JRF ORTHO

MENISCUS CLINICAL SNAPSHOT:
KEY FINDINGS FROM RECENT LITERATURE

Associations Between Tissue Donor Variables and Clinically Significant Outcomes, Reoperations, and Failure After Primary Meniscal Allograft Transplantation

Am J Sports Med. 2025 Nov

Muth SA, Franzia CH, Mufti YN, Sachs JP, Wagner KR, McMorrow KJ, Lemme NJ, Cole BJ

- This study evaluated the impact of donor sex mismatch and other donor variables on outcomes following meniscal allograft transplantation (MAT).
- Among 245 patients, donor characteristics including sex, age, and donor–recipient sex mismatch had no significant effect on clinical outcomes.

JRF ORTHO TAKEAWAY:

These data suggest that sex and age matching are not required for successful meniscal allograft transplantation. JRF Ortho maintains a robust inventory of fresh-frozen meniscal allografts, allowing for accurate size matching to meet surgeon and patient needs.

Characterizing the Rate of Conversion to Total Knee Arthroplasty After Meniscal Allograft Transplantation

Am J Sports Med. 2026 Jan

Lin EH, Feingold CL, Ezuma CO, Young BA, Stone AV, Liu JN

- This systematic review evaluated meniscal allograft transplantation (MAT), defining failure as conversion to total knee arthroplasty (TKA).
- A total of 4,317 MATs in 4,298 patients were analyzed. Among the nine studies with more than 10 years of follow-up, the mean conversion rate to TKA was 12.82%.

JRF ORTHO TAKEAWAY:

Based on this systematic review, MAT is an effective joint-preserving procedure that delayed progression to total knee arthroplasty for more than 10 years in nearly 90% of patients.

Return to Sport After Meniscal Allograft Transplantation in Collegiate and Professional Athletes

Am J Sports Med. 2025 Nov

Sachs JP, Mufti YN, Rubin J, Franzia CH, Muth SA, McMorrow KJ, Moran TE, Cole BJ

- This study evaluated return-to-sport after meniscal allograft transplantation (MAT) in collegiate and professional athletes.
- Reoperation occurred in 58.8% of patients, with no difference in reoperation or failure rates based on return-to-sport status. 47.1% returned to preinjury sport at a mean of 12.4 months.
- Use of BMAC augmentation was more common among athletes who returned to their preinjury level of sport (62.5% vs 11.1%; $p = 0.0498$).

JRF ORTHO TAKEAWAY:

In this cohort of high-level athletes, nearly half returned to preinjury sport following MAT, and most would choose the procedure again. Further analysis suggests augmentation with BMAC may be associated with improved return-to-sport, warranting further investigation in larger cohorts.

Elbow Interposition Arthroplasty with Meniscal Allograft

Tech Hand Up Extrem Surg. 2025 Jun

Xiao RC, Williams CS, Walsh AL, Kim JM, Hausman MR

- This technique article describes using two meniscus allografts as an interposition arthroplasty for ulnohumeral arthritis. In the five patients reported, all were able to return to work, including high-demand occupations.

JRF ORTHO TAKEAWAY:

Ulnohumeral arthritis remains challenging to manage, particularly in patients with high-demand occupations. Meniscal allografts may serve as a viable interposition arthroplasty option in select cases.

Return to Sport After ACL Reconstruction with Meniscal Allograft Transplantation Versus Isolated ACL Reconstruction: A Matched-Cohort Study

Am J Sports Med. 2025 Nov

Rigsby V, Shaw J, Stankaitis C, Higbie S, Kleihege J, Brooks W, Lowe WR, Bailey LB

- This study compared outcomes of ACL reconstruction and meniscus allograft transplantation (MAT) compared to a matched group undergoing an isolated ACL reconstruction.
- The ACL/MAT group had lower IKDC scores at the time of return-to-sports, however at 2 years, there were no group differences in patient-reported outcomes, reinjury, or return-to-sport.
- The ACL/MAT group had a significantly lower rate of return to previous level of sports.

JRF ORTHO TAKEAWAY:

This study demonstrates that while combined ACL reconstruction and MAT support return-to-sport in most patients, achieving preinjury level of play may be less predictable than with isolated ACL reconstruction.

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