



Total Hip Replacement

Overview

Every day, our hips work to keep our bodies balanced and allow us to walk normally, but, until we experience pain or discomfort in one or both hips, it can be easy to take their function for granted. When the pain and stiffness in a person's hip joint become debilitating, an orthopedic surgeon may recommend a total hip replacement. The damaged hip joint will be replaced with a properly functioning prosthetic joint, restoring the patient's comfort and range of motion.

At the Banner CORE Center for Orthopedics in Phoenix, AZ, we provide best-in-class surgical and non-surgical treatment options for those suffering from chronic hip pain.

Hip Anatomy and Background

The human hip is a ball-and-socket joint with several components, including the pelvis, acetabulum (socket), femur (thigh bone), and femoral head (ball). The femoral head is essentially “locked” into the acetabulum socket, which is set into the pelvis. As a ball-and-socket mechanism, the head of the femur typically moves smoothly within the acetabulum, buffered by a healthy layer of cartilage. When this cartilage breaks down or other issues occur as a result of arthritis or injury, the joint can malfunction, causing pain and loss of movement.

Common Causes of Hip Problems

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 in people 50 years of age and older and, often, individuals with a family history of arthritis. It may be caused or accelerated by subtle irregularities in how the hip developed. 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 an autoimmune 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 osteonecrosis, where the articular cartilage becomes damaged and, over time, causes hip pain and stiffness.

Procedure Details

Minimally Invasive Total Hip Replacement

Fortunately for patients suffering from hip pain and damage from arthritis or injury, there is a minimally invasive form of surgery that can reduce risks and minimize scarring. Unlike the standard surgery in which a long incision (10 to 12 inches) is made and the hip area is opened up for surgery, the minimally invasive method uses one or two smaller incisions (a few inches each, exact length varies by case). The surgeon then uses specialized tools (often in conjunction with x-rays or other imaging for guidance) to perform the joint removal and replacement.



Direct Anterior Total Hip Replacement

One method of minimally invasive hip replacement is the direct anterior approach, in which the procedure is performed from the front of the hip instead of the back or side. With this approach, surgeons are able to use a much smaller incision (approximately 3-4 inches) and can avoid detaching any tendons or muscles, reducing the potential for muscle damage. The minimal disturbance involved in this kind of hip replacement means that the patient may be able to walk sooner and with fewer restrictions than they would with a traditional procedure.

If you live in the Phoenix area and are interested in pursuing this kind of procedure, direct anterior total hip replacements can be performed at Banner Baywood, Banner Del Webb, Banner Estrella, Banner Ironwood, Banner Thunderbird, and Banner University Medical Center – Phoenix locations.

Robotic Total Hip Replacement

Another exciting development in minimally invasive hip replacement surgery is the use of computer guidance and robotics. Surgeons can increase accuracy and minimize certain risks using tools like the MAKO surgical system, which is currently available to patients at the Banner Del Webb, Banner Estrella, and Banner University Medical Center – Phoenix locations.

Starting with a full CT scan of your hip joint, the MAKO system develops a 3D model that your surgeon can use to plan for the procedure. The surgery itself is then performed using a robotic arm, which is automatically guided by the system to the right areas and is restricted to working within defined boundaries. This robot-enabled surgery helps human surgeons achieve the most accurate, steady-handed results when placing and aligning your new prosthetic hip.

Evaluation: Is Total Hip Replacement Surgery for You?

Medical Evaluation

In preparing for hip replacement surgery, you may be asked to have a complete physical examination by your primary care doctor before your surgical procedure. This is needed to assess your health and identify conditions that can interfere with your surgery or recovery.

Tests

Several tests may be needed to help plan your surgery. Blood and urine samples may be tested, and an electrocardiogram and chest x-rays (radiographs) may be obtained.

Medications

Tell your orthopedic surgeon about the medications you are taking. Your orthopedist 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 and possibly decrease the risks associated with having surgery.

Dental Evaluation

Although infections after hip replacement are not common, an infection can occur if bacteria enter your bloodstream. Because bacteria can enter the bloodstream during dental procedures, you should consider



getting treatment for significant dental diseases (including tooth extractions and periodontal work) before your hip replacement surgery. Routine cleaning of your teeth should be delayed for several weeks after surgery.

Urinary Evaluation

Individuals with a history of recent or frequent urinary infections and older men with prostate disease should consider an evaluation before surgery.

Risk/Benefits

Evaluation: Is Surgery for You?

If surgery is recommended, you'll want to undergo a full evaluation and have any necessary testing done to make sure you're a good candidate for the procedure. Talk to your surgeon and your primary physician about your options, and weigh the pros and cons of surgery with loved ones you trust.

If your shoulder symptoms can be managed non-surgically to a sufficient degree, you may decide to forgo surgery. If the symptoms are still making it difficult to live your life despite physical therapy and medications, surgery may be the most effective choice.

Going Through with Surgery

Realistic Expectations About Shoulder Replacement Surgery

If you do choose to have shoulder surgery, keep a realistic mindset about the treatment. You will have to put in work and carefully follow your surgeon's rehabilitation plan for up to a year to ensure the best results. Patients do commonly experience pain, weakness, and limited motion immediately following surgery, but these will improve over time with proper rehabilitation.

Your Total Hip Arthroplasty Surgery

Preparation

In addition to undergoing the medical evaluation described in previous sections, you will also want to make certain social preparations for after surgery. Although you will be able to walk with crutches or a walker after surgery, you will need some help for several weeks with such tasks as cooking, shopping, bathing, and laundry.

If you live alone, someone from your orthopedic surgeon's office, a social worker, or a discharge planner at the hospital can help you make arrangements in advance to have someone assist you at your home. A short stay in an extended-care facility during your recovery after surgery may also be arranged.

The Procedure

You will be admitted to the hospital on the day of your surgery, and the procedure takes a few hours. Your orthopedic surgeon will remove the damaged cartilage and bone, and then position new metal, plastic, or ceramic joint surfaces to restore the alignment and function of your hip.

After surgery, you will be moved to the recovery room, where you will be monitored while recovering from anesthesia. After you awaken fully, you will be taken to your hospital room.



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 or ceramic material) and the socket component (a durable cup made of plastic, ceramic, or metal, which may have an outer metal shell).

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

Special surgical cement may be used to fill the gap between the prosthesis and remaining natural bone to secure the artificial joint. A combination of a cemented stem and an un-cemented socket may be used. Your orthopedic surgeon will choose the type of prosthesis that best meets your needs.

Complications

Complications from total shoulder replacement surgery are quite rare. Shoulder replacement problems may include stiffness, slippage of the ball from the socket, problems with glenoid tissue, post-operative infection, and/or nerve damage.

Recovery/Outlook

Recovery After Hip Replacement Surgery

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

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 with 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 orthopedic 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 experience a fracture may require more surgery.
- Notify your dentist that you have had a hip replacement. You will need to take antibiotics before any dental procedure. Information for your surgeon regarding the use of antibiotics is available from the [American Academy of Orthopedic Surgeons](#) (AAOS).
- See your orthopedic surgeon periodically for routine follow-up examinations and x-rays (radiographs), even if your hip replacement seems to be doing fine.

Call us today at 1.855.409.7520 to set up an appointment at our Phoenix clinic for hip replacement surgery, knee replacement surgery, or shoulder replacement surgery