

# Editorial Commentary: Failure to Return to Sport, or Rather a Failure to Attempt a Return After Hip Arthroscopy Is Not Correlated With Poor Clinical Outcome: The Devil Is in the Details



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**Abstract:** While hip arthroscopy has been shown to be highly effective at improving pain and restoring function, postoperative outcome reporting remains heterogeneous, particularly as it relates to return to sport (RTS). Previous studies have identified significant variability in RTS rates, and often studies fail to accurately report on the population of patients who do not attempt RTS for reasons other than their hip. Despite failing to attempt an RTS, patients can still experience statistically significant, and clinically meaningful improvements in patient-reported outcome measures. Clinical results of those who do not RTS may be otherwise similar to results experienced by a group of high-level athletes who have successful RTS. Failure to attempt to RTS does not equate to a poor clinical outcome. To improve the clinical utility of future published RTS rates, better consensus on the means of evaluating and reporting on a patients' readiness for RTS are required. Additionally, comprehensive reporting should include identifying patients who do not RTS for reasons other than their hip.

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While there may have been early reservations about the success of hip arthroscopy, recent years have provided a litany of evidence convincingly demonstrating its efficacy in the treatment of symptomatic hip impingement. In fact, it has even been shown to provide comparable improvement in quality of life as total knee arthroplasty for end-stage knee osteoarthritis.<sup>1</sup> While the debate over efficacy appears to have been settled, as a field we have shifted focus toward optimizing outcomes. Thus far, most research in this area has consisted of a large registry and cohort studies focusing on prognostic variables tied to successful and unsuccessful outcomes. However, the challenge remains defining what constitutes a successful outcome. To most in the field, this is often thought of as a composite measure between patient-reported outcome measures (PROMs) and return-to-sport

(RTS) rates. While the former have been extensively evaluated and reported on, the latter remains poorly defined.

A recent systematic review conducted on the rates of RTS following hip arthroscopy reported a range from 72.7% to 100%.<sup>2</sup> While this review included 20 studies, only 10 of these studies reported both RTS rate and level of sport participation both preoperatively and postoperatively, raising some concerns over the generalizability or applicability of these reported rates. A further review focused on the methods of evaluating and reporting on the readiness for return to sport.<sup>3</sup> This study, along with a similar systematic review,<sup>4</sup> highlighted the high variability in the instruments used to gauge readiness for RTS, and the poor application and reporting surrounding their use. There appears to be little to no consensus on what tools should be used and what aspects of functional recovery are required to deem a patient fit to return, and better yet, to prevent a failed return.

What is often even more challenging when reviewing many of these studies, is interpreting the results of those patients who failed to return to sport. Weber et al. recently conducted a systematic review to evaluate why athletes may fail to return to sport.<sup>5</sup> In the 20 included

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studies, representing 1,093 patients, they identified a failed rate of RTS of 12.1%. Interestingly, studies will often include patients who did not *attempt* to RTS due to factors unrelated to their hip within this metric. These patients were found to comprise 22.3% of those who failed to RTS, with the most commonly reasons for failing to return relating to lifestyle modifications, loss of interest in sport, or kinesiophobia or fear of reinjury. This often falsely portrays a higher failure rate and can make it challenging to communicate accurate estimates of RTS rates to our patients. Additionally, other studies have reported statistically inferior results in patients who failed to RTS compared with those who had a successful RTS.<sup>6</sup> However, this may not apply to those who did not return for reasons other than their hip. It is with these concerns in mind that I read with great interest the article by Jimenez, Monahan, Owens, Lee, Maldonado, Saks, Ankem, Lall and Domb entitled “High-Level Athletes Who Did Not Return to Sport for Reasons Unrelated to Their Hip Achieve Successful Midterm Outcomes: A Propensity- Matched Analysis Benchmarking Against High-Level Athletes Who Returned to Sport”.<sup>7</sup>

In this study, the authors identified a cohort of patients that did not attempt a RTS due to reasons other than their hip. They retrospectively reviewed their prospectively collected data reporting on 2- and 5-year PROMs, along with rates at which they surpassed the minimum clinically important difference (MCID). In addition, they performed a propensity-matched analysis comparing those who did not attempt RTS to high-level athletes who did successfully RTS. Interestingly, those who did not attempt a RTS demonstrated statistically significant improvements in all PROMs and achieved MCID at similar rates in nearly all measures compared with athletes with a successful RTS. Importantly, this highlights that despite failing to attempt to RTS, patients can still achieve statistically significant, and clinically meaningful improvements in pain and function following hip arthroscopy.

Along with the previously cited systematic reviews demonstrating heterogeneity in RTS reporting, the results of this study cast further doubt on the clinical utility in reported RTS rates, particularly as a failed RTS does not equate to a poor clinical outcome. RTS appears to be an area in need of future research. Ultimately, our

best step forward is to define consensus on an objective return to sport evaluation, and to improve reporting around RTS to include metrics using these tools, but also to capture alternative reasons for opting out of an RTS. This comprehensive approach will produce clinically useful information to guide conversations of informed consent and better manage patient expectations going forward. Until these necessary steps can be achieved, I believe the best resources to guide discussions around prognosis and outcome are those studies reporting PROMs as they relate to MCID and patient-acceptable symptomatic state (PASS) scores, rather than using the heterogeneous statistics on RTS rates.

## References

1. Mather RC, Nho SJ, Federer A, et al. Effects of arthroscopy for femoroacetabular impingement syndrome on quality of life and economic outcomes. *Am J Sports Med* 2018;46:1205-1213.
2. Annin S, Lall AC, Yelton MJ, et al. Patient-reported outcomes in athletes following hip arthroscopy for femoroacetabular impingement with subanalysis on return to sport and performance level: A systematic review. *Arthroscopy* 2021;37:2657-2676.
3. Day T, Pasic N, Churchill L, Bryant D, Degen R. A scoping review of postoperative return to sport criteria and protocols for patients with femoroacetabular impingement syndrome [published online December 16, 2021]. *Phys Sportsmed*. doi:10.1080/00913847.2021.2011628.
4. Chona DV, Bonano JC, Ayeni OR, Safran MR. Definitions of return to sport after hip arthroscopy: Are we speaking the same language and are we measuring the right outcome? *Orthop J Sport Med* 2020;8:1-7.
5. Weber AE, Bolia IK, Mayfield CK, et al. Can we identify why athletes fail to return to sport after hip arthroscopy for femoroacetabular impingement syndrome? A systematic review and meta-analysis. *Am J Sports Med* 2021;49:1651-1658.
6. Domb BG, Dunne KF, Martin TJ, et al. Patient reported outcomes for patients who returned to sport compared with those who did not after hip arthroscopy: Minimum 2-year follow-up. *J Hip Preserv Surg* 2016;3:124-131.
7. Jimenez AE, Monahan PF, Owens JS, et al. High-level athletes who did not return to sport for reasons unrelated to their hip achieve successful midterm outcomes with a benchmarking against high-level athletes who returned to sport. *Arthroscopy* 2022;38:1879-1887.