

JOURNAL CLUB CASES PRIMARY THA

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DISCLOSURES

- Smith and Nephew---Fellowship funding
- Stryker----Fellowship funding
- Omega ---Fellowship funding



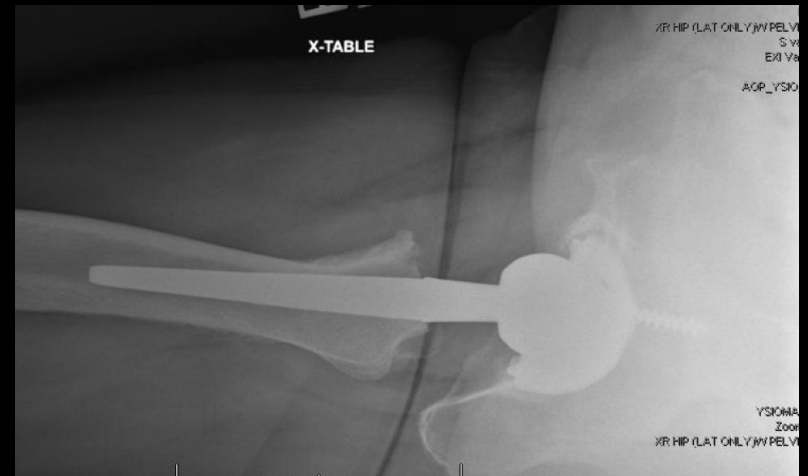
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68 Y/O HEALTHY FEMALE



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EVIDENCE FOR APPROACH

FULL LENGTH ARTICLE · Volume 30, Issue 3, P419-434, March 2015

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Anterior vs. Posterior Approach for Total Hip Arthroplasty, a Systematic Review and Meta-analysis

[Brendan T. Higgins, MD, MS](#)  ^{a,b} · [Daniel R. Barlow, MS](#) ^{b,c} · [Nathan E. Heagerty, MPH](#) ^b · [Tim J. Lin, MD, MS](#) ^{a,b}

- 17 studies
- 2302 patients
- 4 studies favored Direct anterior at short term follow up
- Overall no difference in outcomes



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EVIDENCE FOR APPROACH

Does Surgical Approach Influence the Natural History of the Unstable Total Hip Arthroplasty?

Charles-Antoine Dion, MD, MSc, FRCSC^{a,b} · Tom Schmidt-Braekling, MD^{a,b} · Amedeo Falsetto, MD^{a,b} ·

Cheryl Kreviazuk, BA^a · Paul E. Beaulé, MD, FRCSC^a ·

George Grammatopoulos, MBBS (Hons), DPhil (Oxon), MRCS (Eng), FRCS (Tr & Orth)^a

- Retrospective single center study out of Ottawa 2002-2020
- 1667 posterior; 2779 lateral; 2383 direct anterior
- 75 patients suffered dislocation
- 58 (77%) dislocated within 6 months following primary THA
- mean number of dislocations per patient was significantly lower in the anterior (1.5 ± 0.7) compared to the lateral (2.4 ± 1.2) and posterior (2.1 ± 1.0) groups ($P = .02$)
- Revision surgery was needed in 30% (6/20) of patients in the anterior, 69% (25/36) of the posterior, and 68% (13/19) of the lateral groups ($P = .01$).



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79 Y/O HEALTHY FEMALE



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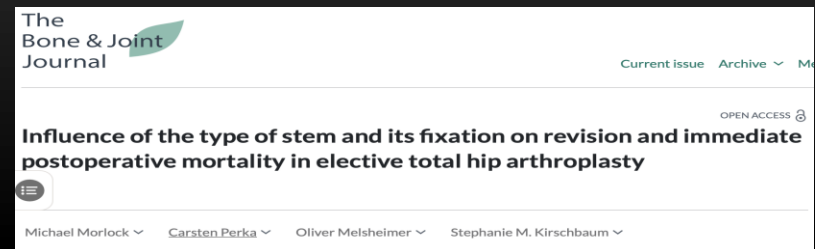


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EVIDENCE FOR FEMORAL FIXATION



- 2604 Primary THA 2011-2021
- 469 >75
- All cause revision lower >75 (1.9 vs 3.5%)
- Femoral revision (1.5% vs 2.2%)
- Intra-operative fx (0.2 vs 0.5%)



- German Registry Study
- >300K patients 2012-2022
- Mid 1(61-70), Mid2 (71-80), Mid3 (>80)
- Cementless stems higher risk of revision in Mid3 group



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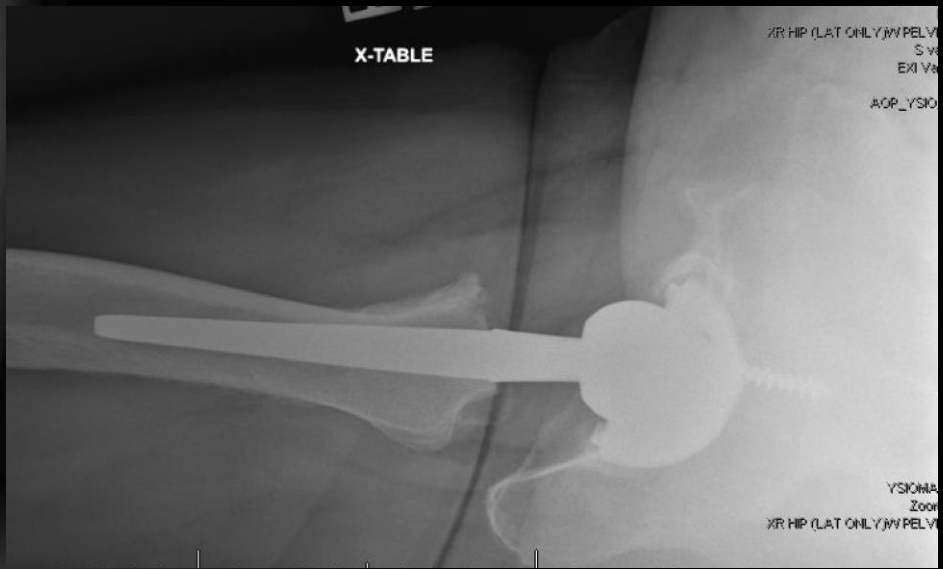
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63 Y/O FEMALE VERY HEALTHY, MOTIVATED



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EVIDENCE FOR BILATERAL

Systematic Review | [Open access](#) | Published: 13 August 2022

Simultaneous versus staged bilateral total hip arthroplasty: a systematic review and meta-analysis

[Akam Ramezani](#), [Amirhossein Ghaseminejad Raeini](#), [Amirmohammad Sharafi](#), [Mehrdad Sheikhvatan](#), [Seyed Mohammad Javad Mortazavi](#) & [Seyyed Hossein Shafiei](#) 

[Journal of Orthopaedic Surgery and Research](#) **17**, Article number: 392 (2022) | [Cite this article](#)

4557 Accesses | **18** Citations | [Metrics](#)

- 29,551 patients undergoing simBTHA and 74,600 patients undergoing stgBTHA
- simBTHA, a significant reduction in deep vein thrombosis (DVT) and systemic, local, and pulmonary complications
- increased pulmonary embolism (PE) and periprosthetic fracture risk in simBTHA
- simBTHA, total blood loss, length of hospital stay, and total cost were lower

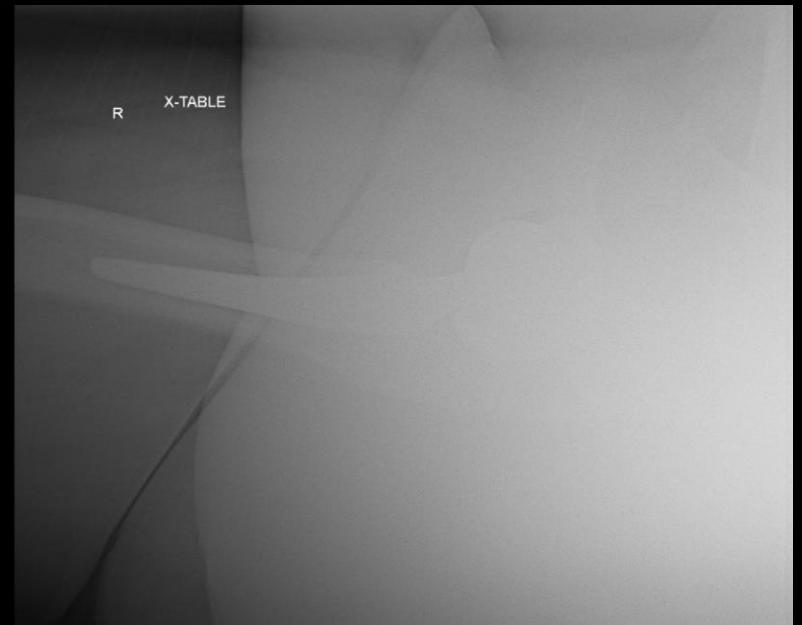
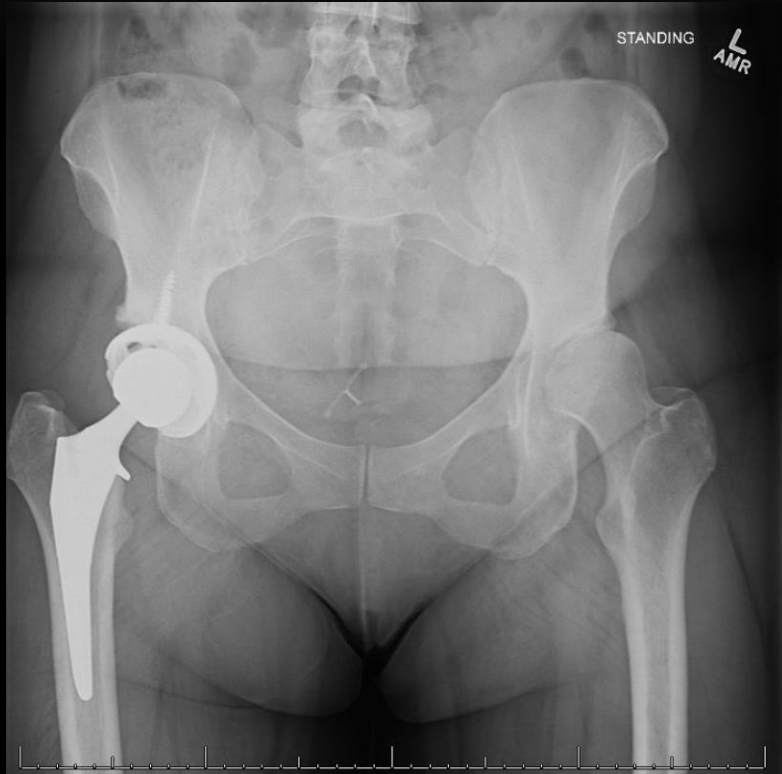


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40 YEAR OLD FEMALE WITH DYSPLASIA





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EVIDENCE IN CONGENITAL DYSPLASIA

AAHKS SYMPOSIUM · Volume 32, Issue 9, Supplement , S38-S44, September 2017

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Challenges in Total Hip Arthroplasty in the Setting of Developmental Dysplasia of the Hip

[Eric M. Greber, MD](#) · [Christopher E. Pelt, MD](#)  · [Jeremy M. Gililand, MD](#) · [Mike B. Anderson, MSc](#) · [Jill A. Erickson, BSc, PA-C](#) · [Christopher L. Peters, MD](#)

- Be prepared for acetabular defects
- Put cup low and medial in true hip center
- Be prepared for femoral abnormalities
- Careful planning/preparation, have multiple options



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74Y/O FEMALE MULTIPLE MEDICAL PROBLEMS (SEVERE COPD)(DAUGHTER CEO OF LOCAL HOSPITAL)



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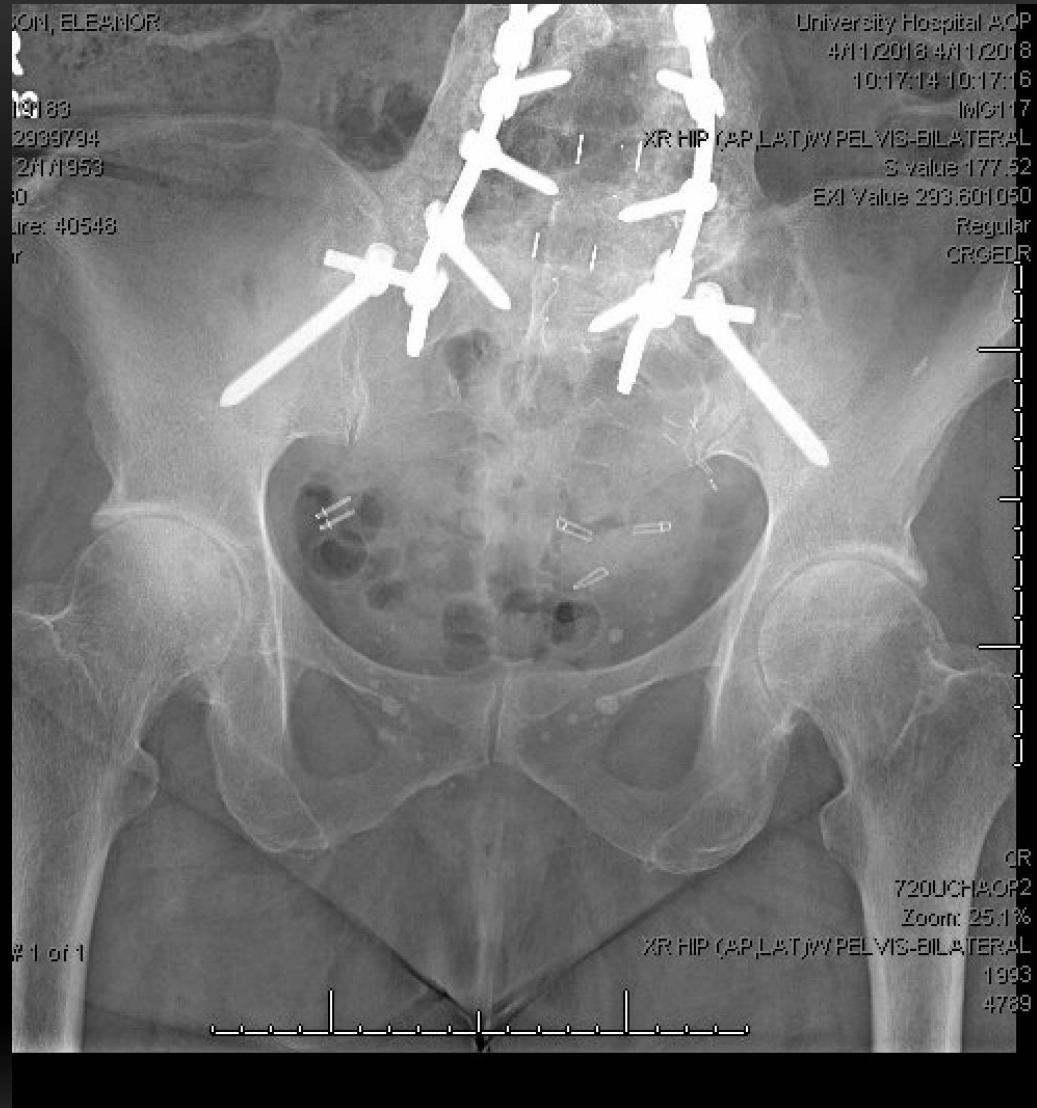


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67Y/O FEMALE



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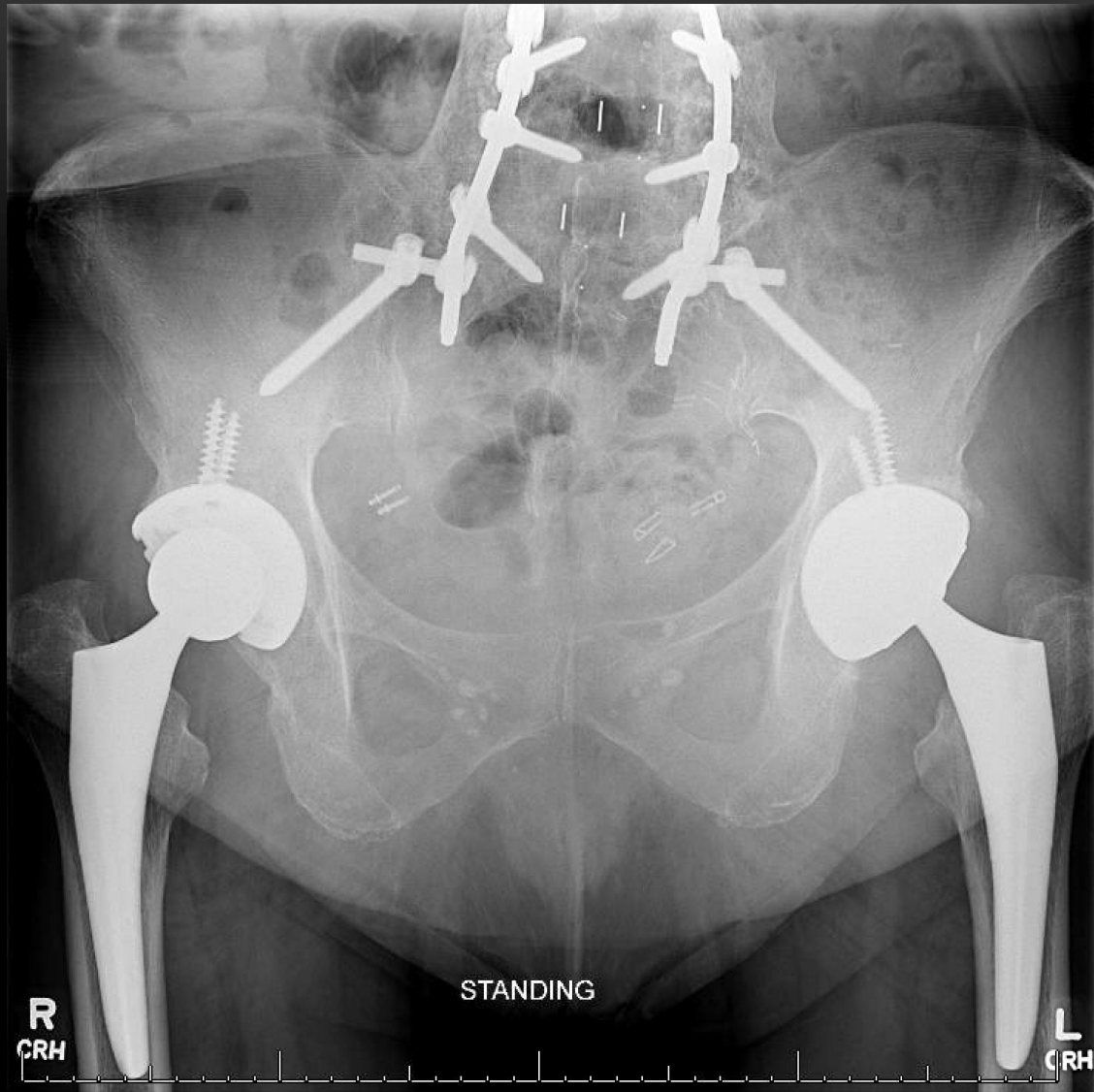
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EVIDENCE WITH PSF

PROCEEDINGS OF THE HIP SOCIETY 2022 · Volume 38, Issue 7, Supplement , S95-S100, July 2023

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Prosthetic Hip Dislocations in Direct Anterior Versus Posterior Approach in Patients With Instrumented Lumbar Fusion

[Gregory T. Minutillo, MD](#) ^a · [Dainn Woo, MD](#) ^a · [Caroline B. Granruth, MD](#) ^a · [Jaret M. Karnuta, MD](#) ^a · [Henry H. Yu, MD](#) ^b · [Charles L. Nelson, MD](#) ^a

- 1773 patients (111 with PSF)
- 0 dislocations in DA versus 4 in posterior
- No statistical difference but trend



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EVIDENCE WITH PSF

PRIMARY ARTHROPLASTY · Volume 32, Issue 6, P1910-1917, June 2017

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Total Hip Arthroplasty in the Spinal Deformity Population: Does Degree of Sagittal Deformity Affect Rates of Safe Zone Placement, Instability, or Revision?

[Edward M. DelSole, MD](#) · [Jonathan M. Vigdorichik, MD](#) · [Ran Schwarzkopf, MD, MSc](#) · [Thomas J. Errico, MD](#) · [Aaron J. Buckland, MBBS, FRACS](#)

[Affiliations & Notes](#) [Article Info](#)

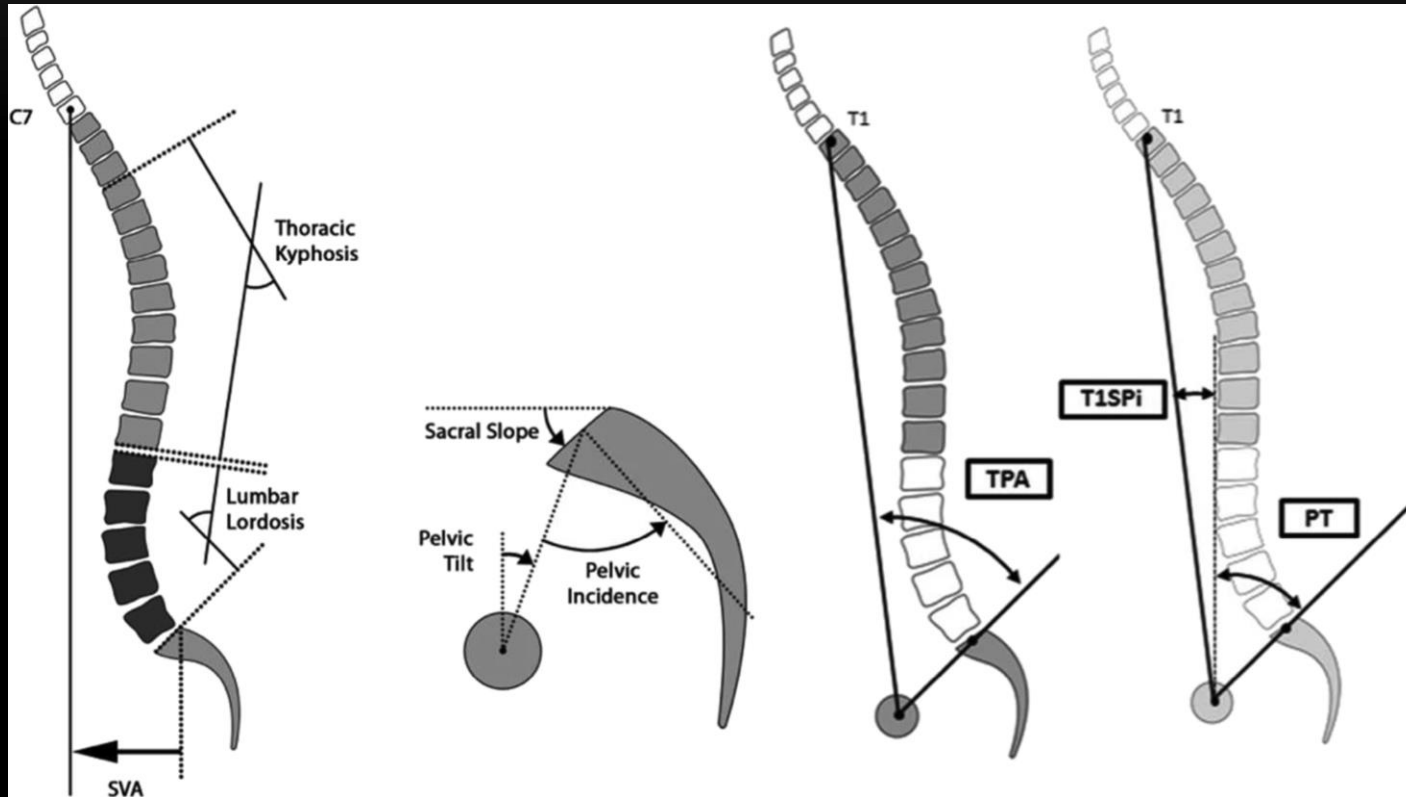
- Using standard radiographs and EOS 139 THA's in 107 pts.
- Standing images were compared with supine pelvic radiographs to evaluate dynamic changes in acetabular cup position
- Rate of THA dislocation in this cohort was 8.0%, with a revision rate of 5.8% for instability
- 78% had safe anteversion while supine, which decreased significantly to 58% when standing due to increases in spinopelvic tilt
- Among dislocating THA, 80% had safe anteversion, 80% had safe inclination, and 60% had both parameters within the safe zone



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Table 1 Prosthetic Characteristics for Dislocated Total Hip Arthroplasty.

Dislocation#	Cup Size	Head Size	Skirted Head	Limb Length Discrepancy	Offset
1	58	36	No	9.7	61.7
2	56	28	No	-7.5	66.8
3	56	36	No	-3.9	75.2
4	62	40	No	15	69.8
5	52	22	No	1	54
6	60	34	No	1.3	70
7	56	28	No	-1.3	70.7
8	60	32	No	11.8	72.5
9	50	36	No	-1.1	75.5
10	58	40	No	-3.2	62.6
11	52	32	No	4.3	77.6

All measurements are recorded in millimeters.



EVIDENCE WITH PSF

PROCEEDINGS OF THE HIP SOCIETY 2021 · Volume 37, Issue 7, Supplement , S566-S570, July 2022

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Minimum Five-Year Outcomes of Modular Dual Mobility in Primary Total Hip Arthroplasty

[Colin M. Baker, BS](#) · [Camilo Restrepo, MD](#)  · [William J. Hozack, MD](#)

- Series of 6 surgeons
- 127 DM bearings
- Average f/u 6.7 years
- 5 hips revised (1 PJI, 1 loosening acetabulum, 3 periprosthetic femur fractures)
- 21 pts had metal ion testing, 5 had Cobalt above normal but all negative MRI's
- Functional outcomes great



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