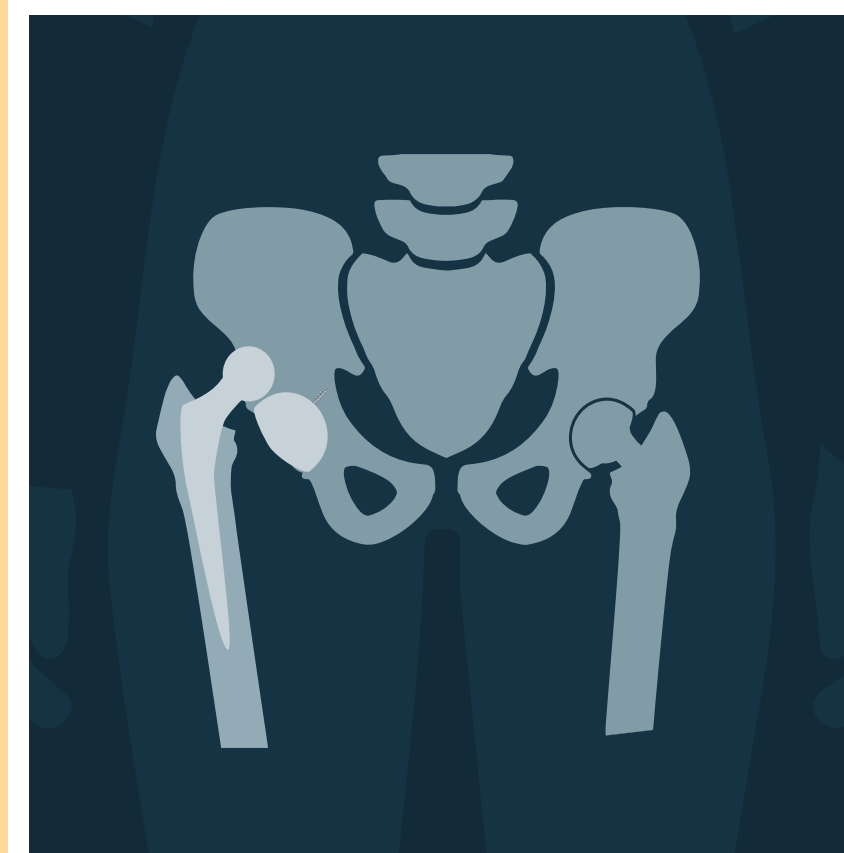
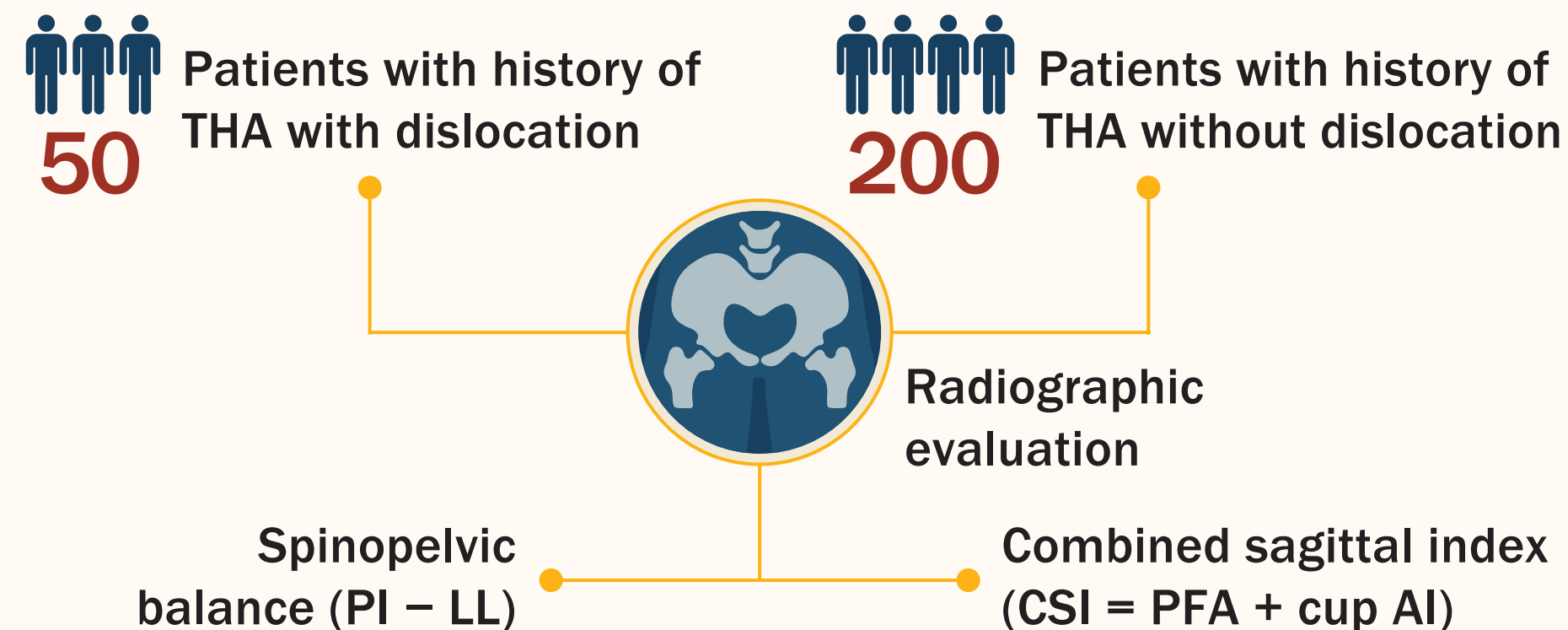


Radiographic Assessments to Identify Risk of Hip Dislocation Following Total Hip Arthroplasty

Hip instability and dislocation following total hip arthroplasty (THA) are serious conditions that may require revision surgery

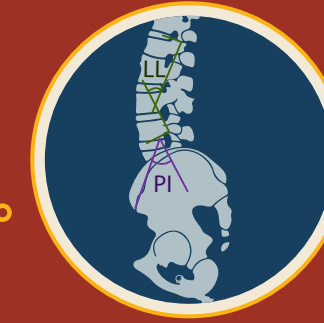


This study aimed to assess spinopelvic characteristics associated with risk of dislocation in patients undergoing THA



Strongest predictors of hip instability

Spinopelvic imbalance
(PI - LL) $>10^\circ$

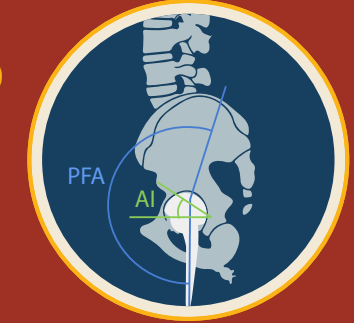


70% Sensitivity
65% Specificity

Spinopelvic balance (PI - LL) parameter

$<216^\circ$

For posterior instability



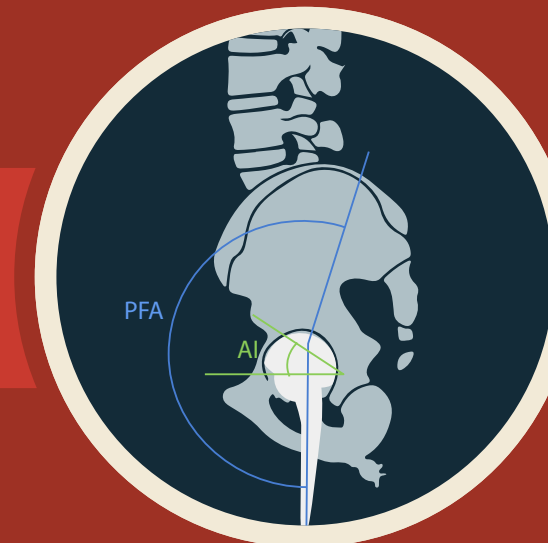
$>244^\circ$

For anterior instability

CSI (PFA + cup AI) parameters

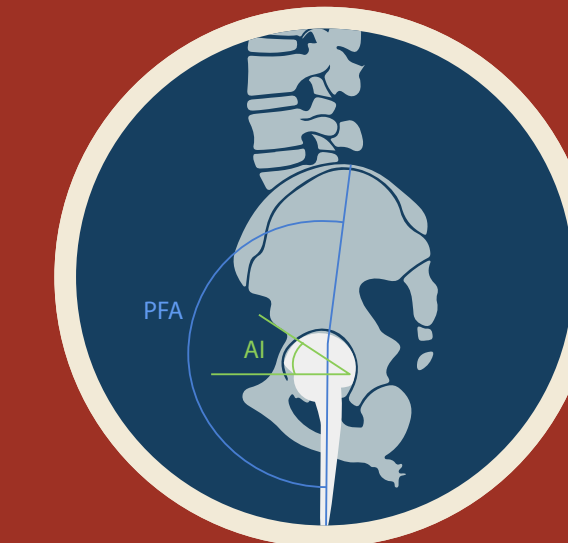
Factors associated with increased dislocation risk

OR: 4.2; 95% CI: 2.2-8.2
 $p < 0.001$



CSI not between 205° and 245°

In patients with unbalanced/rigid lumbar spine...



OR: 5.1; 95% CI: 1.8-14.9
 $p = 0.001$

CSI not between 215° and 235°

(OR: Odds ratio, CI: Confidence interval)

(PI: Pelvic incidence, LL: Lumbar lordosis, PFA: Pelvic-femoral angle, AI: Anteinclination)



Spinopelvic imbalance is a useful screening tool to identify patients at increased risk of dislocation following THA

Integrating the Combined Sagittal Index Reduces the Risk of Dislocation Following Total Hip Replacement

Grammatopoulos et al. (2022) | DOI: 10.2106/JBJS.21.00432

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