

Study: Achilles tendon rupture does not mean end of professional sports career

October 1 2020, by Jill Wu

Many professional athletes experience a rupture of the Achilles tendon, but the injury does not necessarily mean an end to their careers, as many previously thought. Researchers from Emory University's Department of Orthopedics have found that recovery of strength following surgical repair of an Achilles tendon rupture was associated with increased ability to return to pre-injury level of play among professional athletes, proving that there is hope after recovering from the serious injury.

The goal of the study, published in the official journal of *American Orthopaedic Foot & Ankle Society*, was to examine the relationship between ankle strength and return to the same level of [activity](#) following operative repair of an Achilles tendon rupture. Literature from another common sports injury, anterior cruciate ligament tears, has demonstrated that return to pre-injury sporting activities and higher function following ACL reconstruction is correlated with increased postoperative quadricep and hamstring strength. Thus, study authors hypothesized that increased ankle strength would similarly correlate with return to previous level of sporting activity following operative repair of an Achilles tendon rupture.

"At Emory Sports Medicine Center, our goal is to find the most efficient and effective way to get you back to the activities you love, whether you are a weekend warrior or competitive [athlete](#)," says Sameh Labib, MD, co-author of the study and associate professor of orthopedic surgery at Emory University School of Medicine. "With this finding, we now have proof that those high-level athletes who receive a successful surgical

repair of an Achilles tendon [rupture](#) are able to return to pre-injury levels of participation."

Both recreational and [professional athletes](#) are often concerned with their ability to return to their previous activities following treatment and recovery. The study found that at a mean of 1.8 years after surgical [repair](#) of the Achilles tendon, 31 percent of patients had returned to their previous preinjury level of play as determined by the Tegner Activity Level Scale, and 58 percent had returned to within 1 Tegner level of play. Athletes with a Tegner score of 7 or greater benefited even more from the surgical treatment.

These results suggest that patients with more strenuous athletic demands are more dependent on recovery of ankle strength in the postoperative time period in order to return to their previous high level of play, whereas regaining [strength](#) may be less important for returning to normal activities for less active patients.

More information: Russell E. Holzgrefe et al. Association of Strength Following Achilles Tendon Repair With Return to Same Level of Play in High-Level Athletes, *Foot & Ankle International* (2020). [DOI: 10.1177/1071100720936276](#)

Provided by Emory University

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