

Do Postoperative Posterior Approach Hip Precautions Reduce Dislocation Risk After Primary Total Hip Arthroplasty?

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INTRODUCTION:

The effectiveness of posterior hip precautions in preventing dislocation after primary posterior approach total hip arthroplasty (THA) remains uncertain. Such precautions may delay patients' return to daily activities and functional recovery. This study aimed to determine whether postoperative THA hip precautions impacted hip dislocation rates.

METHODS:

We conducted a prospective, randomized study evaluating the effect of hip precautions on the risk of dislocation after primary THA. A total of 1,130 patients were enrolled and underwent posterior approach primary THA by multiple fellowship-trained surgeons at a single academic center between January 2016–May 2025. Patients were randomized to either a restricted group, instructed to avoid hip flexion beyond 90°, adduction past midline, and internal rotation for 6 weeks postoperatively, or an unrestricted group. Demographics, surgical indications, and prosthesis data were recorded. The primary outcome was dislocation; secondary outcomes included perioperative complications and patient-reported outcomes. Statistical analysis used Fisher's exact test and t-tests.

RESULTS:

The unrestricted and restricted groups included 522 and 535 patients, respectively, with no significant demographic or surgical differences (all $P > 0.245$). Follow-up was similar between groups (mean 1.3 ± 1.4 years; range 0.62–102.9 months; $P = 0.645$). Overall, ten dislocations (0.94%) were reported at 9.1 ± 10.5 months postoperatively, with 6 in restricted and 4 in unrestricted patients, showing no significant difference (OR: 0.60; 95% CI: 0.17–2.17; $P = 0.753$). At 6-weeks, Hip Disability and Osteoarthritis Outcome Scores (HOOS) were higher in the unrestricted group (77.7 vs 73.9, $P = 0.001$), with no significant difference in baseline scores (52.5 vs 51.7, $P = 0.517$). No differences were observed in 90-day complications or revisions (all $P > 0.209$).

DISCUSSION AND CONCLUSION:

Routine use of strict hip precautions following posterior approach THA does not significantly reduce early dislocation risk. These precautions may unnecessarily limit early functional recovery, increase patient anxiety, and negatively impact patient-reported outcomes.

Table 1. Patient Demographics

Characteristic	Unrestricted (n=522)	Restricted (n=535)	P-value
Age (mean ± SD)	68.1 (12.5)	68.3 (12.6)	0.887
Male gender (%)	28.4 (5.4)	28.1 (5.3)	0.900
Female gender (%)	71.6 (13.6)	71.9 (13.7)	0.900
Mean BMI (mean ± SD)	27.1 (4.5)	27.2 (4.6)	0.588
Dislocation (n/%)	6 (1.2%)	4 (0.8%)	0.517
Revisions (n/%)	11 (2.1%)	11 (2.1%)	0.999
90-day complications (n/%)	11 (2.1%)	11 (2.1%)	0.999
Mean follow-up (mean ± SD)	1.3 (1.4)	1.3 (1.4)	0.645
Range (min-max)	0.62-102.9	0.62-102.9	
Mean HOOS (mean ± SD)	77.7 (10.5)	73.9 (10.5)	0.001
Baseline HOOS (mean ± SD)	52.5 (10.5)	51.7 (10.5)	0.517
Mean HOOS at 6 weeks (mean ± SD)	77.7 (10.5)	73.9 (10.5)	0.001
Mean HOOS at 90 days (mean ± SD)	77.7 (10.5)	73.9 (10.5)	0.001

Table 2. Summary of adverse events and outcomes stratified by hip precautions group

Outcome	Hip Precautions group		P-value
	Unrestricted	Restricted	
Dislocation	4 (0.8%)	6 (1.2%)	0.517
Revisions	11 (2.1%)	11 (2.1%)	0.999
90-day complications	11 (2.1%)	11 (2.1%)	0.999
Mean follow-up (months)	1.3 (1.4)	1.3 (1.4)	0.645

Table 3. Summary of postoperative complications stratified by hip precautions group

Complication	Hip Precautions group		P-value
	Unrestricted	Restricted	
Wound healing	2 (0.4%)	2 (0.4%)	0.999
Wound dehiscence	1 (0.2%)	1 (0.2%)	0.999
Wound infection	1 (0.2%)	1 (0.2%)	0.999
Wound drainage	1 (0.2%)	1 (0.2%)	0.999
Wound hematoma	1 (0.2%)	1 (0.2%)	0.999
Wound seroma	1 (0.2%)	1 (0.2%)	0.999
Wound abscess	1 (0.2%)	1 (0.2%)	0.999
Wound necrosis	1 (0.2%)	1 (0.2%)	0.999
Wound fistula	1 (0.2%)	1 (0.2%)	0.999
Wound dehiscence	1 (0.2%)	1 (0.2%)	0.999
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