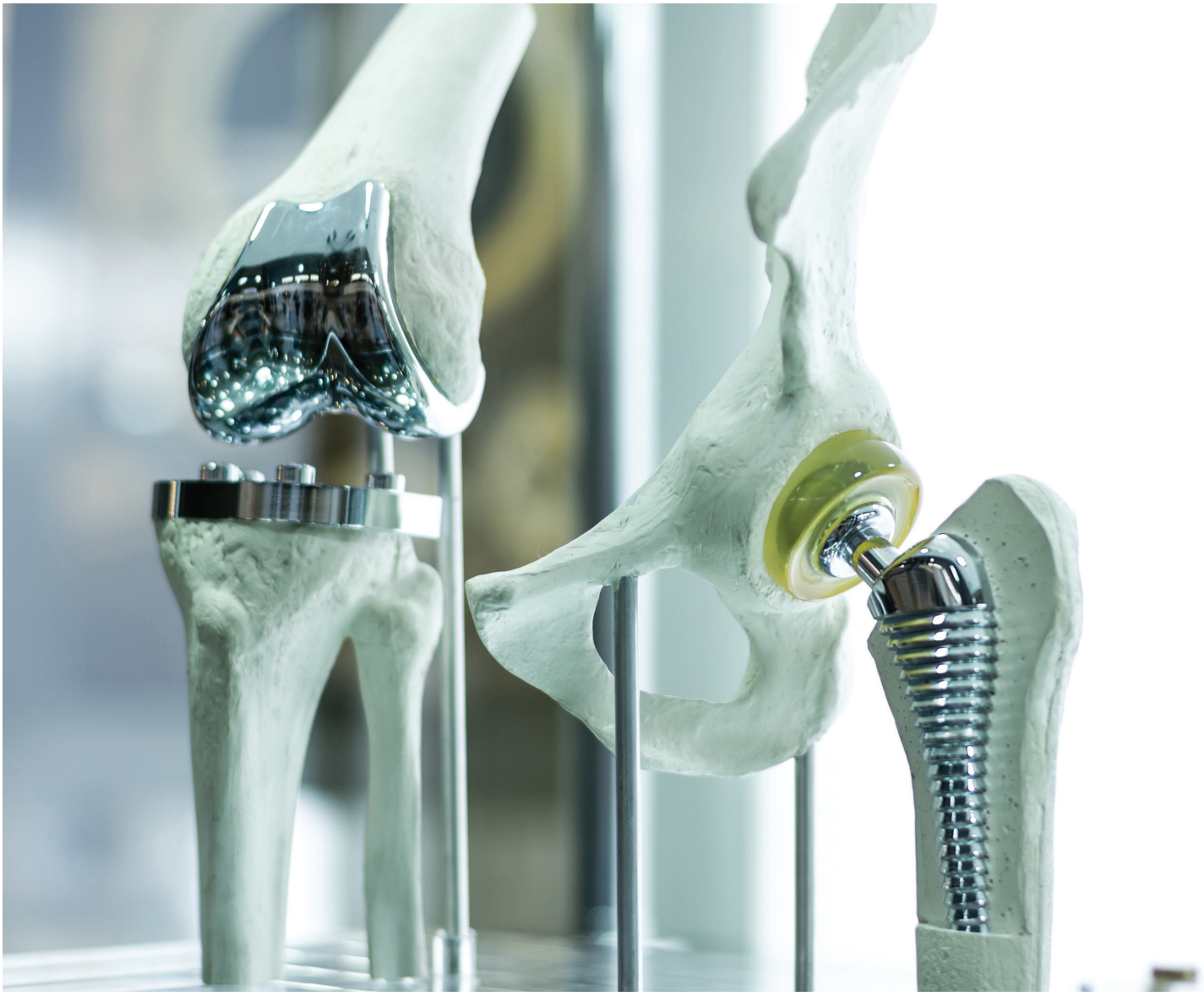
HUGHSTON CLINIC

ORTHOPAEDICS

TOTAL JOINT HANDBOOK

A Patient Guide for Knee & Hip Replacements



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WELCOME

You and your surgeon have decided that it's time to have your joint replaced. This guide is intended to inform and involve you in your treatment through each step of the program. We are committed to making the process as smooth as possible.

IMPORTANT APPOINTMENTS AND TASKS

PCP appt: _____

Dr. Reino pre-op appt: _____

P.A.T. appt: _____

Surgery Date: _____

Post-op appt: _____

_____ CT scan (if ordered)

_____ Test results to Dr. Reino

_____ Walker

_____ Shower chair

_____ Bedside commode

_____ Home PT or Outpatient PT arranged

NOTES

TABLE OF CONTENTS

TIMELINE TO PREPARE FOR SURGERY

OPTIMIZE YOUR HEALTH - VISIT YOUR PRIMARY CARE PHYSICIAN:

- You must be cleared for surgery by your Primary Care Physician (PCP) within 2 months of surgery. This will lower the risk of intra-operative or post-operative complications.
- An EKG, chest X-Ray, and bloodwork are performed and reviewed by your PCP. The result must be sent to Dr. Reino for review. A visit to a specialist may be recommended.
- For some Joint replacements, a CT scan is done at least 4 weeks prior to your surgery date. This will be ordered for a computer navigated or robotic surgery.

ONE MONTH BEFORE SURGERY:

- Attend the hospital's joint replacement class, and begin the exercises in this booklet.
- No smoking 4 weeks before AND after your surgery. Avoid second hand smoke.
- Obtain a walker, elevated toilet seat, and shower chair (see adaptive equipment section).

ATTEND PRE-OPERATIVE VISIT WITH YOUR SURGEON:

- This is a required visit with Dr. Reino within 30 days of your surgery. This will serve as a final checkup and a time for you to ask any remaining questions. **All bloodwork results and medical clearance notes must be sent to us prior to this visit.**

ONE WEEK BEFORE SURGERY:

- 5 days before surgery - **stop your blood thinning medication** (Coumadin, Eliquis, Xarelto).
- 7 days before surgery - stop any vitamin, supplements, herbal medication.
- 7 days before surgery - stop aspirin and anti-inflammatories (NSAIDS) such as Ibuprofen, Diclofenac, Naprosyn, Motrin, Advil, Naproxen, Aleve, Mobic, Voltaren.
- Attend the Pre-Admission Testing (PAT) appointment at the hospital.

ONE DAY BEFORE SURGERY:

- Shower with antibacterial soap (provided at the hospital at your PAT)
- Pack your supplies for the hospital (page 5).
- DO NOT EAT ANY FOOD AFTER MIDNIGHT.

DAY OF SURGERY:

- Take your regular blood pressure, heart, or thyroid medication with a sip of water.
- Wash the surgical site with antibacterial soap, but DO NOT shave the surgical area.
- You may brush your teeth and apply deodorant.
- Do NOT wear any makeup, perfume, lotions, powders, or oils on your chest, legs, or arms.
- Arrive at the hospital 2 hours prior to your surgery time.
- The surgeon and anesthesiologist will see you in pre-operative area.

PREPARE YOUR HOME FOR YOUR RETURN

To help ease your return back home, it's a good idea to do the following before your surgery:

- Cleaning and laundering.
- Prepare meals and freeze them.
- Remove throw rugs and tack down loose carpeting.
- Remove electrical cords and other obstructions from walkways.
- Install night lights in bathrooms, bedrooms, and hallways.
- If necessary, arrange to have someone take care of pets.
- Some people find it helpful to set up a "Recovery Area". In this area you will want to have a bed, phone, TV remote, books, table for drinks, snacks, tissues, a waste basket, etc.

ADAPTIVE EQUIPMENT

Your hospital stay can be lengthened unnecessarily without this home equipment.

- Dr. Reino recommends a two-wheeled walker for all hip and knee replacement patients: Two wheels in the front and two posts in the back.
- A 3-in-1 commode can be beneficial to place on top of the toilet or at bedside. It sits much higher than most household toilets and makes rising up easier with side handles.
- A bench, shower-chair, or the 3-in-1 commode enable sitting in the shower.
- The hospital usually provides a total joint kit to patients with some additional items: such as a reacher, sock-aid, long handled shoe horn, and a long handled bath sponge.

WHAT TO BRING TO THE HOSPITAL

- Driver's license or state issued ID.
- Copy of your Advance Directives and insurance information.
- CPAP Machine (if you use one).
- Personal hygiene items (e.g. toothbrush, powder, deodorant, glasses).
- Loose, comfortable clothing. Gym type clothing (for therapy), athletic or closed back shoes.
- Please leave valuables at home.
- **Bring this packet for reference.**

CONTROLLING YOUR DISCOMFORT & PAIN

- Gradually wean yourself from prescription medication as your pain lessens.
    - **STOP** oxycodone (narcotic) first, then muscle relaxers and/or Neuropathic pain medication (if prescribed). Finally wean off NSAIDs and Tylenol.
    - Oxycodone use as prescribed, after the below meds if needed.
    - Muscle relaxer or Neuropathic. Use as prescribed.
    - NSAID (meloxicam, naproxen, celecoxib, or ibuprofen). Use as prescribed.
    - Tylenol (acetaminophen). 1000mg by mouth 3 times daily.
- Take your pain medicine with a light meal at least one hour before physical therapy.
- Change your position every 60 minutes throughout the day.
- ICE: Use cooling pump or a bag of ice on your surgery site for 10-30 minutes after exercising and as needed throughout the day up to 5 times daily. Place a towel between your skin and the ice to prevent skin irritation or damage.

Florida Law only permits narcotic prescriptions for a maximum 7-day supply for acute pain. Pain medication prescriptions must be sent electronically to the pharmacy. Keep this in mind as the weekend approaches as your doctor may not be able to access a computer. For refills, please allow 48-72 hours for this to be completed.

CARING FOR YOUR INCISION

- You may shower (the plastic surgical dressing is waterproof) keeping dressing intact.
- Keep your incision covered with the dressing placed during surgery for 2 weeks.
  - > Dr. Reino will remove the covering at your first post-operative visit.
  - > If the surgical dressing becomes saturated with blood or liquid, call your surgeon.
- After your first visit, water and soap can touch the incision. Carefully dab or air dry the incisions.
- After your first visit, do daily dressing changes with gauze pads and/or ACE wraps.
- You may leave the incision open to air while indoors in a clean environment. Dr. Reino recommends keeping the incision site covered for 3 weeks if pets live in your house.
- DO NOT SUBMERGE the incision in water (bath, pool, lake) until completely healed (4 weeks).
- DO NOT apply creams, lotions, ointments to the incision site until it is completely healed.
- **Notify your surgeon** if you have swelling that seems to be worsening, redness, opening of the wound, cloudy or bloody drainage from surgical site.

ACTIVITIES OF DAILY LIVING & HOME SAFETY

- Do NOT get down on your knees to scrub floors. Use a mop or broom.
- Plan ahead! Gather all your cooking supplies at one time. Then, sit to prepare your meal.
- Place frequently used cooking supplies where they can be easily reached.
- To provide a better working height, use a high stool, or put cushions on your chair when preparing meals.
- 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 your home. Install night lights 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.

RECOGNIZING & PREVENTING COMPLICATIONS

SIGNS OF INFECTION

- Increased swelling or redness at the incision site.
- Change in color, amount, or odor of drainage.
- Increased pain in the operated joint.
- Fever greater than 101.5°F or 38.5°C.

PREVENTING INFECTION

- Always wash your hands before touching your incision site.
- Keep all dressings clean and dry.
- Cover your cough or sneeze.
- Keep a clean home.
- Keep pets away from your incision. Wash hands after touching pets.
- Notify your dentist whenever you are going to have dental work. They may prescribe a prophylactic antibiotic for you to take.

SIGNS OF A BLOOD CLOT OR DVT

- **In Legs:** Extreme tenderness or pain in calf (back of leg), very hard/tense feeling in calf, or warmth and redness in the calf area.
- **If you have any of these symptoms**, call your surgeon's office. Try to call as early in the day as possible as you may need to be scheduled to have an ultrasound.
- **In Lungs:** Sudden chest pain, difficult and/or rapid breathing, shortness of breath, excessive sweating, or confusion **CALL 911** if you have these!
- **CALL 911** if you have these breathing issues or chest discomfort!

PREVENTING BLOOD CLOTS

- Take your prescribed anti-coagulation medication for 4 weeks after surgery. Typically, either aspirin, xarelto, lovenox, or eliquis are prescribed.
- Use stockings called TED hose. Wear the stockings continuously for 3 weeks after your surgery. You may remove for shower and two hours a day.
- Walk for 5 minutes every hour you are awake to improve circulation.
- If swelling in the operative leg is bothersome, elevate the leg for short periods throughout the day. It's best to lie down and raise your leg above the level of your heart.

RISKS OF SURGERY

Joint replacement surgery has risks and complications. **ALTERNATIVES** to surgery include; Losing weight, stopping strenuous exercises or work, physiotherapy, medicines, injections, using a cane or walker, arthroscopy, or using a knee brace. Surgery has these RISKS:

COMMON: (2-5%)

Pain: Pain will improve with time. Rarely, pain will be a chronic problem and may be due to any of the other complications listed below, or, for no obvious reason.

Bleeding: A blood transfusion or medication may be required. Rarely, the bleeding may form a blood collection (hematoma) or large bruise which may be painful or require more surgery.

DVT (deep vein thrombosis): A blood clot in a vein. It can cause permanent leg swelling or pain. It requires medical and occasionally surgical intervention to stop spreading. The risk of developing a DVT is greater for knee or hip replacement than most elective surgeries.

Joint stiffness: May occur after the operation, especially if the joint is stiff before the surgery. Manipulation of the joint (under general anesthetic) may be necessary.

Prosthesis wear: With modern operating techniques and new implants, joint replacements last many years. However, in some cases, they fail earlier. The plastic component can wear away with use and time. The metal and bone junctions may also loosen.

LESS COMMON: (1-2%)

Infection: Despite all precautions, infections still occur (1 to 2%). This is usually treated with antibiotics or an operation to washout the joint. In rare cases, all the implants may be removed and new implants inserted at a later date. The infection can sometimes lead to sepsis (blood infection).

RARE: (<1%)

Pulmonary embolism: A blood clot moves into the lungs and dramatically affects your breathing. This can be fatal.

Altered leg length: The operative extremity may appear shorter or longer than the other.

Altered wound healing: The wound may become red, thickened, and painful (keloid scar).

Joint dislocation: The joint can sometimes be put back into place without the need for surgery. Sometimes an operation is required, followed by application of a brace.

Nerve damage: Damage to a nerve, may cause temporary or permanent weakness or altered sensation of the lower leg. Changed sensation to the outer half of the knee or hip may be normal.

Bone damage: Bones can fracture when the prosthesis is inserted. This may require fixation, either at that time or during a later operation.

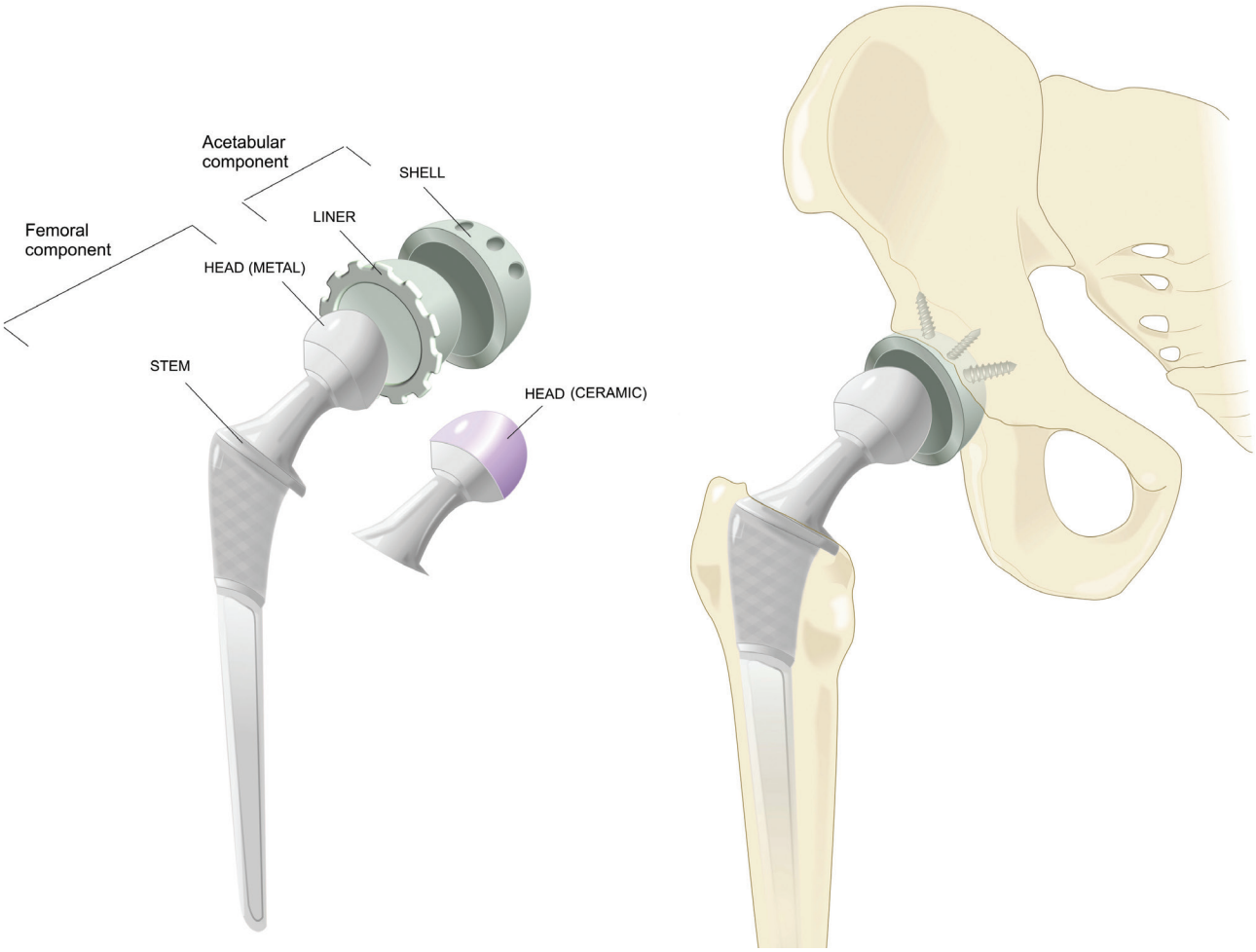
Blood vessel: The vessels around your joint may be damaged and require further surgery.

Death: This very rare complication may occur with any major surgery, anesthesia, or complications listed above.

ANTERIOR TOTAL HIP REPLACEMENT

Dr. Reino performs a direct anterior approach total hip arthroplasty for most of his primary hip replacements. One big benefit of this surgical approach is the intermuscular and internervous nature. In other words, the surgeon does not cut or split the major muscles and he navigates between the nerves. The advantages of the direct anterior approach are a low dislocation rate and a muscle-sparing approach, which means faster soft-tissue healing.

There are **no restrictions to bending, crossing legs, or sleep position after this surgery**. No traditional hip precautions.

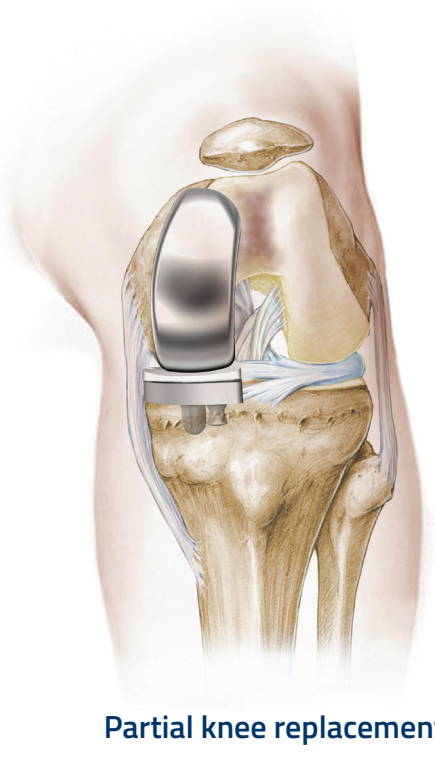


The Total Hip is made of four components. The acetabular shell and femoral stem are made of titanium. They have a rough surface similar to cancellous bone and the body and implant grow together with time. Titanium is corrosion resistant and biocompatible. The plastic liner snaps into the cup (shell). The femoral head (metal or ceramic) is compressed onto the stem and articulates with the liner.

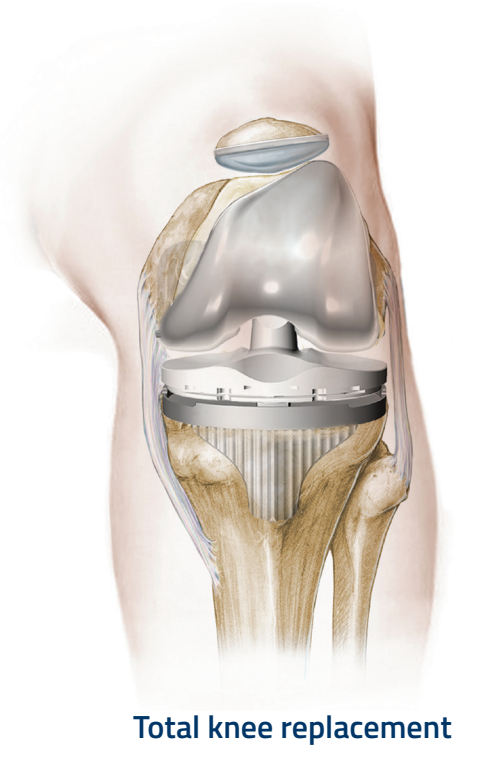
KNEE REPLACEMENT

Dr. Reino performs both partial and total knee replacements. Both can be done with computer navigation, based on a CT scan of your leg, or robotic guidance. Dr. Reino prefers a minimally invasive approach (sub-vastus or mid-vastus) to allow quicker recovery. If you have large muscles, limited motion, or prior knee surgery, a larger incision is recommended for the best view of the joint. This ensures the most accurate position of the implants.

Arthritic knee joint



Partial knee replacement



Total knee replacement

Recover Motion: During surgery, the tight joint is released to allow the knee its maximum range of motion. It can be hard to fully extend or straighten your knee afterward. **DO NOT** sleep with pillows under your operative knee (the knee can heal in a flexed, contracted manner and make walking difficult). Several times a day, use a pillow under the ankle and encourage the knee to fully extend straight (placing an object like an ice bag on top of the knee will help fully extend knee).

FREQUENTLY ASKED QUESTIONS

HOW LONG WILL I BE IN THE HOSPITAL?

Most patients stay in the hospital between 1 to 2 days. There are patients who can be discharged home the same day as surgery. There are several goals that must be achieved before you can be discharged.

WHERE WILL I GO AFTER DISCHARGE FROM THE HOSPITAL?

Most patients go home directly after discharge as this is typically the best place for recovery. A few patients may transfer to an inpatient rehabilitation center if covered by insurance. Stays there are generally, no longer than 2 weeks.

WHAT IF I LIVE ALONE?

Try to make arrangements to have someone stay with you for a few days after you go home. A home health nurse and physical therapist will see you within the first 24 to 48 hours after you are home. If no one can assist you or if your house has stairs, a rehabilitation center can be used after your hospital stay. Each rehabilitation facility accepts different insurances. Facility tours can be arranged before your surgery.

HOW CAN I PHYSICALLY PREPARE FOR SURGERY?

Perform the exercises described in this handbook at least 2 weeks before surgery. You must quit tobacco 4 weeks before and after your surgery. Avoid secondhand smoke. Continuing smoking will slow healing and can cause other complications.

WILL I NEED ANY EQUIPMENT WHEN I LEAVE THE HOSPITAL?

You will need a walker and cane after surgery. Your physical therapist will help you transition when appropriate. Some people like a bedside commode to place on top of the toilet and/or a shower bench/chair.

HOW LONG UNTIL I CAN DRIVE AND GO BACK TO WORK?

Most patients will be able to drive an automatic car at 4 weeks after a procedure on the right leg and about 2 weeks after a left hip or left knee replacement. Each patient is unique, therefore returning to work depends on the patient and the job specifications.

FREQUENTLY ASKED QUESTIONS

WILL I NEED PHYSICAL THERAPY WHEN I GO HOME?

You can have a home health therapist come to your home. This will last approximately 2 weeks. Your outpatient physical therapy referral prescription will be given to you at your pre-op visit or at the first post-surgical visit. Outpatient therapy is at a location of your choice.

HOW OFTEN WILL I NEED TO BE SEEN BY MY DOCTOR FOLLOWING THE SURGERY?

Your first post-operative visit is usually 8 to 15 days after discharge, but can be longer if you are in a nursing facility. The dressing is usually changed for the first time in Dr. Reino's office. The frequency of follow-up visits will depend on your progress. Most patients are seen at 6 weeks, 12 weeks, 6 months, and the 1 year anniversary for x-rays and check-up.

WILL I NOTICE ANYTHING DIFFERENT ABOUT MY NEW KNEE OR HIP JOINT?

If you have had a knee replacement, most patients have an area of numbness to the outside of the scar which may last a year or more and is not serious. Kneeling may be uncomfortable and some patients notice "clicking" when they move their knee. This is not a cause for concern unless it is accompanied by intense pain. In many cases, patients with hip replacements feel as though the leg with the new hip may be longer than it was before. There can be a patch of numbness below and outside of your hip incision which may be temporary and is not serious.

NOTES

EXERCISES TO DO BEFORE & AFTER SURGERY

Duration: 8 to 10 reps **Frequency:** 2 to 3 times/day (see appendix)

1. Ankle Pumps
2. Quad Sets
3. Gluteal Sets
4. Heel Slides
5. Leg Abduction
6. Knee Extension-Sitting
7. Arm-chair Push Ups

GENERAL INSTRUCTIONS

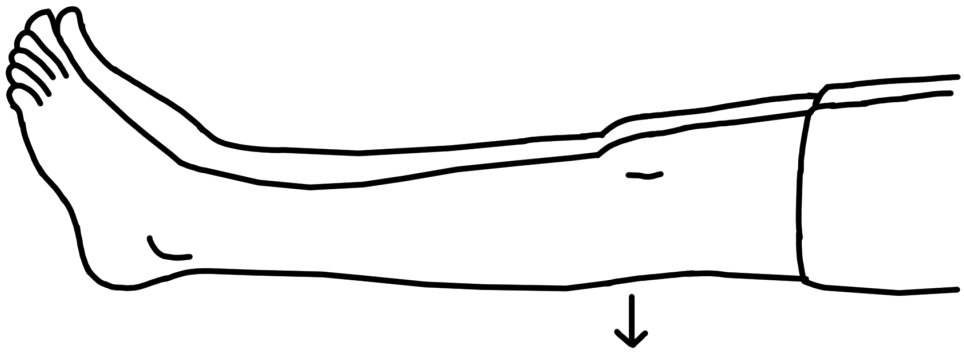
- The purpose of these exercises is to increase circulation to your leg, decrease swelling, and increase leg strength and flexibility.
- You should do all your exercises at least twice a day. However, 3 times a day would be better. Ideal number of repetitions is 8 to 10.
- Do exercises on both legs.
- When starting, if you cannot do a full 10 repetitions, go until you experience pain or pressure while exercising, and stop that exercise to rest. Then, each time you exercise, increase by 1 repetition.
- Do not hold your breath while exercising. Breath normally.

1. ANKLE PUMPS

Position: Lying on your back or while sitting.

Action: Pull foot up and then point foot down as far as possible, keeping legs straight.

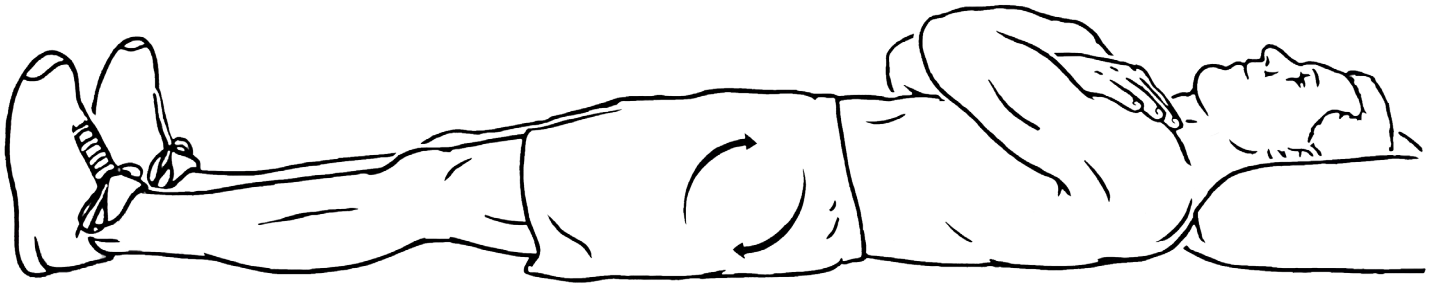
2. QUADRICEPS SETS



Position: Lying on your back with legs straight.

Action: Tighten your thigh muscle by flattening your knee against the surface. Hold for a count of 5. Relax. Repeat.

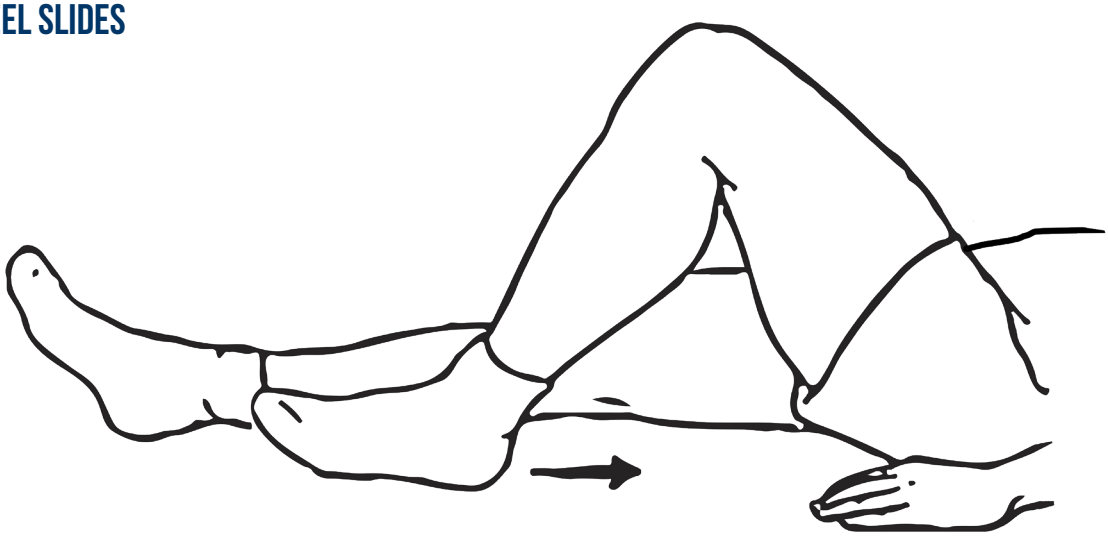
3. GLUTEAL SETS



Position: Lying on your back with legs straight.

Action: Squeeze buttocks together. Hold for a count of 5. Relax. Repeat.

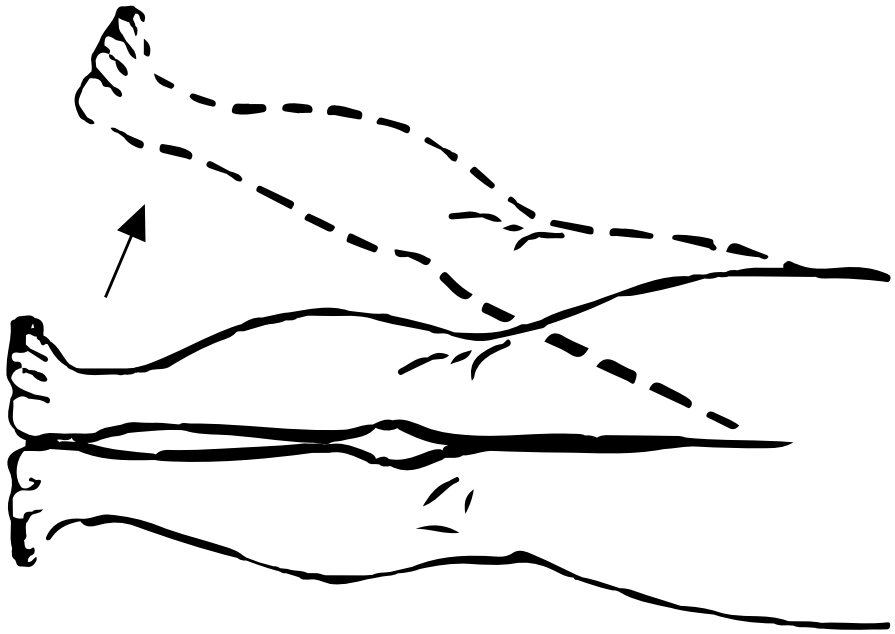
4. HEEL SLIDES



Position: Lying on your back with legs straight.

Action: Slowly bend knee, sliding heel up toward buttock. Do not lift heel from the surface. Slowly return to the starting position.

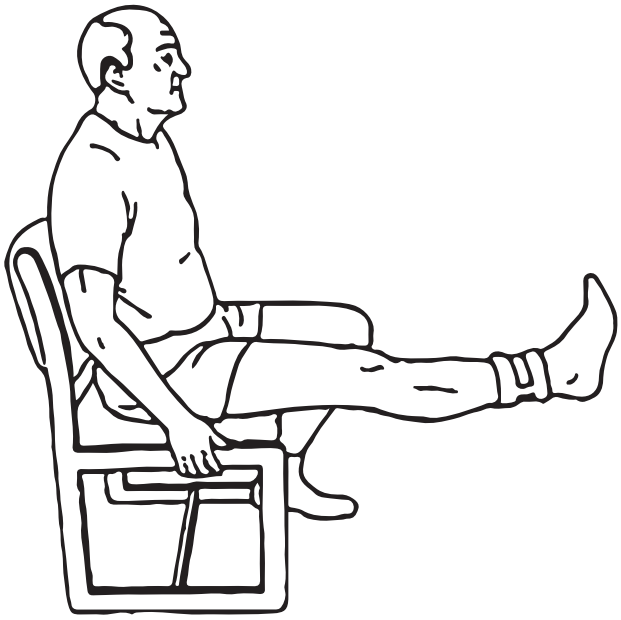
5. LEG ABDUCTION



Position: Lying on your back with both legs straight.

Action: Keep knee straight and toes pointed to the ceiling. Slide leg out as far as possible. Return to starting position. Relax. Repeat.

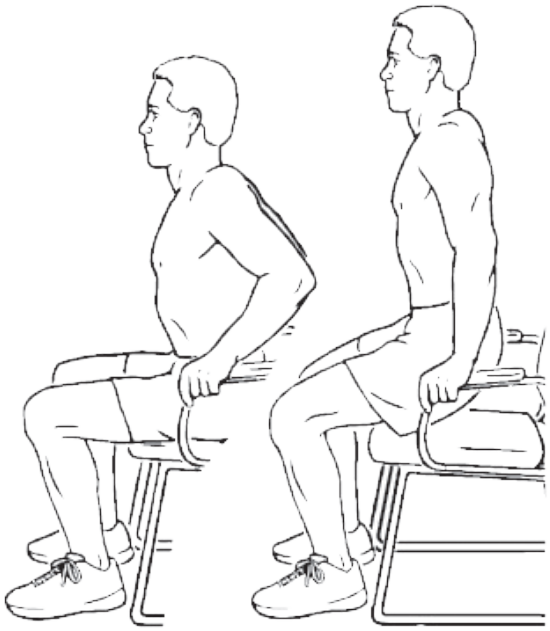
6. KNEE EXTENSION – SITTING



Position: Sitting in a chair with a straight back; thighs should be in line with hips, back against chair and feet flat on the floor.

Action: Slowly lift foot as you straighten your knee. Lower to start position. Relax. Repeat.

7. ARM-CHAIR PUSH UPS



Position: Sitting in a chair with a straight back; with Hands on armrests

Action: Push up from the chair; use arms as much as possible before surgery to build up strength. Pause momentarily, and then lower back down slowly.

HOME HEALTH PHYSICAL THERAPY PROTOCOL

(Start 24 to 28 hours after discharge)

All joints are weight bearing as tolerated

Anterior Total Hip: No motion or sleeping restrictions. No hip precautions.

Total Knee: Achieve full extension quickly.

Weeks 1-2 (Treat 3 times per week)

- Assessment and evaluation-bed mobility: functional transfers (bed, chair, bathroom, stairs); ambulation with equipment, car transfers, stair use, and ability to get out of house in the event of an emergency.
- Discuss pain management per above protocol and review ADL's including shower transfers.
- Home Exercise Program:

  Supine exercises - ankle pumps, quad sets, heel slides, short and long arc quad sets, straight leg raise.

  Sitting exercises - active knee flexion, passive knee flexion, active knee extension, ankle pumps, arm chair push-ups.

  Standing exercises - holding onto supportive counter-toe raises, heel raises, mini-squats, marching in place, hamstring curls.

Weeks 3-4 (Treat 2-3 times per week)

- Gait training-wean from walker to cane as tolerated.
- Stair climbing, independence with car transfers, increase independence with ADL's.
- Continue or advance exercises (pages 13-16).

Physical therapy goals by discharge from Home Health:

- Safe ambulation with walker or cane if needed (level surfaces and stairs).
- Knee Flexion > 90 degrees, extension 0 degrees.
- Daily performance of home exercise program.
- Independent with stair climbing and car transfers.
- Progress to community ambulation.

NOTES

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