Science Meets Practice: “F”atigue and “F”rontal Plane Motion: Are These “F” Things Related to Injury?
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Platform Sessions

• PATIENT-REPORTED OUTCOMES AND FRONTAL PLANE KNEE BIOMECHANICS IMPROVE BETWEEN 3 AND 6 MONTHS AFTER ACL RECONSTRUCTION, BUT SAGITTAL PLANE ASYMMETRIES DO NOT IMPROVE
  Bryn Bonner, Jacob J. Capin, Ashutosh Khandha, Kurt Manal, Thomas S. Buchanan, Lynn Snyder-Mackler

• FATIGUE AND STICK CARRIAGE IMPACT ON LOWER EXTREMITY KINEMATICS IN LACROSSE PLAYERS
  Zachary Friedenrich, Karen Myrick, Richard Feinn, Thomas Martin, Juan Garbalosa

• PROSPECTIVE MONITORING OF TRAINING LOAD RESPONSE AFTER ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION
  David Logerstedt, Michael Knapp, James D’Amico, Michael Tully, Joseph White, Kavisha Patel

• LANDING MECHANICS TRACK FROM RETURN TO SPORT TO 5 YEARS LATER IN YOUNG ATHLETES AFTER ACL RECONSTRUCTION
  Laura C. Schmitt, Matthew P. Ithurburn, Staci Thomas, Timothy E. Hewett, Bin Huang, Mark V. Paterno
Educational Session Outline

Definition of Fatigue: increased cost or decreased ability to produce output/perform task

Types of Fatigue
- Cardiovascular/Aerobic Fatigue
- Energy Supply/Metabolic Fatigue
- Muscular Trauma Fatigue
- Thermoregulatory Fatigue
- Biomechanical Fatigue
- Psychological/Motivational Fatigue
- Chronic/Accumulated Fatigue
- Neuromuscular Fatigue
  - Central Fatigue
  - Peripheral Fatigue
    - Propagation Fatigue
    - Muscle Power Fatigue

Fatigue Protocols
- Local Fatigue Protocols
- Short-Term Fatigue Protocols
- “Game” Fatigue Protocol

Clinical Application
- Within and between session fatigue
- Rehab session priority
- Assessing readiness to progress through fatigue
- Tracking loading
- Fatigue protocol to observe athlete’s fatigued behaviors

Debate: “Does Fatigue Cause ACL Injury?”
- Yes: acute: chronic loading, biomechanical changes
- No
References


