



**Brain Injury  
Alliance**

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## 4th Annual Iowa Concussion Consortium Conference

### **DR. JOHN LEDDY, MD**

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Dr. John Leddy is a primary care sports medicine physician and director of outcomes research for the Department of Orthopedics and program director for the UB Primary Care Sports Medicine fellowship, with the goal to provide the best evidence-based evaluation and treatment practices to patients with concussion and post-concussion syndrome. Dr. Leddy's work includes conducting clinical and physiological research on these conditions. He currently serves as a medical director of the University at Buffalo Concussion Management Clinic. This clinic holds the status of the first center in the United States to use a standardized treadmill test to establish recovery from concussion and to use exercise in the rehabilitation of patients with prolonged concussion symptoms.

### **“Early Subthreshold Aerobic Exercise for Sport-Related Concussions”**

In an effort to assess the effectiveness of sub-symptom threshold aerobic exercise vs a placebo-like stretching program prescribed to adolescents in the acute phase of recovery from sports related concussion a multi center prospective randomized clinical trial was conducted at university concussion centers. After systematic determination of treadmill exercise tolerance on the first visit, participants were randomly assigned to a progressive sub-symptom threshold aerobic exercise or a progressive placebo-like stretching program (that would not substantially elevate heart rate). Both forms of exercise were performed approximately 20 minutes per day, and participants reported daily symptoms and compliance with exercise prescription via a website.



1. Attendees will review the effectiveness of sub-symptom threshold aerobic exercise vs a placebo during the acute phase of recovery from sports related concussion
2. Attendees will evaluate how to apply physical activity from aerobic exercise, normal exercise or a stretching regimen
3. Attendees will study the variations of the study based on gender, previous concussion history and initial symptom severity