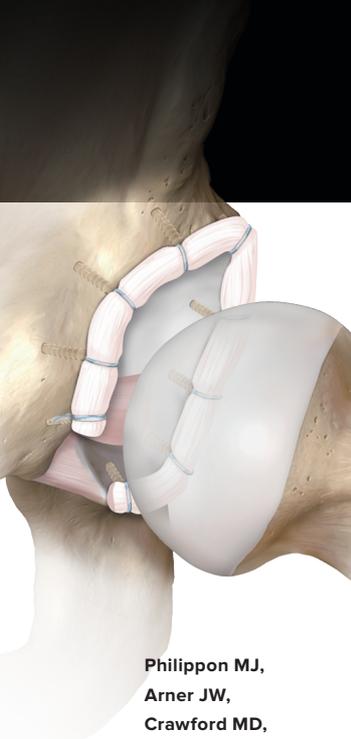


Acetabular Labral Reconstruction Scientific Update



Recent literature shows that acetabular labral reconstruction in the absence of adequate or irreparable labral tissue has shown promising short term results. Reconstruction of the labrum helps restore the anatomy and suction seal that helps maintain intra-articular fluid in the joint. The following document summarizes several recent journal articles showing favorable patient outcomes.

Philippon MJ,
Arner JW,
Crawford MD,
Bolia IK,
Briggs KK

[Acetabular labral reconstruction with iliotibial band autograft: outcome and survivorship at a minimum 10-year follow-up.](#) *J Bone Joint Surg Am.* 2020;102(18):1581-1587. doi:10.2106/JBJS.19.01499

- The 10-year survivorship overall was 61% with the end point being either revision or total hip arthroplasty (THA).
- The 10-year survivorship with those having >2 mm of joint space was 90%.
- Patients who did not require revision arthroscopy or THA reported excellent outcomes and patient satisfaction.
- Appropriate patient selection for labral reconstruction is critical to long-term survivorship.

Rahl MD,
LaPorte C,
Steinl GK,
O'Connor M,
Lynch TS,
Menge TJ

[Outcomes after arthroscopic hip labral reconstruction: a systematic review and meta-analysis.](#) *Am J Sports Med.* 2020;48(7):1748-1755. doi:10.1177/0363546519878147

- Analysis indicated no significant difference in allograft compared to autograft for labral reconstruction.
- Pre- to postoperative improvements were statistically significant; the modified Harris Hip Score saw an improvement of 29.0 points with labral reconstruction.
- Proper patient selection is essential to optimal outcomes; patients greater 40 years of age and <2 mm joint space had higher rates of progression to THA.

Maldonado DR,
Go CC,
Laseter JR,
Lall AC,
Kopscik MR,
Domb BG

[Primary labral reconstruction in patients with femoroacetabular impingement, irreparable labral tears and severe acetabular chondral defects decreases the risk of conversion to total hip arthroplasty: a pair-matched study.](#) *J Hip Preserv Surg.* 2019;6(3):214-226. doi:10.1093/jhps/hnz028

- The reconstruction group was 4 times less likely to require conversion to THA.
- Of resection group, 21% required conversion to THA.
- No significant difference in patient-reported outcomes.

White BJ,
Patterson J,
Herzog MM

[Bilateral hip arthroscopy: direct comparison of primary acetabular labral repair and primary acetabular labral reconstruction.](#) *Arthroscopy*. 2018;34(2):443-440. doi:10.1016/j.arthro.2017.08.240

- This study compared patients who underwent primary labral reconstruction in one hip and primary labral repair in the other.
- 31% of primary labral repairs failed (revision surgery), and none of the primary labral reconstruction hips failed.
- Study limitations are that the procedures were performed by a single surgeon, the repairs were performed earlier in the surgeon's career than the reconstructions, and the sample size of 29 patients (58 hips) is relatively small.
- This is a controversial topic in hip arthroscopy, and most surgeons feel that primary labral repair is still preferred over primary labral reconstruction.

Gómez EM,
Cardenas C,
Astarita E,
et al

[Labral reconstruction with tendon allograft: histological findings show revascularization at 8 weeks from implantation.](#) *J Hip Preserv Surg*. 2017;4(1):74-79. doi:10.1093/jhps/hnx001

- This study demonstrated vascular ingrowth in all layers of the graft after 8 weeks from index surgery.
- Evidence of graft vascular ingrowth was represented by small vessels with a thin muscular wall and cellular migration was represented mainly by mature fibroblasts.

White BJ,
Stapleford AB,
Hawkes TK,
Finger MJ,
Herzog MM

[Allograft use in arthroscopic labral reconstruction of the hip with front-to-back fixation technique: minimum 2-year follow-up.](#) *Arthroscopy*. 2016;32(1):26-32. doi:10.1016/j.arthro.2015.07.016

- Two-year outcomes revealed overall patient satisfaction of 9 (range, 1 to 10).
- The study suggests that labral reconstruction restores the natural hip anatomy in terms of fluid pressurization found in the hip.

Domb BG,
El Bitar YF,
Stake CE,
Trenga AP,
Jackson TJ,
Lindner D

[Arthroscopic labral reconstruction is superior to segmental resection for irreparable labral tears in the hip: a matched-pair controlled study with minimum 2-year follow-up.](#) *Am J Sports Med*. 2014;42(1):122-130. doi:10.1177/0363546513508256

- Labral reconstruction is an effective procedure for hips with an insufficient and a nonfunctional labrum.
- Labral reconstruction may be superior to segmental labral resection.

Geyer MR,
Philippon MJ,
Fagrellius TS,
Briggs KK

[Acetabular labral reconstruction with an iliotibial band autograft: outcome and survivorship analysis at minimum 3-year follow-up.](#) *Am J Sports Med*. 2013;41(8):1750-1756. doi: 10.1177/0363546513487311

- Survivorship, defined as no conversion to arthroplasty, was 80% at 3-year follow-up and 77% at 4-year follow-up.
- Patients reported improvement in function and high satisfaction with outcome.
- A contraindication for acetabular labral reconstruction is 2 mm or more of joint space, which suggests articular cartilage wear and may result in less favorable outcomes.