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# Preventing Osteoarthritis After an Anterior Cruciate Ligament Injury: Osteoarthritis Action Alliance Issues Consensus Statement Recommendations

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DALLAS, TX (May 2, 2023) – "Preventing Osteoarthritis After an Anterior Cruciate Ligament Injury: An Osteoarthritis Action Alliance Consensus Statement" appears online today and in the March issue of the Journal of Athletic Training, the National Athletic Trainers' Association (NATA) scientific journal.

The statement was created by the Osteoarthritis Action Alliance's Secondary Prevention Task Group and offers clinicians recommendations for a broad approach to reducing the risk of osteoarthritis after a person has an anterior cruciate ligament (ACL) injury.

"While patients and health care professionals often focus on optimizing short-term outcomes after an ACL injury, there is an urgent need for prevention strategies to reduce the long-term burden of knee osteoarthritis, says Task Group lead author Jeffrey B. Driban, PhD, ATC, CSCS, a special and scientific staff member in the Division of Rheumatology, Allergy, & Immunology at Tufts Medical Center and associate professor of Medicine at Tufts University School of Medicine.

"The primary goal of prevention for this population is to identify problems at their earliest stages so that interventions can be started to slow or halt the progression toward long-term issues," adds Driban.

"This is a most definitive statement on osteoarthritis prevention and care after an ACL injury," says National Athletic Trainers' Association President Kathy Dieringer, EdD, LAT, ATC. "As athletic trainers, we are committed to this focus on public health and the future of our aging population. The interdisciplinary approach to the statement's development ensures collaboration across the health care landscape and an overall commitment to the prevention and treatment of osteoarthritis."

#### **Key Statistics:**

- Many knee injuries occur in young, physically active people; more than one in three ACL reconstructions are performed in high school or college athletes in the United States.<sup>1-3</sup>
- Knee injuries, including ACL tears, are increasingly common and account for more than 625,000 emergency department visits each year in the United States.<sup>1</sup>
- ACL reconstruction often leads to positive outcomes, such as a return to physical activity (e.g., sport, occupational, recreational). However, after an ACL injury, regardless of whether

- reconstruction was performed, one in three people will have radiographic knee osteoarthritis within ten years<sup>4-6</sup> creating a population of young people with old knees.
- In the United States, individuals with a history of ACL reconstruction incur an economic burden greater than \$7.6 billion a year.<sup>7</sup>

## **Background:**

According to the statement authors, high-quality evidence is missing from the current literature on preventing osteoarthritis for people with an ACL injury. This deficiency was underscored by the lack of secondary prevention strategies in the *National Public Health Agenda for Osteoarthritis: 2020 Update*. In the absence of consistent, evidence-based conclusions from the literature, the group wanted to create consensus guidelines by leveraging the expert opinions and clinician experiences of its members. As a result, the Osteoarthritis Action Alliance formed an interdisciplinary Secondary Prevention Task Group to develop consensus-based secondary prevention recommendations that offer clinicians a broad approach to reducing the risk of osteoarthritis after a person has an ACL injury.

## **Primary Recommendations**

The task group agreed on <u>15 recommendations</u> related to patient resources and education, comprehensive rehabilitation programs for safe return to sport, psychological skills training, regular physical activity participation, standardized physical testing, patient support programs and ethically sound use of technology to support recovery. A few highlights include:

- After an ACL injury or reconstruction, individuals should undergo a supervised, comprehensive
  and progressive rehabilitation program to address impairments and neuromuscular deficits,
  specifically those related to quality of movement, knee range of motion, quadriceps muscle
  strength and performance and functional performance before return to activity.
- Before full re-integration into a sport, individuals should gradually resume sport-specific training to restore metabolic conditioning, build tolerance to chronic training loads and adopt desired movement strategies.
- Psychological skills training should be considered as part of the short- and long-term care
  plans after ACL injury or reconstruction to prevent re-injury, improve overall health and
  wellness and encourage engagement in and adherence to physical activity.
- Optimize socially supportive environments after an ACL injury by recognizing and providing support for injury-related stigma, uncertainty about return to activity and threats to personal identity.

"These recommendations describe a comprehensive approach to addressing a patient's physical and mental well-being after an ACL injury," adds Driban. "We will also be rolling out consumer and professional education materials to encourage adoption of these guidelines. This collaborative and expansive approach to the secondary prevention of osteoarthritis can lead to greater quality-of-life outcomes for those involved in physical activity and sport."

## About NATA: National Athletic Trainers' Association - Health Care for Life & Sport

Athletic trainers are health care professionals who specialize in the prevention, diagnosis, treatment and rehabilitation of injuries and sport-related illnesses. They prevent and treat chronic musculoskeletal injuries from sports, physical and occupational activity, and provide immediate care for acute injuries. Athletic trainers offer a continuum of care that is unparalleled in health care. The National Athletic Trainers' Association represents and supports 40,000 members of the athletic training profession. Visit nata.org for more information.

### About the Osteoarthritis Action Alliance:

The Osteoarthritis Action Alliance is a national coalition of concerned organizations mobilized by the Arthritis Foundation and the Centers for Disease Control and Prevention, now managed through the Thurston Arthritis Research Center at the University of North Carolina at Chapel Hill, to elevate osteoarthritis as a national health priority and promote effective policy solutions that address the toll of the disease. The newly formed Task Group includes four staff members from the Alliance and 25 volunteers from the constituent organizations with various backgrounds; including athletic trainers, orthopedic surgeons, physical therapists, psychologists, and sports medicine physicians.

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