HUGHSTON CLINIC

ORTHOPAEDICS

TOTAL JOINT HANDBOOK

A Patient Guide for Hip, Knee and Shoulder 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 through each step of the program. Patients that follow these guidelines historically have the best results. We are committed to making the process as smooth as possible.

IMPORTANT APPOINTMENTS AND TASKS

Dr. Reino pre-op appt: _____

P.A.T. appt: _____

Surgery Date: _____

Post-op appt: _____ *2 week*

Post-op appt: _____ *6 week*

_____ Physical Therapy (HHC vs. Outpatient)

DME Arranged: _____ Walker

_____ Shower chair

_____ Bedside commode

NOTES

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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.
- Send all bloodwork results to Dr. Reino, for review at your pre-op appointment.

ONE MONTH BEFORE SURGERY:

- Attend the a joint replacement class, at hospital or surgery center, if offered.
- Begin the exercises in this booklet.
- Obtain a walker, shower chair, elevated toilet seat as needed (Adaptive Equipment - page 4).

ATTEND PRE-OPERATIVE VISIT WITH YOUR SURGEON:

- This final checkup is a required visit with Dr. Reino within 2-4 weeks of your surgery. *Your surgery will be cancelled if this appointment is not kept.* **All bloodwork results and medical clearance notes must be sent to us prior to this visit.**

ONE WEEK BEFORE SURGERY:

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

ONE DAY BEFORE SURGERY:

- Receive call from surgical facility with time to arrive for surgery.
- Wash operative site with antibacterial soap, but DO NOT shave the surgical area.
- Pack your supplies for your hospital stay - if planned (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.
- HOLD any diabetic medication day of surgery.
- You may brush your teeth and apply deodorant.
- Do NOT wear/apply any lotions, powders, or oils on your chest, legs, or arms.
- The surgeon and anesthesiologist will see you in the 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 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.
- Cover slippery surfaces with carpet that has non-skid backs.
- Do NOT wear open-toe slippers or shoes without backs. They do not provide adequate support and can slide off and cause falls.
- Have a dining chair with arms to make it easier to stand up.

ADAPTIVE 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 shower-bench or shower-chair enables sitting in the shower.
- Most patients use the walker 1-4 weeks and transition to a cane for 1-4 weeks.

WHAT TO BRING TO THE HOSPITAL

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

CONTROLLING YOUR DISCOMFORT & PAIN

- **Take your medicine** with a light meal **<u>at least</u>** one hour before physical therapy.
- We use FOUR medications to treat pain through multiple mechanisms and pathways.
    - **FIRST** use Tylenol (acetaminophen) 1000mg by mouth 3 times daily.
    - **SECOND** use NSAIDs (meloxicam, naproxen, celecoxib, or ibuprofen). Use as prescribed.
    - **THIRD** try Skeletal Muscle Relaxant (methocarbamol, cyclobenzaprine) as prescribed.
    - **LASTLY**, use Narcotic (oxycodone, tramadol, hydrocodone) as prescribed.
- Gradually wean yourself from prescription medication as your pain lessens.
    - **STOP** Narcotic first, then muscle relaxers, then NSAIDs and Tylenol.
- Change your position often with a 5 minute walk every hour throughout the day.
- ICE: Use ice (large frozen bag of corn or peas works well) 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 hours for this to be completed.

CARING FOR YOUR INCISION

- Shower normally (the plastic surgical dressing is waterproof).
- Keep your incision covered with the dressing for 2 weeks.
  - > Office staff will remove the dressing 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. Keep 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.

NOTES

RECOGNIZING & PREVENTING COMPLICATIONS

SIGNS OF INFECTION

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

PREVENTING INFECTION

- Always wash your hands before touching your incision site.
- Keep all dressings clean and dry.
- Cover your cough or sneeze.
- Keep pets away from your incision. Wash hands after touching pets.
- Avoid elective dental work for first 6 months after Joint Replacement. After six months, antibiotics for dental care is recommend for patient with compromised immune systems. Diabetes, rheumatoid arthritis, cancer, chemotherapy, and chronic steroid use are examples that suggest immuno-suppression.

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 can be very beneficial for pain control. But there are risks and these complications can occur during or after surgery.

COMMON: (2-5%)

Pain: Pain will improve with time. Rarely, pain can 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.

Loosening implant: The plastic components can wear away with use and time. The metal and bone junctions may also loosen. With modern operating techniques and implants, joint replacements can last over 20 years. In some cases, they fail earlier.

Altered sensation: Skin sensation to the outer half of the knee or hip may be present initially and typically improves with time.

LESS COMMON: (1-2%)

Infection: You're in optimal health and given antibiotics at the time of the operation and the procedure will also be performed in sterile conditions with sterile equipment. Despite all precautions, infections still occur (1 to 2%). This is usually treated with several weeks of antibiotics or an operation to washout the joint. In rare cases, all the implants may be removed and replaced with new implants at a later date. The infection can sometimes lead to sepsis (blood infection).

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

RARE: (<1%)

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

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.

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

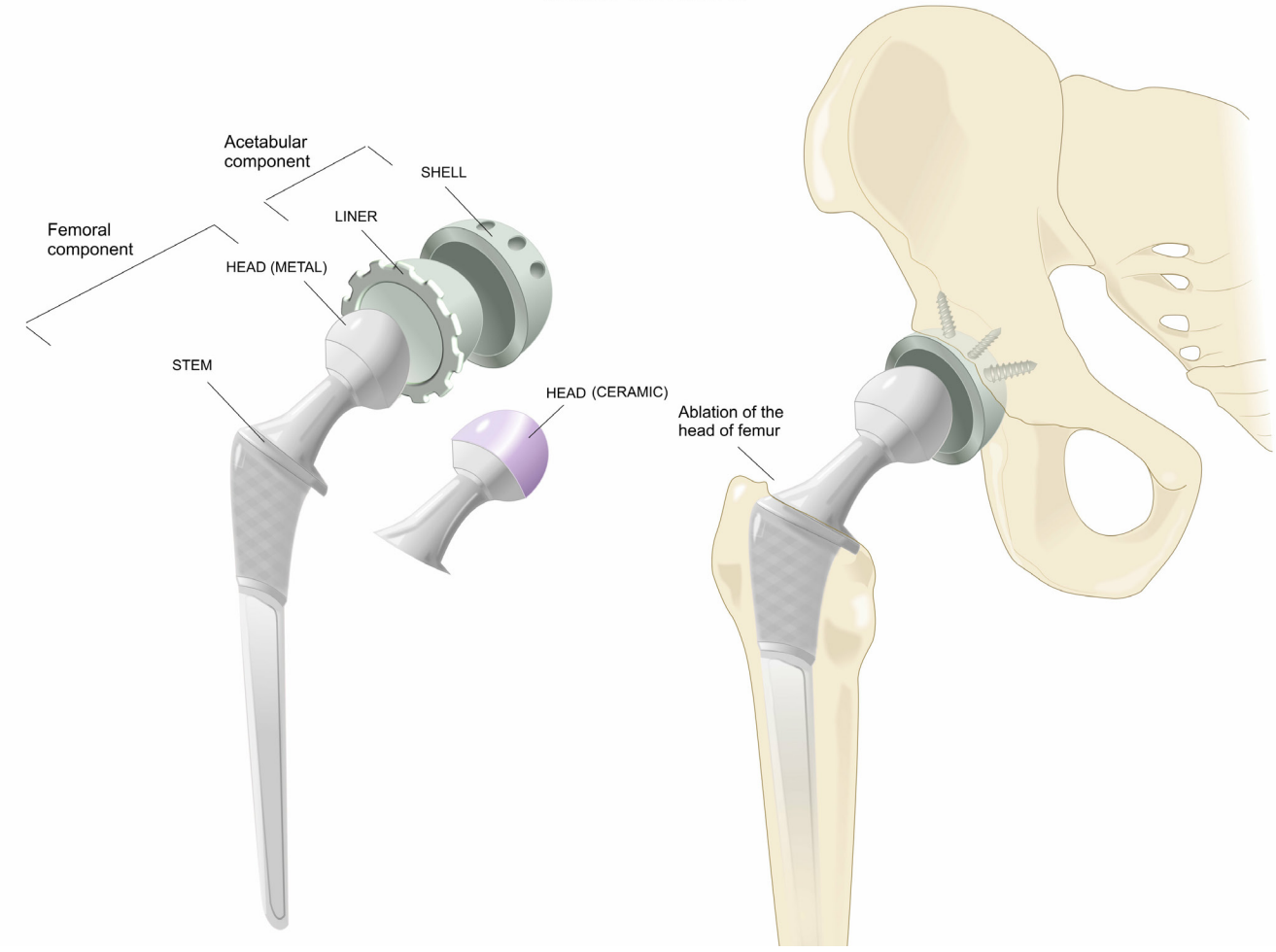
Blood vessel: The vessels around your joint may be damaged and require further surgery.

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 or tendons 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.

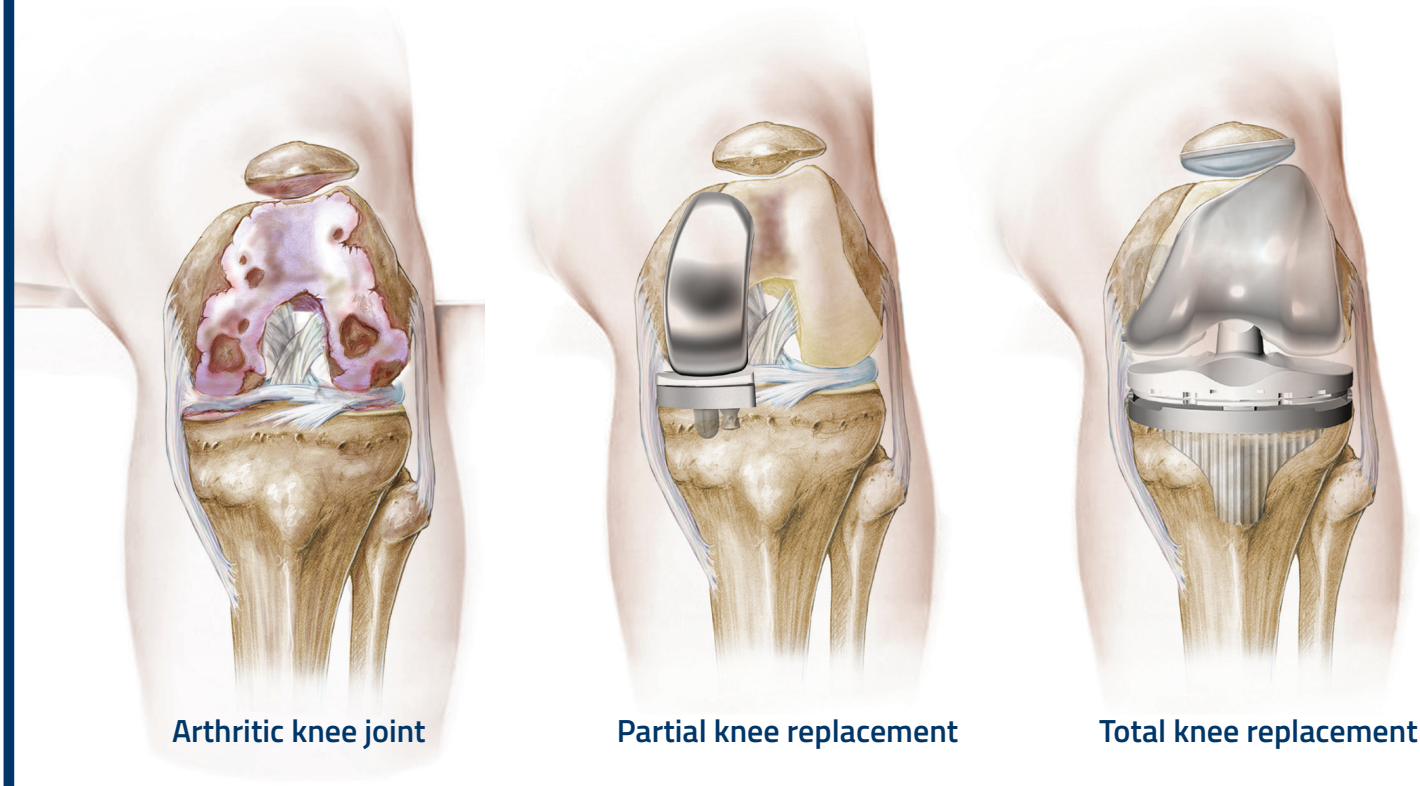
There are **no restrictions to bending, crossing legs, or sleep position after this surgery**. No traditional hip precautions.



The Total Hip is made of four components. The acetabular shell and femoral stem are made of metal (usually 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

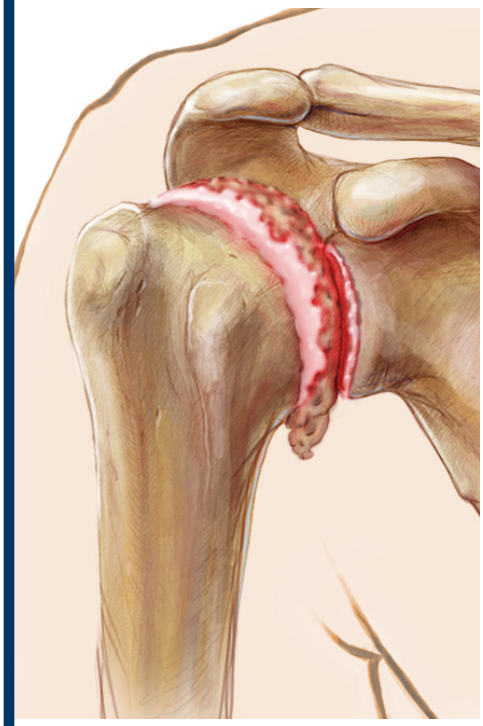
Dr. Reino uses a minimally invasive approach on the medial (inner) side of your knee to allow a quicker recovery. He performs both partial and total knee replacements as shown in the diagram. Dr. Reino has experience with computer and robotic navigation. These newer techniques have been shown to improve implant position and can be used during your surgery.



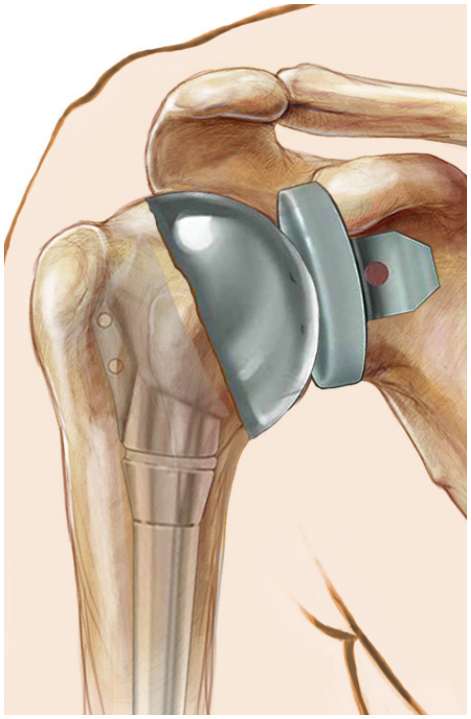
Arthritic knee joint **Partial knee replacement** **Total knee replacement**

Recover Maximum Motion: During your surgery, your surgeon implanted the artificial joint to allow the knee a stable, maximum range of motion. To prevent a contracture, **DO NOT** sleep with pillows under your operative leg. 3-5 times a day, use a pillow under the ankle and encourage full extension of the knee. A straight, fully extended knee makes walking easier.

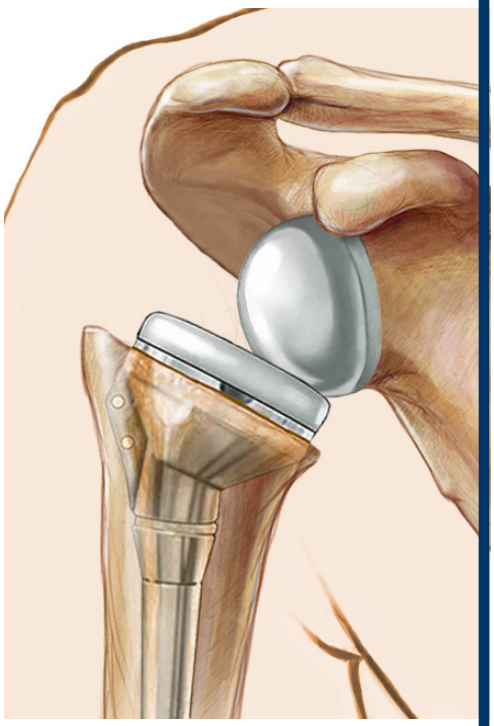
SHOULDER REPLACEMENT



Arthritic shoulder joint



Total shoulder replacement



Reverse total shoulder replacement

Shoulder replacement surgery can help patients with shoulder primary arthritis, large rotator cuff tear related arthritis or even for a fractured shoulder. Soon after surgery, the patient is permitted to use the hand and wrist. The usual timelines for complete recovery are as follows:

- **First month** – light use of the hand and wrist. Remove sling for light shoulder pendulum motions.
- **Six weeks** – you may use the whole arm, including shoulder, for light activity.
- **Eight weeks** –you may begin unrestricted, active use of the arm and shoulder.
- **Three months** – Most patients are reasonably comfortable, have a range of motion about half of what is normal, and experience some weakness.
- **Six months** – Most patients are pain-free (although they may experience pain during certain weather conditions), and have motion and strength about two-thirds that of a normal level.
- **One year** – Approximately 95% of shoulder replacement patients will be pain-free.

FREQUENTLY ASKED QUESTIONS

HOW QUICKLY CAN I GO HOME?

Most patients can go home the day of their surgery or after one night in the hospital. There are functional goals that must be achieved before you can be safely discharged home. A smaller number of patients with more significant health or rehab challenges require multiple days to reach those goals.

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 patient may stay in an inpatient center if they do not have ideal conditions at home for recovery (lives alone, multiple stair entryway, etc).

WHAT IF I LIVE ALONE?

Try to arrange to have a family member or close friend stay with you for a few days after surgery. A home health nurse and physical therapist will see you within the first 24-48 hours after you are home. If no one can assist you or if you house has stairs, a rehab center can be used after your hospital stay.

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.

WILL I NEED ANY EQUIPMENT WHEN I LEAVE THE HOSPITAL?

You will need a walker and cane after surgery for knee and hips. 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 for a right leg procedure and about 2 weeks for a left hip or knee replacement. Returning to work is case and job specific. After shoulder surgery, a sling is used and 4 weeks of no driving.

WILL I NEED PHYSICAL THERAPY WHEN I GO HOME?

It is best to have supervised therapy. A home health therapist can come to your home if mobility or rides to therapy are difficult. This can last 2-4 weeks. Outpatient physical therapy is arranged at your pre-op visit or at the first post-surgical visit. Outpatient therapy is at location of your choice.

FREQUENTLY ASKED QUESTIONS

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

Your first post-operative visit is usually 10-15 days after surgery, when we remove your dressing and check xrays. After that, patients are seen after surgery for x-rays and checkups at these post-operative intervals: six weeks, twelve weeks, six months, and one-year anniversary.

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

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.

Hip replacement- patients can feel as though the leg with the new hip may be longer than it was before surgery. There can be a patch of numbness around and below your hip incision which may be temporary and is not serious.

Shoulder replacement- it can be difficult to reach behind your head or up the lower back after surgery due to scar tissues limiting those ranges.

NOTES

EXERCISES TO DO BEFORE & AFTER HIP/KNEE 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

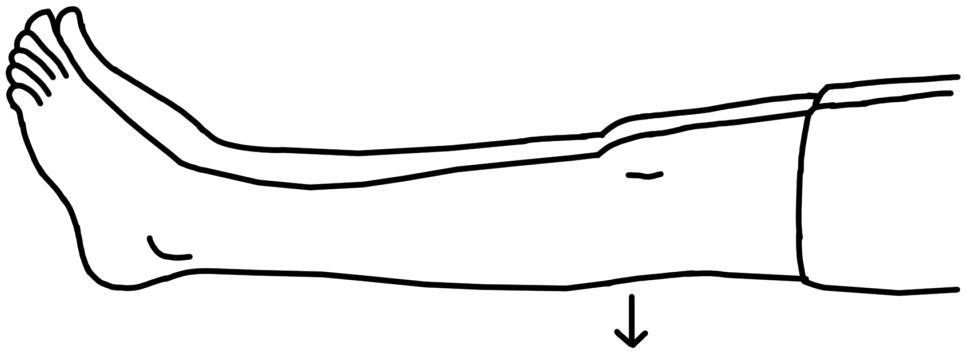
- The purpose of these exercises is to increase circulation to your leg, decrease swelling, and increase leg strength and flexibility.
- You should do all your exercises at least twice a day. However, 3 times a day would be better. Ideal number of repetitions is 8 to 10.
- Do exercises on both legs.
- 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. Breathe normally.

1. ANKLE PUMPS

Position: Lying on your back or while sitting.

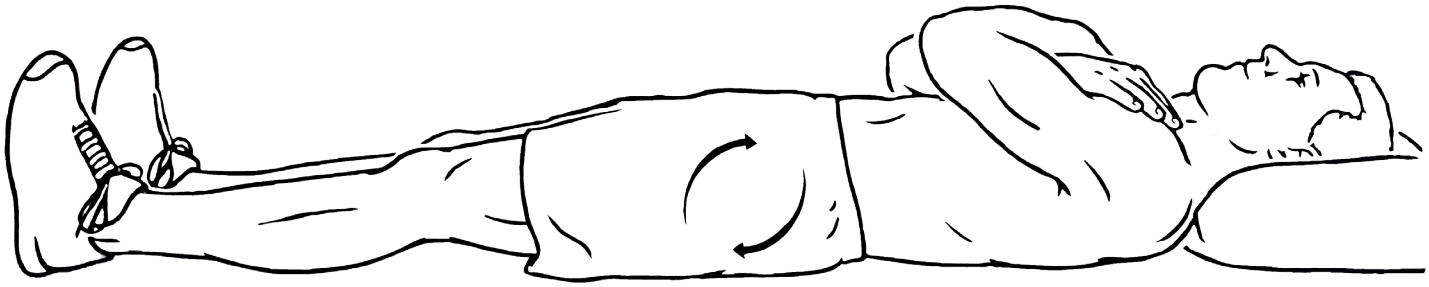
Action: Pull foot up and then point foot down as far as possible, keeping legs straight.

2. QUADRICEPS SETS



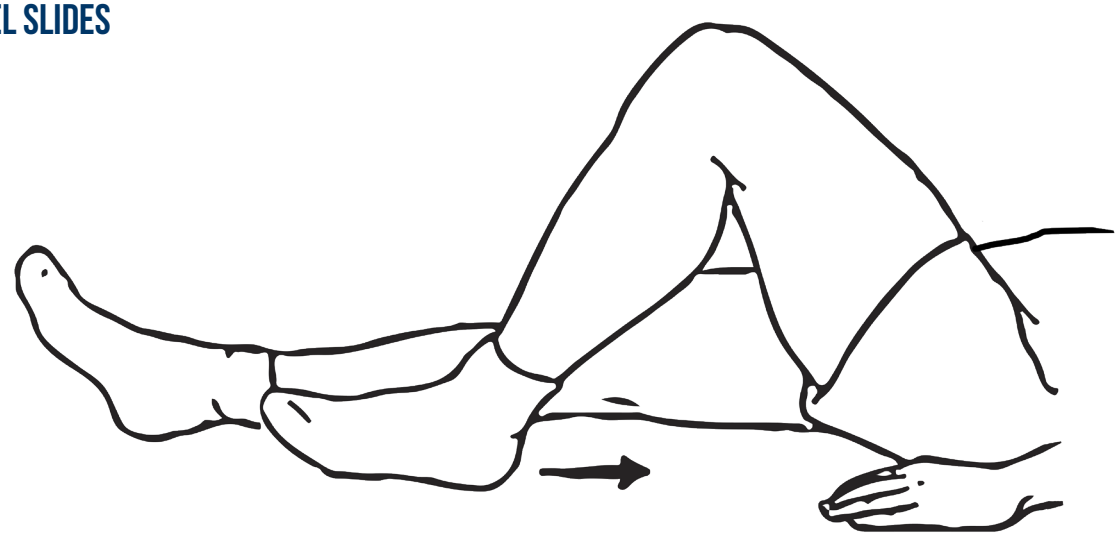
Position: Lying on your back with legs straight.
Action: Tighten your thigh muscle by flattening your knee against the surface.
Hold for a count of 5. Relax. Repeat.

3. GLUTEAL SETS



Position: Lying on your back with legs straight.
Action: Squeeze buttocks together. Hold for a count of 5. Relax. Repeat.

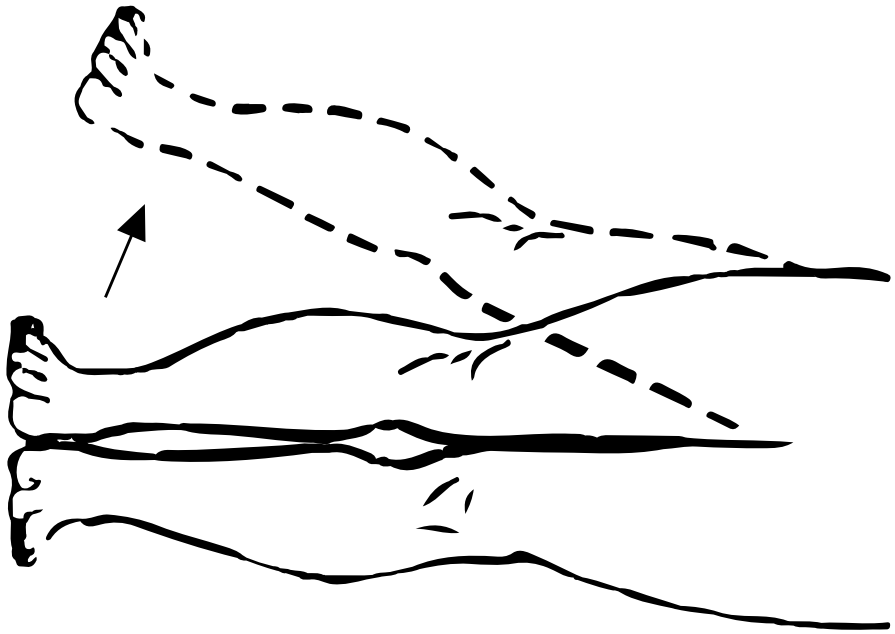
4. HEEL SLIDES



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.

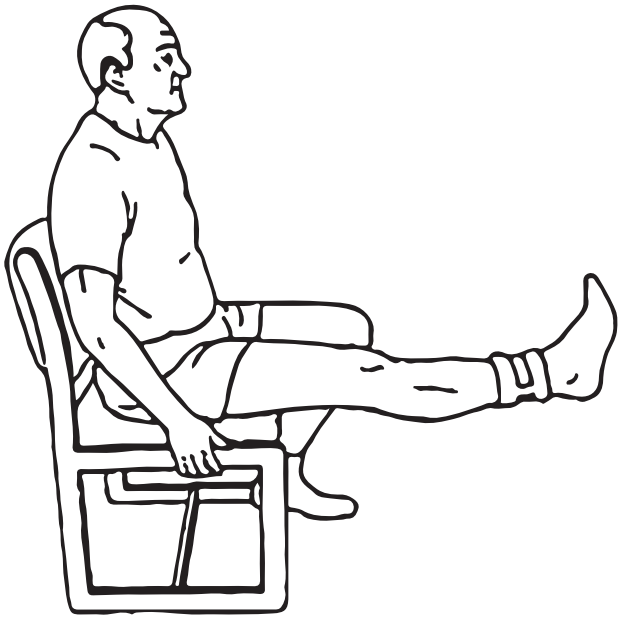
5. LEG ABDUCTION



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.

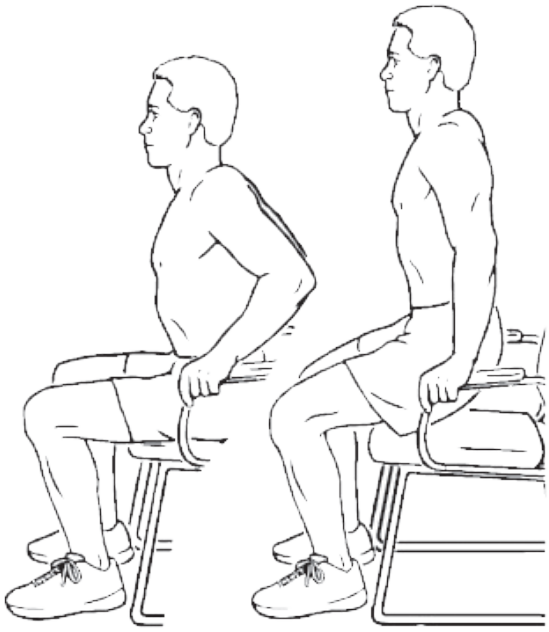
6. KNEE EXTENSION – SITTING



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.

HIP & KNEE PHYSICAL THERAPY PROTOCOL

(Start 24 to 48 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, car seat).
  - Ambulation with equipment.
  - Stair use (lead up with good, down with bad).
- Home exercise program.
  - Follow exercise guidelines (pages 13-16).

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

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

Physical therapy goals by discharge from Home Health:

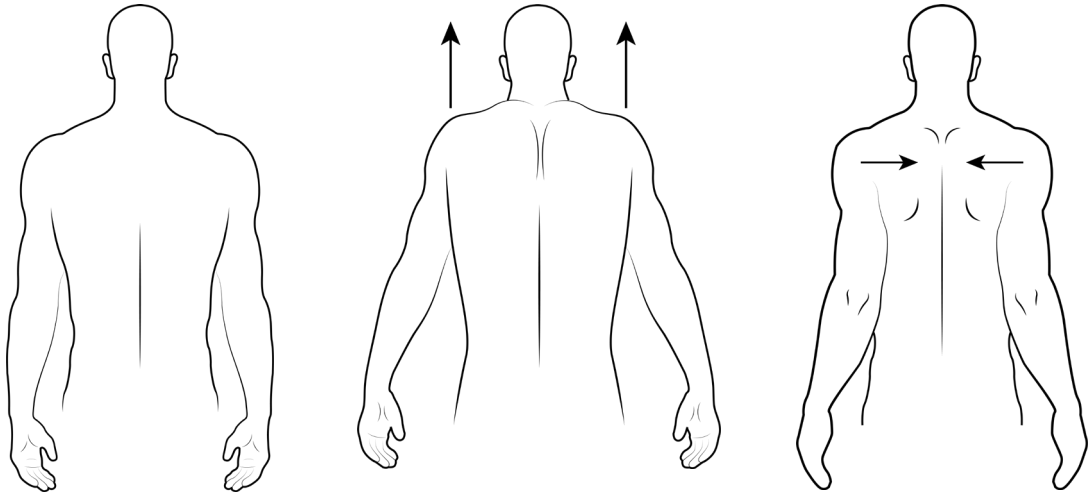
- Safe ambulation with walker or cane if needed (level surfaces and stairs).
- Knee Flexion > 80 degrees, extension 0 degrees.
- Daily performance of home exercise program.
- Independent with stair climbing and car transfers.
- Progress to community ambulation.

EXERCISES TO DO AFTER SHOULDER SURGERY

START THE FIRST DAY AFTER SURGERY

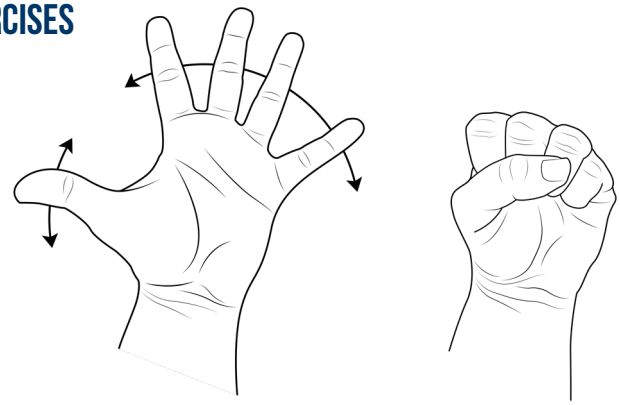
The exercises are general movements designed to get your upper extremity moving and the muscles working again. Expect some discomfort. Use your pain medications and ice to help relieve pain. Continue these exercises until your first orthopedics or therapy appointment.

SCAPULA SHRUGS/RETRACTION



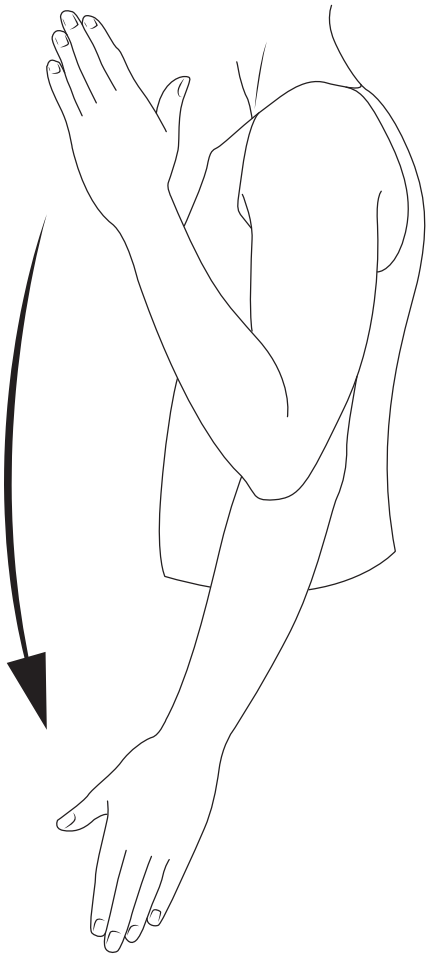
Action: While in the shoulder sling, shrug BOTH shoulders up toward ears and hold 2 seconds. Do this 10 times. Then retract both scapula – take a big breath in and stick out your chest to help with the motion. Imagine a motion to squeeze a pencil between the scapulas.
Set of 10 repetitions, every 4 hours.

HAND SQUEEZING EXERCISES



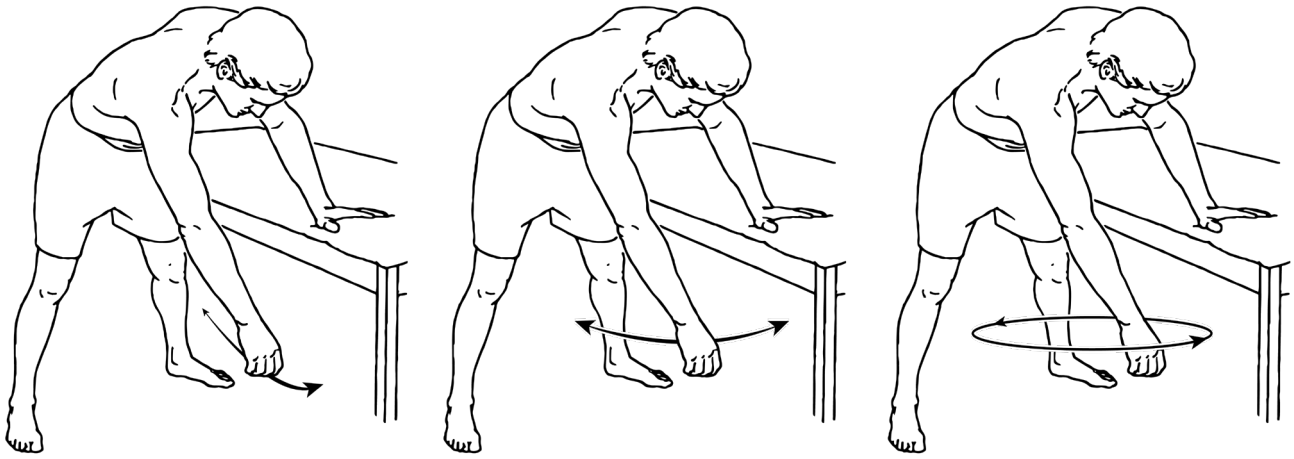
Action: Open hand as fully as possible and hold. Then, slowly close into a tight fist & hold. Assist the motion with your other hand. Finger tightness is normal due to lack of use & fluid collection after shoulder surgery. This exercise will pump swelling & edema out of the fingers/hand/wrist.
Set of 10 repetitions with 3-second open/closed hold, every 2 hours.

ELBOW MOTION



Action: While either sitting, standing, or lying on your back – which eliminates gravity pulling the shoulder. Come out of the brace and let the elbow straighten until you feel a stretch. Then actively bend the elbow, keeping the hand in a thumbs-up position and hold it at the top. If your biceps are sore or weak, assist the motion using your opposite hand.
Set of 10 repetitions with 2-second hold, every 4 hours.

PENDULUM EXERCISES



Action: Allow arm to sway with gravity. Starting from a standing position & progressively bending at waist as tolerated, stopping when chest almost parallel with floor.
Set of 10 times front/back, 10 left/right, and 10 circles, every 4 hours.

SHOULDER PHYSICAL THERAPY PROTOCOL

PHASE 1 - Full hand, wrist, elbow motion out of your brace daily.
(First day after surgery - 4th week)

Weeks 0-2 - Shoulder early passive ROM & active assisted ROM.

- Supine - forward elevation.
- Supine and standing external rotation to 15 degrees with arm at side.
- Pendulum exercises.
- Assisted extension.
- Assisted internal rotation - posterior to truck.

Week 3-4 - Start isometrics.

- All above exercises.
- Start isometric strength - internal and external rotation, extension, flexion, abduction.

PHASE 2 - Active exercise program (focus on range of motion)
(5th week - 12th week)

- Supine and standing forward elevation assist with other extremity.
- Controlled self stretching.
- Assisted external rotation.
- At 6 weeks, safe to convert isometrics to resistance exercises.
- Strengthen in internal and external rotation, forward flexion, abduction, and extension.

PHASE 3
(After 3 months)

- Address residual deficiencies in ROM and strength.
- Light weight or progressive resistance tubes/bands to achieve personal goals.
- Assisted external rotation.

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