

Return to play for soccer athletes and risk for future injury

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A new study presented at the 2018 Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS) looked at soccer athletes who sustained an anterior cruciate ligament (ACL) reconstruction to better understand the average return to play time and their risk of injury following a revision ACL reconstruction.

While soccer athletes can return to their sport following a revision ACL reconstruction, the rate of participation dropped significantly over time for both males and females due to knee issues.

Robert H. Brophy, MD, orthopaedic surgeon and professor of orthopaedic surgery at Washington University School of Medicine in St. Louis, conducted one of the first studies to look at revision ACLs in soccer athletes to determine their success rate when they return to the field.

The study "Return to Play and Risk for Reinjury Following Revision ACL Reconstruction in Soccer Athletes" found that overall 62 percent of soccer athletes returned to the sport at an average of 9.6 months after revision ACL surgery. Additionally, there was no [significant difference](#) between males and females in the rate of return (male 70 percent versus female 56 percent) or time to return to play. Overall, 12% of patients underwent subsequent knee surgery. However, female soccer players faced a higher risk of additional knee surgery after revision ACL reconstruction than males, as about one in five needed additional knee surgery, compared to one in 20 for men.

"Patients and providers can use this information to guide their expectations about return to play and risk for reinjury in soccer athletes," said Dr. Brophy.

Soccer athletes enrolled in the prospective Multicenter ACL Revision Study (MARS) cohort were asked to document their return to play following ACL reconstruction. Based on this information, the researchers recorded information regarding if and when the athletes returned to play, their current playing status and any additional knee surgery following their revision ACL reconstruction. If they were not currently playing soccer, they were asked the primary reason they stopped playing soccer. Player demographics and graft choice were collected from their baseline enrollment data at the time of revision ACL reconstruction.

Among the findings of the research:

- The rate of recurrent ACL graft tear was 5.6 percent, with no significant difference between males and females.
- While the overall rate of recurrent ACL graft injury is low, bone-tendon-bone (BTB) autograft, when available, may be a preferable graft to reduce the risk for re-tear (0 percent versus 10.3 percent) ($p=0.06$).
- At an average follow-up of 6.4 years, only 19 percent of soccer athletes who underwent revision ACL reconstruction were still playing the sport, a significant decrease compared to initial return to play. There was no significant difference in the long-term return to play between males (21 percent) and females (18 percent).
- The majority of athletes stopped playing soccer because of their knee (72 percent) and it was essentially the same for men (73 percent) and women (72 percent).

"It's encouraging that when we compared the results to a previous study of [soccer](#) athletes undergoing primary ACL [reconstruction](#), the outcomes for revision ACL just declined slightly," said Dr. Brophy. "We will use this research to guide the conversation and help take better care of our athletes."

Provided by American Academy of Orthopaedic Surgeons

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