



Association Between Graft Type and Risk of Repeat Revision Anterior Cruciate Ligament Reconstruction (ACLR)

In a 2023 study published in *The American Journal of Sports Medicine*, MDSA researchers and KP orthopedic surgeons looked to examine the association between graft type at the time of an ACLR revision and the risk of repeat revision ACLR while accounting for patient and surgical factors at the time of revision surgery.

Repeat tears of the ACL are challenging for surgeons and patients alike. Choosing an autograft (instead of allograft) at the time of revision ACL reconstruction is associated with a significant reduction in repeat revision.

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Study Details

The crude cumulative repeat revision ACLR incidence at 8-year follow-up was 13.9% for allograft and 6.0% for autograft. Cumulative ipsilateral reoperation incidence at 8-year follow-up was 18.3% for allograft and 18.9% for autograft; contralateral reoperation cumulative incidence was 4.3% for allograft and 6.8% for autograft. With adjustment for covariates, a 70% lower risk for repeat revision ACLR was observed for autograft compared with allograft. No differences were observed for ipsilateral reoperation or contralateral reoperation.

- A total of 1747 revision ACLR procedures were included (2005-2020). Graft type used at revision ACLR, classified as autograft versus allograft, was the exposure of interest.
- Multivariable Cox proportional hazard regression was used to evaluate the risk of repeat revision ACLR, with ipsilateral and contralateral reoperation as secondary outcomes.

Practice Considerations

The use of autograft at revision ACLR was associated with a 70% lower risk of repeat revision ACLR compared with allograft in this cohort from the Kaiser Permanente ACLR registry. To minimize the risk of repeat revision ACLR, surgeons should consider using autograft for revision ACLR when possible.

[Link to Full Publication](#)

Heffner M, Chang RN, Royse KE, Ding DY, Maletis GB (2023). **Association Between Graft Type and Risk of Repeat Revision Anterior Cruciate Ligament Reconstruction: A Cohort Study of 1747 Patients** *Am J Sports Med*, 51 (6): 1434-1440.