



Overview of Hip Replacement Surgery

Hip replacement surgery, or hip arthroplasty, is a surgical procedure in which an orthopaedic surgeon removes the diseased parts of the hip joint and replaces them with new, artificial parts. These artificial parts mimic the function of the normal hip joint.

You may need hip replacement surgery if you have a disease, such as:

- Arthritis, including [osteoarthritis](#) and [rheumatoid arthritis](#).
- [Osteonecrosis](#), which happens when parts of a bone die due to decreased blood supply.

You may also need hip replacement surgery if you fracture (break) your hip from an injury, such as a fall, or from a bone disease.

The hip joint is a ball and socket joint and is one of the largest joints in the body. The upper end of the femur (thigh bone) meets the pelvis to create the joint. The “ball” at the end of the femur is called the femoral head and fits into the “socket” (the acetabulum) in the pelvis.

The goals of hip replacement surgery include:

- Relieve pain from the damaged or diseased hip joint.
- Improve the function of the hip joint.
- Increase mobility.

During a hip replacement, the surgeon makes an incision over the thigh and removes the diseased or damaged bone and cartilage from the hip joint. Next, the surgeon replaces the head of the femur and acetabulum with new, artificial parts. Surgeons have learned how to perform hip replacement with smaller incisions over time to limit the amount of trauma to the soft tissues.

The main parts of most hip replacements that fit against the bone, the socket, and the stem are made of metal. The joint surface (called the bearing surface) may be made of metal, ceramic, or plastic. Your surgeon may use a combination of artificial pieces to replace the hip joint. For example:

- Metal ball with a plastic socket lining.
- Ceramic ball with a plastic socket lining.

- Ceramic ball with a ceramic socket or lining.

Because of complications that may develop, surgeons rarely use metal-on-metal artificial bearing surfaces.

In addition, the surgeon will choose pieces that attach differently to the remaining bone, including:

- Cemented replacements, which fasten artificial parts to healthy bone with a special glue or cement.
- Uncemented replacements, which use artificial parts with a porous surface or other type of surface. This allows bone to grow into the pores to hold the new parts in place. Because it takes some time for the natural bone to grow and attach to the prosthesis, your activity may be limited for several months after surgery.
- Hybrid replacements, which use a cemented femur part and uncemented acetabular part.

Why Is Hip Replacement Surgery Needed?

Hip replacement surgery is usually needed to repair damage to the hip joint from:

- [Osteoarthritis](#).
- [Rheumatoid arthritis](#).
- [Osteonecrosis](#).
- Injuries or fractures from trauma or disease.

Your health care provider may recommend that you try other treatments before having hip replacement surgery, including:

- Pain medications.
- Physical therapy and exercise programs.
- Activity changes to limit strain on your hip.
- Assistive devices such as a cane, crutch, or walker.

If after trying other therapies you are still having joint pain that limits your activities, your doctor may recommend hip replacement surgery. New technologies have improved artificial parts so that they handle more stress and last longer. This means that hip replacement surgery can also be successful in people of younger ages than in the past.

However, it is important to be aware that hip replacement surgery may not be recommended for people with certain health conditions. You and your doctor may determine the best treatment for you depending on your health history and the risks associated with the surgery.

Preparing for Hip Replacement Surgery

Preparing for hip replacement surgery begins several weeks or more before the actual surgery. Being as healthy as possible before your surgery can help you recover and lower your chances of developing a complication.

You can do several things before hip replacement surgery to help you prepare for surgery and recovery.

- Speak with your surgeon and other health care team members about what to expect. Request written information or learn more about the procedure by visiting one of the websites listed in our Related Resources section.
- Ask your surgeon about exercises you can perform to strengthen your core, upper body, and leg muscles before surgery.
- If you smoke, try to quit or cut back on the amount you smoke.
- If you are overweight, try to lose weight. Being overweight can increase the risk of complications during or after surgery.
- Arrange for transportation for your procedure and follow-up visits with the surgeon.
- Ask for help around the house for a week or two after coming home from the hospital or surgical center. This may include help with cooking, shopping, and laundry.
- Prepare for meals in advance.
- Set up an area in your home where you will spend most of your time recovering. You may want to:
 - Keep the television remote control, telephone, cell phone, medicine, tissues, and wastebasket close by.
 - Place other items you use every day at arm's level so you can easily reach them.
 - Wear an apron with pockets for carrying things around the house. This leaves hands and arms free for balance or to use crutches.
 - Use a long-handled "reacher" to turn on lights or grab things that are beyond arm's length.
- Speak to your health care team about equipment that may help with daily activities such as:
 - Safety bars in the bathroom.
 - Raised toilet seat.
 - Shower chair or bench to use during bathing.
 - Assistive devices to help you move around, such as a walker or crutches.

What To Expect During Hip Replacement Surgery

During hip replacement:

- You will receive anesthesia. Depending on your health and current medications, your past experiences with anesthesia, and the type of hip replacement you are having, you may have:
 - Regional anesthesia, which blocks nerves to a certain area of your body. Most people who have regional anesthesia are awake, so you may receive a light sedative to help you relax.
 - General anesthesia, which acts on the brain and nervous system and puts your whole body to sleep.
- Your surgeon will make an incision over the hip. The size of the incision will vary depending on many factors, including your size, the specifics of your joint problem, and your surgeon's preferences.
- Your surgeon will remove the diseased bone tissue and cartilage from the hip joint.
- Your surgeon will replace the ball (head of the femur) and the surface of the socket (acetabulum) with new, artificial parts.
- You will be moved to the recovery room after surgery.

What To Expect After Hip Replacement Surgery

The amount of time you spend in the hospital or surgical center after your surgery may vary depending on many factors, including your overall health. Some people may go home the same day, while others stay in the hospital. If you stay in the hospital, your health care team works together to prepare you and your family to go home.

If you need extra time and therapy to recover, your health care team may recommend that you spend some time in a rehabilitation or skilled nursing care facility.

Everyone who has hip replacement surgery learns exercises to strengthen the hip and how to move around safely. These may include:

- Bearing weight on the leg and hip on which you had surgery.
- Learning how to walk with your new hip.
- Climbing stairs.
- Using devices to help you move and walk.
- Learning exercises to strengthen your trunk and leg muscles.

Whether you stay at the hospital, go home the same day, or transfer to another facility, your health care team will give you instructions to follow once you are home. This may include:

- Activities you can do at home (for example, climbing stairs and using assistive devices such as a walker or crutches to get around).
- Specific exercises to do at home to rehabilitate your hip.

- Directions for how to care for your incision.
- Setting up an appointment for follow-up with your surgeon.
- Physical therapy. Research shows that an exercise and rehabilitation program can help you recover from hip replacement surgery.
- Planning for support at home, such as having someone to drive you to appointments and help with activities around the house.

The speed and completeness of your recovery from hip replacement surgery can vary depending on many factors, including your overall health and fitness level before surgery. For many people, much of their recovery happens in the first 2 months after surgery. However, it is important to know that full recovery continues as you get stronger and more active over the next year after surgery. Over this period of time, your physical therapist and doctors provide guidance on an exercise program, which can reduce stiffness, strengthen muscles, improve your mobility, and increase your endurance. Your health care team can provide advice on when you can start to participate in more demanding activities.

Some people may need to have a revision surgery (which means a re-operation on the artificial joint). This can happen when you develop certain complications, such as:

- Loosening of the replacement joint from the bone, which can cause pain and bone loss.
- X-rays showing bone loss related to wearing of the joint surfaces.
- Fracture (broken bone) around the artificial hip joint.
- Dislocation, when the ball slips out of socket.
- Infection in the bones around the artificial joint.

Doctors consider revision surgery based on your overall health and how effectively other treatments are relieving your symptoms.

Life After Hip Replacement Surgery

Most people who have hip replacement surgery experience:

- Less pain after recovery from surgery.
- Better mobility after recovery from surgery.
- Improvements in activities of daily living and quality of life.

Talk to your doctor about exercises that you can participate in to increase muscle strength and cardiovascular fitness without injuring the new hip.

Most doctors recommend avoiding high-impact activities, such as basketball, jogging, and vigorous tennis. These activities may lead to excessive wear of the new hip or cause loosening of its parts.

Remember to take precautions to avoid falls and injuries. Here are some tips to help prevent falls outdoors and when you are away from home:

- Use a cane or walker if needed for added stability.
- Wear shoes that provide support and have thin nonslip soles. Avoid wearing slippers and athletic shoes with deep treads.
- Walk on grass when sidewalks are slippery; in winter, put salt, sand, or kitty litter on icy sidewalks.
- Stop at curbs and check their height before stepping up or down.

Some ways to help prevent falls indoors are:

- Keep rooms free of clutter, especially on floors. Avoid running electrical cords across walking areas.
- Use plastic or carpet runners on slippery floors.
- Wear shoes, even when indoors, that provide support and have thin nonslip soles. Avoid wearing slippers and athletic shoes with deep treads.
- If you have a pet, be mindful of where they are to avoid tripping over them.
- Do not walk in socks, stockings, or slippers.
- Be careful on polished floors that are slick and dangerous, especially when wet, and walk on plastic or carpet runners when possible.
- Be sure carpets and area rugs have skid-proof backing or are tacked to the floor. Use double-stick tape to keep rugs from slipping.
- Be sure stairs are well lit and have rails on both sides.
- Install grab bars on bathroom walls near the tub, shower, and toilet.
- Use a rubber bathmat or slip-proof seat in the shower or tub.
- Improve lighting in your home. Use nightlights or keep a flashlight next to your bed in case you need to get up at night. Install ceiling fixtures or lamps that can be turned on by a switch near the room's entrance.
- Add more lights in rooms.
- Use a sturdy stepstool with a handrail and wide steps.
- Keep a cordless phone or cell phone with you so that you do not have to rush to the phone when it rings. In addition, if you fall, you can call for help.
- Consider having a personal emergency-response system; you can use it to call for help if you fall.

Research Progress Related to Hip Replacement Surgery

Research on hip replacement surgery is exploring: