

**Editorial Commentary: Helping Those Who Seek the Company of “Lord Stanley”: Hockey Players and Hip Injuries Highlight the Current State and Future Challenges in Understanding, Treating, and Preventing Nonarthritic Hip Disease**



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**Abstract:** The state of the art in caring for athletic hip injuries requires comprehensive understanding of dynamic sport-specific biomechanical demands, accurate musculoskeletal diagnosis, and a mindset towards matching hip structure with functional demand at all levels of play. The sport of hockey presents a unique opportunity to review these fundamentals of modern management and illuminates the way towards future understanding of the cause of common nonarthritic hip conditions.

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In the wake of the Pittsburgh Penguins' fourth Stanley Cup Championships victory here in the city of Pittsburgh, it is with great interest that I read the article by Kuhn et al.<sup>1</sup> (To be clear, I have been lucky to watch all 4 cup races with family from the comfort of my home while dedicated team physicians tended to the important business of game coverage.) As a hip preservation specialist faced with treating many youth and experienced hockey players, I found it most exciting to see this article included in our journal.

Participation in the sport of hockey continues to grow at the youth levels, and the prevalence of hockey-related complaints is rising in offices across North America. Frequently, these complaints involve the hip joint.<sup>1-3</sup> The unique aspects of this sport are obvious even to the untrained observer, from playing on a frozen rink to the presence of solid walls containing the action to the use of a long lever arm to extend the mechanical advantage within the kinetic chain. What may be less obvious, however, are the many ways that continued training and participation in this unique sporting endeavor impact the growing and mature hip.

Focusing on the unique safety aspects of any given sport is not a new idea in orthopaedic surgery and multiple examples of sport-specific inquiry exist.<sup>3-5</sup> The structure of the current article, however, is a standout for several reasons: scope, clinical usefulness, and

expansion of current thinking.<sup>1</sup> The authors bring a decade of clinical and basic scientific investigation into the athlete's hip to bear as they systematically categorize hockey hip injury. A complete review of the text and references will satisfy even the most stringent fellowship mentor's requirements for knowledge in the area of hip preservation.

Connecting the past with the present understanding of the athlete's hip requires clinicians to attend to accurately diagnosing the injured tissue or pain generator of the moment. Adductor strains, labrum tears, snapping tendons, or other anatomical end-organ tissue damages are indeed critical to identify. Our modern diagnostic workup continues one step further, however, with attempts to define the biomechanical and environmental circumstances that contributed to the development of injury. Direct trauma to tissues requires little additional thought, but cumulative failure through repetitive submaximal strain is a more complex problem. In this light, the authors' comments concerning the development of core muscle injury through hockey-specific movements illuminate the role of understanding the kinetic chain as a unique function that affects each hip uniquely.<sup>1</sup>

Perhaps the most challenging questions facing the arthroscopist engaged in the treatment of athletic hip injury come in the area of injury prevention. Femoroacetabular impingement has undoubtedly revolutionized our ability to treat symptomatic patients,<sup>6</sup> yet leaves more questions than answers. Parents, coaches, and players astutely observe internet and provider sourced information and return asking “how did I

develop FAI,” or in the case of bilateral radiographic findings, “shouldn’t you fix my other side too?”<sup>7-9</sup> Parental questions concerning the safe limits of play, the appropriate degree of concern or attention to asymptomatic players, or the long-term health consequences of hockey are indeed reasonable and yet difficult to answer.<sup>6,10,11</sup>

Basic inquiries into disease prevalence, mode of deformity creation, and true meaning of likelihood for sport-related further damage remain unsolved.<sup>11-13</sup> These challenging layers of understanding indeed will provide areas of hope for preventing and improving treatment of hip injury. As clinicians we must begin by understanding the current state of knowledge for specific sporting populations, as outlined by Kuhn et al.<sup>1</sup>, and balance the eagerness to help with our long-standing commitment to “first do no harm” when it comes to surgical care for athletic hip injury. Undoubtedly, arthroscopic and endoscopic techniques will remain critical tools for those whose conditions we understand and whom conservative care fails to help them return to the rink.

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Editorial Board

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