

# Crystal Ball: Specialist Contemplates Future of Sports Medicine

**Dr. Brian J. Cole underscores the specialty's exciting potential**  
**Brian J. Cole, MD, MBA**, a leading sports medicine specialist based in Chicago, is the head team physician for the Chicago Bulls and co-team physician for the Chicago White Sox and DePaul University. In 2009, he was named the NBA Team Physician of the Year by the National Basketball Athletic Trainers Association.

Given Dr. Cole's dedication to sports medicine and its advancement, he offers unique perspectives on the specialty's future.



***Brian J. Cole, MD, MBA, (left) performs arthroscopic surgery.***  
*Courtesy of Lauren Anderson/Midwest Orthopaedics at Rush*

*AAOS Now: What do you see as the hottest topics in the field of sports*

medicine?

Dr. Cole: Orthobiologics and regenerative medicine. There is a low regulatory bar for many of these recently introduced options and a natural desire on the part of surgeons to understand how orthobiologics can be integrated into one's practice.

As clinicians, we are flooded with these relatively unregulated treatments for a variety of conditions, ranging from osteoarthritis and tendinitis, to those that may address pain or promote ligament and tendon healing, or bone fusion. Some of the solutions include platelet-rich plasma, bone marrow aspirate concentrates, amniotic tissues, or adipose tissue. Few have undergone the same regulatory rigor and clinical assessment as other pharmaceuticals or medical devices.

I see a strong movement toward improving our evidence-based understanding, as well as the potential for increased pressure on the regulatory side. I believe in approaching biologics with a healthy skepticism—there may be something there, but we have yet to prove it.

I think it's important for us to help the public understand that regenerative medicine doesn't necessarily mean rewinding the clock, but modifying the way people perceive and feel the symptoms of their diseases. We have an ethical obligation to prove the efficacy of such treatments, even without an external mandate to do so.

Another area that's really interesting is injury prevention and return to activities. A tremendous amount of research has been published, investigating methods that we can use to modify physiology and activity in ways that could potentially reduce injury. Many professional sports organizations are spending millions of dollars trying to figure out how to reduce injuries by looking at load, exposure, and other potentially modifiable variables. Those efforts have even spilled over to youth programs, where overuse and proper levels of rest have traditionally been very big issues.

If we can change the epidemiology of conditions, such as anterior cruciate ligament (ACL) tears, throwing injuries, ulnar collateral ligament injuries, etc., we can have a much bigger impact than treating one injury at a time.

Our mission should include preventing injury and improving and maintaining an athlete's health and prolonging his or her career safely, at every level.

*AAOS Now:* What about sex-based differences and individualized medicine?

Dr. Cole: Sex-based differences have in the past been relegated most commonly to the ACL, but our understanding extends now to outcomes following surgical intervention. This concept is important because it leads to individualized treatment, with sex being an independent variable along with age, body mass index, number of previous surgeries, and other variables that can affect outcomes that we may need to further identify.

Through statistical, multivariable analysis and better outcomes collection initiatives, we have gained a number of data points that were largely unavailable in the past. This information allows us to perform clinical research that addresses these variables and to provide improved guidance to physicians, athletic organizations, and the insurance industry.

*AAOS Now:* There has been a lot of coverage in the mainstream media on the topic of opioids. How do you see that as affecting sports medicine practice?

Dr. Cole: In the past, I think providers have naively assumed that patients usually present with no previous meaningful exposure to opioids. Everyone is now being brought up to speed, and we are actively searching for alternatives. We've improved our understanding of how preoperative pain, perceptions of pain, and catastrophizing may affect the potential for a quality outcome.

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