### **JOSPT PERSPECTIVES FOR PATIENTS**

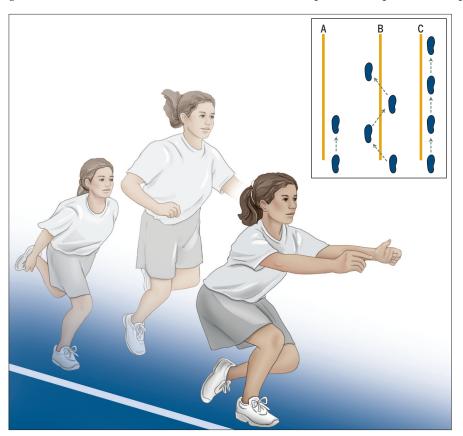
# Return to Sport

## When Should an Athlete Return to Sport After an ACL Surgery?

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torn anterior cruciate ligament (ACL), followed by reconstruction surgery, can be devastating for an athlete. It leads to many questions: When can I return to competition? Will I lose my scholarship? How do I prevent reinjury? Advances in physical therapy now help athletes improve rapidly during the early period after surgery. However, guidelines on how to determine if it is safe to return to sport

are more general and vary widely, based on whether the input is from athletes, parents, coaches, or the sports medicine community. Athletes and the people who care about and for them need reliable and valid methods to determine when they are ready to return to sport. A study published in the June 2011 issue of *JOSPT* provides new insight and evidence-based tools to help answer this question.



**HOP TESTS.** The single hop (A), crossover hop (B), and triple hop (C) for distance are tests that can identify strength and power deficits in athletes after ACL surgery. The researchers suggest that, before returning to sport, athletes should be able to jump on their repaired legs at least 90% of the distance they can hop on their uninjured legs.

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### **NEW INSIGHTS**

The researchers tested 18 athletes who returned to sport after ACL surgery and 20 healthy athletes who played the same sports and were similar in age and gender. All athletes were tested using performance-based tests similar to those used in the National Football League Combine. The researchers discovered tests that could identify functional limitations on the side repaired surgically in athletes who had already returned to sport. Specifically, the researchers found that athletes' performance was still limited on 3 hopping tests (see illustrations left). When asked to hop on a single leg as far as possible, the athlete jumping off the repaired leg covered only 92% of the distance achieved when jumping off the uninjured leg. Similarly, the athlete could go only 91% to 92% of the distance of the uninjured leg when asked to perform single-leg hopping in a straight line 3 times or hopping over a thick line on the ground.

### PRACTICAL ADVICE

Strength and power deficits after surgery may be a risk factor for future injuries and may set athletes up for failure when they try to return to their prior performance levels. Of the 9 tests they used, the researchers found only 3 tests that were sensitive enough to measure side-to-side differences. These 3 tests can be used during more advanced recovery phases after surgery to help ensure that the athlete's exercise program is successful in returning the injured leg at least to the level of the uninjured leg. The researchers suggest that the surgically repaired leg should perform at least 90% as well as the uninjured leg before you return to sport. The bottom line is that these 3 hopping tests can be used as part of a comprehensive physical and functional examination to help ensure not just a speedy, but a safe return to sport after ACL reconstruction. For more information on rehabilitation following ACL surgery, contact your physical therapist specializing in musculoskeletal disorders.

This JOSPT Perspectives for Patients is based on an article by Myer GD et al, titled "Utilization of Modified NFL Combine Testing to Identify Functional Deficits in Athletes Following ACL Reconstruction" (J Orthop Sports Phys Ther 2011;41(6):377-387. doi:10.2519/jospt.2011.3547). This Perspectives article was written by a team of JOSPT's editorial board and staff, with Deydre S. Teyhen, PT, PhD, Editor, and Jeanne Robertson, Illustrator.