



## Direct Anterior Approach Does Not Reduce Dislocation Risk

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**Introduction:** The direct anterior approach (DAA) for total hip arthroplasty (THA) has rapidly become popular but there is little consensus regarding the risks and benefits of this approach in comparison with a modern posterior approach (PA). The purpose of this study was to compare the short term outcomes and complications following DAA and PA THA in a state joint replacement registry.

**Methods:** The Michigan Arthroplasty Registry Collaborative Quality Initiative (MARCQI) was queried for all patients undergoing primary unilateral THA between February 2012 and September 2014. Patients who underwent DAA THA were propensity score matched with patients undergoing PA THA. Multilevel logistic regression models using generalized estimating equations to control for grouping at the hospital level was utilized to identify differences in various outcomes for the predictor variable of DAA vs. PA.

**Results:** 11,112 patients were identified that met inclusion criteria. 2,147 matched pairs based on age, gender, BMI and ASA classification were identified. Mean age of the matched cohort was 64.8, mean BMI was 29.1 kg/m<sup>2</sup> and 53% were female. There was no difference in dislocation rate based on approach (0.4% DAA vs. 0.4% PA, IRR=1.06, p=0.88). Procedure duration was increased with the DAA (100.94 38.00 min DAA vs. 76.35 27.72 min PA, IRR=1.32, p<0.005). There were no statistically significant differences in fracture rate, blood loss, hematoma, length of stay (LOS) or readmission.

**Conclusion:** There was no difference in the dislocation rate when comparing matched groups of patients undergoing DAA and PA THA. Trends indicating a slightly longer LOS with the PA and slightly greater risk of fracture, increased blood loss and hematoma with the DAA are consistent with previously published studies. Based on short term outcome and complication data, DAA and PA THA have no compelling advantage over each other.