

109 Silver Palm Ave. • Melbourne, Florida 32901 Tel.: 321.956.1501

PATIENT INFORMATION

What is a Total Hip Replacement?

A hip joint consists of two bones - the femoral head (the ball) and the acetabulum (the socket). Usually the joint is well lubricated and the one bone can slide against the other bone with minimal friction. However, with diseased hips, the cartilage covering the surface of the bone is worn away and we now have a situation in which the bones are rubbing against each other, causing pain and limiting movement. Joints can be destroyed for a variety of reasons, but arthritis is the most common. Total Hip Replacement is a surgical procedure which involves the removal of the diseased bone and the reconstruction of the anatomy with an artificial joint called a total hip prosthesis. The components of the prosthesis are designed to act like the normal joint. There is a femoral stem - a metal component that is placed into the thigh bone, and an acetabular cupa plastic and metal component that is placed where the socket was. There are two goals with Total Hip Replacement:

- * Reduce or eliminate pain.
- * To restore function by improving the movement of the joint.

What should you expect?

Blood Transfusion. If you are donating blood for your surgery, you will be asked to donate at least 2 or 3 units of your own blood within 35 days prior to your surgery date. This will involve scheduling an appointment with the blood bank of the hospital, or if necessary, a blood donation facility recommended by your insurance carrier or one closer to where you live (out-of -state patients). Only one unit of blood can be donated at a time, so you will need to come in for at least two visits. The blood is then stored until your operation.

If you are unable to donate blood, for whatever reason, donor blood will be used in your case, if necessary. People have expressed some concern about blood transfusion because of the risk of transmitting diseases. Donor blood is carefully screened for communicable diseases. With the new technology, the risk of hepatitis and HIV infection is extremely low. To our knowledge, disease transmission through use of donated blood has never occurred in any of our patients. However, there is no question that your own blood is the safest. Therefore, if you are able, we recommend that you donate blood for your surgery. If you're coming a long way, arrangements can be made to have you give blood locally and have it transported here for your surgery. Please be assured that blood that you give will be given back to you, if needed. Pre-admission Testing. Within two weeks prior to your surgery, you will be asked to undergo several laboratory tests and possibly an electrocardiogram and chest x-ray. This is called pre-admission testing. This will help us to tell whether there are any conditions which might increase the risk of surgery. A physical examination, performed by your own medical doctor or hospital staff here, is also a part of pre-admission testing.

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Just Before Surgery. You will not be allowed to drink or eat anything after midnight and on the morning of the surgery. In some cases, you may be allowed to take a medication you normally take in the morning with a minimal amount of water. If instructed to do so, you will need to let the admitting nurse know that you have done this.

When you come into the hospital on the day of surgery, you may have some additional x-rays that might not have been taken previously and have a physical examination by your surgeon or resident. If you have not already done so, you will be asked to sign an operative consent form to state that you understand what is being proposed and that you are in agreement that we may proceed with the operation. Just prior to surgery, an intravenous line will be started and you will be taken into the operating suite.

Anesthesia. You will be seen by an anesthesiologist on the morning of surgery. Most of our surgeries are performed under spinal anesthesia. This is a very safe form of anesthesia. It is safer than general anesthesia, which is one of the reasons why we recommend it. Spinal anesthesia disturbs the major body functions a lot less than general anesthesia. Unless there are some specific reasons why a spinal anesthetic should not be used in your case, this is our preferred method of anesthesia. The anesthesiologist will give you some medication to make you sleepy so that you're not really aware of what's going on in the operating room. You will not be totally asleep either. However, the area that will be operated on will be totally numb throughout the operation and for several hours after the surgery.



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Surgery. As stated before, the surgery involves the removal of all of the damaged bone and cartilage. This is done with saws and drills much like a carpenter uses. The next step is to prepare the bone for the prosthesis. This involves using specialized tools to make precise cuts and to shape the bone so that the prosthesis will fit properly. The artificial joint is then placed into the bone with or without bone cement. The surgery itself takes between two to three hours, depending on the complexity of your case.

Total hip prostheses can be attached to the bone using a material called methylmethacrylate or, more simply, bone cement. With proper technique, this gives an immediate fixation of the prosthesis to the bone. Another method is called biologic fixation. This method requires that the surface of the prosthesis next to the bone is porous. With time, bone grows into the pores and the prosthesis becomes an integrated part of the joint. There are advantages and disadvantages to each type of Afixation. Furthermore, the type of fixation recommended to you will depend on your age, weight, and activity level.

Recovery Room. When your surgery is completed you will go to the recovery room where you will be closely monitored until the effects of the anesthesia and intra-operative medicines are decreased and you are relatively awake and comfortable.

Orthopaedic Unit. When you have completed your stay in the recovery room, you will be transferred to your hospital room in the orthopaedic nursing unit. You will be lying on your back in a comfortable position with a pillow between your legs. The pillow between your legs is designed so that you will not run the risk of dislocating the hip replacement in the initial postoperative period. If you have surgery early in the morning, you may sit up on the edge of the bed that evening. In general, all patients are out of bed within twenty-four hours and attending physical and occupational therapy. The therapists will instruct you in learning how to use crutches or a walker and being taught some of the precautions that are necessary in the immediate post-operative period. The physical therapist will answer any of your questions and will go over all of the details.

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Risks. It is important that you understand that there are risks associated with any major surgical procedure and total hip replacement is no exception. These risks include the risk of death. That's true of any major surgical procedure requiring anesthesia and blood transfusion. The risk of death in our hospital for total hip replacement is in the order of 1 per 750 or 1,000 cases so that you can see that the risk is very small, but it's not 0. The specific risk for you will depend upon your general medical condition, your age, and the difficulty of the surgical procedure, but the risk of death itself is really very small.

There are, however, some other risks which are a little bit larger. For example, there is about a 1% risk that your hip will dislocate in the immediate post-operative period. This may come from an inadvertent false movement in which the socket of the hip prosthesis becomes disengaged from the ball (femoral head). In the vast majority of these cases, this can be treated by manipulation and would not require another surgical procedure. It might require some relaxation, it might even require a short anesthetic. But again, this risk is relatively small, being about 1% of all the cases that are operated on. A major potential risk is the risk of infection. Again, in this hospital, the risk of infection is in the order of 1 per 200 cases and we do many things to keep this risk very low. You will be receiving an antibiotic on the morning of surgery and this will be continued for 24-36 hours after surgery. There are other preventive measures that will also be undertaken to reduce the possibility of infection. In spite of these, a very, small percentage of patients will develop an infection and that generally can be treated by antibiotics and cured. But occasionally, rarely, it might result in the hip prosthesis having to be removed. There is also some risk of an infection elsewhere in your body after the surgery settling in the hip and therefore we strongly recommend that patients who have total joint replacement take antibiotics whenever they have infections in another area and particularly if they are going to have extensive dental work. Antibiotics do not need to be taken for routine cleaning or simple fillings. We will provide you with a card indicating what needs to be done if you can give this to your doctor or to your dentist should that be necessary.



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Now there are a host of other possible complications if you review series of several thousand you will see literally dozens of possible complications that could take place but take place with exceeding rarity. Things such as muscle ruptures, pulling off of the tendon, injuries to nerves and blood vessels, superficial infection and opening of the wound, and other things of this nature may occur. They don't occur very often, but they can occur.

One of the things that could occur is the loosening of the prosthesis. This loosening would not happen suddenly, but it would be a gradual process and it would be characterized by discomfort. In most instances, if a prosthesis becomes loose, it can be corrected but that usually means further surgery. Now what is the nature of this risk? That depends on several circumstances. We think in general, it's probably a cumulative risk of about 1% per year, so that if you have your prosthesis for 20 years, the possibility of loosening over that 20 years could be as high as 1 in 5. If you have your prosthesis for 10 years, it could be 10%.

Activity. To a certain extent, what the patient needs to realize is that an artificial hip can never be as good as a normal hip. There is always the potential that it may get infected at some date in the future. It will not tolerate the same kinds of physical stresses that the normal hip will tolerate. We strongly recommend against physical activity such as tennis, running, contact sports, things that can contribute to loosening of the hip through a physical process and the physical force applied to the hip that results in motion between the prosthesis and the bone and loosening and pain. But this is the reason that one has to be cautious about actually performing a total hip replacement and why it should only be applied to those patients who have severe symptoms.



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Normal Hip



What is arthritis?

As many as 70 million people in the United States have some form of arthritis or joint inflammation. It is a major cause of lost work time and serious disability for many people. Although arthritis is mainly a disease of adults, children may also have it.

Arthritis & Joint Center of Florida

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What is a joint? A joint is where the ends of two or more bones meet. For example, a bone of the lower leg, called the shin or tibia and the thighbone, called the femur, meet to form the knee joint. The hip is a ball and socket joint. It is formed by the upper end of the thighbone-the ball-fitting into the socket-part of the pelvis called the acetabulum.

The bone ends of a joint are covered with a smooth material called cartilage. The cartilage cushions the bone and allows the joint to move easily without pain. The joint is enclosed by a fibrous envelope called the synovium which produces a fluid that helps to reduce friction and wear in a joint. Ligaments connect the bones and keep the joint stable. Muscles and tendons power the joint and enable it to move.

What is inflammation? Inflammation is one of the body's normal reactions to injury or disease. In an injured or diseased joint, this results in swelling, pain, and stiffness. Inflammation is usually temporary, but in arthritic joints, it may cause long-lasting or permanent disability.

Types of arthritis There are more than 100 different types of arthritis.

What is osteoarthritis? The most common type of arthritis is osteoarthritis. It is seen in many people as they age, although it may begin when they are younger as a result of injury or overuse. It is often more painful in weightbearing joints such as the knee, hip, and spine than in the wrist, elbow, and shoulder joints. All joints may be more affected if they are used extensively in work or sports, or if they have been damaged from fractures or other injuries.

In osteoarthritis, the cartilage covering the bone ends gradually wears away. In many cases, bone growths called "spurs" can develop in osteoarthritic joints. The joint inflammation causes pain and swelling. Continued use of the joint produces pain. Some relief may be possible through rest or modified activity.

What is rheumatoid arthritis? Rheumatoid arthritis is a long-lasting disease that can affect many parts of the body, including the joints. In rheumatoid arthritis, the joint lining swells, invading surrounding tissues, and producing chemical substances that attack and destroy the joint surface. This commonly occurs in joints in the hands and feet. Larger joints such as hips, knees, and elbows also may be involved. Swelling, pain, and stiffness are usually present even when the joint is not used. Rheumatoid arthritis can affect people of all ages, even children. However, more than 70 percent of people with this disease are over 30 years old. Many joints of the body may be involved at the same time.

How is athritis diagnosed?

Making a diagnosis of arthritis often includes evaluating symptoms, a physical examination, and X-rays, which are important to show the extent of damage to the joint. Blood tests and other laboratory tests may help to determine the type of arthritis.







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How is arthritis treated?

The goals of treatment are to provide pain relief, increase motion, and improve strength. There are several kinds of treatment:

Medications - Many over-the-counter medications, including aspirin, ibuprofen, and naproxen (common antiinflammatory drugs) may be used to effectively control pain and inflammation in arthritis. Acetaminophen (Tylenol) may be used to effectively control pain. Prescription medications also are available if over-the-counter medications are not effective. The physician chooses a medication by taking into account the type of arthritis, its severity, and the patient's general physical health. Patients with ulcers, asthma, kidney, or liver disease may not be able to safely take anti-inflammatory medications. Injections of liquid cortisone directly into the joint may temporarily help to relieve pain and swelling. It is important to know, however, that repeated frequent injections into the same joint can damage the joint and have undesirable side effects.

Joint protection - Canes, crutches, walkers, or splints may help relieve the stress and strain on arthritic joints. Learning methods of performing daily activities that are the less stressful to painful joints also may be helpful. Certain exercises and physical therapy (such as heat treatments) may be used to decrease stiffness and to strengthen the weakened muscles around the joint.

Surgery - In general, an orthopaedist will perform surgery for arthritis when other methods of nonsurgical treatment have failed to give relief. The physician and patient will choose the type of surgery by taking into account the type of arthritis, its severity, and the patient's physical condition. Surgical procedures include:

- removal of the diseased or damaged joint lining;
- realignment of the joints;
- total joint replacement; and
- fusion of the bone ends of a joint to prevent joint motion and relieve joint pain.

Is there a cure for arthritis?

At present, most types of arthritis cannot be cured. Researchers continue to make progress in finding the underlying causes for the major types of arthritis. In the meantime, orthopaedists, working with other physicians and scientists, have developed many effective treatments for arthritis.

In most cases, persons with arthritis can continue to perform normal activities of daily living. Exercise programs, anti-inflammatory drugs, and weight reduction for obese persons are common measures to reduce pain, stiffness, and improve function.

In persons with severe cases of arthritis, orthopaedic surgery can often provide dramatic pain relief and restore lost joint function. A total joint replacement, for example, can usually enable a person with severe arthritis in the hip or the knee to walk without pain or stiffness.

Some types of arthritis, such as rheumatoid arthritis, are often treated by a team of health care professionals. These professionals may include rheumatologists, physical and occupational therapists, social workers, rehabilitation specialists, and orthopaedic surgeons.

Your orthopaedist 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.