

# Labral Repair versus Reconstruction During Primary Hip Arthroscopy: A Systematic Review of Clinical Outcomes

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**INTRODUCTION:** The purpose of this study was to perform a systematic review comparing clinical outcomes of patients undergoing primary hip arthroscopy with labral repair versus labral reconstruction.

**METHODS:** A systematic review was conducted in March 2025 according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines by searching PubMed, the Cochrane Library, and Embase to identify studies that directly compared the clinical outcomes of labral repair versus labral reconstruction during primary hip arthroscopy. Additional outcomes assessed included rate of revision hip arthroscopy and conversion to total hip arthroplasty (THA). The search phrase used was: *hip arthroscopy labral repair reconstruction*. Articles were included if they directly compared patient-reported outcomes (PROs) between cohorts undergoing labral repair versus reconstruction during primary hip arthroscopy. Studies on revision hip arthroscopy were excluded. Standardized mean differences (SMDs) were calculated for each PRO to quantify and compare the effect sizes between the two treatment groups.

**RESULTS:** Six studies (all Level III) met the inclusion and exclusion criteria with a total of 1,628 labral repairs and 679 labral reconstructions. Mean patient age ranged from 29.9 to 48.6 years and from 34.6 to 48.1 years in the repair and reconstruction groups, respectively. Mean follow-up ranged from 2.0 years to 5.8 years and from 2.0 years to 5.6 years in the repair and reconstruction groups, respectively. All studies demonstrated significant improvements in PROs from preoperatively to final follow-up in both groups. Two studies reported superior postoperative outcomes in the labral repair groups in terms of the modified Harris Hip Score (mHHS), Hip Outcome Score-Activities of Daily Living (HOS-ADL), and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) scores. Four studies reported no significant differences in postoperative PROs between the repair and reconstruction cohorts. One study highlighted that despite less favorable preoperative patient characteristics in the reconstruction group, postoperative outcomes remained comparable between the two groups. Four studies reported no significant differences in revision hip arthroscopy rates between repair and reconstruction groups. One study reported a significantly lower likelihood of conversion to THA in the labral repair group ( $p = 0.024$ ). In studies involving patients aged  $\geq 40$  years, primary labral reconstruction demonstrated significantly lower failure rates and similar or lower conversion rates to THA compared to labral repair.

**DISCUSSION AND CONCLUSION:** Both labral repair and reconstruction demonstrate significant improvements in PROs at mid-term follow-up. Labral repair generally yields equivalent or superior clinical outcomes and lower rates of conversion to THA in patients with viable tissue, while reconstruction may offer lower failure rates in patients aged  $\geq 40$  years.