

## **We Prefer the Direct Anterior Approach to the Hip for Most Patients**

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Hip replacement by any of the standard approaches is one of the most successful procedures in medicine. Of highest importance to the patient is that they choose a surgeon who performs a large number of hip replacements annually and with whom they feel they can communicate clearly.

We prefer the anterior approach to the hip because it facilitates supine positioning of the patient during surgery while sparing the hip abductors and quadratus femoris and obturator externus from release [Meneghini 2006]. Supine positioning of the patient facilitates accurate acetabular component placement through standardized pelvic position during surgery with little movement of the pelvis through the course of the procedure [Takada 2019, Soderquist 2017]. Supine position facilitates accurate usage of fluoroscopy which is a facile, inexpensive technique for verifying acetabular and femoral component position prior to closure [James 2018, Jang 2018, Debi 2018, Goodman 2017, Jennings 2015, Zing 2017, Lin 2017, Ji 2016, Rathod 2014, Moskal 2011, Moskal 2013]. Leg length comparison is also facilitated in the supine position by either fluoroscopic assessment or direct comparison of the heel and medial malleolus position with both feet draped into the surgical field [Matta, 2005].

While small studies have shown conflicting results, every large study (more than 1000 patients in the study group) supports our assertion that the direct anterior approach to the hip has a lower dislocation rate than the posterior approach [Fleischman 2019, Sheth 2015, Kucukdurmaz 2018, Hamilton 2015, Angergame 2018, Ponzio 2018]. A recent study from the Mayo clinic involving over 7000 hip replacement patients found much lower dislocation rates for the anterior approach (0.4% dislocation rate) as opposed to the posterior approach (2.1% dislocation rate) [Wyles 2019].

Similarly, all the randomized and larger retrospective studies have shown early recovery benefits for the anterior approach as opposed to other approaches [Kucukdurmaz 2018, Ponzio 2018, Barrett 2019, Cheng 2017, Ozaki 2018].

There are certainly patients for whom the anterior approach to the hip may be less appealing. Patients with retained posterior acetabular plates and screws that may require removal are best served by a posterior approach to the hip to facilitate removal in case occult infection or expected acetabular component impingement are encountered.

Obese patients with a Body Mass Index (BMI) over 40 are also sometimes problematic as the protuberant abdomen may occlude access to the anterior aspect of the hip and raise the infection risk with the procedure [Purcell 2018, Jahng 2016, Watts 2015]. While some surgeons advocate surgical taping of the belly during anterior surgery to hold it out of the surgical field, we usually use a Hardinge or Posterior approach for these patients to allow our surgical incision to be placed farther away from the inguinal fold and protuberant abdomen. Clearly weight loss preoperatively is also a key component of the surgical algorithm regardless of the approach used.

The surgeon's surgical approach, implant choice and usage of advanced technologies are no substitute for the surgeon's experience and empathy. We prefer the anterior approach in all but the most obese patients due to improved hip stability and accuracy of acetabular component placement.

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