

Direct Anterior Hip Replacement in Active Adults

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Hip arthritis is a significant cause of hip pain in adults. 200,000 hip replacements are performed in the US each year. It is a predictable, reliable surgery to relieve arthritis pain. Over the years, surgical techniques and patient expectations have evolved. Active 50-70 year old patients want to have as little disruption to their lifestyles as possible, and want to get back to exercise and sports.

The two traditional approaches to the hip, while both very successful, each have a downside. The anterolateral (from the side of the hip) approach requires the detachment of a small amount of gluteal muscles, which increases the risk of having temporary or permanent weakness and limp. The posterior (from the back of the hip) approach detaches small muscles along the hip, and traditionally has a higher risk of dislocation (the ball jumping out of the socket). With this in mind, many minimally invasive or tissue-sparing advances have been made to the technique of hip replacement.

The Direct Anterior Hip Replacement (DAHR) utilizes a special table to position the patient to allow access to the hip joint without detachment of any muscles. The approach is between the tensor muscle on the side of the hip and the quad muscles in the front. This leaves all the muscles still attached to the thigh and pelvis. Although this technique is relatively new in the US, the first DAHR was actually done in Paris by Dr. Robert Judet in 1947!



*Small incision in
upper thigh*

*Muscle parted
to expose joint*

Because most traditional approaches to the hip detach some muscle from the upper thigh, patients are usually instructed not to bend forward or cross their legs for some time after surgery to avoid dislocation. Because muscles aren't detached in DAHR, we do not restrict our patients. Additionally, patients may have less pain in the immediate post-operative period with DAHR because muscles are not cut. Another positive of DAHR is the use of intraoperative x-ray to replicate normal

anatomy and leg length. Leg length discrepancy is one of the biggest complaints noted by patients who undergo hip replacement.



Direct anterior hip replacements do require special training and equipment. It is still a major orthopedic surgery and carries risks. Some obese patients and very muscular men may not be appropriate for the procedure. It remains to be seen if DAHR is superior to traditional total hip replacement in the long-term. Certainly mid-term data shows favorable pain levels, activity levels, and satisfaction.

Photos courtesy of Johnson and Johnson

Dr. Bremner performs direct anterior hip replacement. He is also certified in orthopaedic sports medicine. To schedule an appointment call 515-299-6363.