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# DOES THE TYPE OF LABRAL REPAIR AND INTEGRITY OF THE CHONDROLABRAL JUNCTION (CLJ) IMPACT OUTCOMES 5-YEARS FOLLOWING HIP ARTHROSCOPY FOR FAI?

## INTACT CLJ WITH CUFF REPAIR VERSUS COMPLETE CLJ SEPARATION WITH LOOP REPAIR

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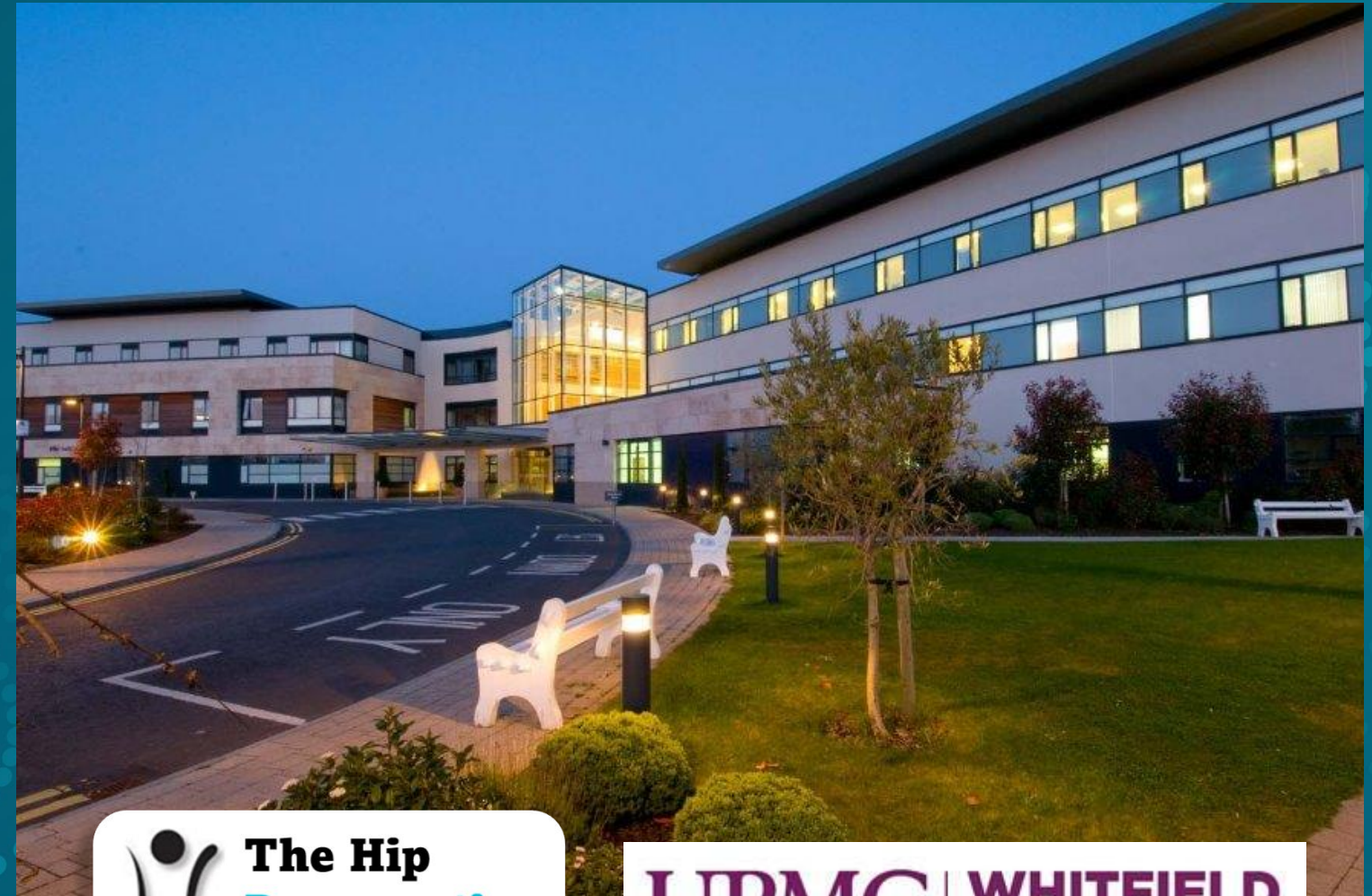
# Faculty Disclosure Information

Nothing to disclose

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# Background and Aim

Extensive chondral and labral damage have, independently, been shown to be associated with poorer outcomes following hip arthroscopy (HA) for femoroacetabular impingement (FAI). The extent of damage to the chondrolabral junction (CLJ) transition zone and consequential association with mid-term outcomes is less well reported.

## Aim:

To evaluate comparative minimum 5-year post-operative outcomes for cases undergoing arthroscopic correction of FAI based on whether the CLJ is intact or completely separated



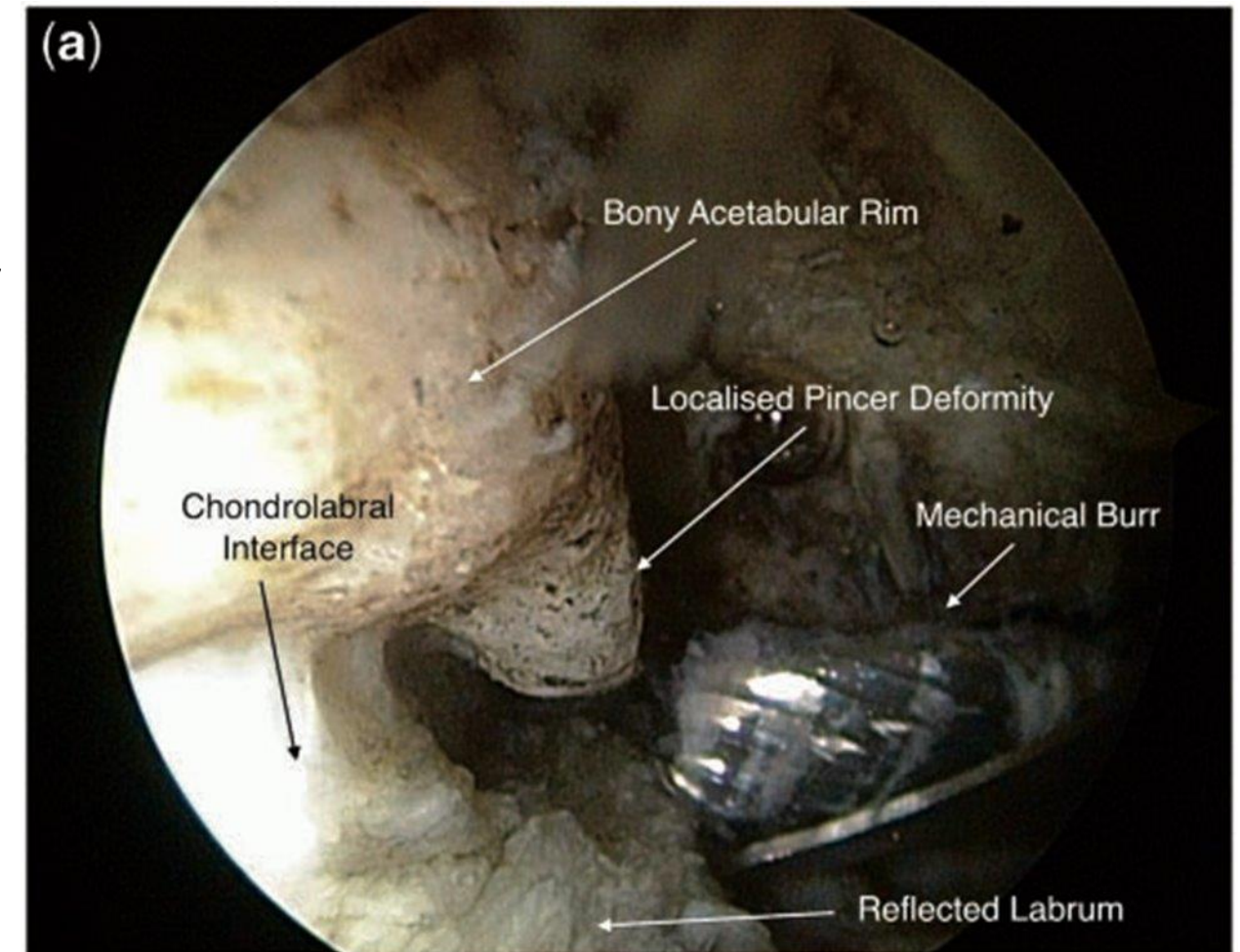
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# Chondrolabral Interface

- Transition zone from articular cartilage to fibrocartilage of the labrum
- Forms a very important and strong attachment for the labrum
- Stability to labrum when under maximal strain extension, external rotation
- Resists anterior translation of femoral head
- Reduced contact stress on articular cartilage
- Early intervention
- Avoid disruption during labral takedown



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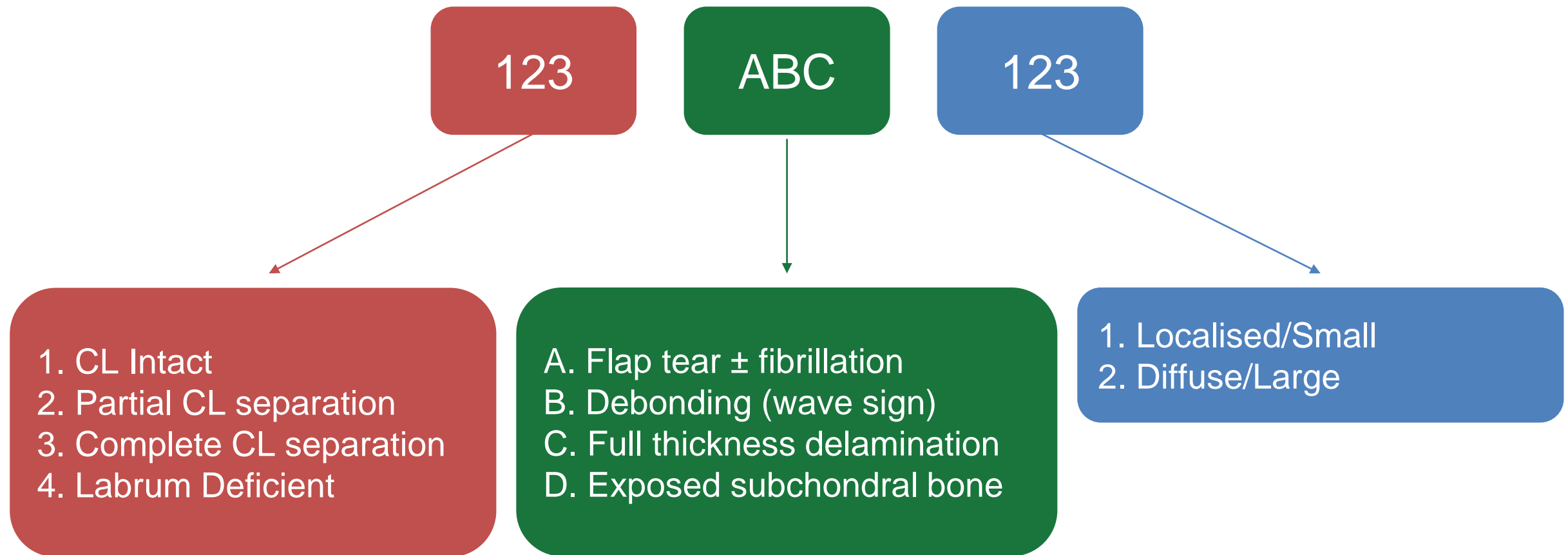


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# Chondrolabral Classification\*



\*Our institutional classification system used to grade the integrity of both the chondrolabral junction and cartilage simultaneously; e.g., a grade of **3C2** would indicate complete CL junction separation with full thickness delamination which is large in size

# Methods – Patient Selection

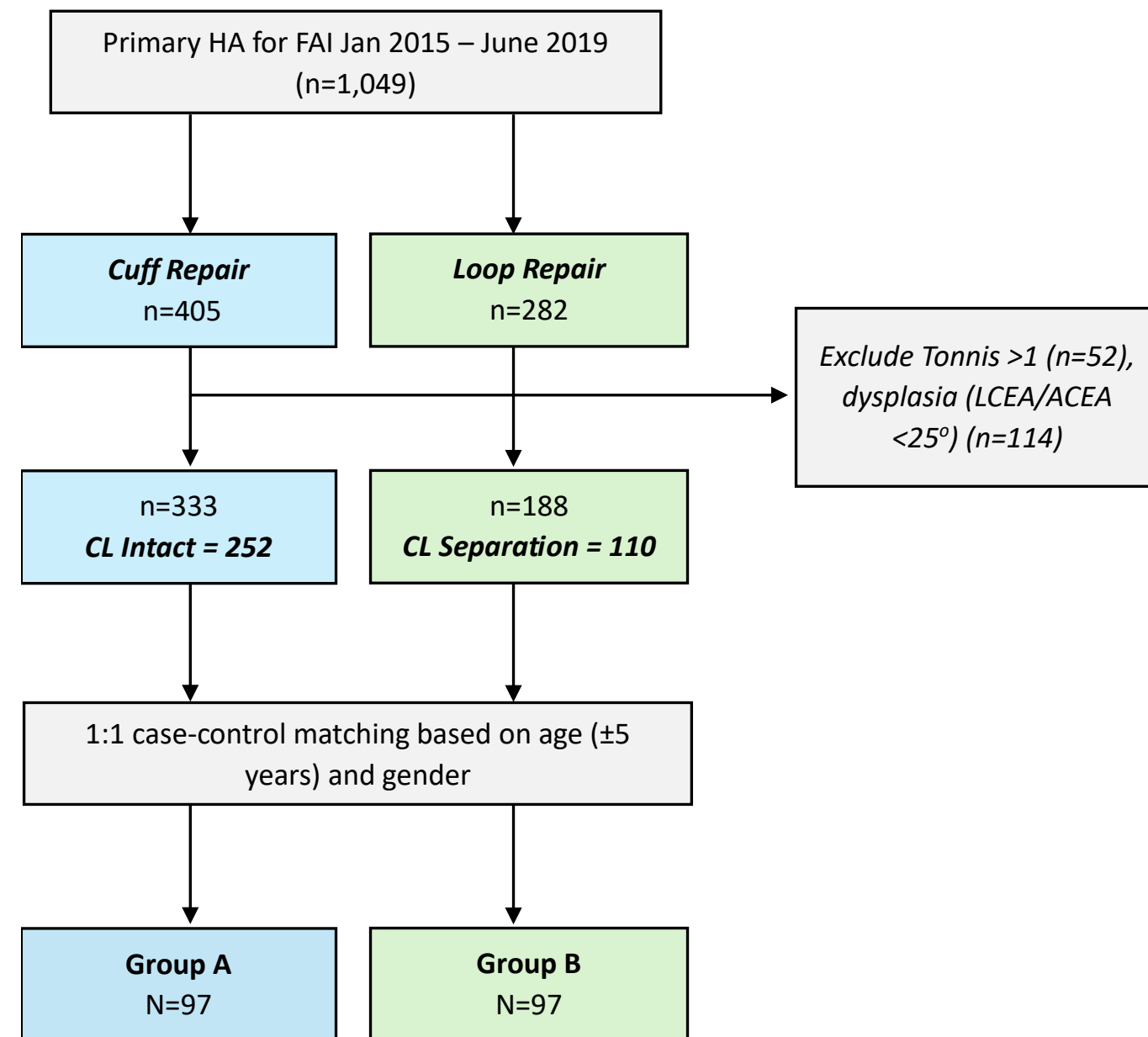
Review of prospective, single-surgeon, single-centre, institutional hip preservation registry

All patients undergoing hip arthroscopy for FAI with labral repair and routine capsular repair

- Group A (cuff repair + Intact CL junction)
- Group B (loop repair + Complete CL separation)

After applying exclusion criteria 1:1 matching was performed based on age and gender

Final study cohort 97 cases per group



# Results

	<u>Group A</u> <i>(Cuff repair + Intact CLJ)</i>	<u>Group B</u> <i>(Loop repair + Complete CLJ separation)</i>	p-value
Age	31.3±10.1	33.7±9.1	0.082
Gender (M/F)	92% / 8%	93% / 7%	0.788
Radiographic			
LCEA	35.2±5.3	37.4±5.7	<b>0.006</b>
ACEA (sourcil)	34.7±6.4	35.9±6.3	0.192
ACEA (most ant)	44.9±7.3	47.1±7.7	<b>0.006</b>
AA (Dunn)	50.8±9.7	67.2±11.9	<b>&lt;0.001</b>
Tonnis (0/1)	84% / 16%	51% / 49%	<b>&lt;0.001</b>

Bony prominences were larger for Group B compared to Group A indicating progression of FAI.



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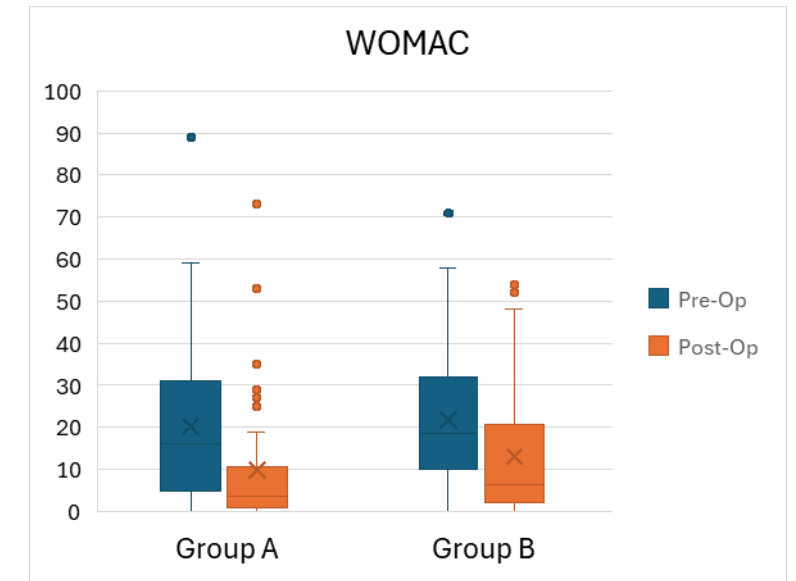
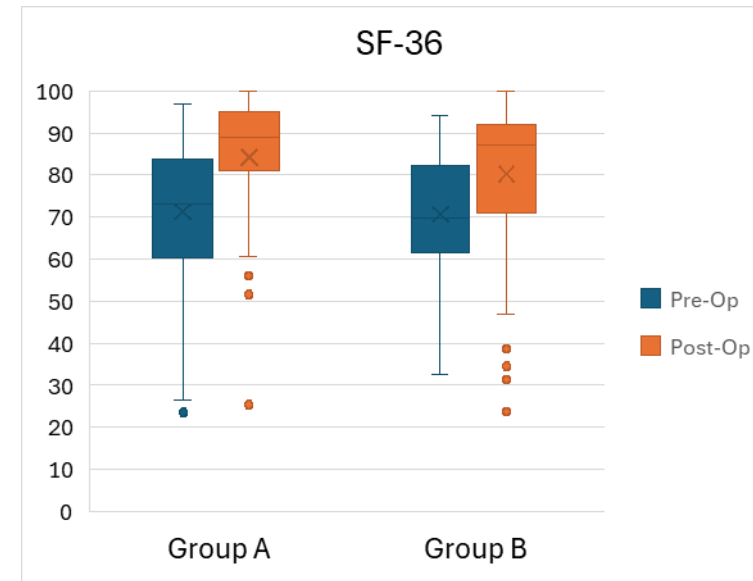
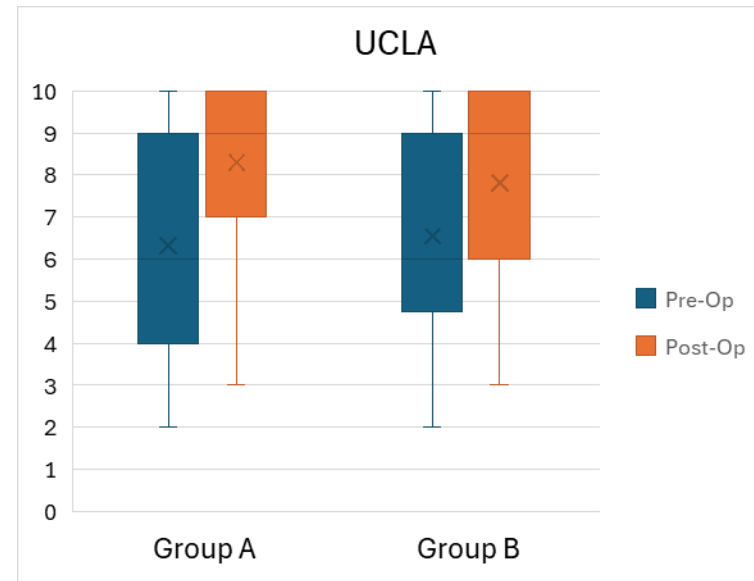
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# Results

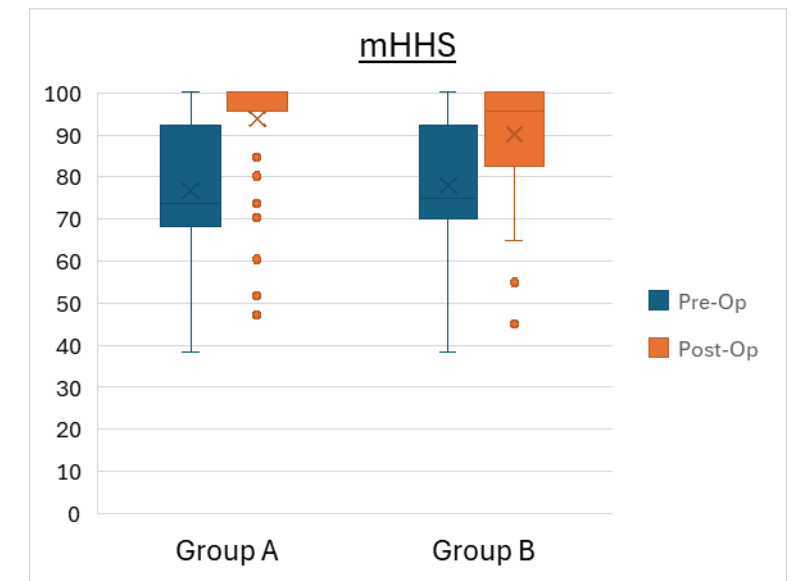
Group A (cuff repair + Intact CL junction)  
Group B (loop repair + Complete CL separation)



**Pre-Op:** No difference between groups: UCLA ( $p=0.501$ ), SF36 ( $p=0.506$ ), WOMAC ( $p=0.338$ ), mHHS ( $p=0.491$ )

**Post-Op:** No difference between groups for UCLA ( $p=0.208$ ), SF36 ( $p=0.220$ ), WOMAC ( $p=0.121$ ).  
mHHS higher for Group A ( $p=0.007$ )

**Change from baseline:** Significant improvement for all PROMs for both groups ( $p<0.001$ )



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# Results

Group A (cuff repair + Intact CL junction)  
Group B (loop repair + Complete CL separation)

## MCID Achievement

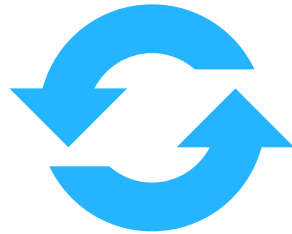


	Group A	Group B	p-value
mHHS (8.3)	88%	78%	0.182
UCLA (1.3)	77%	59%	0.056
SF36 (8.8)	58%	50%	0.432
WOMAC (8.4)	77%	58%	0.086

Table (MCID Achievement): Data in parentheses indicated the MCID score calculated by 0.5SD distribution method for each of the PROMs. Proportions represent achievability of these thresholds where possible.

Minimal clinical important difference  
was achieved at similar rates  
between groups

## Revision Surgery



	Group A	Group B	P-value
Repeat HA	6.5%	5.0%	0.743
THA conversion	0%	3.8%	0.245

Table (Revision Surgery): Three THR conversions in Group B occurred at 3.6, 41.5 and 60.0 months post hip arthroscopy. Mean duration to repeat HA in Group A was 14.8±11.8 months and in Group B was 15.6±5.8 months (p=0.898)

No difference in rates of repeat HA,  
or conversion to THA between  
groups.



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# Conclusion



- At 5-years post-op there is a significant improvement in all PROMs.
- The integrity of the CL junction and subsequent repair does not appear to impact post-op PROMs, ability to achieve MCID or survivorship, in this matched cohort.
- Although Group B (complete CLJ separation with loop repair) represented pathological progression intraoperatively and on imaging, with Tonnis grades  $<2$  such progression seems not to impact surgical outcome at this time point.





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# Thank You

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