and is usually taken post operatively for 21-28 days. Blood tests are needed to make sure the dosing is correct. Foods that are high in Vitamin K, such as green leafy vegetables, can affect these lab tests. Therefore, these foods should be eaten in moderation or avoided while on Coumadin therapy. A complete list of foods and herbs to watch out for will be provided for you.
2. ***Xarelto*** may be prescribed and is to be taken once daily, usually for 10-14 days post operatively. No blood work is required while on Xarelto therapy and there are no indications for any diet restrictions.
3. ***Lovenox*** is a blood thinner that is typically prescribed for 14 days and is taken once or twice daily. The medication is injected into the subcutaneous (fatty tissue) of the abdomen. It is important to swab the area with alcohol and rotate the site each time. Your nurse will give you instructions on how to inject the medication correctly and will allow you to demonstrate while you are in the hospital to ensure you will be comfortable with doing the injections once you are home.
4. ***Aspirin (most common)*** can be bought over the counter and does not require a prescription. When prescribed, either 81 mg or 325 mg is to be taken once or twice daily for 3-4 weeks. Your nurse will give you specific instructions on how your surgeon wants you to take the aspirin therapy. It is important to take aspirin with food or milk to avoid stomach irritation.

No matter which blood thinning regimen your surgeon has prescribed for you, it is important to watch for and report any signs of excessive bleeding. If you notice blood in stool, urine, sputum, or excessive bruising in areas not related to your surgery, it is important to let the doctor know.

It is also important to avoid other medications/supplements that increase the risk of bleeding while taking any of the above blood thinning medications. Avoid NSAIDS (non-steroidal anti-inflammatories) unless otherwise instructed by your surgeon. (Medications such as: Mobic, Aleve, Motrin, Naproxen, Advil)

TOTAL AND PARTIAL KNEE REPLACEMENT
Post-Operative Exercises and Goals (after surgery)

Daily Exercise Plan

1.	Sitting Knee Flexion	Hold for 30 seconds & repeat 10 times
2.	Seated Hamstring	Hold for 30 seconds & repeat 10 times
3.	Extension	5 minutes 2 times/day
4.	Quad Sets (Knee Push-Downs)	20 reps 2 times/day
5.	Heel Slides	20 reps 2 times/day
6.	Abduction/Adduction	20 reps 2 times/day
7.	Short Arc Quads	20 reps 2 times/day
8.	Straight Leg Raises	20 reps 2 times/day
9.	Ankle Pumps	20 reps 2 times/day
10.	Long Arc Quads	20 reps 2 times/day
11.	Ankle Plantarflexion	20 reps 2 times/day
12.	Ankle Dorsiflexion	20 reps 2 times/day
13.	Hip Flexion	20 reps 2 times/day

The first 3 weeks following surgery are critical to achieving full flexion (bending) and extension (straightening) of your knee.

KEEP KNEE STRAIGHT WHILE LYING IN BED. DO NOT PUT A PILLOW UNDER YOUR KNEE!

Weeks One and Two

Typical two-week goals are to:

- Continue with walker or two crutches unless otherwise instructed.
- Walk at least 300 feet with support.
- Actively bend your knee at least 90 degrees.
- Straighten your knee completely.
- Independently sponge bathe or shower after staples are removed and dress.
- Gradually resume homemaking tasks.
- Complete home exercises twice a day, with or without the therapist, from the program given to you.

Weeks Two through Four

During weeks two through four, you will notice you are recovering to more independence. Even if you are receiving outpatient therapy, you will need to be very faithful to your home exercise program to be able to achieve the best outcome. Your goals for the period are to:

- Achieve one to two week goals.
- Wean from full support to a cane or single crutch as instructed.
- Bend your knee more than 90 degrees.
- Straighten your knee completely.
- Independently shower and dress.
- Resume homemaking tasks.
- Complete home exercises twice a day with or without the therapist.
- Begin driving. You will need permission from your surgeon to begin driving (usually at 4-6 weeks depending on your progress).

Weeks Four through Six

During weeks four to six, you will see much more recovery to full independence. Your home exercise program will be even more important as you receive less supervised therapy. Your goals for this time period are:

- Achieve one to four week goals
- Walk with a cane or single crutch, as instructed.
- Actively bend knee 110 degrees.
- Straighten your knee completely.
- Drive a car short distance– if cleared by MD.
- Continue with home exercise program twice a day.

Weeks Six through Twelve

During week six to twelve, you should be able to begin resuming all of your activities – if cleared by your physician. Your goals for this time period are:

- Achieve one to six week goals.
- Walk with no cane or crutch and without a limp.
- Climb and descend stairs in normal fashion (foot over foot).
- Bend knee to 120 degrees.
- Straighten knee completely.
- Improve strength to 80%.
- Resume all activities including dancing, bowling, and golf.

Patients who had a partial or Mako knee replacement may gain range of motion more quickly.

Home Exercise Examples for Knees

Exercising should take approximately 20 minutes and should be done twice daily. If you are recovering quickly, it is recommended that you supplement these exercises with others that your therapist recommends. Be sure to take pain medication prior to exercising and ice for 20 minutes after.

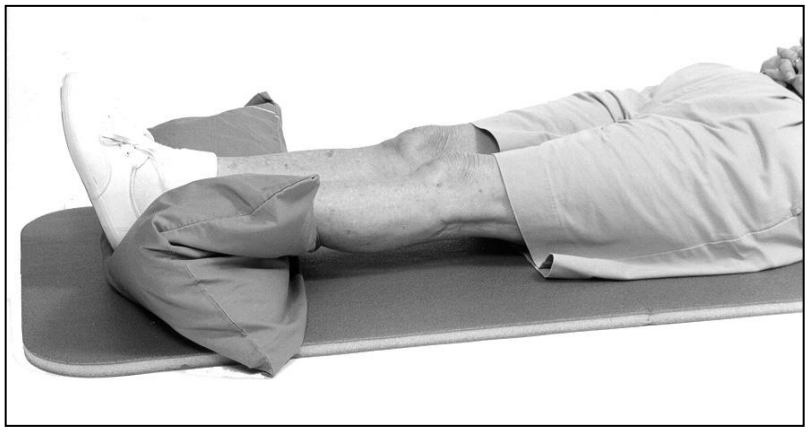
1. Sitting Knee Flexion

Sitting on straight-back chair, cross legs with affected leg on bottom. Slide feet underneath chair. Keep hips on chair. Try to gently stretch and bend knee as far as possible. Plant foot and move bottom forward on chair. Hold for 30 seconds. Repeat.

2. Seated Hamstring Stretch

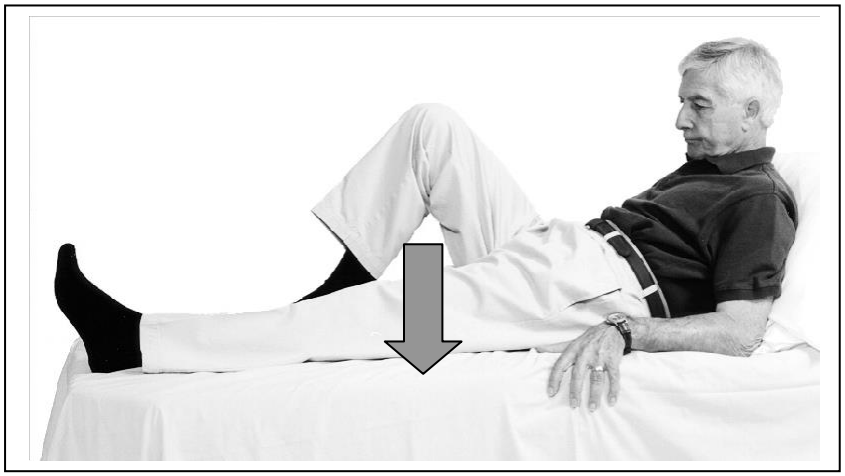
Sit on couch or bed with leg extended. Lean forward and pull ankle up. Stretch until pull is felt. Keep back straight. Hold for 30 seconds. Relax. Repeat.

3. Extension Stretch



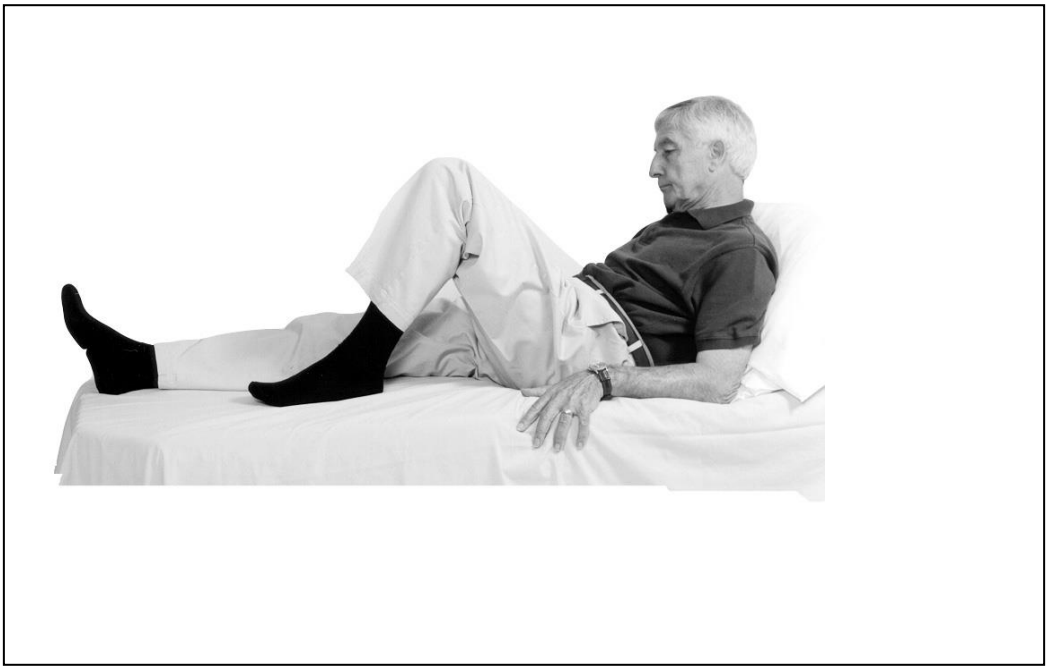
Lie down; place a small pillow under your ankle to assist the straightening of your knee. Do this for 5 minutes.

4. Quad Sets – Knee Extension



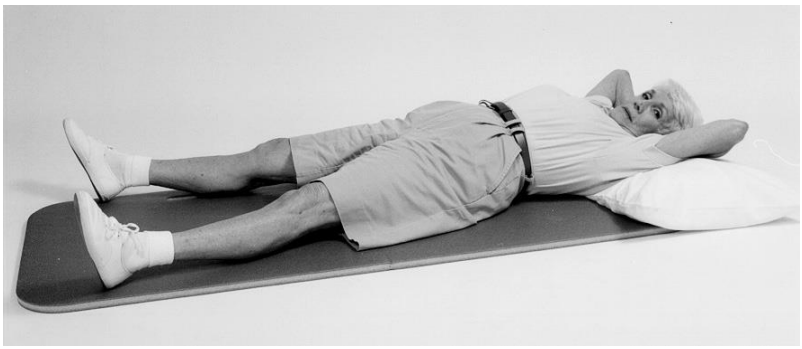
Lie on back, press knee into mat, tightening muscle on front of thigh. Hold tight for 10 seconds. Do not hold your breath. Relax. Repeat.

5. Heel Slides



Lie on your back and slide your heel toward your bottom. Hold for 5 seconds. Relax. Repeat.

6. Hip Abduction and Adduction

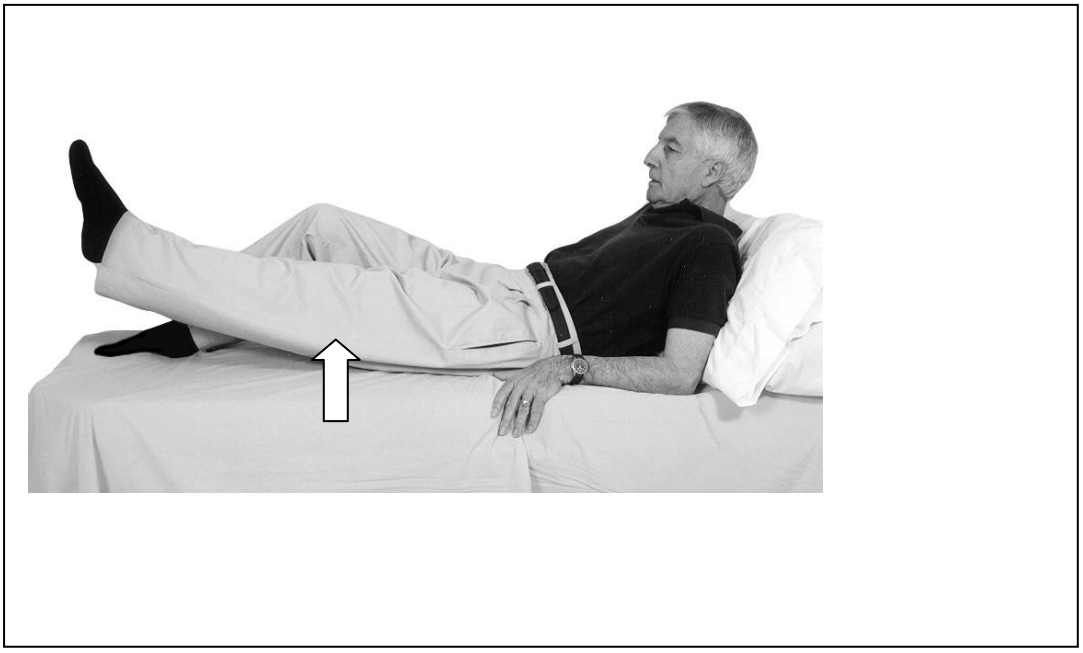


Lie on back, slide operated or affected leg out to side. Keep toes pointed up and knee straight. Bring leg back to starting point. Relax. Repeat.

7. Short Arc Quads

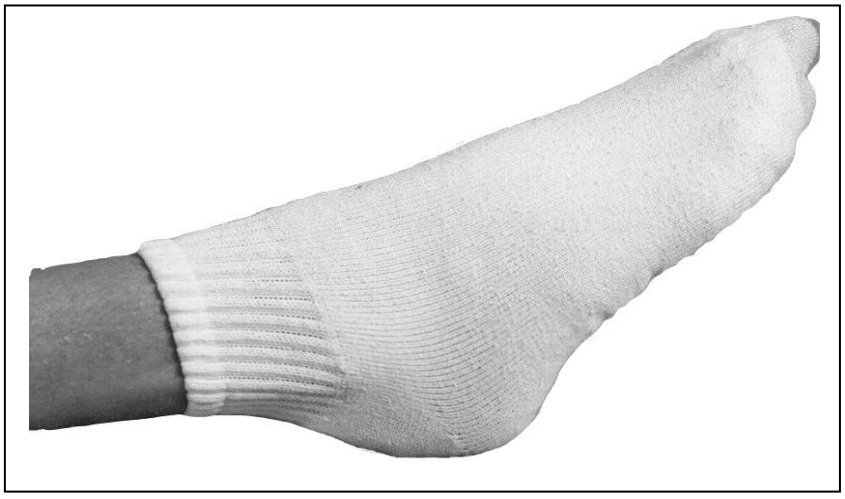
Lie on back, towel roll under thigh. Lift foot, straighten knee. Hold 5-10 seconds. Do not raise thigh off roll. Relax. Repeat.

8. Straight Leg Raises/Knee Extension



Bend good knee and secure heel in surface. Keep affected leg as straight as possible. Slowly lift straight leg 10-12 inches from the surface and hold for 2 seconds. Lower it slowly down. Repeat.

9. Ankle Pumps



Keeping your knees straight, point your toes toward your head and then point them away from your head. Relax. Repeat.

10. Long Arc Quads

Sit back against chair. Straighten knee. Hold. Slowly lower. Relax. Repeat.

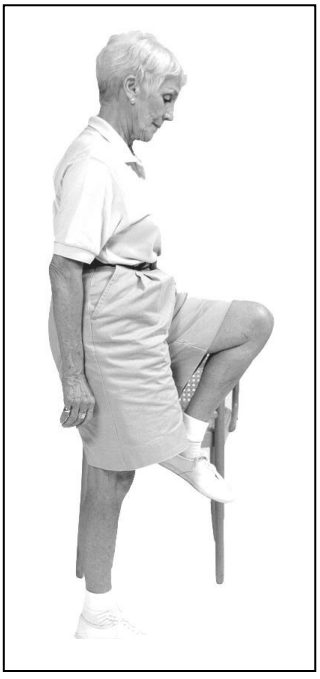
11. Ankle Plantarflexion

Stand and hold onto firm surface. Rise up on toes. Relax. Repeat.

12. Ankle Dorsiflexion

Stand and hold onto a firm surface. Raise toes off the floor. Maintain heels on the floor. Relax. Repeat.

13. Hip Flexion



Stand and march in place.

TOTAL HIP REPLACEMENT
Post-Operative Exercises and Goals

Daily Exercise Plan

1. Ankle Pumps 20 reps 2 times/day
2. Quad Sets 20 reps 2 times/day
3. Gluteal Sets 20 reps 2 times/day
4. Terminal Knee Extension 20 reps 2 times/day
5. Heel Slides (Slide Heels In and Out) 20 reps 2 times/day
6. Hip Abduction /Adduction 20 reps 2 times/day
7. Side-Lying Hip Abduction 20 reps 2 times/day
8. Standing Ankle Dorsiflexion 20 reps 2 times/day
9. Standing Ankle Plantarflexion 20 reps 2 times/day
10. Long Arc Quads 20 reps 2 times/day
11. Standing Hip Flexion 20 reps 2 times/day
12. Hip Extension 20 reps 2 times/day
13. Standing Knee Flexion 20 reps 2 times/day
14. Hip Flexion with Straight Leg 20 reps 2 times/day
15. Quarter Squats 20 reps 2 times/day
16. Single Leg Step Ups 20 reps 2 times/day

Weeks One and Two

Typically, two-week goals are to:

- Continue with walker or two crutches unless otherwise instructed.
- Walk at least 300 feet with support.
- Verbalize hip precautions (for posterior hip replacements)
- Straighten you hip completely.
- Independently sponge bathe or shower after staples are removed and dress.
- Gradually resume homemaking tasks.
- Complete home exercises twice a day, with or without the therapist, from the program given to you.

Weeks Two to Four

Weeks two to four will see you recovering to more independence. Even if you are receiving outpatient therapy you will need to very faithful to your home exercise program to be able to achieve the best outcome possible. Typical goals for the period are:

- Achieve one to two week goals.
- Wean from full support to a cane or single crutch as instructed.
- Walk 300 feet (or more)
- Bend your hip to 90° unless otherwise instructed.
- Independently shower and dress.
- Resume homemaking tasks.
- Complete home exercises twice a day with or without the therapist.
- Some patients begin driving after 4 weeks. You will need permission for your surgeon.

Weeks Four to Six

Weeks four to six will see much more recovery to full independence. Your home exercise program will be even more important as you receive less supervised therapy. Your goals for this time period are to:

- Achieve one to four week goals.
- Walk with a cane or single crutch.
- Walk half a mile
- Drive a car short distances (depending on your progress) – will need permission from MD.
- Continue with home exercise program twice a day.

Weeks Six to Twelve

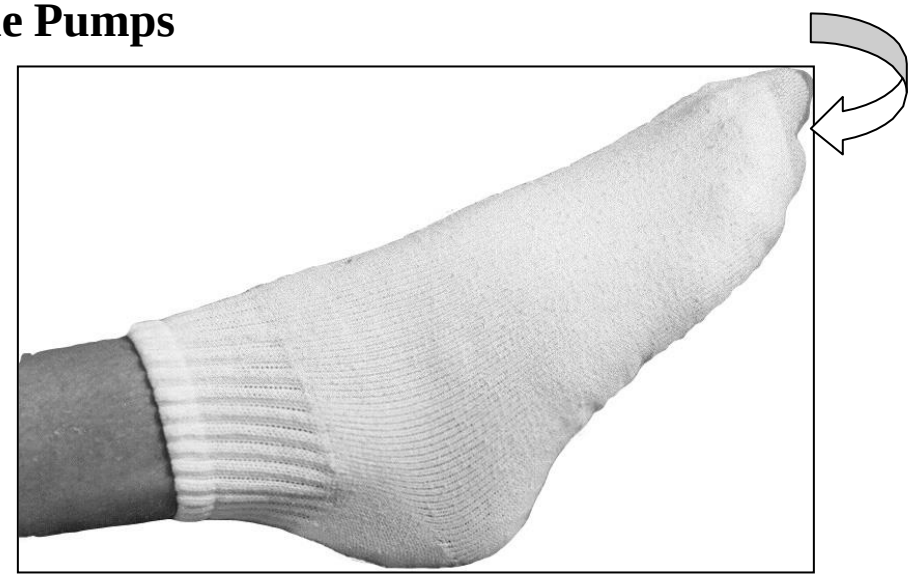
During weeks six to twelve you should be able to begin resuming all of your activities. Typical goals for this time period are to:

- Achieve prior goals.
- Walk with no care or crutch and without limp.
- Walk one half to one mile.
- Improve strength to 80%.
- Resume activities including dancing, bowling, and golf.

Home Exercise Examples for Hips

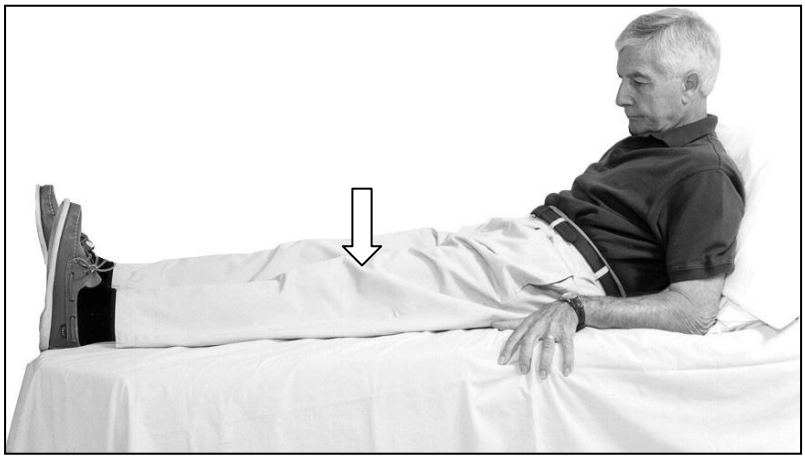
Exercising should take approximately 20 minutes and should be done twice daily. If you are recovering quickly, it is recommended that you supplement these exercises with others that your therapist recommends. Be sure to take pain medication prior to exercising and ice for 20 minutes after.

1. Ankle Pumps



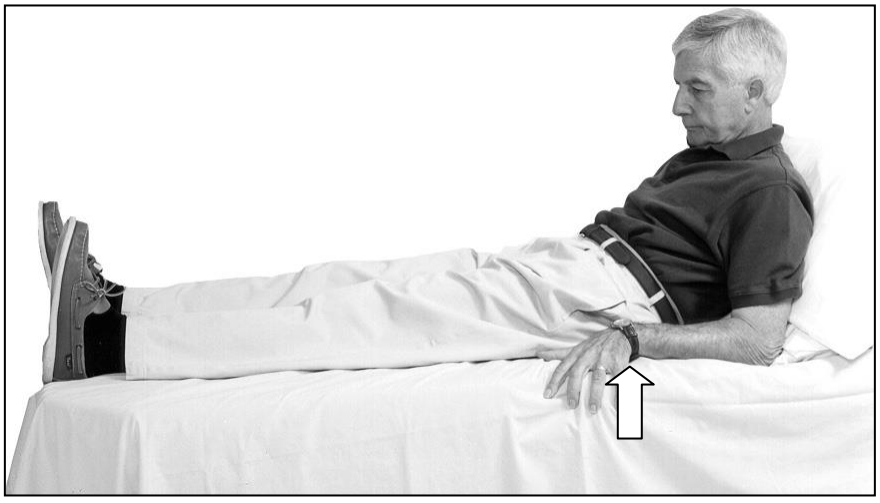
Keeping your knees straight, point your toes toward your head and then point them away from your head. Hold for 10 seconds. Relax. Repeat.

2. Quad Sets



Lie on back, press knee into mat, tightening muscle on front of thigh. DO NOT hold your breath. Hold for 5-10 seconds. Relax. Repeat.

3. Gluteal Sets



Squeeze bottom together. DO NOT hold breath. Hold for 10 seconds. Relax. Repeat.

4. Terminal Knee Extension

Lie on back, towel roll under thigh. Lift foot, straightening knee. DO NOT raise thigh off of roll. Hold for 5-10 seconds. Relax. Repeat.

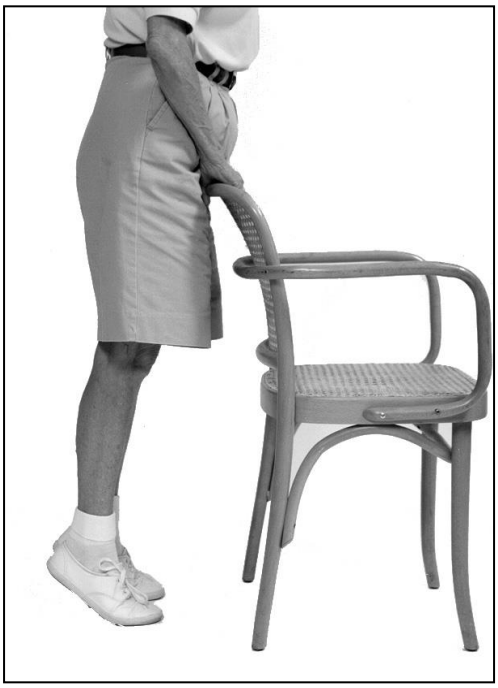
5. Heel Slides – Knee & Hip Flexion

Lie on back, and slide heel toward your bottom. Relax. Repeat. **CAUTION: Do NOT bend hip beyond a 90-degree angle!**

6. Hip Abduction and Adduction

Lie on back, slide leg out to side. Keep toes pointed up and knee straight. Bring leg back to starting point. Relax. Repeat.

7. Standing Ankle Dorsiflexion

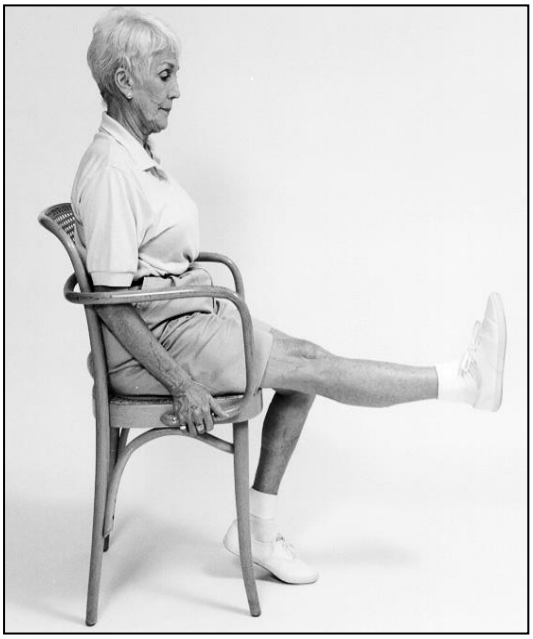


Stand and hold on to firm surface. Rise up on toes. Go back on heels. Hold for 10 seconds. Relax. Repeat.

8. Standing Ankle Plantarflexion

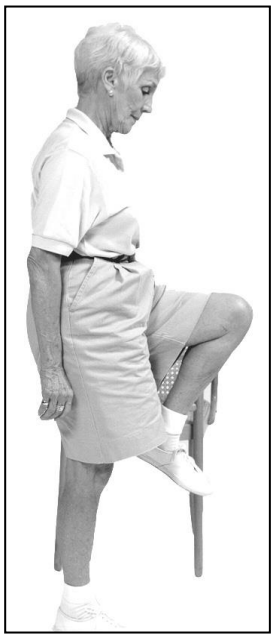
Stand and hold on to firm surface. Go back on heels. Relax. Repeat.

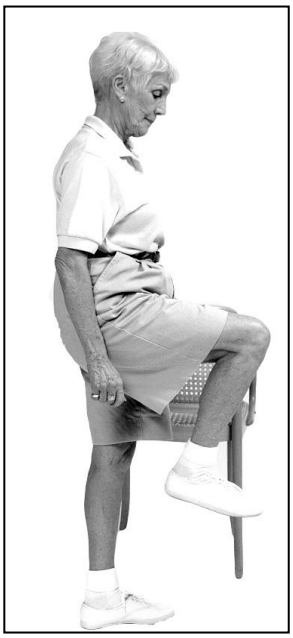
9. Long Arc Quads



Sit with back against chair. Straighten knee. Hold for 5-10 seconds. Relax. Repeat.

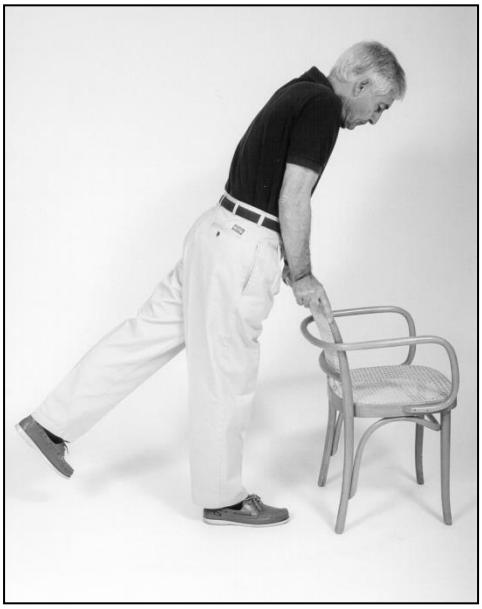
10. Standing Hip Flexion





Stand, holding to solid surface. March in place. Relax. Repeat.

11. Hip Extension



Stand and hold on to firm surface. Bring leg back as far as possible, keeping knee straight. Hold for 5-10 seconds. Relax. Repeat.

12. Standing Knee Flexion

Stand and hold on to firm surface. Bend knee of involved leg up behind you. Straighten to full stand. Hold for 5-10 seconds. Relax. Repeat.

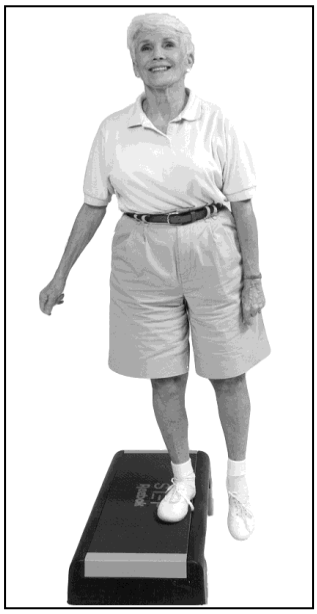
13. Hip Flexion with Straight Leg

Standing and straighten leg. Slowly lower. Relax. Repeat.

14. Quarter Squats (do with therapist first)

With feet shoulder-length apart and back to wall, slide down wall until knees are at 30 to 45 degrees of bend. Return to upright position. Do this with your therapist first. Hold for a few seconds. Relax. Repeat.

15. Single Leg Step Ups (do with therapist first)



With foot of involved leg on step, straighten that leg. Return. Use step or book. How high you step is will depend on your strength. Start low. You may exercise good leg as well. Hold for 5-10 seconds. Relax. Repeat.

Hip Dislocation:

Dislocation is a risk for all hip replacement patients, regardless of which approach. However, the precautions below only apply to posterior-lateral hip replacements.

If your scar is to the side and back of your hip, YOU MUST ABIDE BY THE HIP PRECAUTIONS BELOW. This will be discussed throughout your hospital stay. These precautions will not last forever.

Anterior hip replacements (scar on the front of the hip) do not have to adhere to the precautions but do need to be careful to avoid extreme positioning.

Signs of Dislocation**:**

- Severe pain
- Rotation/Shortening of leg
- Unable to walk/move leg

Total Hip Precautions:

- Keep legs apart. DO NOT cross legs.
- DO NOT twist side-to-side.
- DO NOT bend at the hip past 90 degrees.
- DO NOT internally rotate or roll affected leg in toward your other leg.
- No straight leg raises

Maintaining Hip Precautions:

- Keep a pillow between legs while in bed.
- Sit in high chairs that have arms and a firm seat.
- Keep knee lower than hip while seated.
- Do not lean forward while seated.
- Use elevated commode seat with arms.
- Do not bend to put socks and shoes on; please use your assistive devices.

Hematoma: a collection of blood at the surgery site

- A brownish, red fluid may drain out of your incision (usually 2 weeks after surgery)
- Clean and place a dressing over incision.

If your hip dislocates, call your doctor immediately or go to the nearest emergency room.

DAILY LIVING ACTIVITIES

Discharge Instructions:

General Information

1. Recuperation takes 6-12 weeks; you may feel weak during this time.
2. Use ice for swelling and discomfort throughout the day after exercises and before going to bed
3. You may have an occasional low-grade fever (below 101)
4. NO alcohol with pain medication/blood thinners
5. Do not drive until OK with your doctor (usually 4-6 weeks)
6. Do not smoke – it slows healing & increases your chance of infection
7. Walk with your walker / crutches until your doctor says you can stop
8. Your new joint may cause metal detectors to go off.

Pain

1. You will require prescription pain medication at the time of discharge
2. Take pain medication before activity and exercise
3. Transition off of prescription pain medication. May substitute with Tylenol.
4. Ice for 20 minutes after exercise sessions to reduce pain
5. Swelling and soreness will decrease over 6-12 weeks. However, you could still have occasional swelling for up to 9 months.

Exercise

1. Perform your exercises 2 times a day, every day.
2. Walk every 45 minutes-an hour to prevent stiffness.
3. After staples / sutures are removed and your incision is completely healed, you may do water exercises.
4. No high impact, repetitive exercise such as jumping or running.
5. No high risk activities such as skiing

Low Impact Activity:

- Recommended exercise classes
- Home program as outlined in Patient Guide
- Regular one to three mile walks
- Home treadmill
- Stationary bike
- Regular exercise at a fitness center
- Low impact sports- golf, bowling, walking, gardening, dancing, etc.

Incision

1. Your staples / sutures will be removed 2-3 weeks from the date of your surgery. If sutures are present, they may dissolve on their own.
2. It is normal to have some numbness around your incision.
3. Expect soreness, swelling, and bruising. It should improve over 4-6 weeks.
4. If no drainage, you may leave the incision open to air. Place a dry dressing over your incision daily if it is draining.

Medication

1. You will be given a prescription for pain medication before you leave the hospital.
2. Take a multi-vitamin once a day to help prevent infection
3. Take your blood thinner (Coumadin, Xarelto, Lovenox, or Aspirin) as directed daily

Shower

1. You may shower once your staples/sutures have been removed, unless given other instructions by your doctor.
2. DO NOT shower if you are weak or dizzy.
3. Have someone close by when you do shower; you may need assistance.

Prevention of Constipation

1. Eat fruits and vegetables daily.
2. Drink extra water and fluids.
3. Walk every hour.
4. Use stool softeners or laxatives if needed, especially while taking narcotic medication.

CALL YOUR DOCTOR IF YOU HAVE:

1. Signs & symptoms of infection.
2. Signs & symptoms of a blood clot.
3. Pain not relieved by pain medication.
4. Any questions – remember to call during office hours whenever possible.

When Standing Up from a Chair

PROPER METHOD

Do NOT pull up on the walker to stand!

Sit in a chair with arm rests when possible.

1. Scoot to the front edge of the chair.
2. Push up with both hands on the arm rests. If sitting in a chair without armrest, place one hand on the walker while pushing off the side of the chair with the other.
3. Balance yourself before grabbing for the walker.

IMPROPER METHOD

Transfer – Toilet

You may need a raised toilet seat or a bedside commode over your toilet for 12 weeks after surgery.

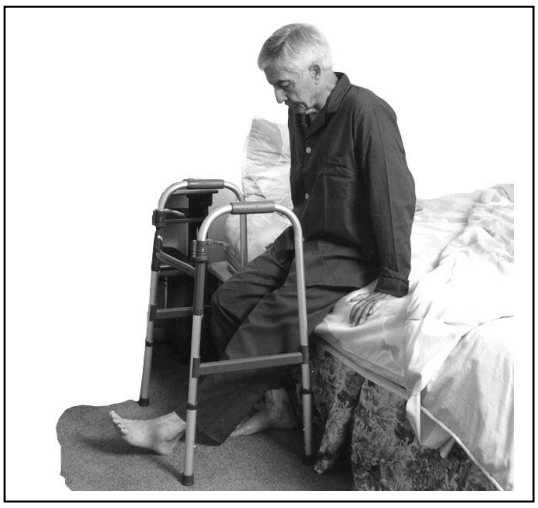
Take small steps and turn until your back is to the toilet. **Never pivot**!

1. Back up to the toilet until you feel it touch the back of your leg.
2. If using *a commode with arm rests,* reach back for both arm rests and lower yourself onto the toilet. If using *a raised toilet seat without arm rests,* keep one hand on the walker while reaching back for the toilet seat with the other.
3. Slide your operative leg out in front of you when sitting down.

When getting up from the toilet:

1. If using *a commode with arm rests,* use the arm rests to push up. If using *a raised toilet seat without arm rests,* place one hand on the walker and push off the toilet seat with the other.
2. Balance yourself before grabbing the walker.

Transfer - Into Bed



When getting into bed:

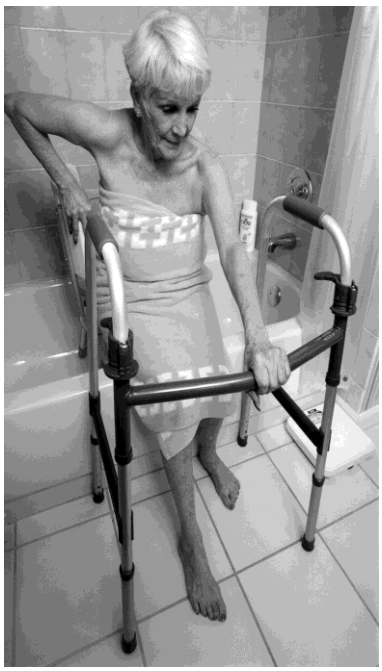
1. Back up to the bed until you feel it on the back of your legs (you need to be midway between the foot and the head of the bed).
2. Reaching back with both hands, sit down on the edge of the bed and then scoot back toward the center of the mattress. (Silk pajama bottoms, satin sheets, or sitting on a plastic bag may make it easier)
3. Move your walker out of the way but keep it within reach.
4. Scoot your hips around so that you are facing the foot of the bed.
5. Lift your leg into the bed while scooting around (if this is your operative leg, you may use a cane, a rolled bed sheet, a belt, or your theraband to assist with lifting that leg into bed).
6. Keep scooting and lift your other leg into the bed.
7. Scoot your hips towards the center of the bed.

Transfer - Out of Bed

When getting out of bed:

1. Scoot your hips to the edge of the bed.
2. Sit up while lowering your non-operative leg to the floor.
3. If necessary, use a leg-lifter to lower your operated leg to the floor.
4. Scoot to the edge of the bed.
5. Use both hands to push off the bed. If the bed is too low, place one hand in the center of the walker while pushing up off the bed with the other.
6. Balance yourself before grabbing for the walker.

Transfer - Tub



Getting into the tub using a bath seat:

1. Place the bath seat in the tub facing the faucets.
2. Back up to the tub until you can feel it at the back of your knees. Be sure you are in front of the tub bench.
3. Reach back with one hand for the tub.
4. Keep the other hand in the center of the walker.
5. Move the walker out of the way, but keep it within reach.
6. Lift your legs over the edge of the tub, using a leg lifter for the operative leg, if necessary.

NOTE: Although bath seats, grab bars, long-handled bath brushes, and hand-held showers make bathing easier and safer, they are typically not covered by insurance.

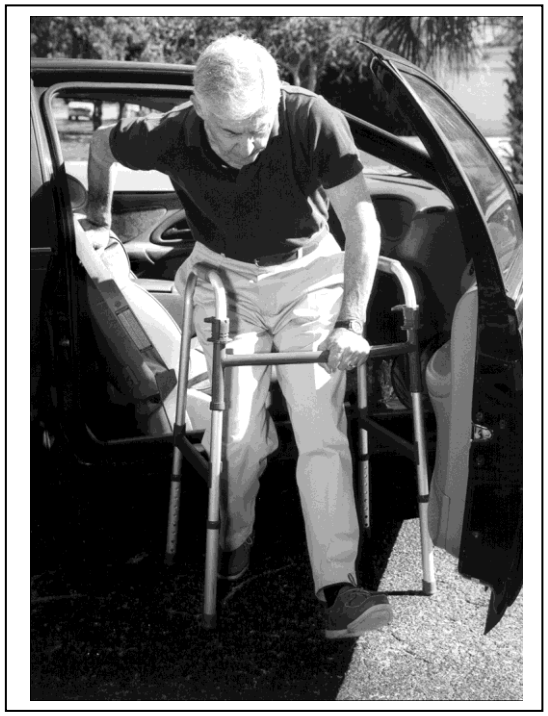
NOTE: **ALWAYS** use a rubber mat or non-skid adhesive on the bottom of the tub or shower. Remove all non-skid bath mats on the floor.

NOTE: To keep soap within easy reach, make a soap-on-a-rope by placing a bar of soap in the toe of an old pair of pantyhose and attach it to the bath seat.

Getting out of the tub using a bath seat:

1. Lift your legs over the outside of the tub.
2. Scoot to the edge of the bath seat.
3. Push up with one hand on the back of the bath seat while holding on to the center of the walker with the other hand.
4. Balance yourself before grabbing the walker.

Transfer - Automobile

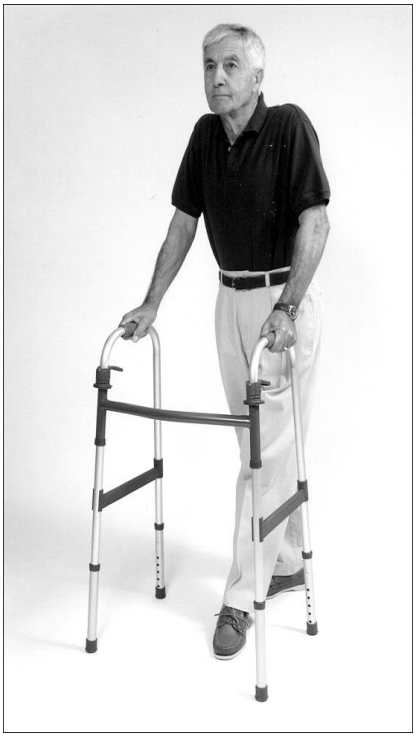


1. Push the car seat all the way back; recline it if possible but return it to the upright position for traveling.
2. Place a plastic trash bag on the seat of the car to help you slide and turn frontward.
3. Back up to the car until you feel it touch the back of your legs.
4. Reach back for the car seat and lower yourself down. Keep your operative leg straight out in front of you and duck your head so that you don't hit it on the door frame.
5. Turn frontward, leaning back as you lift the operative leg into the car.

Walker Ambulation

1. Move the walker forward.
2. With all four walker legs firmly on the ground, step forward with the operative leg. Place the foot in the middle of the walker area. Do not move it past the front feet of the walker.
3. Step forward with the non-operative leg.

NOTE: Take small steps. Do **NOT** take a step until all four posts of the walker are flat on the floor.



Personal Care

Using a "reacher" or "dressing stick"

A reacher or dressing stick can help you remove your pants (especially for hip replacement patients).

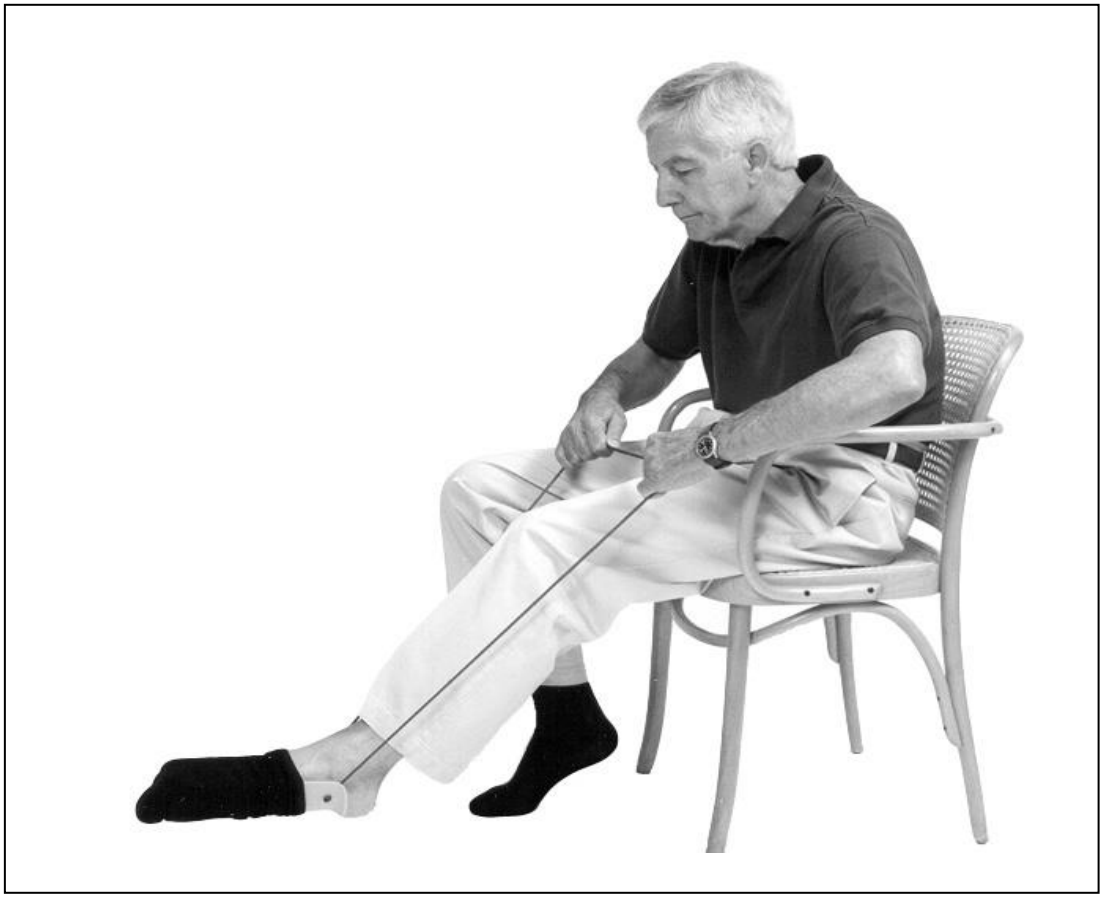
Putting on pants and underwear:

1. Sit down.
2. Put your operative leg in first, and then your non-operative leg.
3. Use a reacher or dressing stick to guide the waistband over your foot. Pull your pants up over your knees, within easy reach.
4. Stand with the walker in front of you to pull your pants up the rest of the way.

Taking off pants and underwear:

1. Back up to the chair or bed where you will be undressing.
2. Unfasten your pants and let them drop to the floor. Push your underwear down to your knees.
3. Lower yourself down, keeping your operative leg out straight.
4. Take your non-operative leg out first and then the operated leg.

Using a “sock aid”



Putting socks on:

1. Sit down.
2. Bend over to put your sock on or put your foot up on a footstool.

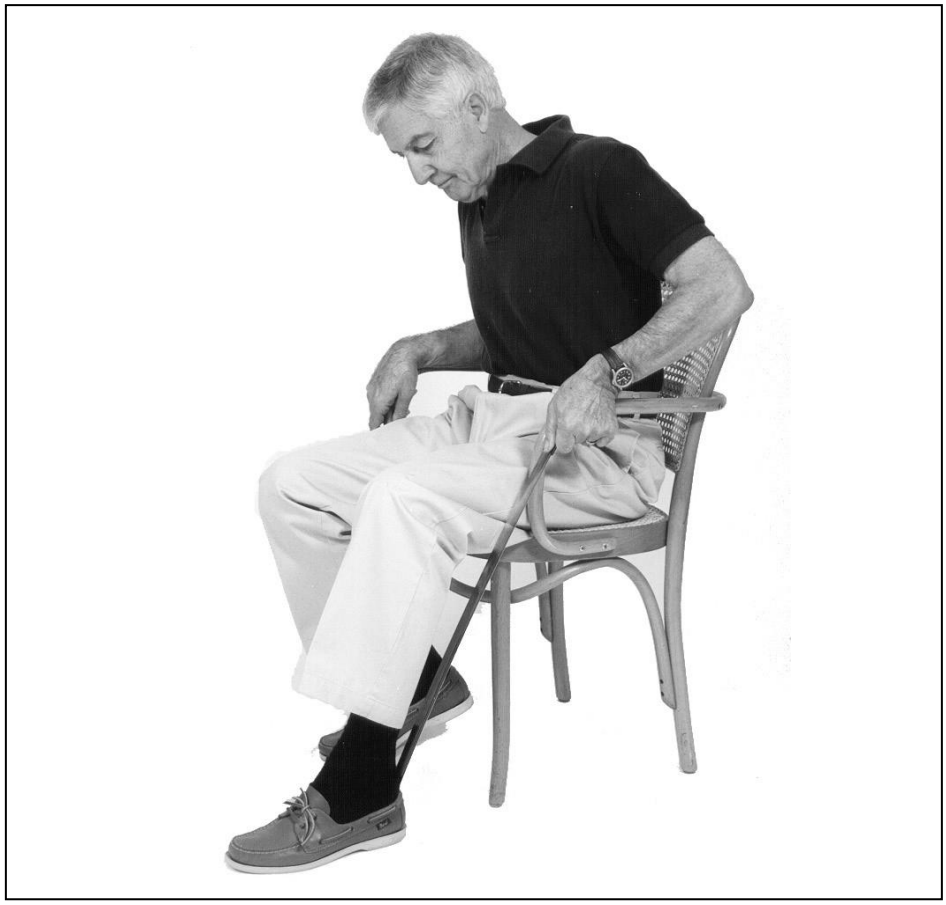
Do not cross your legs when putting on your socks.

Use a sock aid if you are having difficulty reaching your feet.

How to use a sock aid:

1. Slide the sock onto the sock aid with the toe completely tight at the end.
2. Hold the cord and drop the sock aid in front of your foot.
   It is easier to do this if your knee is bent as much as possible.
3. Slip your foot into the sock aid.
4. Straighten your knee, point your toe, and pull the sock on. Keep pulling until the sock aid pulls out.

Using a long-handled shoehorn



1. Use your reacher, dressing stick, or long-handled shoehorn to slide your shoe in front of your foot. Bend your knee as much as possible when doing this.
2. Place the shoehorn inside the shoe against the back of the heel. Have the curve of the shoehorn match the curve of the shoe.
3. Lean back, if necessary, as you lift your leg and place your toes in your shoe.
4. Step down into your shoe, sliding your heel down the shoehorn.

NOTE: Wear sturdy slip-on shoes, or shoes with Velcro closures or elastic shoelaces. DO NOT wear high-heeled shoes or shoes without backs.

HOUSEHOLD CHORES

Saving energy and protecting your joints

Kitchen

- Do NOT get down on your knees to scrub floors. Use a mop and long handled brushes.
- Plan ahead! Gather all your cooking supplies at one time; then, sit to prepare your meal.
- Place frequently used cooking supplies and utensils where they can be reached without too much bending or stretching.
- To provide a better working height, use a high stool or put cushions on your chair when preparing meals.

Bathroom

- Do NOT get down on your knees to scrub the bathtub. Use a mop or other long handled brush.

SAFETY & AVOIDING FALLS

All Areas

- Pick up throw rugs, and tack down loose carpeting. Cover slippery surfaces with carpets that are firmly anchored to the floor or that have non-skid backs.
- Be aware of all floor hazards such as pets, small objects or uneven surfaces.
- Provide good lighting throughout. Install nightlights in the bathrooms, bedrooms, and hallways.
- Keep extension cords and telephone cords out of pathways. Do NOT run wires under rugs, this is a fire hazard.
- Do NOT wear open-toe slippers or shoes without backs. They do not provide adequate support and can lead to slips and falls.
- Sit in chairs with arms. It makes it easier to get up.
- Rise slowly from either a sitting or lying position so as not to get light-headed.
- Do NOT lift heavy objects for the first three months, and then only with your surgeon’s permission.
- Stop and think. Use good judgment.

DO'S & DON'TS FOR THE REST OF YOUR LIFE

Whether they have reached all the recommended goals in three months or not, all joint patients need to have a regular exercise program to maintain their fitness and the health of the muscles around their joints. With both your orthopedic and primary care physicians' permission you should be on a regular exercise program three to four times per week lasting 20 – 30 minutes. Impact activities such as running and singles tennis may put too much stress on the joint and are not recommended. High-risk activities such as downhill skiing are likewise discouraged because of the risk of fractures around the prosthesis. Infections are always a potential problem and you may need antibiotics for prevention.

What to Do in General

- Have a discussion with your surgeon about antibiotics before you have dental work or other invasive procedures.
- Try to avoid elective, invasive procedures for 3 months following surgery.
- Although the risks are very low for post-op infections, it is important to realize that the risk remains. A prosthetic joint could possibly attract the bacteria from an infection located in another part of your body. If you should develop a fever of more than 101°, or sustain an injury such as a deep cut or puncture wound, you should clean it as best you can, put a sterile dressing or Band-Aid on it and notify your doctor. The closer the injury is to your prosthesis, the bigger the concern. Occasionally, antibiotics may be needed. Superficial scratches may be treated with topical antibiotic ointment. Notify your doctor if the area is painful or reddened.
- When traveling, stop and change position hourly to prevent your joint from tightening.
- See your surgeon yearly unless otherwise recommended. (*Yearly Follow-Up Visits* – see appendix).

FREQUENTLY ASKED QUESTIONS:

What are the results of total joint replacement?

Results will vary depending on the quality of the surrounding tissue, the severity of the arthritis at the time of surgery, the patient's activity level, and the patient's adherence to the doctor's orders.

When should I have this type of surgery?

Your surgeon will decide if you are a candidate for the surgery. This will be based on your history, exam, x-rays and response to conservative treatment. The decision will then be yours.

Am I too old for this surgery?

Age is not a problem if you are in reasonable health and have the desire to continue living a productive, active life. You may be asked to see your personal physician for his/her opinion about your general health and readiness for surgery.

How long will my new joint last?

All implants have a limited life expectancy depending on an individual's age, weight, activity level, and medical condition. A total joint implant's longevity will vary in every patient. It is important to remember that an implant is a medical device subject to wear that may lead to mechanical failure. While it is important to follow all of your surgeon's recommendations after surgery, there is no guarantee that your particular implant will last for any specific length of time.

Should I exercise before the surgery?

Yes. You should either consult your physician, an outpatient physical therapist or follow the exercises listed in your Notebook. Exercises should begin as soon as possible.

What are the possible complications associated with joint replacement?

While uncommon, complications can occur during and after surgery. Some complications include infection, blood clots, implant breakage, malalignment, dislocation (hips), and premature wear, any of which may necessitate implant removal/replacement surgery. While these devices are generally successful in attaining reduced pain and restored function, they cannot be expected to withstand the activity levels and loads of normal healthy bone and joint tissue. Although implant surgery is extremely successful in most cases, some patients still experience pain and stiffness. No implant will last forever, and factors such as a patient's post-surgical activities and weight can affect longevity. Be sure to discuss these and other risks with your surgeon.

Will I need blood?

We try to prepare your body before surgery well enough that you may not need a blood transfusion after surgery. Sometimes however you may still need to receive blood after surgery.

How long am I incapacitated?

Patients that arrive to the Joint floor by 4pm will walk with Physical Therapy on surgery day. Patients arriving later in the evening will walk for the first time the morning after surgery. These patients may sit on the side of the bed with the assistance of their nurse on the night of surgery. All group therapy sessions begin on the first day after surgery.

How long will I be in the hospital?

Most joint patients will be hospitalized for one to three days after their surgery. There are several goals to work towards before you are discharged. The majority of patients leave after 2 nights.

What if I live alone?

You may return home and receive help from your coach, a relative, or friend. You may also have a home health nurse and a physical therapist assist you at home for two to four weeks.

Will I need a second opinion prior to the surgery?

The orthopedic physician's office secretary will contact your insurance company to pre-authorize your surgery. If a second opinion is required, you will be notified by the staff at your orthopedic surgeon's office.

How do I make arrangements for surgery?

After your surgeon has scheduled your surgery, the centralized scheduler will contact you. The Pre-op Surgical Nurse or Joint Care Coordinator will guide you through the program and make arrangements for both pre-op and post-op care. Both roles are described in the Notebook along with both phone numbers.

How long does the surgery take?

We reserve approximately two to two-and- a-half hours for surgery. Some of this time is taken by the operating room staff to prepare for the surgery. You will be away from your family approximately 4 hours.

Do I need to be put to sleep for this surgery?

You will have regional anesthesia. There are different types of regional anesthesia including spinal block, epidural block, and continuous peripheral nerve catheter. The goal of regional anesthesia is to provide a numb leg during surgery along with IV sedation; you will breathe on your own. General anesthesia is an option for joint replacement surgery, however not as frequently. General anesthesia is what most people consider as "being put to sleep." You will discuss specific options for anesthesia at your pre-op screening visit with a nurse.

Will the surgery be painful?

There will be pain or discomfort after surgery, but we will keep you as comfortable as possible with appropriate medication. Our surgeons use a multi-modal approach to pain control. There are several different medications that may be used in conjunction with other medications and routes of administration to reduce pain. Patients often receive pain medications via IV and orally. Everyone will be prescribed PRN or "as needed" pain medications that can be taken by mouth every 4-6 hours.

Who will be performing the surgery?

Your orthopedic surgeon will do the surgery. An assistant often helps during the surgery.

How long and where will my scar be?

For total knee replacements the scar will be approximately six inches long. It will be straight down the center of your knee unless you have previous scars, in which case we may use the prior scar.

For posterior total hip replacement scars generally start on the outside of the buttock and extend down toward the thigh. Incision sites vary by length depending on the size of the patient, degree of deformity, and surgeon preference. Some patients may have a hip replacement using an anterior approach; these patients will have a vertical incision on the front of their hip.

There may be some numbness around the scar. This will not cause any problems.

Will I need a walker or crutches or cane?

Yes, we do recommend that you use an assistive device for walking. How long you will need to do so will be determined as you progress through the rehabilitation process. Our physical therapy staff will determine which type of device (rolling walker, crutches, or cane) is appropriate for you. We will provide you with all equipment for the duration of your hospital stay; no need to bring your own. The discharge planner will order any of these assistive devices you may need for home use.

Will I need any other equipment?

Yes, a raised toilet seat or three-in-one bedside commode. A tub bench and grab bars in the tub or shower may also be necessary. An occupational therapist can help you decide. This will be decided prior to discharge and we will make all necessary arrangements for delivery.

Where will I go after discharge from the hospital?

Most patients are able to go home directly after discharge. Some may transfer to a rehab facility where the average stay is seven days. The Joint Care staff will help you with this decision and make the necessary arrangements. Your insurance will explain your options, coverage and payment regarding discharge plans. Some of your options include: home health with physical therapy, outpatient physical therapy, and inpatient rehab.

Will I need help at home?

Yes, for the first several days or weeks you will need someone to assist you with meal preparation, etc. Family or friends need to be available to help if possible. Preparing ahead of time can minimize the amount of help needed.

Will I need physical therapy when I go home?

Yes, you will have home therapy services or outpatient therapy appointments arranged for you prior to your discharge.

How long until I can drive and get back to normal?

The ability to drive depends on whether surgery was on your right leg or your left leg, and the type of car you have. If the surgery was on your left leg and you have an automatic transmission, you could be driving at four weeks. If the surgery was on your right leg, your driving could be restricted as long as six weeks. Getting “back to normal” will depend somewhat on your progress. Consult with your surgeon or therapist for advice on your activity.

When will I be able to get back to work?

This will be decided between you and your physician. An occupational therapist can make recommendations for joint protection and energy conservation on the job.

When can I have sexual intercourse?

The time to resume sexual intercourse should be discussed with your orthopedic physician. A booklet is available if you would like a copy.

How often will I be seen by my doctor following the surgery?

You will be seen daily during your hospital stay. After discharge, your first post-operative visit will be in two to four weeks. The frequency of follow-up visits will depend on your progress. Many patients are seen at six weeks, twelve weeks, and then 6 months and 12 months.

Do you recommend any restrictions following this surgery?

Yes. High-impact activities, such as running, singles tennis and basketball are not recommended. Injury-prone sports such as downhill skiing are also dangerous for the new joint.

What physical/recreational activities may I participate in?

You are encouraged to participate in low impact activities such as walking, dancing, golf, hiking, swimming, bowling and gardening.

Appendix

EXERCISE YOUR RIGHT

Put Your Health Care Decisions in Writing

It is policy of Atrium Health Navicent that all patients have the right to sign and submit advance directives which indicate the patient's desire regarding the treatment the patient wishes to have administered, withheld or withdrawn should the patient's condition render him/her unable to make such decisions for him/herself.

What are Advance Medical Directives?

Advance Directives are a means of communicating to all caregivers the patients' wishes regarding health care. If a patient has a Living Will or has appointed a Health Care Agent and is no longer able to express his or her wishes to the physician, family or hospital staff, the Medical Center is committed to honoring the wishes of the patient as they are documented at the time the patient was able to make that determination.

There are different types of Advance Directives:

LIVING WILLS are written instructions that explain your wishes for health care if you have a terminal condition or irreversible coma and are unable to communicate.

APPOINTMENT OF A HEALTH CARE AGENT (sometimes called a Medical Power of Attorney) is a document that lets you name a person (your agent) to make medical decisions for you, if you become unable to do so.

HEALTH CARE INSTRUCTIONS are your specific choices regarding use of life sustaining equipment, hydration and nutrition and use of pain medications.

On admission to the hospital you will be asked if you have an Advance Directive. If you do, please bring copies of the documents to the hospital with you, so they can become a part of your Medical Record. Advance Directives are not a requirement for hospital admission.

IF YOU WOULD LIKE MORE INFORMATION or forms for completing a Living Will, Appointment of a Health Care Agent or Health Care Instruction, you may contact:

Advanced Directive Coordinator
Atrium Health Navicent
(478) 633-1100

ANESTHESIA & YOU

Who are the anesthesiologists?

The Operating Room and Post Anesthesia Care Unit at Atrium Health Navicent are staffed by Board Certified and Board Eligible physician anesthesiologists with Mednax.

What types of anesthesia are available?

Decisions regarding your anesthesia are tailored to your personal medical history and preferences. The two broad categories are regional and general anesthesia, which are discussed in detail below.

Regional Anesthesia

The types of regional anesthesia include peripheral nerve blocks and/or catheters, spinals, and epidurals. Some of the proven advantages of choosing regional anesthesia as part of your anesthetic plan include better postoperative pain relief, less narcotic use, faster time to rehabilitation and recovery, less nausea and vomiting after surgery, and improved patient satisfaction. As with any type of surgical or medical treatment, side effects are possible. For regional anesthesia, these are incomplete pain relief, soreness or bruising at the needle site, or tingling that lasts for days. Spinals and epidurals can cause headaches about 1% of the time. Serious complications can occur, but these are very rare: bleeding, infection, or nerve injury. There may be certain surgeries or medical conditions where it is better to avoid some types of regional anesthesia or even use general anesthesia instead. Many times, there are very important surgical or medical reasons to especially recommend regional anesthesia. With any type of regional anesthesia, you will also receive medications through your IV that help sedate you in the operating room and prevent anxiety and pain. You will have the opportunity to discuss your anesthetic options with your anesthesiologist.

Spinals

A thin needle is placed between the bones of the back, and a single injection of numbing medicines is made. Both legs become numb and different medicines will be chosen to last usually 3-5 hours.

Local Injections

Your surgeon may inject medications directly into your knee or hip while he is operating to provide extended pain relief post operatively.

General Anesthesia

With general anesthesia, you are unconscious and have no awareness or other sensations. There are a number of general anesthetic drugs. Some are gases or vapors inhaled through a breathing mask or tube and others are medications introduced through a vein. During all types of anesthesia (regional and general), you are carefully monitored, controlled and treated by your anesthesia care team, who use sophisticated equipment to track all your major bodily functions. A breathing tube may be inserted through your mouth into the windpipe to maintain proper breathing during this period. The length and level of anesthesia is calculated and constantly adjusted with great precision. At the conclusion of surgery, your anesthesia care team will reverse the process and you will regain awareness in the recovery room.

Will I have any side effects?

Your anesthesiologist will discuss the risks and benefits associated with the different anesthetic options, as well as any complications or side effects that can occur with each type of anesthesia. Nausea and/or vomiting may occur but is less of a problem today because of increased use of regional anesthesia. Anti-Nausea medications will be given in the OR to prevent any nausea and vomiting. These medications may also be given post operatively as needed. The amount of discomfort you experience will depend on several factors, especially the type of surgery. We attempt to provide a "multi-modal" approach to alleviating pain after joint surgery. The pain management regimen prescribed by your surgeon may include local injections, nerve blocks with numbing medications, IV and oral narcotic pain medication. Despite our best efforts, we cannot guarantee a complete pain-free experience; however, we do hope to minimize your pain as much as possible. The better we are able to manage your pain, the better your outcome with physical therapy will be.

What will happen before my surgery?

You will meet your anesthesiologist on the day of your surgery. Your anesthesiologist will review all information needed to evaluate your overall health. Your medical history, laboratory test results, allergies, and current medications will

be reviewed by the anesthesiologist. Any remaining questions you may have will be answered at this time. Usually, you will have your spinal block and/or continuous nerve catheter placed under IV sedation in a monitored holding area prior to moving to the operating room. In the holding area, you will meet a nurse and an anesthesia technician who help with the IV sedation and nerve block placement. Once in the operating room, monitoring devices such as a blood pressure cuff, EKG and pulse oximetry will be applied for your safety. At this point, you should be feeling the relaxing effects of the medications and your knee should be getting numb and ready for surgery.

During surgery, what does my Anesthesiologist do?

Your anesthesiologist is responsible for your comfort and safety before, during, and immediately after your surgical procedure. In the operating room, the anesthesiologist will manage vital functions. These include heart rate and rhythm, blood pressure, body temperature and breathing. The anesthesiologist also is responsible for fluid and blood replacement when necessary.

What can I expect after the operation?

After surgery, you will be taken to the Post Anesthesia Care Unit (PACU). You will be given IV pain medication if needed. You will be watched closely by specially trained nurses. During this period, you may be given extra oxygen and your breathing and heart functions will be observed closely. An anesthesiologist is available to provide care as needed for your safe recovery.

May I choose an anesthesiologist?

Although most patients are assigned an anesthesiologist, you may choose one based on personal preference or insurance considerations. If you have questions about your insurance coverage or medical plan participation by the anesthesiologist, please contact your insurance company for guidance. Requests for specific anesthesiologists should be submitted in advance either at your hospital pre-op visit or directly through Mednax at 478-633-1190.

BLOOD THINNERS: Coumadin

Monitoring the dosage after the patient is discharged from the hospital

HOME—If you are discharged with Coumadin and go home with home health services, the home health nurse will come out weekly to draw your blood for a prothrombin time. The results will be faxed to your surgeon's office so any adjustments to your dose may be made if necessary.

If you do not use home health nursing, then you will have to go to an outpatient medical lab and to have your blood drawn. These arrangements will be coordinated by the discharge planner before you leave the hospital. Remember your Vitamin K diet restrictions. Information packet will be provided at discharge if needed.

REHAB— If you are transferred to rehab, the monitoring may be done 1-2 times per week. The physician caring for you at the rehab will adjust the Coumadin dose as necessary. When you are discharged home from rehab a home health nurse will come into your home to draw your blood or you may have to go to an outpatient lab.

THE IMPORTANCE OF LIFETIME FOLLOW-UP VISITS

After performing many joint replacements, we have discovered that many people are not following up with their orthopedic surgeon on a regular basis. The reason for this may be that they don't realize they are supposed to, or they don't understand why it is important.

So, when should you follow-up? These are some general rules:

- Every year, unless instructed differently by your physician
- Anytime you have mild pain for more than a week
- Anytime you have moderate or severe pain that requires medication
- There are two good reasons for follow-up visits with your orthopedic surgeon:

1. If you have a cemented hip or knee, we need to evaluate the integrity of the cement. With time and stress, cement may crack. You probably would be unaware of this happening, because it usually happens slowly over time. This does not often occur in the first 10 years, but it occasionally can. After 10 years of use, the incidence is greater. Seeing a crack in cement doesn't necessarily mean you need another surgery, but it does mean we need to follow things more closely.

Why? Two things could happen. Your hip or knee could become loose and this might lead to pain. Or, the cracked cement could cause a reaction in the bone, called "osteolysis", which may cause the bone to thin out. In both cases you might not know this for years. Orthopedists are constantly learning more about how to deal with both of these problems. The sooner we know about potential problems, the better chance we have of avoiding more serious problems.

2. The second reason for follow-up is that the plastic liner in your knee or hip may wear. Little wear particles may get in the bone and cause osteolysis, similar to what can happen with cement. (Again, this may cause the bone to thin out). Replacing a worn liner early can keep this from happening.

X-rays taken at your follow-up visits can detect these problems. Your new X-rays can be compared with previous films to make these determinations. This should be done in your doctor's office. If you are unsure how long it has been or when your next visit should be scheduled, call your doctor.

Acknowledgements

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Macon, Georgia

TVC