

More Sports Injury Myths Debunked - Children Can Have Successful ACL Repair and Return to Sports

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Randomized controlled trials are great for (relatively) quickly finding a better treatment, but retrospective case series, supported by good record-keeping and effective follow up, sometimes can validate newer methods of management.

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Source: Chicorelli AM, Micheli LJ, Kelly M, et al. Return to sport after anterior cruciate ligament reconstruction in the skeletally immature athlete. *Clin J Sport Med.* 2016;26(4):266-271; doi:10.1097/JSM.0000000000000275. See [AAP Grand Rounds commentary by Dr. William Henrikus](#) (subscription required).

Researchers at a single institution sent out questionnaires to 333 families of children who underwent anterior cruciate ligament (ACL) repair during an 8.5 year period. 250 surveys were returned (75% response rate), and the investigators followed up with a more detailed telephone survey. The authors were trying to debunk the belief that a skeletally immature athlete should delay ACL reconstruction until reaching skeletal maturity, followed by another delay before returning to sports. The practice



Lachman test for ACL tear. From Kuebi via Wikimedia. at the authors' institution had been to perform surgery early, with the specific type of surgery tailored to the child's skeletal maturity. They found that, with this approach, the median time to return to sports was 9 months following surgery, with 85% returning by 12 months. Using multivariate logistic regression analysis, the only factor predictive of return to play at the same or higher level of participation was younger age at the time of injury.

Dr. Henrikus, in his commentary, pointed out very key limitations of a study like this. Parents' response to questionnaires, in some cases years after the surgical procedure, could be altered by incomplete memory (recall bias). He also mentions that the timing of return to play could be influenced by whether a child participated in a seasonal sport which might have a built-in delay in return to participation. In addition to these limitations, I would have liked to see some information on the 25% of children who did not respond to the survey request. Were they different in age or type of surgical procedure compared to the respondents? If so, this might introduce additional bias to the results.

The current study provides a good benchmark to compare future studies of ACL injury in children. Furthermore, if a child with ACL injury is told by their orthopaedist to delay intervention until skeletal maturity, it may be wise to get a second opinion.

- [Is ACL Surgery Effective for Skeletally Immature Adolescents?](#)
- [Return to Football After Anterior Cruciate Ligament Reconstruction](#)
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