

TENDONS

Patients Have Similar Clinical Outcomes and Failure Rates After Anterior Cruciate Ligament Reconstruction With Tibialis Anterior Tendon, Bone-Patellar Tendon-Bone, Hamstring Tendon, or Achilles Tendon Allografts: A Systematic Review.

Dave U, Villarreal-Espinosa JB, Shah H, Cotter EJ, Gómez-Verdejo F, Carpenter M, Gerhold C, Mamonov A, Chahla J, Verma NN.

- This review evaluated postoperative outcomes in patients undergoing ACL reconstruction using anterior tibialis, bone-patellar tendon-bone (BTB), Achilles, and hamstring allografts.
- Seven studies were included, with a total of 735 patients.
- No significant differences were found in patient-reported outcomes (PROs), functional results, or complication rates between the different allograft types.

JRF TAKEAWAYS:

All allograft tendons reviewed in this study yielded comparable outcomes following ACL reconstruction. With no clear advantage of one tendon type over another, JRF remains committed to providing grafts tailored to each surgeon's specifications to support successful patient outcomes.

https://rebrand.ly/5uuu3zw

Early Surgical Intervention Results in Better Patient-Reported Outcomes Than Delayed Treatment in Patients Undergoing Anterior Cruciate Ligament Reconstruction in the Presence of Concomitant Medial Collateral Ligament Injury.

Bacevich BM, Hazzard S, Lustig M, Connelly S, Nukala V, Asnis P.

- This retrospective study examined short- and mid-term outcomes based on timing and graft type in ACL reconstruction for patients with combined ACL and MCL injuries.
- Delaying ACL reconstruction beyond 6 weeks was associated with decreased IKDC and KOOS scores.
- Among patients with combined injuries, those who received allografts had improved patient-reported outcomes compared to those who received autografts.

JRF TAKEAWAYS:

Early ACL reconstruction in the setting of combined ACL and MCL injuries is linked to better patient-reported outcomes. Allografts were associated with more favorable results than autografts, though selection bias may be a factor, as older patients were more likely to receive allografts. Nonetheless, these findings support the use of allografts as an effective option in appropriately selected patients.

https://rebrand.ly/5130mah

Biomechanical Analysis of Ankle Stability Following Deltoid Ligament Repair and Reconstruction. Pirshahid AA, Brzozowski P, Sogbein O, Zdero R, Gee A, Halai M, Schemitsch E, Sanders DW, Lawendy AR, Del Balso C.

- This cadaveric biomechanical study compared ankle stability following deltoid ligament repair or reconstruction of the deltoid ligament.
- No significant differences in stability were observed between the repaired and reconstructed groups.

JRF TAKEAWAYS:

When primary repair of the deltoid ligament is not feasible, reconstruction offers a biomechanically sound solution. Allograft tendons provide a safe and effective alternative for these cases. JRF Ortho offers both presutured and non-sutured tendon options to support surgeon preference and streamline surgical technique.

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2025 Q1-Q2 Q2 TENDON UPDATE

Evaluating Donor-Recipient Sex Mismatch in Anterior Cruciate Ligament Reconstruction With Allograft: Outcomes at 2 Years Postoperatively.

Crutchfield CR, Lowenstein NA, Leite CBG, Lattermann C, Matzkin EG.

- This study evaluated whether donor-recipient sex mismatch impacts outcomes following ACL reconstruction using allograft tissue.
- While male donor grafts were generally larger in diameter, donor-recipient sex mismatch had no effect on clinical outcomes.

JRF TAKEAWAYS:

Donor-recipient sex mismatch did not impact outcomes two years after ACL reconstruction. These findings underscore the importance of graft size and mechanical properties over demographic matching. JRF remains committed to supplying grafts precisely tailored to meet the specifications and needs of both surgeons and patients.

https://rebrand.ly/7cef15c

Which tendon graft to choose for anatomical ligament reconstruction in chronic lateral ankle instability? A biomechanical study.

Philippe C, Palierne S, Mathon D, Lintz F, Ancelin D.

- This cadaveric biomechanical study evaluated the mechanical properties of various tendon grafts used for anterior talofibular ligament (ATFL) and calcaneofibular ligament (CFL) reconstruction.
- All tendons tested, including gracilis, peroneus longus, anterior tibialis, posterior tibialis, and semitendinosus, demonstrated a higher mean load to failure compared to the native ATFL and CFL.

JRF TAKEAWAYS:

This study reinforces the suitability of tendon allografts for ATFL and CFL reconstruction. All tendon types used in pre-sutured constructs demonstrated biomechanical properties exceeding those of native ligaments. Pre-sutured tendons offer surgeons a reliable, time-saving option in the operating room.

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Revision Anterior Cruciate Ligament Reconstruction in Pediatric and Adolescent Patients Yields Low Rates of Graft Failure and Good Functional Scores, but Low Rates of Return to Sport: A Systematic Review.

Paschos NK, Reikersdorfer K, Jayne C, McGauley C, Brodeur J, Medina G, Cote M.

- This study evaluated graft failure rates and functional outcomes of revision ACL reconstruction (ACLR) in pediatric and adolescent populations.
- A total of 239 knees were included, with 48% of cases using allografts.
- Graft failure rates ranged from 6–12% for autografts and 0–22% for allografts.

JRF TAKEAWAYS:

The study demonstrated generally favorable patient-reported outcomes following revision ACL reconstruction, with relatively low graft failure rates. However, return-to-sport rates were modest, highlighting the need for careful graft selection and thorough patient counseling in revision cases to optimize outcomes.

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