

Anterior Approach to hip replacement surgery



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Orthopaedics Inc.



Introduction

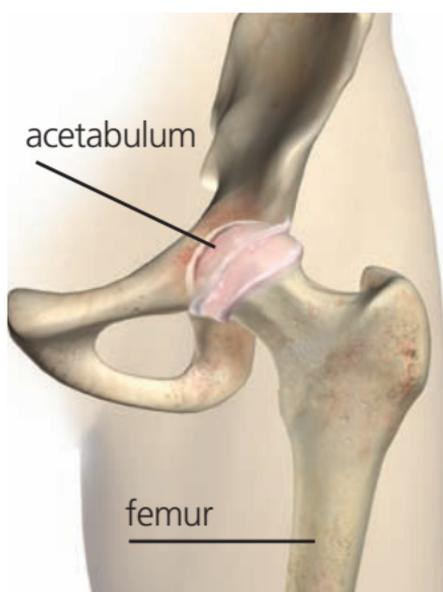
When debilitating pain and stiffness in your hip limit your daily activities, you may need a total hip replacement. DePuy Orthopaedics has been a pioneer in hip replacements for more than 40 years. Today, there are many options in hip replacement surgery. This brochure focuses on the similarities and differences between traditional hip replacement and the Anterior Approach to hip replacement.

Hip pain

The most frequent cause of discomfort and chronic hip pain is arthritis. Arthritis is the leading cause of disability in the United States. In fact, it's estimated that 1 in 5 people in the United States has some form of arthritis. Two-thirds of the people who have been diagnosed with arthritis are under the age of 65.¹

When medication, physical therapy and other conservative methods of treatment no longer relieve pain, total hip replacement may be recommended. Total hip replacement helps relieve pain and allows patients to perform some activities that may have been limited due to hip pain.

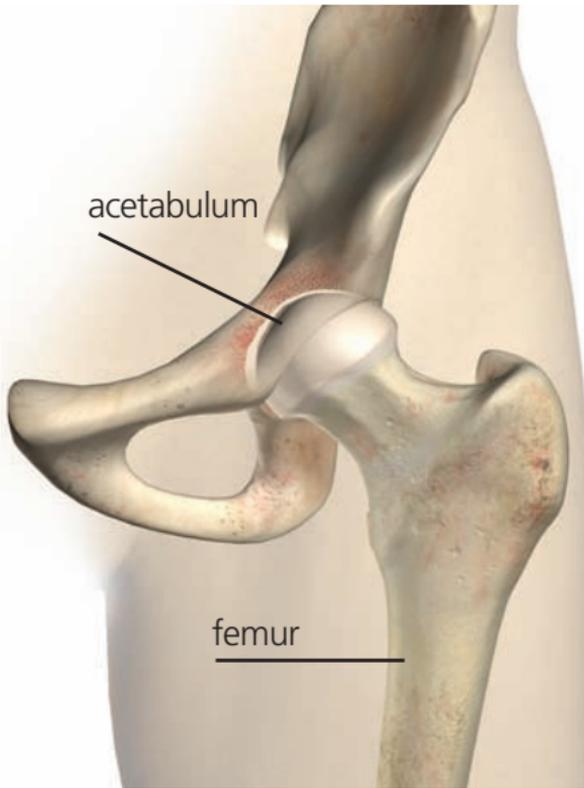
Your doctor carefully considers many factors such as your pain level, weight and activity level before determining the best treatment method.



Arthritic hip

The hip joint

The hip joint forms where the top of the thigh bone (femur) meets the socket of the pelvic bone (acetabulum). The top of the femur is shaped like a ball and fits snugly in the socket formed by the acetabulum. The hip bones are covered with a layer of slick cartilage, which cushions and protects the bones while allowing smooth movement.

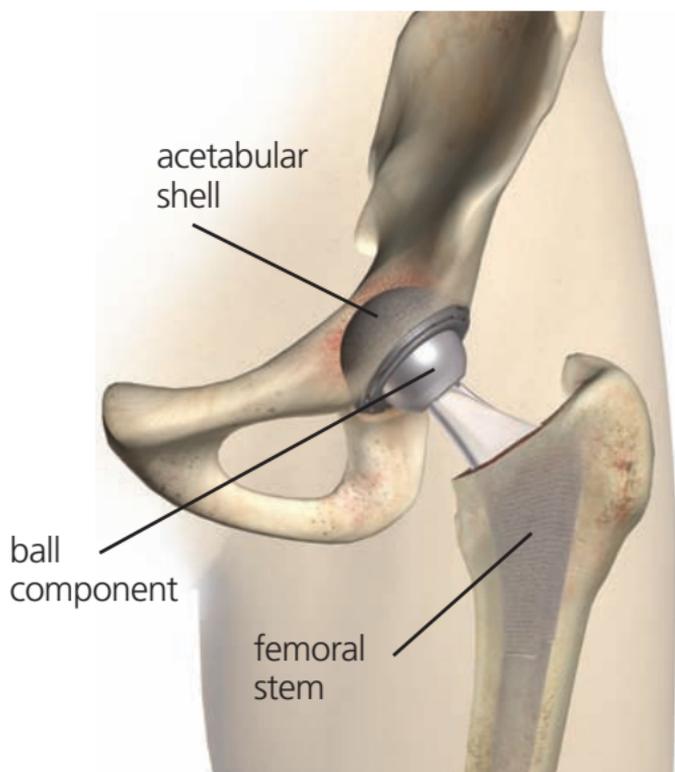


Healthy hip

Ligaments connect the bones of the joint to hold them in place and add strength and elasticity for movement. Muscles and tendons play an important role in keeping the joint stable and mobile.

Traditional total hip replacement

Total hip replacement, also called total hip arthroplasty, is the surgical replacement of the ball and socket of the hip joint with implants. There are three main components used in total hip replacement. The acetabular shell replaces the hip socket. The femoral stem and ball replace the top of



Hip replacement components

the femur. These components may be made of any number of materials, including metal, ceramic and/or polyethylene (medical-grade plastic).

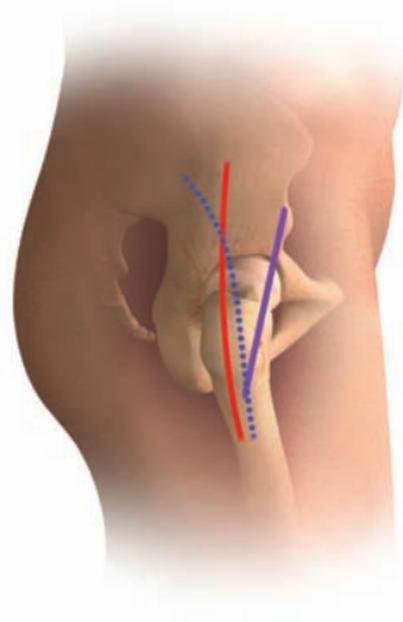
In traditional hip replacement surgery, a surgeon makes an incision along the side of the leg to access the hip joint. The natural acetabulum (ball portion) of the femur (thigh bone) is removed during surgery. The remaining preparation of the femur and acetabulum (socket) involves reshaping to allow solid, accurate alignment of the hip components. The femoral stem is inserted inside the thigh bone, and the acetabular shell is inserted inside the socket of the pelvis.

In 2009, approximately 300,000 Americans had a hip replacement.²

The Anterior Approach - muscle saving, tissue sparing

The Anterior Approach to total hip replacement is an alternative to traditional hip replacement surgery that provides the potential for less pain, faster recovery and improved mobility. Unlike traditional hip replacement surgery, this technique allows the surgeon to work between the muscles and tissues without detaching them from either the hip or thighbones. The potential benefits of the Anterior Approach are:

- Possible accelerated recovery time because key muscles are not detached during the operation.
- Potential for fewer restrictions during recovery. Although each patient responds differently, this procedure seeks to help patients more freely bend their hip and bear their full weight immediately or soon after surgery.
- Possible reduced scarring because the technique allows for one relatively small incision. Since the incision is on the front side of the leg, you may be spared from the pain of sitting on scar tissue.



Anterior Approach

Anterolateral/Direct lateral Approach

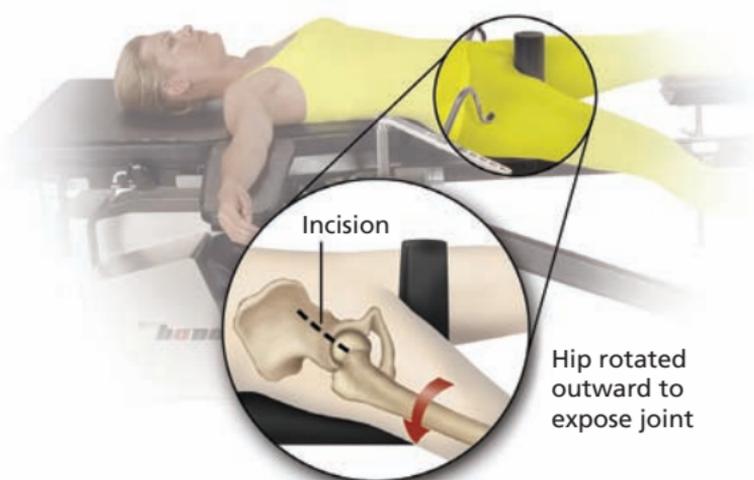
Posterolateral Approach

Hip replacement incisions

- Potential for stability of the implant sooner after surgery, resulting in part from the fact that the key muscles and tissues are not disturbed during the operation.
- The Anterior Approach requires less tissue disruption, which may lead to faster rehabilitation.

Advanced surgical table & instruments

The Anterior Approach takes advantage of a technologically advanced surgical table and special instruments.^{3,4} A high-tech operating table is often used to help improve access to the hip and achieve excellent alignment and positioning of the implant.



Improved surgical access

Your hip evaluation

An orthopaedic surgeon specializes in problems affecting bones and joints. The surgeon will ask you many questions about your hip pain, as well as your general health, to determine if hip surgery is appropriate for you. The evaluation will include a careful review of your x-rays and other tests. This will help the surgeon understand your pain and limitations in activity as well as the progression of your hip pain.

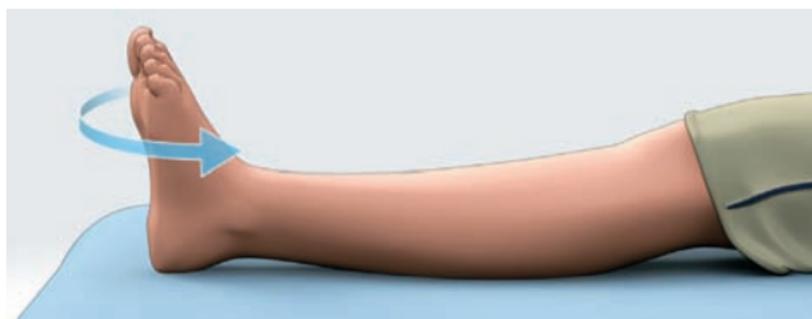
During your physical evaluation, the range of motion of your hips will be measured, and your muscle strength will be evaluated. The surgeon will observe how you walk, sit, bend and move.

Surgery

To prepare yourself for surgery, you may be asked to do a number of things, including lose weight and/or stop smoking (if applicable).

It is essential that you tell your surgeon about any medications or supplements you are taking. Take a list of all medications and dosages, including over-the-counter medications to your doctor's appointment. Your doctor may want you to donate your own blood ahead of time for a possible transfusion during surgery.

It is normal to feel pain and discomfort after surgery. Be sure to let the nurse know if you are in pain. Under the direction of your surgeon, you may move both legs as soon as you awaken. The nurse will help you find comfortable positions. To protect against blood clots, the nurse may encourage you



One example of an ankle-pumping exercise

to do ankle-pumping exercises every hour or instruct you to use a continuous passive motion machine.

After 24 hours you should begin to eat and drink regularly, according to your surgeon's direction.

After surgery, your bandages may include a tube or drain attached to a drainage system. This system provides gentle, continuous suction to remove any blood that may accumulate in the surgical area. The drain will probably be removed soon after surgery. Your bandages will be changed regularly.

Improved patient recovery

The Anterior Approach procedure requires less tissue disruption, which may lead to faster rehabilitation after surgery. Traditional hip replacement surgery, in contrast, typically requires strict precautions for six to eight weeks. You need to discuss your specific situation with your surgeon, because not all patients may be good candidates for the Anterior Approach.

Physical therapy

Your surgeon will recommend and supervise your rehabilitation program, which typically begins right after surgery. Isometric exercises (tightening muscles without moving the joint) will begin while you are still in bed. You will be instructed to do these exercises a number of times per day. You will be encouraged by the physical therapist to move your ankle and other joints so that you remain strong.

You will be taught about joint replacement recovery and will soon begin walking and doing exercises.

The physical therapist will monitor your daily progress and keep your surgeon informed.

Progress

The usual hospital stay for hip replacement with the Anterior Approach is one to three days after surgery.

The therapist will teach you how to dress and get out of bed without help. You will continue to work to strengthen yourself in preparation for your return home.

It is important for you to follow your surgeon's directions throughout your rehabilitation. By the time you leave the hospital, you should be well on your way to regaining your mobility and stability. It is common to still experience some pain. Remember that recovery can take up to six months for typical hip replacement surgery and up to two to three months for the Anterior Approach.

Home care

Just before being discharged, you will receive instructions for your at-home recovery including instructions to continue exercises at home.

Ask a family member or friend to be available to help with daily activities, especially during the first week at home.

Look for any changes around your incision. Contact your surgeon if you develop any of the following:

1. Drainage and/or foul odor coming from the incision.
2. Fever (temperature about 101 degrees F or 38 degrees C) for two days.
3. Increased swelling, tenderness, redness and/or pain.

Take time to adjust to your home environment. It is OK to take it easy.

Medication/pain control

It is normal for you to have some discomfort during recovery. You will probably receive a prescription for pain medication before you go home. If a refill is needed, please call your surgeon's nurse at least five days before you run out of pills. Please contact your surgeon if you have increased discomfort or pain.

Resuming activities

Your recovery is based, in part, on your condition prior to surgery. Rehabilitation is hard work, and recovery takes time. Patients undergoing the Anterior Approach to hip replacement surgery may be back to their normal activities within a few weeks.

Your surgeon will inform you when you can resume activities such as returning to work and driving a car.

You may resume sexual activity at any time as long as you keep all hip precautions, if any, in mind.

It is important to be active in order to control your weight and muscle tone. It generally takes two to three weeks before you can resume low-impact aerobic activities such as walking, bicycling and swimming. You may be able to resume certain higher-impact activities after two to three months, but only upon the advice of your surgeon. Although your new hip is made of very durable materials, it is subject to wear and tear.

Since your rehabilitation is an individual one, please seek advice on future activities from your orthopaedic surgeon.



Special instructions

A potential benefit of the Anterior Approach is more rapid rehabilitation. You will likely have a follow-up appointment with your surgeon six weeks after your surgery, then again at six months and/or one year. You should see your surgeon at least every other year after the first year.

Any infection must be promptly treated with proper antibiotics because infection can spread from one area to another through the bloodstream. Every effort must be made to prevent infection in your implant. Before undergoing any treatment, you should always tell all your doctors (including dentists) that you have a hip replacement.

If you are to have dental work performed, please call your surgeon prior to having this work done. Your surgeon will most likely prescribe an antibiotic for you. Antibiotics must be used before and after any medical or dental procedure—a precaution that must be taken for the rest of your life.

Important safety information

Every surgical approach has risks and benefits. The performance of a hip replacement depends on your age, weight, activity level and other factors. There are potential risks, and recovery takes time. People with conditions limiting rehabilitation should not have this surgery. Only an orthopaedic surgeon can tell if hip replacement is right for you.



A few frequently asked questions

Q: How do I know if I'm ready for hip replacement?

A: Only your orthopaedic surgeon can decide if hip replacement is the appropriate treatment for you. Your doctor will assess your situation and discuss the various treatment options available. He or she will explain the risks and benefits so that you, together with your doctor, can make an informed decision about your future course of treatment.

Q: How old do I need to be before I have hip replacement surgery?

A: Hip replacement is generally related to need, not age. Total hip replacement is considered to be an effective procedure that can help patients resume a more active lifestyle. However, there is a higher probability that younger patients may need to undergo a second hip replacement later in life.

Q. Is Anterior Approach right for me?

A: Only an orthopaedic surgeon can tell if the Anterior Approach procedure is right for you.

Q: Is hip replacement surgery covered by insurance?

A: Hip replacement surgery is covered by most insurance companies as well as Medicare and Medicaid. You should contact your insurance provider to see whether hip replacement is covered under your plan.

Anterior Approach as described by Joel Matta, MD.

This brochure was written in consultation with Joel Matta, MD & David Dodgin, MD.

Image of hana™ surgical table courtesy of Mizuho OSI.
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References

- ¹ Hootman J, Bolen J et. al. Prevalence of Doctor-Diagnosed Arthritis and Arthritis- Attributable Activity Limitation—United States, 2003-2005. *MMWR Morb Mortal Wkly Rep.* 2006;55(40):1089-1092.
- ² 2010 Premier, Inc.
- ³ Matta JM, Shahrardar C, Ferguson T. Single-Incision Anterior Approach for Total Hip Arthroplasty on an Orthopaedic Table. *Clin Orthop.* December 2005;441:115-124.
- ⁴ DePuy Orthopaedics, Inc. Data on file.

Related Clinical Articles:

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25M0911
0612-55-502 (Rev. 6)

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The logo for DePuy Orthopaedics Inc. features a red circle to the left of the word "DePuy" in a bold, sans-serif font. Below "DePuy" is the word "Orthopaedics Inc." in a smaller, lighter font.