

## **Is There a Risk of Repeat Dislocation By Surgical Approach in Total Hip Arthroplasty?**

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### **INTRODUCTION:**

Dislocations after total hip arthroplasty (THA) are debilitating complications, with rates ranging from 0.2 to 10% per year. Literature has primarily focused on the initial dislocation risk relative to surgical approach, but few studies have investigated whether surgical approach is associated with an increased risk of subsequent dislocations after the initial reduction. The purpose of the study was to investigate whether the surgical approach is a risk factor for subsequent dislocations after an initial dislocation.

### **METHODS:**

This retrospective cohort study included 36,774 consecutive patients at a single institution who underwent primary THA from 2017 to 2023. Patients were categorized by whether they underwent a direct anterior (DA), posterolateral (PL), or direct lateral (DL) approach. Of the 234 patients (0.6%) included in the study who initially dislocated following THA, 120 underwent DA (51.3%), 88 underwent PL (37.6%), and 26 underwent LA (11.1%). The primary outcome was subsequent dislocations following the reduced dislocation.

### **RESULTS:**

There were 103 (44%) who sustained another dislocation, with no significant differences in repeat dislocation rate based on approach (DA: 53/120, 44%; PL: 40/88, 46%; DL: 10/26, 39%;  $P=0.819$ ). The average number of dislocations by approach was 1.70 for DA, 1.62 for PL, and 1.58 for DL ( $P=0.806$ ). Mean times to second dislocation were 77 days for DA, 207 days for PL, and 200 days for DA ( $P=0.333$ ). At 30 days, survivorship free of a second dislocation was lowest for anterior approaches (72.5%; 95% confidence interval [CI], 64.9 to 80.9) compared to posterior (78.4%; 95% CI, 70.3 to 87.5) and lateral (80.8%; 95% CI, 67.0 to 97.4) approaches ( $P=0.79$ ).

### **DISCUSSION AND CONCLUSION:**

Rates of repeat dislocation were similar across surgical approaches, suggesting that the risk of recurrence is not strongly influenced by the approach used in the index THA. Notably, nearly half of the patients who sustained an initial dislocation will experience at least one additional dislocation.