

WESTERN MARYLAND HEALTH SYSTEM

# ***Total Joint Replacement Guide***



WESTERN MARYLAND  
HEALTH SYSTEM

*Caring for What Matters Most*



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# *The Total Joint Replacement Team*



***The WMHS Total Joint Replacement Program provides a high quality, comprehensive, multidisciplinary approach to care for the evaluation and treatment of knee, hip and shoulder joints.***

Our Total Joint team recognizes that success to recovery is based on *Joint Action for Joint Improvement*, which began with the exam by your orthopedic surgeon and proceeds through *Joint Action for Joint Improvement* pre-op teaching, surgical procedure and post-operative therapy leading you through your recovery.

Our team is made up of experienced and highly recognized orthopedic surgeons, anesthesiologists, surgical staff, nurses, physical therapists, occupational therapists, and a total joint transitionist who all work together to guide our patients with pre-surgery education through post-surgery rehabilitation and recovery.



***Dr. Carls, M.D.***  
*Board-Certified  
Orthopedic Surgeon*

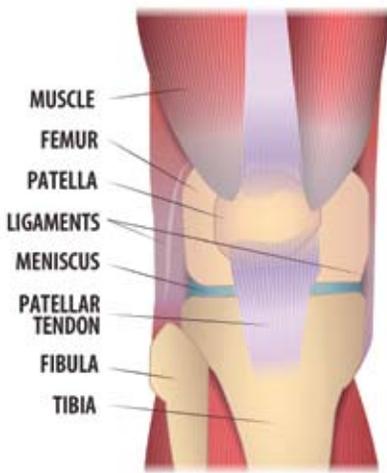


***Dr. Ghobrial, M.D.***  
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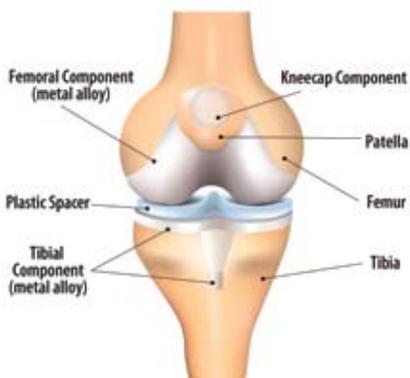
# Knee Anatomy



The largest joint in the body is the knee. Normal knee function is necessary to perform most of everyday activities. The knee is made up of the lower end of the thighbone (femur), which rotates on the upper end of the shinbone (tibia), and the kneecap (patella), which slides in a groove on the end of the femur. Ligaments attach to both sides of the femur and tibia and two ligaments are inside the joint itself to provide stability. The long, strong thigh muscles and calf muscles in the lower leg give the knee strength.

The three bones, femur, tibia and patella come together at the knee joint and all surfaces of the knee and hip are coated with articular cartilage, which is a very smooth tissue that provides cushioning for the bones and enables them to move smoothly.

All other surfacing areas of joints are covered by synovial membrane that releases a lubricating fluid for the joint. The knee is a highly functioning joint; but can be disrupted by disease or injury.



## The New Knee

During the operative procedure, your orthopedic surgeon will remove all the damaged cartilage and then position the new metal and plastic joint surfaces to restore the alignment and functioning of your knee. The bone-on-bone pain will no longer be there; but you will have discomfort after surgery around the incision site.

The total knee patient will be up and walking on the day of surgery with assistance and will be placed on a CPM which is a "Continuous Passive Motion" machine that will flex and extend the operative leg.

A dressing will be over the surgical site and will stay there until the doctor orders it to be removed. To reduce swelling in the leg, the leg can be elevated with a supportive pillow under the ankle, but no pillows are placed under the knee for elevation. The knee must be elevated above the heart level with ice applied to the area and swelling will usually reduce.



# Hip Anatomy

The hip is a “ball and socket” joint that holds the most body weight. It is a strong joint that can go forward, backward, left and right. When this joint is inhibited by arthritis, it prohibits the daily activity process to which most people are accustomed.

The hip is composed of a bone at the top of the femur and is called the femoral head, which fits into a “socket” in the pelvis called the acetabulum. There are multiple muscles around the joint that assist in motion; but when the joint is bone on bone, there is crackling and pain when that joint moves.

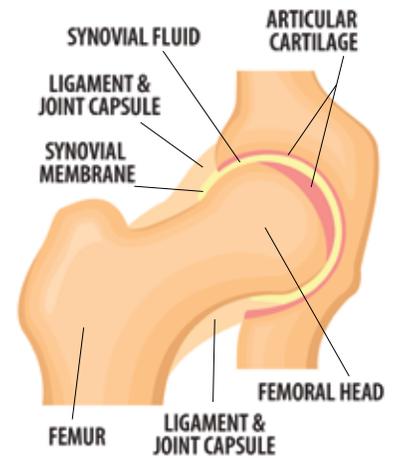
## The New Hip

A total hip replacement involves replacing the upper end of the thighbone (femur) with a metal ball and resurfaces the hip socket in the pelvic bone with a metal shell and plastic liner. The orthopedic surgeon may attach the new metal joints with cement, which performs as glue and attaches the artificial joint to bone. Un-cemented joints are attached using a porous coating designed to allow the bone grow into the artificial joint.

The total hip patient will be up and walking on the night of surgery with assistance and when they are in bed, they will have a wedge pillow between their legs. Patients usually are lying on their back but; they can turn to the un-operative side with a pillow between their legs to maintain the operative leg



in an “abduction” position, meaning separated from the opposite leg. The operative hip should not be flexed (bent) greater than 90 degrees and the leg should not be rotated inward. Positioning guidelines for the hip are extremely important to maintain stability of the prosthesis (artificial joint).



# *Frequent Causes of Knee and Hip Pain and Disability*

The ends of the bones in the joint are covered with cartilage and the joint is encapsulated, producing a fluid for the joint to move smoothly.

When arthritis begins, it tears down the cartilage and then when the joints connect, it becomes bone-on-bone. With bone-on-bone, there is pain, decreased range of motion and difficulty bearing weight.

There are three major causes of knee and hip pain and disabilities:

## ***Osteoarthritis***

## ***Rheumatoid Arthritis***

## ***Traumatic Arthritis.***

***Osteoarthritis:*** Many people 50 years of age or older develop osteoarthritis. Osteoarthritis may also be a trend in the family that passes down through generations. They tend to develop bone-on-bone action in the knee/hip when the cartilage breaks down and they develop joint pain, difficulty with range of motion and difficulty with ambulation.

***Rheumatoid Arthritis:*** When the joint capsule surrounding the knee/hip joint (called synovial membrane) becomes very thick and inflamed, it produces large amounts of fluid and the knee/hip becomes swollen. The cartilage is damaged and lost due to the excessive fluid and irritation, which creates pain and stiffness in the knee/hip.

***Traumatic Arthritis:*** After a serious injury to the knee/hip, whether it is a cartilage tear, ligament tear or a fracture, the cartilage can be damaged and cause knee/hip pain, limited range of motion and inability to walk efficiently.

The pain, decreased range of motion and difficulty with bearing weight can be relieved by removing the bony surfaces within the joint and replacing the surfaces with synthetic materials, usually a prosthesis (artificial joint) made of durable, wear-resistant plastic and/or metal. Different procedures and components may be used, depending on issues, like nature of the disease or injury, age of patient and the condition of the bone.

Most patients after a joint replacement can anticipate resuming an active, fulfilling lifestyle following their successful procedure.

# *Indications For a Total Joint Replacement*

A specialized orthopedic surgeon consultation is necessary for complete evaluation and determination as to whether a total knee or hip replacement would be beneficial for you.

The problems indicating that a total joint replacement would be beneficial include the following:

- *Inability to walk normally without pain*
- *Inability to walk without an assistive device such as cane or walker*
- *Knee or hip pain while resting*
- *Severe arthritis pain that is not be relieved by Motrin or Aspirin the way it worked earlier in the beginning stages of arthritis*
- *Knee or hip grinding and clicking with weight bearing and walking*
- *Knee or hip pain that fails to improve with treatments such as cortisone injections, physical therapy, occupational therapy, laparoscopic surgery, etc.*
- *Knee swelling and inflammation that does not improve with elevation, medication or rest*
- *Knee bowing outward or inward*
- *Inability to bend or straighten knee*
- *Hip pain that moves (radiates) into front of the thigh and into the groin area*
- *Inability to sit for a long period of time without pain in the hip or groin*

A certified orthopedic surgeon evaluates each patient. Decisions for treatment of replacements are not based on the age of the patient or the x-ray outcomes; but are based on the patient's pain level and disability.

# Preparation for the Joint Replacement

**Medical Evaluations:** See your family physician for a complete physical evaluation at least 4-6 weeks before surgery. This may include a physical assessment, blood work, MRSA testing, EKG, urine testing, chest x-ray, etc. Any physical problems that are identified must be communicated to the orthopedic surgeon.

**Dental Evaluation:** Approximately 2-4 weeks prior to the planned joint replacement, see your family dentist to have a complete exam of your teeth and verify that everything is fine. Any dental problems such as decay, an abscess or other dental issues need to be taken care of weeks before the surgery. Any bacteria in your body can cause an infection.

**Blood Donation:** Total joint replacement patients rarely need blood transfusion; but if your doctor feels that you may need it; you can donate it ahead of time and it will be stored in case it is needed during or after surgery.

**Urinary Evaluations:** If you have had a history of urinary tract infections in the past, a pre-operative evaluation by your urologist should be considered. Any man with prostate disease would require treatment prior to surgery.

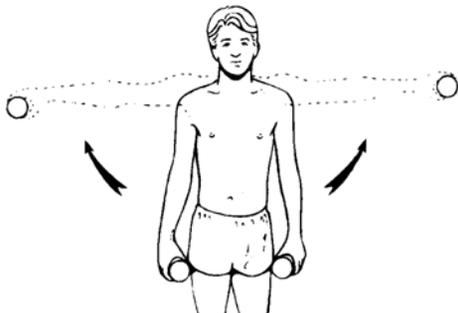
**Stop Smoking:** It is extremely important to stop smoking weeks prior to surgery. WMHS is a smoke-free facility and smoking is not allowed on the premises of the facility. Your lungs need to be in good health prior to surgery and you need to have oxygen circulating throughout your system. This is much more likely to take place if you stop smoking.

**Select Your Coach:** Select a family member or friend to act as a “coach”. This individual will be encouraged to attend your pre-op class, as well as your exercise sessions. Your coach will be valuable for you after discharge to assist and monitor you in home exercises and activities of daily living.

**Social Planning:** After returning to home, you will be able to be up and walking with a walker or a cane; but you may need assistance with some daily living activities such as cooking, bathing and doing laundry. Plan on who will be able to help you in this way after you return home. If you cannot function safely or independently enough to return home, the WMHS staff can help you make other arrangements for additional therapy at an inpatient rehab center or extended care facility.

# Pre-Operative Exercises

## Progressive Resisted Exercises: Abduction (standing)



Holding \_\_\_\_\_ lb weights, raise arms out to sides.  
Repeat \_\_\_\_\_ times. Do \_\_\_\_\_ sessions per day.

## Progressive Resisted Exercises: Flexion (standing)



Holding \_\_\_\_\_ lb weight, raise arm in front of body and lift toward ceiling. Keep elbow straight.

Repeat \_\_\_\_\_ times.  
Do \_\_\_\_\_ sessions per day.

## ELBOW - 5 Flexion (Resistive)



Hold a can weighing \_\_\_\_\_ ounces in hand and bend elbow, keeping wrist straight. Support elbow with folded towel on table, or hold close to body. Hold \_\_\_\_\_ seconds.  
Repeat \_\_\_\_\_ times. Do \_\_\_\_\_ sessions per day.

## ELBOW -- 10 Extension (Resistive)



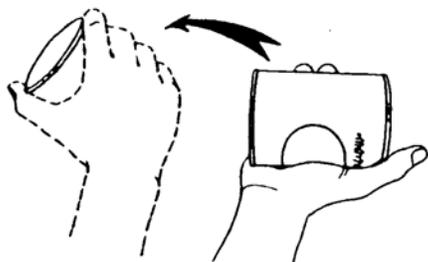
Hold can weighing \_\_\_\_\_ ounces. Point elbow up and out, and straighten arm without moving shoulder. Hold \_\_\_\_\_ seconds. Lower slowly by bending elbow.

Can do this lying down.

Repeat \_\_\_\_\_ times.  
Do \_\_\_\_\_ sessions per day.

## HAND - 37

### Active Resisted Forearm Supination/Ronation



With a \_\_\_\_\_ lb object in hand, slowly turn palm up, then down.

Repeat \_\_\_\_\_ times. Do \_\_\_\_\_ sessions per day.

## *Joint Replacement Nutrition Information*



It is important to start eating a diet rich in fresh fruits and vegetables, lean meats and whole grains prior to surgery to help with recover and rehabilitation after surgery.

Iron is an important part of your diet because it promotes blood flow throughout the body. If you are anemic, or iron deficient, you may feel tired often. Consuming enough iron is important because it will help you feel your best going into surgery and during therapy afterwards.

The most well absorbed form of iron comes from animal sources such as beef, poultry and fish. Beans are an alternative protein option that is also high in iron. Eating foods with Vitamin C such as citrus fruit and juices while consuming iron-containing foods aids in the absorption of iron.

One serving of fortified cereals will meet the daily requirement of iron for most adults.

How much iron do I need? Men of all ages, as well as women over the age of 51, should try to consume 10 mg of iron per day. Women who are menstruating need 15 mg of iron per day.

Protein is a major nutrient involved in helping your body heal. Foods high in protein include milk, eggs, cheese, meat (beef and pork), poultry, fish, nuts and beans.

If you are not eating well, supplements such as Ensure® or Glucerna® have added protein and other nutrients to help with the healing process.

Constipation is a common problem with surgery. After surgery, you will be on a high fiber diet. If you are not used to this, it can slow down your bowel function. Consuming enough water and fiber prior to and after surgery can help with GI regulation. Some patients are on iron supplements prior to surgery, which can also contribute to constipation.

For added fiber in your diet, choose whole grains, breads and pasta. Enjoy the added benefit of beans by putting them in casseroles and soups. Also, choose fresh fruits and vegetables and leave the peel on them.

It is extremely important to stay hydrated. Consume 8 glasses of fluid (preferably water) per day unless otherwise instructed by your physician.

# Pre-Operative Planning

**Planning for Home:** To make your recovery safe and easy, some of the following modifications can be implemented prior to surgery and ready for you when you are discharged to home:

- *Secure handrails or grab bars installed in your shower*
- *Handrails on all stairways*
- *A stable reclining chair that has a height of at least 18- 20 inches, with a firm seat and back, with two arms and a footstool to assist with occasional leg elevation.*
- *An elevated toilet seat with arms*
- *A firm and non-slippery shower chair for the shower and the bath tub*
- *Remove obstructive devices on the floor or in the hallway such as cords, small rugs, etc.*
- *Assure that dogs and cats are out of the walking pathways and have someone available to feed them*
- *Have good lighting at night in the hallway and in the bathroom*
- *Make sure your bed is at least as high as your knees, or higher; but not lower*
- *Have a bed, bathroom, kitchen facilities and items that you use frequently stored in one area so all is accessible to you.*
- *If you live alone, stay in contact with a neighbor or relative on a daily basis.*
- *If you use a walker, do not carry anything while you are walking.*
- *Take your time to carefully get out of the shower*

**Exercising:** Prior to surgery and make sure you do your exercises to maintain the strength of your muscles so they are prepared to recover after the surgical procedure. It is recommended to exercise 15-20 minutes twice a day. Remember to exercise your arms as well, because they will be supporting you on a walker or cane after surgery. Do not overdo it. If it is too painful, stop!

**Nutrition:** Eat a healthy diet with all minerals and nutrients that continue to strengthen your body. Vitamins are found in fruits and vegetables and protein is found in meat, nuts and more. Stay away from alcohol and junk food; but do not go on a weight loss diet before your surgery, unless your doctor recommends it.

**Attend Pre-Operative Class for Total Joint Patients:** Attend the scheduled Pre-Operative Total Joint Class that will be held at the hospital. Bring your coach along, as well as your completed history sheet, and make sure you list all medications, dosage and frequency for each medication. The Physical Therapy, Occupational Therapy, Pharmacy, Dietary, Nursing and Dietary staff will explain their involvement in your surgical process and recovery period and will answer your questions.

Pack your comfortable, casual outfit to wear during your stay at the hospital. Also bring along stable, comfortable footwear and socks to wear when you are up and round. You will be taking physical therapy in your slacks/sweat pants and top or shorts and t-shirt...your choice!!

## Home Safety Checklist

- Clear stairs and pathways of clutter
- Remove throw rugs. If you must use throw rugs, use the slip-resistant kind.
- Remove telephone or electrical cords from walk areas. Have telephone handy in case of an emergency
- Make plans for someone to care for your pet, including feeding and watering, so you won't need to bend.
- Place slip-proof mats or strips in the bath or shower.
- Determine the need for additional support in the bathroom, such as grab bars (not towel racks) or a tub seat in the bathtub or a bedside commode or an elevated toilet seat.
- Make sure bath rugs are slip-resistant and absorb water.
- Identify a straight-back chair with armrests for use after surgery.
- Store items that you use frequently within easy reach.
- Check the height of your bed. The mattress should come to your knees. You may need to place blocks under your bed to raise it.
- Check for good lighting, including a night-light in the hallway or bathroom

## Pre-Operative Bathing

Use 4% CHG (Chlorhexidine Gluconate) soap solution for 5 days prior to surgery and the morning of surgery.

**Warning:** Do not use this product on the face, eyes, ears, mouth or genital area. See the product label for additional product specific information. Do not use if you are allergic to the CHG Solution.

### **Pre-op Showering Instructions:**

- *If you plan to wash your hair, do so with your regular shampoo and rinse to remove residual shampoo.*
- *Wash your face with your regular soap and water.*
- *Thoroughly rinse your body with warm water from the neck down.*
- *Apply the minimum amount of CHG soap necessary to cover the skin. Use it as you would any other liquid soap. Pay special attention to the neck, under arms, breasts, feet, groin and skin fold regions as well as the area where your surgery will be performed.*

- *Rinse thoroughly with warm water.*
- *Dry your skin with a clean dry towel and put on clean clothing afterwards.*
- *Do not apply any lotions, deodorants, powders or perfumes.*

### ***If you are unable to shower, follow this procedure:***

- *Wash around the eyes and face with clean water only.*
- *Thoroughly rinse with water the area that will be cleansed with CHG soap.*
- *Do not add the CHG soap solution (or any soap) to the water. Apply the CHG soap directly onto the washcloth or directly onto the skin for all body areas except the face, eyes, ears, mouth and genital area.*
- *Apply just enough CHG soap solution to cover the skin beginning with the extremities, then moving to the torso. Pay special attention to the neck, under arms, breasts, feet, groin and skin fold regions as well as the area where your surgery will be performed. Wash the skin gently.*
- *Rinse thoroughly with warm water and gently pat dry.*

## ***Day of Surgery***

You may pull up to front entrance of the Western Maryland Regional Medical Center and use our free valet parking service. Enter the Main Lobby and go to the third floor for registration for your surgery. From there, you will go to a waiting area and the anesthesiologist will discuss with you the anesthetic that will be given.

***Anesthesia:*** There are two basic types of anesthesia, the general anesthetic and the spinal. The general anesthetic makes the patient unconscious and completely unaware of what is going on. You feel no pain and hear no noise. General anesthesia is usually injected through the I.V. and the patient goes to sleep immediately. If you choose to have a spinal anesthetic, where an injection is made through your back and into the spinal column to numb you from the lower chest down. You and the doctor can discuss this option.

***Joint Replacement:*** The procedure takes between 1-2 hours in the operating room. During that time, your orthopedic surgeon will remove the damaged cartilage and bone in the joint and replace it with new metal joint surfaces to restore the alignment and function of your knee or hip.

***Recovery:*** You will stay in the recovery room until you become awake and coherent. You will then be taken to the Total Joint Replacement Nursing Unit, where your recovery continues.

***Joint Center:*** The staff members on the nursing unit are very knowledgeable of the joint specialty and are a very caring group. The team of nurses, physical therapists, occupational therapists, nutrition staff, pharmacy staff all work together to provide you with the highest quality of care, which you deserve.

## Day of Surgery *(continued)*

Upon arriving at the nursing unit, you will be instructed to perform ankle flexion and extension, feet forward and back down while you are lying in bed or sitting in the chair. This helps promote circulation.

**Medication:** After surgery you will be getting pain medication through I.V. delivery until the following day, when the I.V. is usually discontinued. Then you are given medications by mouth to help minimize the pain in the operative area. After anesthesia, it is normal to have occasional nausea episodes during recovery along with weakness. You will receive treatment for whatever problems you may develop.

You will also be on a blood thinner medication to decrease the chance of getting a blood clot. You will receive instructions from your nurse regarding this medication and how you will manage this when you get home.

## After Surgery Action for Improvement



**Incentive Spirometer**

**Incentive Spirometer:** An incentive Spirometer is a device that helps strengthen your lungs and keep them functioning properly. When using the device, take several deep breaths, exhale, then put the intake tube into your mouth and inhale as much as you can. Mark the level to which you have attained at that point and the next time, attempt to increase the level line. This will increase the strength in your lung tissue; circulate the oxygen throughout your system; and help to avoid lung congestion.



**Hemovac Drain**

**Hemovac drain:** You may return from your hip or knee surgery with a hemovac drain near the incision site. The purpose of this drain is to drain the extra fluid or blood from the operative area and reduce the swelling. Hemovacs are usually removed the day of surgery or the next day.



**TEDS Stockings**

**TEDS Stockings:** You may also have TEDs stocking on either knee high or thigh high. These stockings help to improve circulation to the lower extremities and you will be instructed to keep them on all day, and remove them at night. This process will continue for 4-6 weeks after surgery. The blue wraps on the foot and ankle are ankle pumps that promote circulation in your legs.

In general, your orthopedic surgeon will encourage you to walk on your “new” joint shortly after your operation. After total hip or knee replacement, you will often stand and begin walking the day of surgery. Initially, you will walk with a walker, crutches, or a cane.

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Most patients have some temporary pain in the replaced joint area because the surrounding muscles are sore from the incision and weak from inactivity and the tissues are healing. There is also discomfort in the surgical area due to the incision and the tissue that is stretched aside during surgery. This will gradually go away within a few weeks or months.

**Exercise** is an important part of the recovery process. Your orthopedic surgeon and the staff will discuss an exercise program for you after surgery. This varies for different joint replacements and for differing needs of each patient. The general exercises are described in the next section.

After your surgery, you may be permitted to play golf, walk, and dance. More strenuous sports, such as tennis or running, may be discouraged for a while. The motion of your joint will generally improve after surgery. The extent of improvement will depend on how stiff your joint was before the surgery and how well you exercised.

Your doctor will provide dressing care instructions to you. Protect the incision as your Doctor instructs you and adhere to all guidelines to progress well.

**Pain** usually increases when you become more active at home and during the rehabilitation time. Total hips may experience groin pain on the operative side and total knees may develop swelling and discomfort. Take pain medication as ordered; but if you are still on blood thinners, do not take NSAIDS. If you are taking narcotics, you may become constipated and will have to take stool softeners. Sitting for long periods of time will also cause discomfort due to not moving and developing stiffness.

**Incisions** must be kept dry until after the sutures or staples are removed which is usually about 14 days after surgery. If you notice increased redness, swelling and drainage coming out of the incision, call your doctor immediately.

**Fever:** You may have a slight elevated temperature for several days after surgery; however if the fever rises above 101 degrees and you also have chills and excessive drainage from the incision, call your doctor.

**Swelling** in the operative area is a normal occurrence in post-operative total joints, especially the knee. When your operative site is below heart level, you will tend to swell, so recline in a chair or bed and elevate the operative extremity. Continue the ankle pump exercises of 30 times each hour and it will help maintain circulation through the extremities.

**Antibiotics:** Prior to any dental, urological, gastrointestinal exam or cleaning and any surgical procedure, please notify your doctor that you have had a joint replacement. Antibiotics are used to help prevent joint infections.

# Post-Operative Exercises (Knee Replacement)

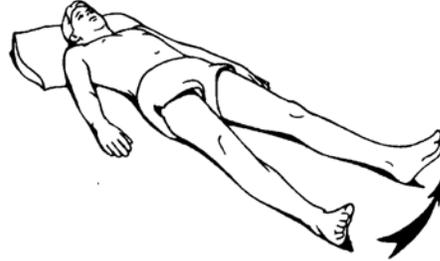
## 1. ANKLE PUMPS



Move your ankle up and down through its full range of motion.

Repeat 10 times. Try to progress to 30 times.

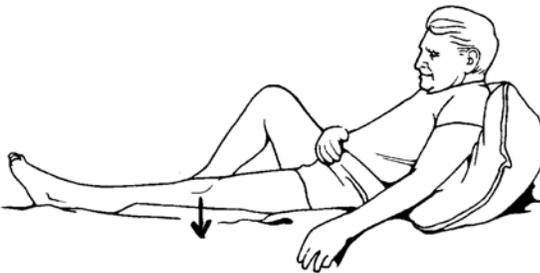
## 4. HIP ABDUCTION/ADDUCTION (SIDE SLIDES)



Keeping your knee straight and your toe pointed to the ceiling, gently slide your leg out to the side and back.

Repeat 10 times. Try to progress to 30 times.

## 2. QUAD SETS (KNEE PRESS)



Tighten your thigh muscle and push your knee downward. Hold 3 seconds. Relax.

Repeat 10 times. Try to progress to 30 times.

## 5. HEEL SLIDES



Bend your knee pulling your heel toward your buttocks as far as you can.

Repeat 10 times. Try to progress to 30 times.

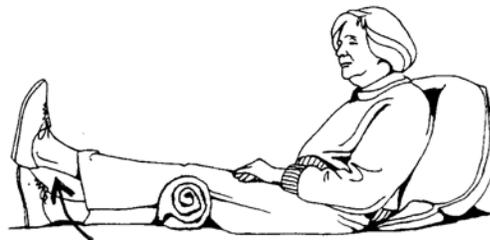
## 3. GLUTEAL SETS (BUTT SQUEEZES)



Squeeze your buttock muscles as tightly as possible. Hold for 3 seconds. Relax.

Repeat 10 times. Try to progress to 30 times.

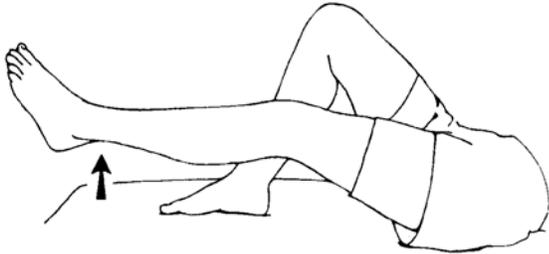
## 6. SHORT ARCS



Place a large can or rolled towel under your knee. Raise your heel up from the bed and fully straighten your knee. Do not lift your leg from the roll. Hold 3 seconds. Relax.

Repeat 10 times. Try to progress to 30 times.

### 7. STRAIGHT LEG RAISE



With your operative knee straight and your other knee bent, raise the operative leg up about 6" then down slowly.

Repeat 10 times. Try to progress to 30 times.

### 10. KNEE CURLS

Stand and hold on to a walker, chair, or counter. Bend your operative knee bringing your heel towards your buttocks.



Repeat 10 times. Try to progress to 30 times

### 8. KNEE BENDING IN SITTING

Slide the foot of your operative leg back as far as possible, bending the knee. Hold 3 seconds.



Repeat 10 times. Try to progress to 30 times

### STAIRS:

The "Good" or nonoperative leg goes up first.  
The "Bad" or operative leg goes down first.

### Resting positions:

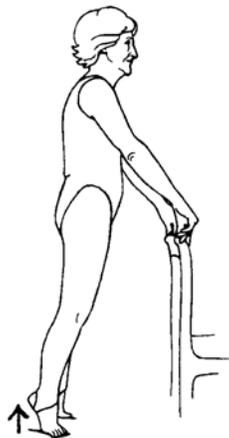
No pillows under the knees.

Lie flat on your back in bed.

Do not sit with your knee bent for prolonged periods.

### 9. HEEL RAISES

Stand and hold on to a walker, chair, or counter. Raise up and down on your toes so that your heels come off the floor.



Repeat 10 times. Try to progress to 30 times

# Post-Operative Exercises (Hip Replacement)

## 1. ANKLE PUMPS



Move your ankle up and down as far as possible.  
Repeat 10 times. Try to progress to 30 times.

## 4. HIP ABDUCTION/ADDUCTION (SIDE SLIDES)



Keeping your knee straight and your toe pointed to the ceiling, gently slide your leg out to the side and back.  
Repeat 10 times. Try to progress to 30 times.

## 2. QUAD SETS (KNEE PRESS)



Tighten your thigh muscle and push your knee downward.  
Hold 3 seconds. Relax.  
Repeat 10 times. Try to progress to 30 times.

## 5. HEEL SLIDES



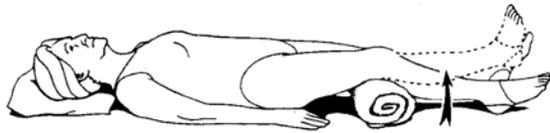
Bend your knee pulling your heel toward your buttocks.  
Do not lift your foot off the bed.  
Repeat 10 times. Try to progress to 30 times.

## 3. GLUTEAL SETS (BUTT SQUEEZES)



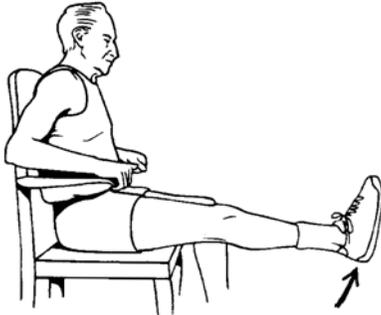
Squeeze your buttock muscles as tightly as possible.  
Hold 3 seconds. Relax.  
Repeat 10 times. Try to progress to 30 times.

## 6. SHORT ARCS



Place a large can or rolled towel under your knee. Raise your heel up from the bed and fully straighten your knee.  
Do not lift your leg off the roll. Hold 3 Seconds. Relax.  
Repeat 10 times. Try to progress to 30 times.

### 7. LONG ARCS



Tighten the muscle on top of your thigh and straighten out your knee.

Repeat 10 times. Try to progress to 30 times.

### 10. LEG STRETCH

Stand and hold on to a walker, chair, or counter. Place the nonoperative leg forward. Rock forward in order to feel a stretch in the front of the operative hip. Be sure to look up. Hold 10 seconds.

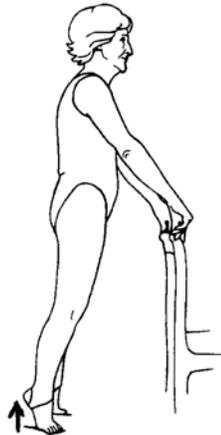


Repeat 10 times. Try to progress to 30 times.

### 8. HEEL RAISES

Stand and hold on to a walker, chair, or counter. Raise up and down on your toes so that your heels come off the floor.

Repeat 10 times.  
Try to progress to 30 times.



### HIP PRECAUTIONS:

1. Do not bend your hip greater than 90 degrees.
2. Do not cross your legs.
3. Do not twist or pivot on your new hip.

### 9. MINI SQUATS

Stand and hold on to a walker, chair or counter. Slowly bend your knees into a small squat. Make sure your feet stay flat on the floor.

Repeat 10 times.  
Try to progress to 30 times.



### STAIRS:

The "Good" or nonoperative leg goes up first.

The "Bad" or operative leg goes down first.

# Precautions for Total Hip Patients

Be very careful and follow these instructions for the next six to eight weeks after surgery:

- Do not cross your legs.
- Do not twist or pivot on your new hip.
- Do not bend your hip greater than 90 degrees with the posterior approach
- Do not twist your foot outward with the anterior approach

## Added Precautions for Posterior Total Hip Patients

### The Do NOT Actions



*Do not bend hip beyond 90 degrees. Use caution when sitting.*



*Do not bend over to pick things up off the floor.*



*Do not rotate your body to turn.*



*Do not cross your legs.*



*Do not turn your toes inward.*

# *Bathing Techniques for the Total Hip Patient*

*You can use assistive devices when bathing and dressing, but always remember the hip position that you need to maintain.*



# Precautions for Total Knee Patients

*Be very careful and follow instructions regarding precautions for 6-8 weeks after surgery.*

## Stair/Step Training

- *UP with the good first, the unoperated leg.*
- *Down with the bad leg first, the operated leg.*
- *The cane stays on the level of the operated leg and on the unoperated side.*

## Resting Positions

- *No pillows under your knees.*
- *Lie flat on your back in bed.*
- *Do NOT sit with your knee bent for prolonged periods of time.*
- *Do Not cross your legs while sitting.*
- *During the day, do not sit or lie for longer than an hour.*



### Extension Stretch

Prop foot of operative leg up on chair.

Sit back and relax. Concentrate on using your leg muscles to straighten your leg at the knee site.

**NOTE:** WHEN SITTING FOR ANY LENGTH OF TIME, PROP YOUR FOOT AS IS SHOWN IN THE PICTURE. **DO NOT SIT WITH YOUR KNEE BENT.**



### Sitting Knee Flexion Insert

Keeping feet on the floor, slide foot of operative leg backward, bending knee. Hold for a count of 10. Do 15 repetitions.

Each time, bend to the point of pain and then a little more. Slide feet underneath the chair. With foot planted, move bottom forward for final stretch and hold for 10 seconds.

# Daily Activities



## ***Elevated Toilet Seat***

An elevated toilet seat is more comfortable after a total knee replacement and is required for the total hip replacement patient. This elevated seat is helpful in preventing the total hip from flexing more than 90 degrees and assists the patient to grasp the side handrails and push their body back up to the standing position.



## ***Bed Transfer***

1. Sit on the edge of the bed in a reclined angle, entering on the un-operative side, keeping the operative leg in the proper position.
2. Slide your buttocks on the bed and slowly move your operative leg up on the bed, keeping the legs apart.
3. Lie flat on your back with your legs apart and feet straight up or turned outward.
4. To get out of bed, reverse the above instructions.



## ***Car Transfer***

1. Use the walker to back up to the car until your legs touch the car.
2. Lower yourself slowly to the seat. Lean back and place the first leg into the car.
3. Slide back toward the center of the car and slowly bring the second leg in and sit in a semi-reclined position.



## ***Rising From a Chair***

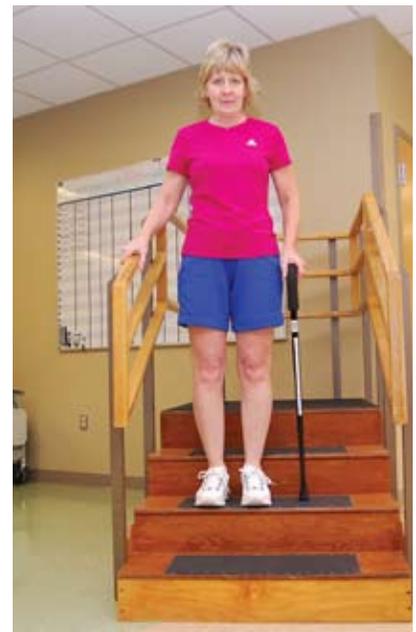
1. Use the arms of the chair to help raise your body.

## Using the Stairs

**UP with the GOOD Leg First (The unoperated one)**



**DOWN with the BAD Leg First (The operated one)**



# Important Reminders

The danger signs that you must continuously watch for include:

- *Calf pain, especially when moving your toes up*
- *Tightness in the chest and shortness of breath*
- *Excessive drainage from your incision*
- *Severe pain in your leg that medicine will not take away*
- *Tingling in the leg with numbness and inability to move your toes*
- *Fever above 101 degrees*
- *An infection in your teeth or any place on your body, please call your doctor immediately*
- *Severe headaches and dizziness with numbness in arms or legs*

***Anytime you have a severe problem that you feel you cannot solve, please call your doctor immediately.***

## ***Summary:***

Our Orthopedic Surgeons do an excellent job of improving the joints of our patients. The nursing staff is very knowledgeable and very caring with the patients as well. They work very closely with physical therapy, occupational therapy, nutrition and pharmacy staff as a team to give you the best care that we can. We have Joint Action among the team to provide you with Joint Improvement in your hip or knee.

After you go home, the COACH is in charge and you must listen to the instructions that you received during therapy and during your communication with the doctor and nurses. The progress that proceeds is now up to you and your coach, and we wish you the best.

Our wonderful team is grateful to have the opportunity to serve you in our beautiful hospital.

***If you have any questions or concerns, please feel free to call our Total Joint Transitionist at 240-964-6618.***

*Notes:*



**WESTERN MARYLAND**  
HEALTH SYSTEM

*Caring for What Matters Most*



## **Western Maryland Total Joint Replacement**

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