Rehabilitation After Your
Total Hip Replacement

Whether you have just begun exploring treatment options or have already decided with your orthopaedic surgeon to undergo hip replacement surgery, this handout will help you understand the benefits and limitations of this orthopaedic treatment. You'll learn how a normal hip works and the causes of hip pain, what to expect from hip replacement surgery and what exercises and activities will help restore your mobility and strength and enable you to return to everyday activities.

If your hip has been damaged by arthritis, a fracture or other conditions, common activities such as walking or getting in and out of a chair may be painful and difficult. You may even feel uncomfortable while resting.

If medications, changes in your everyday activities, and the use of walking aids such as a cane are not helpful, you may want to consider hip replacement surgery. By replacing your diseased hip joint with an artificial joint, hip replacement surgery can relieve your pain and help you get back to enjoying normal, everyday activities.

First performed in 1960, hip replacement surgery is one of the most important surgical advances of this century. Since then, improvements in joint replacement surgical techniques and technology
have greatly increased the effectiveness of this surgery. Today, more than 168,000 total hip replacements are performed each year in the United States. Similar surgical procedures are performed on other joints, including the knee, shoulder, and elbow.

**How the Normal Hip Works**

The hip is one of your body's largest weight-bearing joints. It consists of two main parts: a ball (femoral head) at the top of your thighbone (femur) that fits into a rounded socket (acetabulum) in your pelvis. Bands of tissue called ligaments connect the ball to the socket and provide stability to the joint.

The bone surfaces of your ball and socket have a smooth durable cover of *articular cartilage* that cushions the ends of the bones and enables them to move easily.

All remaining surfaces of the hip joint are covered by a thin, smooth tissue called *synovial membrane*. In a healthy hip, this membrane makes a small amount of fluid that lubricates and almost eliminates friction in your hip joint.

Normally, all of these parts of your hip work in harmony, allowing you to move easily and without pain.

**Common Causes of Hip Pain and Loss of Hip Mobility**

The most common cause of chronic hip pain and disability is *arthritis*. *Osteoarthritis*, *rheumatoid arthritis*, and *traumatic arthritis* are the most common forms of this disease.

*Osteoarthritis* usually occurs after age 50 and often in an individual with a family history of arthritis. In this form of the disease, the articular cartilage cushioning the bones of the hip wears away. The bones then rub against each other, causing hip pain and stiffness.
**Rheumatoid Arthritis** is a disease in which the synovial membrane becomes inflamed, produces too much synovial fluid, and damages the articular cartilage, leading to pain and stiffness.

**Traumatic Arthritis** can follow a serious hip injury or fracture. A hip fracture can cause a condition known as avascular necrosis. The articular cartilage becomes damaged and, over time, causes hip pain and stiffness.

**Is Hip Replacement Surgery for You?**

The decision whether to have hip replacement surgery should be a cooperative one between you, your family, your primary care doctor, and your orthopaedic surgeon. The process of making this decision typically begins with a referral by your doctor to an orthopaedic surgeon for an initial evaluation. While most patients who undergo hip replacement surgery are age 60 to 80, orthopaedic surgeons evaluate patients individually. Recommendations for surgery are based on the extent of your pain, disability, and general health status, not solely on age. You may benefit from hip replacement surgery if:

- Hip pain limits your everyday activities such as walking, bending.
- Hip pain continues while resting, either day or night
- Stiffness in a hip limits your ability to move or lift your leg.
- You have little pain relief from anti-inflammatory drugs.
- You have harmful or unpleasant side effects from your hip medications.
- Other treatments such as physical therapy don't relieve hip pain.

**What to Expect from Hip Replacement Surgery**

An important factor in deciding whether to have hip replacement surgery is understanding what the procedure can and can't do.

The vast majority of individuals who undergo hip replacement surgery experience a dramatic reduction of hip pain and a significant improvement in their ability to perform the common activities of daily living. However, hip replacement surgery will not enable you to do more than you could before your hip problem developed.
Following surgery, you will be advised to avoid certain activities for the rest of your life including jogging and high-impact sports.

Even with normal use and activities, an artificial joint (prosthesis) develops some wear over time. If you participate in high-impact activities or are over-weight, this wear may accelerate and cause the prosthesis to loosen and become painful.

Preparing for Surgery

Medical Evaluation If you decide to have hip replacement surgery, you may be asked to have a complete physical by your primary care doctor before your surgery. This is needed to assess your health and find conditions that could interfere with your surgery or recovery.

Tests Several tests, such as blood samples, a cardiogram, chest X-rays, and urine sample may be needed to help plan your surgery.

Preparing Your Skin Your skin should not have any infections or irritations before surgery. If either are present, contact your orthopaedic surgeon for a program to improve your skin before your surgery.

Blood Donations You may be advised to donate your own blood prior to surgery. It will be stored in the event you need blood after surgery. Medications Tell your orthopaedic surgeon about the medications you are taking. Your orthopaedist or your primary care doctor will advise you which medications you should stop or can continue taking before surgery.

Weight Loss If you are overweight, your doctor may ask you to lose some weight before surgery to minimize the stress on your new hip.

Dental Evaluation Although infections after hip replacement are not common, an infection can occur if bacteria enter your bloodstream. Since bacteria can enter the bloodstream during dental procedures, treatment of significant dental diseases (including tooth extractions and periodontal work) should be considered before your hip replacement surgery. Routine cleaning of your teeth should be delayed for several weeks after surgery.

Urinary Evaluation A urological evaluation before surgery should be considered by individuals with a history of recent or frequent urinary infections. Older men with prostate disease should consider a urologic evaluation and treatment before having hip replacement surgery.

Social Planning Although you will be able to walk with crutches or a walker soon after surgery, you will need some help for several weeks with such tasks as cooking, shopping, bathing, and laundry. If you live alone, your surgeon's office, a social worker, or a discharge planner at the hospital can help you make advance arrangements to have
someone assist you at your home. A short stay in an extended care facility during your recovery after surgery also may be arranged.

**Home Planning**

Here are some items and home modifications that will make your return home easier during your recovery.

- Securely fastened safety bars or handrails in your shower or bath.
- Secure handrails along all stairways.
- A stable chair for your early recovery with a firm seat cushion that allows your knees to remain lower than your hips, a firm back, and two arms.
- A raised toilet seat.
- A stable shower bench or chair for bathing.
- A long-handled sponge and shower hose.
- A dressing stick, a sock aid, and a long-handled shoe horn for putting on and taking off shoes and socks without excessively bending your new hip.
- A reacher that will allow you to grab objects without excessive bending of your hips.
- Firm pillows to sit on that keep your knees lower than your hips for your chairs, sofas, and car.
- Removal of all loose carpets and electrical cords from the areas where you walk in your home.

**Your Surgery**

You will most likely be admitted to the hospital on the day of your surgery. After admission, you will be evaluated by a member of the anesthesia team. The most common types of anesthesia for hip replacement surgery are *general anesthesia* (which puts you to sleep throughout the procedure) or *spinal anesthesia* (which allows you to be awake but anesthetizes your body from the waist down). The anesthesia team will discuss these choices with you and help you decide which type of anesthesia is best for you.
Your Stay in the Hospital

You will stay in the hospital for a few days. After surgery, you will feel pain in your hip. Pain medication will be given to make you as comfortable as possible.

To avoid lung congestion after surgery, you will be asked to breathe deeply and cough frequently.

To protect your hip during early recovery, a positioning splint, such as a V-shaped pillow placed between your legs, may be used.

Walking and light activity are important to your recovery and will begin the day after your surgery. Most hip replacement patients begin standing and walking with the help of a walking support and a physical therapist the day after surgery. The physical therapist will teach you specific exercises to strengthen your hip and restore movement for walking and other normal daily activities.

Summary of Your Hospital Stay

Day One (After Surgery)

- Foley Catheter will be removed
- Pain pump will be discontinued and you will receive pain pills for pain
- You will get up with the assistance of Physical Therapy
- You will learn hip precautions:
Precautions

1. Don't bend your operated hip beyond 80 degrees.
   - Don't raise your knee higher than your hip.
   - Don't sit on sofas or low chairs. Put cushions down first.
   - Use an elevated toilet seat.
   - Don't lean forward while sitting. Get assistance for lower extremity dressing or use your dressing aids.
   - When you sit down, back up until you feel the bed or chair against your legs. Reach back for the bed or armrests of the chair and slide your operated leg straight out in front of you. Don’t lean forward as you sit! When you stand up, push up from the bed/chair keeping your operated leg straight out in front of you. Raise yourself without leaning forward. It is in standing up from sitting that you have to concentrate the most on not bending your hip more than 80 degrees.

To sit down:

To stand up, do the reverse.

2. Don't allow your legs to slouch or cross.
   - Keep a pillow or abduction wedge between your legs when you lie down.
   - Keep your legs 3 to 6 inches apart while sitting or use your wedge or pillow.
   - Put a pillow between your legs when you lie on your side.
   - Do not sleep on your side

Day Two to Three

- Your Dressing will be changed

- If your drain was not removed Day One after Surgery it will be taken out
You will continue to work with Physical Therapy

Day Three to Four

- You will be discharged to home or sent to Inpatient Rehabilitation

Your Recovery at Home

The success of your surgery will depend in large measure on how well you follow your orthopaedic surgeon's instructions regarding home care during the first few weeks after surgery.

Wound Care You will have stitches or staples running along your wound or a suture beneath your skin. The stitches or staples will be removed about two weeks after surgery.

Avoid getting the wound wet until it has thoroughly sealed and dried. A bandage may be placed over the wound to prevent irritation from clothing or support stockings.

Diet Some loss of appetite is common for several weeks after surgery. A balanced diet, often with an iron supplement, is important to promote proper tissue healing and restore muscle strength. Be sure to drink plenty of fluids.

Activity

Exercise is a critical component of home care, particularly during the first few weeks after surgery. You should be able to resume most normal light activities of daily living within three to six weeks following surgery. Some discomfort with activity, and at night, is common for several weeks.

Your activity program should include:

- A graduated walking program initially in your home and later outside.
- Walking program to slowly increase your mobility and endurance.
- Resuming other normal household activities.
- Resuming sitting, standing, walking up and down stairs.
- Specific exercises several times a day to restore movement.
- Specific exercises several times a day to strength your hip joint.
- May wish to have a physical therapist help you at home.

Avoiding Falls

A fall during the first few weeks after surgery can damage your new hip and may result in a need for more surgery. Stairs are a particular hazard until your hip is strong and mobile. You should use a cane, crutches, a walker, or handrails, or have someone help you until you improve your balance, flexibility and strength.

Your surgeon and physical therapist will help you decide what assistive aides will be required following surgery, and when those aides can safely be discontinued.

Dislocations

To assure proper recovery and prevent dislocation of the prosthesis, you must take special precautions. Do not cross your legs. Do not bend your hips more than a right angle (90 degrees). Do not turn your feet excessively inward or outward. Use a pillow between your legs at night when sleeping until you are advised by your orthopaedic surgeon that you can remove it. Your surgeon and physical therapist will give you more instructions prior to your discharge from the hospital.

How Your New Hip is Different

You may feel some numbness in the skin around your incision. You also may feel some stiffness, particularly with excessive bending. These differences often diminish with time and most patients find these are minor compared to the pain and limited function they experienced prior to surgery.

Your new hip may activate metal detectors required for security in airports and some buildings. Tell the security agent about your hip replacement if the alarm is activated. You may ask your orthopaedic surgeon for a card confirming that you have an artificial hip.

After surgery, make sure you also do the following:

Participate in a regular light exercise program to maintain proper strength and mobility of your new hip. Take special precautions to avoid falls and injuries. Individuals who have undergone hip replacement surgery and suffer a fracture may require more surgery. Notify your dentist that you have had a hip replacement. You should be given antibiotics before all dental surgery for the rest of your life. See your orthopaedic surgeon periodically for routine follow-up examinations and X-rays.
Total Hip Replacement Exercise Guide

Regular exercises to restore your normal hip motion and strength and a gradual return to everyday activities are important for your full recovery. Your orthopaedic surgeon and physical therapist may recommend that you exercise 20 to 30 minutes 2 or 3 times a day during your early recovery. They may suggest some of the following exercises. This can help you better understand your exercise and activity program.

Early Postoperative Exercises

These exercises are important for increasing circulation to your legs and feet to prevent blood clots. They also are important to strengthen muscles and to improve your hip movement. You may begin these exercises in the recovery room shortly after surgery. It may feel uncomfortable at first but these exercises will speed your recovery and reduce your postoperative pain. These exercises should be done as you lie on your back with your legs spread slightly apart.

- **Ankle Pumps** - Slowly push your foot up and down. Do this exercise several times as often as every 5 or 10 minutes. This exercise can begin immediately after surgery and continue until you are fully recovered.

- **Ankle Rotations** - Move your ankle inward toward your other foot and then outward away from your other foot. Repeat 5 times in each direction 3 or 4 times a day.
**Repeat the following three exercises 10 times 3 or 4 times a day**

**Bed-Supported Knee Bends** - Slide your heel toward your buttocks, bending your knee and keeping your heel on the bed. Do not let your knee roll inward.

**Buttock Contractions** - Tighten buttock muscles and hold to a count of 5.

**Abduction Exercise** - Slide your leg out to the side as far as you can and then back.

**Quad Set** - Tighten your thigh muscle. Try to straighten your knee. Hold for 5 to 10 seconds. Repeat this exercise 10 times during a 10-minute period. Continue until your thigh feels fatigued.

**Straight Leg Raises** - Tighten your thigh muscle with your knee fully straightened on the bed. As your thigh muscle tightens, lift your leg several inches off the bed. Hold for 5 to 10 seconds. Slowly lower. Repeat until your thigh feels fatigued.

**Standing Exercises** - Soon after your surgery, you will be out of bed and able to stand. You will require help since you may become dizzy the first several times you stand. As you regain your strength, you will be able to stand independently. While doing these standing exercises, make sure you are holding on to a firm surface such as a bar attached to your bed or a wall.

**Repeat the following exercises 10 times 3 or 4 times a day**
Standing Knee Raises - Lift your operated leg toward your chest. Do not lift your knee higher than your waist. Hold for 2 or 3 counts and put your leg down.

Standing Hip Abduction - Be sure your hip, knee and foot are pointing straight forward. Keep your body straight. With your knee straight, lift your leg out to the side. Slowly lower your leg so your foot is back on the floor.

Standing Hip Extensions - Lift your operated leg backward slowly. Try to keep your back straight. Hold for 2 or 3 counts. Return your foot to the floor.

Walking and Early Activity

Soon after surgery, you will begin to walk short distances in your hospital room and perform light everyday activities. This early activity helps your recovery by helping your hip muscles regain strength and movement.

Walking with Walker — Full Weight Bearing - Stand comfortably and erect with your weight evenly balanced on your walker or crutches. Move your walker or crutches forward a short distance. Then move forward, lifting your operated leg so that the heel of your foot will touch the floor first. As you move, your knee and ankle will bend and your entire foot will rest evenly on the floor. As you complete the step allow your toe to lift off
the floor. Move the walker again and your knee and hip will again reach forward for your next step. Remember, touch your heel first, then flatten your foot, then lift your toes off the floor. Try to walk as smoothly as you can. Don’t hurry. As your muscle strength and endurance improve, you may spend more time walking. Gradually, you will put more and more weight on your leg.

**Walking with Cane or Crutch** - A walker is often used for the first several weeks to help your balance and to avoid falls. A cane or a crutch is then used for several more weeks until your full strength and balance skills have returned. Use the cane or crutch in the hand opposite the operated hip. You are ready to use a cane or single crutch when you can stand and balance without your walker, when your weight is placed fully on both feet, and when you are no longer leaning on your hands while using your walker.

**Stair Climbing and Descending** - The ability to go up and down stairs requires both flexibility and strength. At first, you will need a handrail for support and you will only be able to go one step at a time. Always lead up the stairs with your good leg and down the stairs with your operated leg. Remember "up with the good" and "down with the bad." You may want to have someone help you until you have regained most of your strength and mobility. Stair climbing is an excellent strengthening and endurance activity. Do not try to climb steps higher than those of the standard height of seven inches and always use the handrail for balance.

**Advanced Exercises and Activities**

A full recovery will take many months. The pain from your problem hip before your surgery and the pain and swelling after surgery have weakened your hip muscles. The following exercises and activities will help your hip muscles recover fully. These exercises should be done in 10 repetitions four times a day with one end of the tubing around the ankle of your operated leg and the opposite end of the tubing attached to a stationary object such as a locked door or heavy furniture. Hold on to a chair or bar for balance.

**Elastic Tube Exercises**
Resistive Hip Flexion - Stand with your feet slightly apart. Bring your operated leg forward keeping the knee straight. Allow your leg to return to its previous position.

Resistive Hip Abduction - Stand sideways from the door and extend your operated leg out to the side. Allow your leg to return to its previous position.

Resistive Hip Extensions - Face the door or heavy object to which the tubing is attached and pull your leg straight back. Allow your leg to return to its previous position.

Exercycling - Exercycling is an excellent activity to help you regain muscle strength and hip mobility. Adjust the seat height so that the bottom of your foot just touches the pedal with your knee almost straight. Pedal backwards at first. Pedal forward only after comfortable cycling motion is possible backwards. As you become stronger (at about 4 to 6 weeks) slowly increase the tension on the exercycle. Exercycle forward 10 to 15 minutes twice a day, gradually building up to 20 to 30 minutes 3 to 4 times a week.

Walking - Take a cane with you until you have regained your balance skills. In the beginning, walk 5 or 10 minutes 3 or 4 times a day. As your strength and endurance improves, you can walk for 20 or 30 minutes 2 or 3 times a day. Once you have fully recovered, regular walks, 20 or 30 minutes 3 or 4 times a week will help maintain your strength.