Direct Anterior Approach (DAA) Total Hip Replacement

Advances in Hip Replacement Surgery

We combine the latest technological advancements and surgical techniques along with the timeless principles of anatomy and minimization of soft tissue trauma in order to achieve the best results possible. In addition to the Direct Anterior Approach, we use several other techniques and advances that help to minimize pain, lower infection risk, and maximize early mobility following surgery.

Advantages

Direct Anterior Approach (DAA) hip replacement surgery has many advantages over other approaches (including the traditional posterior approach). All other things being equal, the DAA may be associated with:

- Less soft tissue trauma
- Faster recovery
- Lower risk of hip dislocation
- Less stringent lifetime hip precautions
- Minimal posterior hip scar tissue (no sitting on scar)
- More accurate intraoperative determination of leg lengths

Optimal Intraoperative Implant Positioning

Another advantage of the DAA is supine positioning (laying flat on your back) in the operating room. Other approaches (Including the posterior, anterolateral, and direct superior approaches) require lateral positioning, which makes intraoperative imaging and accurate determination of leg lengths more difficult. Supine positioning improves the accuracy of intraoperative assessment of leg lengths and easily allows for fluoroscopy (X-ray in the operating room) during surgery. Intraoperative fluoroscopy helps to achieve optimal implant positioning during surgery.

Anterior Hip Incision

The incision is located along the front of the hip and is either vertical or oblique along the hip flexion crease (near the bikini line). The incision orientation and size depends upon individual factors. In general the incision is proportional to the size of both the patient and the subcutaneous tissues around the anterior hip. We take great care to minimize soft tissue trauma and we don't make the incision any larger than what is necessary. However, we also don't hesitate to make an incision large enough to facilitate adequate exposure in order to safely perform the procedure and to achieve optimum positioning of the implants. The incision is closed with glue, and a waterproof dressing is applied in the OR. It is OK to shower with the waterproof dressing in place immediately following surgery.

Postoperative pain control/Modern Techniques

We employ a multimodal treatment approach to manage postoperative pain including oral medications given preoperatively, local anesthetic injections given during surgery, and a variety of different strategies postoperatively. This synergistic approach helps to minimize narcotic use and side effects while more effectively controlling postoperative pain. Drains, Foley (bladder) catheters, and skin staples are not routinely employed.

Anesthesia

Options include spinal or general anesthesia. Spinal anesthesia may provide better pain relief immediately following surgery and may be associated with a lower risk of intraoperative blood loss and postoperative Deep Venous Thrombosis (DVT).

Activity Progression after Surgery

You can bear full weight as tolerated immediately following surgery (unless specifically directed otherwise). Use of assistive devices such as a walker or a cane following surgery can increase mobility and maximize safety. Resuming activities of daily living, work, and driving are highly individual and are largely dependent upon individual factors. In general, individuals who have planned ahead and have taken the time to optimize their health and minimize their risk factors over which they have control recover noticeably faster. While frequent movement and range of motion exercises are important, don't overdo it. Listen to your body and use common sense.

Postoperative Course and Recovery

Depending upon many factors, the surgery may be performed at a surgery center on an outpatient basis or at a hospital with an overnight stay. The ideal situation is to go home after surgery if you have adequate support from family and close friends. The other option is to go to a skilled nursing facility for a couple of days after surgery if you live alone and/or adequate assistance at home is not available. While some adjustments can be made after surgery if you are admitted to a hospital, it is quite helpful to plan ahead and arrange for support and help at home if possible.

Recovery varies significantly from person to person and is dependent upon many variable factors including preoperative hip and lower extremity range of motion/strength, nutrition status, smoking status, the presence of other medical conditions/overall health, cardiovascular fitness, and the severity of hip arthritis present at the time of surgery. We have found excellent outcomes correlate more with physiological age (one's overall health fitness) than with simple chronological age (the number of years you have been alive). It is a worthwhile endeavor to get in the best physical, mental, and spiritual condition as possible before surgery as this will lead to a faster recovery and minimize the risk of perioperative complications.

Postoperative hip precautions

Hip precautions are less restrictive following Direct Anterior Approach (DAA) hip replacement surgery in comparison to posterior approaches. You do not need to follow traditional posterior hip precautions (No hip flexion beyond 90°, no internal rotation, and no crossing legs) following DAA hip replacement surgery. Posterior hip precautions can be violated with routine activities of daily living including leaning forward to pick up something up off the floor, bending your hip to tie your shoes, getting on/off the commode, and crossing your legs. Anterior hip precautions consist of avoidance of extreme hip extension (straightening your hip) and external rotation (moving your foot outwards). Anterior hip precautions are relatively easy to follow because most activities of daily living do not involve excessive hip extension combined with external rotation.

Physical Therapy (PT)

PT is not routinely required following DAA hip replacement surgery, although it can be helpful in certain circumstances.

Deep Venous Thrombosis (DVT) and Pulmonary Embolism (PE) prophylaxis (Blood Clot Prevention)

- We employ a variety of different methods to minimize your risk of DVT and PE including medications (oral medications or injections depending upon your individual risk factors for

bleeding and/or blood clots), early mobilization, calf compression devices, and adequate hydration following surgery.

- The best way to prevent blood clots after surgery is adequate hydration (drink plenty of water) and frequent movement of all 4 extremities.
- If you have No Risk Factors for blood clotting or excessive bleeding, take an Enteric-Coated Baby Aspirin (81 mg) 2X/day for the first 2 weeks and then 1X/day during weeks 3-4 following surgery. This may help to lower the risk of a blood clot developing after surgery.
- Call the office if you notice excessive swelling or significant pain below your knee (Calf, ankle, or foot).
- Move all 4 of your extremities several times per hour while resting in bed and when seated. This frequent movement helps to keep blood moving in the veins of your leg.
- Begin drinking fluids as soon as possible after surgery. This will help to thin your blood as well as encourage mobility as you will need to get up and use the restroom more frequently.

Infection prophylaxis

IV antibiotics will be given both prior to surgery and postoperatively. After surgery you may need to take oral antibiotics prior to dental cleanings/procedures for a period of time after surgery (possibly the rest of your life) depending upon your individual circumstances.

Diet

- Drink plenty of clear liquids and eat nutritious foods following surgery. Adequate hydration and optimal nutrition is an essential part of your healing and recovery.

Common Complaints after Surgery

- Nausea/Vomiting is usually related to the anesthetic drugs used during surgery and resolves during the first 24 hours. Begin with clear liquids and light foods following surgery and advance to more solid foods as tolerated.
- Drowsiness is associated with anesthetic drugs and IV pain medications used during your surgery. This usually resolves within 24 hours after surgery.
- Constipation is a common side effect of narcotics and strong pain medications. Adequate hydration, a diet high in fiber, and over-the-counter stool softeners can help to minimize constipation.
- Low grade fever (< 100.5° F) can occur during the first 24-48 hours following surgery. Taking deep breaths and periodically sitting upright will help this to resolve.

When to Call

Call us at 858.703.6964 if any of the following develop:

- Temperature > 101.5° F
- An increase in redness or cloudy drainage from the incisions
- Increased foot or calf swelling
- Severe pain not adequately controlled with medications
- Excessive nausea or vomiting
- Chest pain or shortness of breath