

Dr. Weber's Anterior Hip Approach

Anterior Approach to Total Hip Replacement Surgery

Dr. Weber is among a very exclusive group of surgeon's nationwide offering anterior approach to hip replacement surgery...

"Using the anterior approach allows us to work between the muscles without detaching them from the pelvis or thigh bones. By not disturbing these muscles as with the other approaches, patients can expect a quicker recovery."

By not releasing the muscles and tissue in the back of the hip, the risk of dislocation is greatly reduced. Patients are encouraged to bear their full weight on the operative leg. With the anterior approach, patients have no post operative hip precautions. Without these restrictions, patients are allowed sit on a low chair and tie their shoes, activities not possible with other total hip approaches. In addition to the benefits of less invasive surgery, the patient's recovery is improved by the elimination of the standard precautions associated with traditional hip replacement :

- Less Required Post-Op Rehabilitation
- Reduced Post-Op Pain Medication
- No Post-Op Dislocation Precautions
- No Restriction of Post-Op Activity
- Better Leg Equalization
- Immediate Use of Normal Toilet Height
- No Post-Op Abduction Pillow (between the knees) Required
- Cross Legs As Desired
- No Post-Op Sexual Activity Limitations

Another benefit of the anterior approach, is that the surgery is done with the patient lying on their back, and the incision is in the front of the hip. This allows us to use x-ray guidance in the operating room. These techniques allow for more accurate measurement of leg lengths at the time of surgery. Furthermore, with the intra-operative information gained from the x-ray or the computer, these help assure excellent placement of the implants.

Approximately 375,000 Americans undergo hip replacement surgery each year. This number is expected to almost double over the next 25 years due in part to the aging of the population. "Our goal, as orthopedic surgeons, is to reduce the debilitating pain from the arthritis and improve quality of life for our patients." Utilizing the anterior approach with high quality hip replacement implants, our patients should expect a more rapid recovery with fewer restrictions.

It is important to realize that this is not a new technique. It has been done in Europe for many years with excellent results. The approach is somewhat technically demanding. A special operating table greatly aids in this approach. Patients interested in learning more about hip replacement surgery through the anterior approach can contact our office.

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Anterior Hip Replacement FAQs by Dr. Weber

1. What are the benefits of hip replacement surgery?

Hip replacement surgery is one of the most successful treatment options that we as orthopedic surgeons have to offer to our patients with arthritis of their hips. Patients complain of pain, limitation of motion, and an overall decrease in their quality of life. Hip replacement surgery benefits patients by giving them a new lease on life by improving their quality of life— whether it involves dancing, sporting activities, exercising, walking, or even the simple things such as grocery shopping, dressing, or tying your shoes.

2. How is a traditional hip replacement surgery performed?

Traditionally a hip replacement is done by a posterior or posterior lateral approach. The patient is positioned on their side on the operating room table. A 4 to 8 inch incision starting around the buttocks and curving around the outside of the hip is performed. Then the muscles of the buttocks are split followed by detachment of 4 other muscles from the back of the hip. The hip is then dislocated at which point we can now access the hip socket and the upper part of the hip and perform the replacement. During this time we replace the ball of the hip with either a metal or ceramic ball with a stem that goes into the upper part of the thigh bone and then place a new metal socket into the pelvis with a liner made of either a durable plastic material or ceramic. We then repair the detached muscles to the bone, bring back the buttocks muscle that was split and then close the skin.

3. How is an anterior hip replacement surgery performed?

The anterior approach is an exciting new technique that we are currently performing to replace a hip. Instead of the patient lying on their side for the operation, they lie on their back. We then make a skin incision just below and to the outside of the groin. After the skin incision 2 muscles are identified and then pushed aside. No muscles at any time during this procedure are split or detached. We then have clear access to the hip at which point we then perform the replacement. Again the ball and socket are replaced as I just mentioned with similar components. After completion of the procedure, we don't have to repair any muscles that were split or detached and the skin is closed.

4. What are the benefits of having a hip replacement through an anterior approach?

The benefits of performing a hip replacement through an anterior approach include those I mentioned earlier with respect to improving a patient's quality of life, but goes a few steps further. By simply pushing the muscles in the front of the hip aside, not detaching them like we used from a posterior approach, there is minimal muscle trauma. By not causing trauma to the muscles about the hip, it allows for a much faster recovery with less pain. Secondly, by not detaching the muscles from the back of the hip we reduce the risk of patients dislocating their hip after surgery. Lastly, we are able to obtain better leg lengths as well. One of the most common complaints after a hip replacement is that the leg with the replaced hip is longer. This is due to a lot of reasons. Some are due to patient's anatomy; some are due to technical aspects of the surgery. When a patient is on their side for a posterior approach, their pelvis is not perfectly level and it is difficult to measure the patient's legs during the operation and determine equal lengths. The benefit of the anterior approach is that with the patient on their back during the operation we can easily make sure the pelvis and hip are level and measure our leg lengths. More importantly however, during the operation we are using small amount of live x-ray images which give us immediate pictures of the inserted hip replacement and we can better judge the length of the patient's hip by comparing with their other side. We still may not be perfect, but we are definitely much more precise and usually within a few millimeters. One smaller advantage has to do with the incision.

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With a posterior incision, patients typically lay or sit directly on their incision and can't sleep on the operated side for several weeks. With the anterior approach, the incision is the front and isn't affected by sitting or sleeping positions.

5. What are hip precautions and do they apply to anterior hip replacement surgery?

Hip precautions are recommendations that orthopedic surgeons discuss with patients before and after surgery. These only apply to patients who have a hip replacement through a posterior approach. These recommendations are to prevent patients from dislocating their new hip replacement which as I just mentioned is one of the most common complications that can occur after a hip replacement. The precautions start on the day of surgery when a pillow is placed between your legs for approximately the first 4-6 weeks whenever you are sitting or lying down. When you sleep, you have to sleep on your back with the pillow between your legs for the first 4- weeks. In addition you are told to follow a 90-90 rule which means don't bend your hips or knees beyond 90 degrees. You are also told not to cross your legs, turn your toes inward, or tie your shoes. You shouldn't sit on low chairs or couches. To assist with these precautions, you are also recommended to get an elevated toilet seat so that when you sit down on the toilet, you don't go beyond 90 degrees at the hip either when you sit or get up. If you have your hip replaced by an anterior approach as I described earlier, none of these precautions apply. The risk of dislocation is almost eliminated and you don't need that cumbersome pillow between your legs, you can sit or sleep in any comfortable position you like, you can cross your legs, tie your shoes, and you don't need an elevated toilet seat.

6. Is the rehabilitation different for anterior hip replacement surgery?

The rehabilitation is different because of the elimination of hip precautions as I just mentioned but also it is much faster. The rehabilitation is faster because the muscles are not traumatized during the approach to the hip. Patients are able to get up and walk with the use of a walker much easier and most progress to a cane with 2 to three weeks. Patients are walking independently without the use of a cane typically by 4-5 weeks and then returning to their normal activities shortly there after..

7. Is special equipment needed to perform anterior hip replacement surgery?

The procedure can be done without any special equipment, but it is very difficult to do it that way. We are using a special operating table. This table was specifically designed to allow orthopedic surgeons to perform anterior hip replacement surgery with greater ease. Patient's feet are placed in boots that look like ski boots for the operation – they are then positioned on the table on their back and then during the operation we are able to position the leg in almost any position to allow access to either the ball or socket of the hip joint. The table also comes with a special hook retractor that we use to elevate the thigh bone during the operation that allows us to prepare the thigh bone or upper part of the hip for the stem portion of the replacement. We also use a fluoroscopy machine during the operation. This is an x-ray machine that gives immediate information during the operation. As I mentioned earlier we use it to help obtain better leg lengths, but also to help us place the hip replacement in the most optimal position. This is important because an artificial hip put in the best optimal position will have a lesser chance of dislocation but will also the last a patient longer and hopefully their lifetime.

8. Is anterior hip replacement surgery minimally invasive?

I really don't think that any hip replacement is completely minimally invasive because it is a major operation. Any major operation that involves anesthesia, blood loss, cutting of bone, and exposing the joint carries a certain number of risks. However, I can tell you that an anterior approach to hip replacement surgery is definitely less invasive than a posterior approach because of the fact that we do not split, divide, or cut muscles.

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9. Why aren't all Orthopedic surgeons performing anterior hip replacement surgery?

Why aren't all orthopedic surgeons doing hip replacements through an anterior approach? That is a good question. Probably several answers. Most orthopedic surgeons were trained to do hip replacement surgery through a posterior approach in their residencies, as I was. Doing it that way works and has excellent results and some surgeons are reluctant to change. I for one am open to change if I think it adds benefits to my patients. Secondly, to learn the anterior approach means traveling to see other surgeons perform the operation, and practicing on cadavers. This takes time and money.

Thirdly, it does help to have the special table to do this operation. Not all hospitals have this table. Lastly, it does take a little longer to perform the operation through the anterior approach, but not significantly. It has added anywhere from one hour longer initially to only about 15-20 minutes longer now.

10. Is it more expensive and does my insurance cover anterior hip replacement surgery?

It does not cost the patient any more to do the operation through an anterior approach compared to the posterior approach and all insurances cover the procedure as well regardless of the approach.