

Editorial Commentary: Return to Play Following Revision Anterior Cruciate Ligament Reconstruction



Rick W. Wright, M.D.

Abstract: In many cases, athletes return to play after anterior cruciate ligament (ACL) reconstruction. In such cases, after a second ACL tear, these athletes may again expect full return to play after ACL revision. Unfortunately, results after revision ACL reconstruction are inferior to results after primary surgery. Sport specific data is difficult to determine, as are predictors of positive outcomes which include concomitant pathology or psychological factors. Chances of return to the same level may be 60% or less.

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Authors Glogovac, Schumaier, and Grawe,¹ in their article, “Return to Sport Following Revision Anterior Cruciate Ligament Reconstruction in Athletes: A Systematic Review,” have tackled a challenging issue in orthopaedic surgery. Return to play is difficult for many injured athletes, but return to play after revision anterior cruciate ligament (ACL) reconstruction is an especially challenging situation. Expectations for an athlete may be inappropriate for the condition of the knee, but the athlete treats it like an oil change—they did well after their primary reconstruction and returned to sport and think that with a new graft they will be back to their original state. Unfortunately, this is not always the case. As pointed out by Glogovac et al.,¹ although results vary, they are in general worse than the results obtained for primary reconstructions. This is true in several domains of outcome measurement including patient-reported outcomes (PROs), graft rupture rate, and return to sports, the focus of their systematic review.

The revision ACL literature is challenging to assess, as noted in their review.¹ Most studies are level III or IV

and can suffer from inherent biases, but the authors did a nice job of working through these issues to collate as homogeneous a group as reasonably possible. Return to play is hard to measure, but no harder to measure in revision than primary reconstruction, so the findings give us information to counsel patients. Prospective level I or II data would be great to have, but the larger prospective cohorts such as the Multi-Center ACL Revision Study (MARS) chose to use the validated Marx activity score rather than attempt to determine sport-specific return to play data. Glogovac et al.² showed that values for return to previous level of play were variable, ranging from 13% to 69%. Return to any level of play ranged from 56% to 100%. These are values that are good given the revision setting, but are below the rates seen in the typical primary ACL reconstruction. Additionally, the authors showed that typical scores for PROs were good, but typically resided in the 70s and 80s for International Knee Documentation Committee scale and Knee Injury and Osteoarthritis Outcome Score, which is 10 to 20 points lower than typical primary ACL reconstruction PRO scores.

Creating a coherent message regarding return to play is challenging in the revision setting, as numbers are smaller than primary studies and thus sport-specific data are harder to determine. And that is what we truly need: Does a basketball player do better than a soccer athlete, and what are the predictors? Is it the 90% meniscal tear or grade 2 or worse chondral damage noted in the MARS cohort, or is it fear of reinjury or other harder-to-measure factors?² The study by Glogovac et al.¹ will give me more confidence in

Washington University School of Medicine

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counseling patients that they have a good, but maybe not great, chance to return to play, but probably a 60% or less chance of returning to the same level. Although it is not necessarily the news we want to deliver, it is an honest appraisal. Future work still needs to be done in prospective fashion with large cohorts to tease out the intricacies of why some return and others cannot. The authors are to be applauded for advancing the discussion.

References

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