

# **i**NCREDIWEAR<sup>®</sup>

## **Empowering Quicker Recovery for Athletes**

### **Research Aim**

Identify and understand changes in muscular load and fatigue in elite athletes who used Incrediwear<sup>®</sup> for recovery following training sessions.

### **Study Design**

Twenty subjects, 6 professional hockey players and 14 professional soccer players, were enrolled in a double blinded, placebo-controlled 3-arm study. Following informed consent, subjects were asked to perform a cycling or running test, then recover by sleeping overnight wearing Incrediwear leg sleeves, and then perform the same cycling or running test again the following day. Real-time measurements were taken with surface electromyography (sEMG) to record muscular loading and recovery using the Myontec Ltd. EMG-embedded textile shorts.

### **Technology Background**

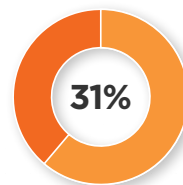
sEMG is a non-invasive technique used to measure and analyze the electrical activity of muscles. The sEMG shorts enable accurate, validated measurement of gluteal, hamstring and quadriceps muscle activity.

# **i**NCREDIWEAR<sup>®</sup>



**IMPROVED RECOVERY** The subjects wearing the Incrediwear<sup>®</sup> leg sleeves demonstrated dramatically improved recovery compared to placebo subjects and the subjects who did not receive any recovery garment.

**REDUCED MUSCLE LOAD** A reduction in muscular activity measured by surface EMG is a positive indicator of muscular recovery.



IMPROVED RECOVERY

In hockey players (n=6), normalized improvement in recovery was 31% compared to -1.1% for subjects who received placebo sleeves and in soccer players (n=14), normalized improvement in recovery was 16.8% compared to 6.9% for subjects who received placebo sleeves.

**INCREASED BLOOD FLOW** Mechanism of improved recovery is the Incrediwear<sup>®</sup> technology, which reduces inflammation and increases blood flow.

24 / 7 WEARABLE THERAPY



## Conclusion:

Real-time, accurate surface electromyography (sEMG) data was gathered using Myontec technology, whose sEMG embedded shorts are changing sports research capabilities by enabling non-invasive measurements of muscle signaling and load during strenuous activity. The Myontec sEMG shorts measure the load of each muscle group separately, meaning an athlete's musculoskeletal status can be analyzed specifically to look for injury propensity and imbalance. Myontec shorts present the potential as a valuable tool for muscle evaluation and monitoring during activity, while **Incrediwear® should be used to improve the ability of each athlete to recover optimally, achieve the greatest training benefit and improve performance.**

## Results

The evidence from this double blinded, placebo controlled experimental research trial demonstrates improvement in muscular recovery among professional athletes. Subjects who wore Incrediwear® showed improved recovery by an average of 21.1% compared to placebo.

*Empowering Recovery: Surface Electromyography Shows How Incrediwear® Helps Professional Athletes Recover*