

ADVANTAGE ORTHOPAEDICS, P.C.

William O. Thompson, MD

695 Dutchess Turnpike
Poughkeepsie, NY 12603
(845) 473-2100
(845) 473-2910 Fax

525 East 71st ST
New York, NY 10021
(212) 606-1733
(845) 473-2910 Fax

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 booklet 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.

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.

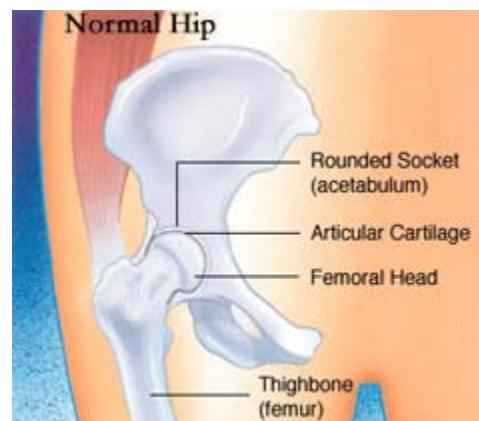
Traumatic Arthritis can follow a serious hip injury or fracture. A hip fracture can cause a condition known as avascular necrosis. The articular cartilage becomes damaged and, over time, causes hip pain and stiffness.

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





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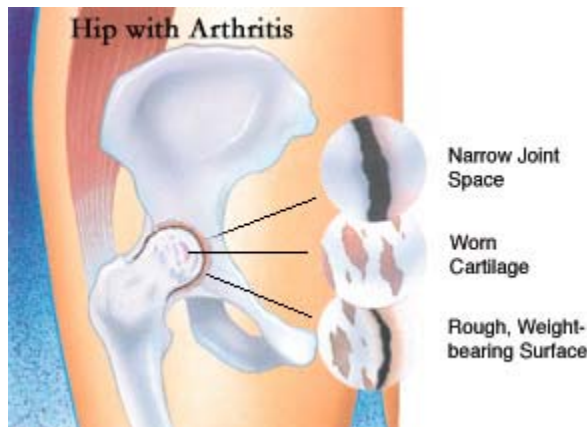
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lubricates and almost eliminates friction in your hip joint.

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



The Orthopaedic Evaluation

Your orthopaedic surgeon will review the results of your evaluation with you and discuss whether hip replacement surgery is the best method to relieve your pain and improve your mobility. Other treatment options such as medications, physical therapy, or other types of surgery also may be considered.

Your orthopaedic surgeon will explain the potential risks and complications of hip replacement surgery, including those related to the surgery itself, and those that can occur over time after your surgery. These risks and complications are discussed later in this booklet.

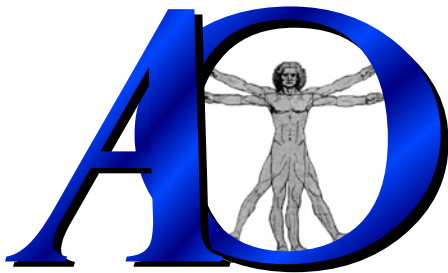
The orthopaedic evaluation consists of several components:



- *A medical history*, in which your orthopaedic surgeon gathers information about your general health and asks questions about the extent of your hip pain and how it affects your ability to perform every day activities.
- *A physical examination* to assess your hip's mobility, strength, and alignment.
- *X-rays* to determine the extent of damage or deformity in your hip.
- *Occasionally, blood tests*, or other tests such as an *MRI* (Magnetic Resonance Imaging) or a *bone scan* may be needed to determine the condition of the bone and soft tissues of your hip.

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.



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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.

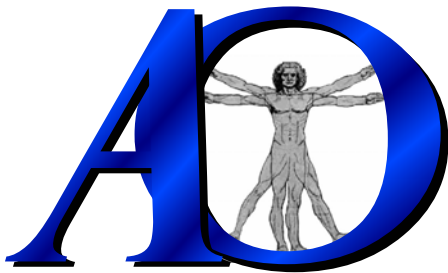
Urinary Evaluation A urological evaluation before surgery should be considered by individuals with a history of recent or frequent urinary infections. Older men with prostate disease should consider a urologic evaluation and treatment before having hip replacement surgery.

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.



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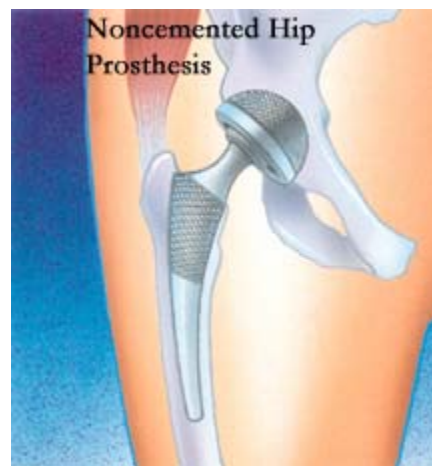
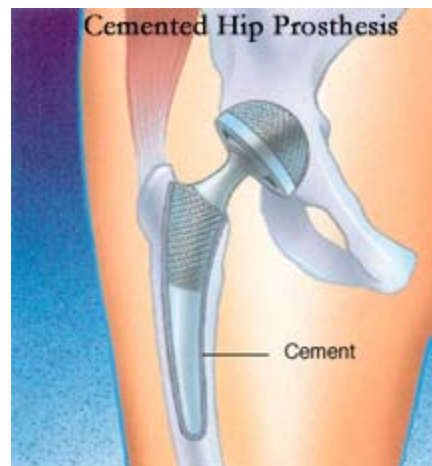
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- Removal of all loose carpets and electrical cords from the areas where you walk in your home.

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.



Surgical Procedure

The surgical procedure takes a few hours. Your orthopaedic surgeon will remove the damaged cartilage and bone, then position new metal and plastic joint surfaces to restore the alignment and function of your hip.

Many different types of designs and materials are currently used in artificial hip joints. All of them consist of two basic components: the *ball component* (made of a highly polished strong metal) and the *socket component* (a durable plastic cup which may have an outer metal shell).



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A special surgical cement may be used to fill the gap between the prosthesis and remaining natural bone to secure the artificial joint.

A noncemented prosthesis has also been developed which is used most often in younger, more active patients. The prosthesis may be coated with textured metal or a special bone-like substance which allows bone to grow into the prosthesis.

A combination of a cemented ball and a noncemented socket may be used.

Your orthopaedic surgeon will choose the type of prosthesis that best meets your needs.

After surgery, you will be moved to the recovery room where you will remain for one to two hours while the recovery from anesthesia is monitored. After you awaken fully, you will be taken to your hospital room.

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. After your hospital stay you may go to a physical rehab unit either in the same hospital or if surgery is at the Hospital for Special Surgery to an outside Rehab Hospital.

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.

Possible Complications After Surgery

The complication rate following hip replacement surgery is low. Serious complications, such as joint infection, occur in less than 2 percent of patients. Major medical complications, such as heart attack or stroke, occur even less frequently. However, chronic illnesses may increase the potential for complications. Although uncommon, when these complications occur they can prolong or limit your full recovery.

Blood clots in the leg veins or pelvis are the most common complication of hip replacement surgery. Your orthopaedic surgeon may prescribe one or more measures to prevent blood clots from forming in your leg veins, such as special support hose, inflatable leg coverings, and blood thinners.

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 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.



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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 Problems After Surgery

Blood Clot Prevention Follow your orthopaedic surgeon's instructions carefully to minimize the potential risk of blood clots which can occur during the first several weeks of your recovery.

Warning signs of possible blood clots include: Pain in your calf and leg, unrelated to your incision. Tenderness or redness of your calf. Swelling of your thigh, calf, ankle or foot.

Warning signs that a blood clot has traveled to your lung include: Shortness of breath. Chest pain, particularly with breathing.

Notify your doctor immediately if you develop any of these signs.

Preventing Infection

The most common causes of infection following hip replacement surgery are from bacteria that enter the bloodstream during dental procedures, urinary tract infections, or skin infections. These bacteria can lodge around your prosthesis.

Following your surgery, you should take antibiotics prior to dental work, including dental cleanings, or any surgical procedure that could allow bacteria to enter your bloodstream.

Warning signs of a possible hip replacement infection are:

Persistent fever (higher than 100 degrees orally). Shaking chills. Increasing redness, tenderness, or swelling of the hip wound. Drainage from the hip wound. Increasing hip pain with both activity and rest.



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Notify your doctor immediately if you develop any of these signs.

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.

Other Precautions

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.



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Your orthopaedic surgeon is a medical doctor with extensive training in the diagnosis and nonsurgical and surgical treatment of the musculoskeletal system, including bones, joints, ligaments, tendons, muscles, and nerves.

This brochure has been prepared by the American Academy of Orthopaedic Surgeons and is intended to contain current information on the subject from recognized authorities. However, it does not represent official policy of the Academy and its text should not be construed as excluding other acceptable viewpoints. Persons with questions about a medical condition should consult a physician who is informed about the condition and the various modes of treatment available.

Source: AAOS Research Dept., arthroplasty and total joint replacement procedures 1990-1999