Performance Attenuation and Timeline of Recovery in Senior Club Level Gaelic Football Players

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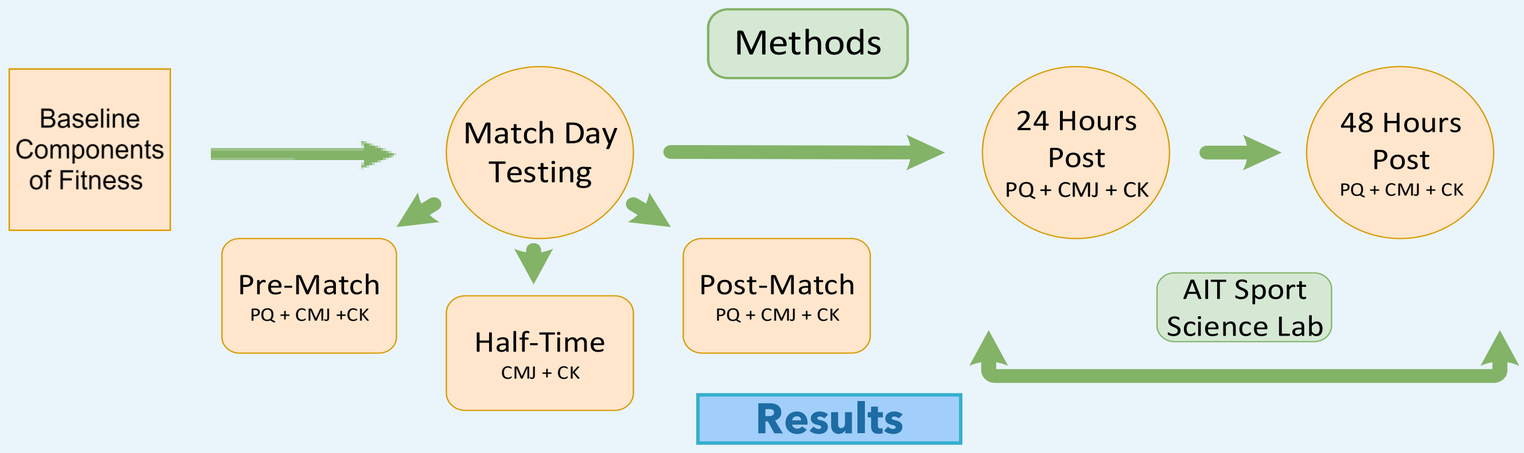
SPORT HEALTH EXERCISE

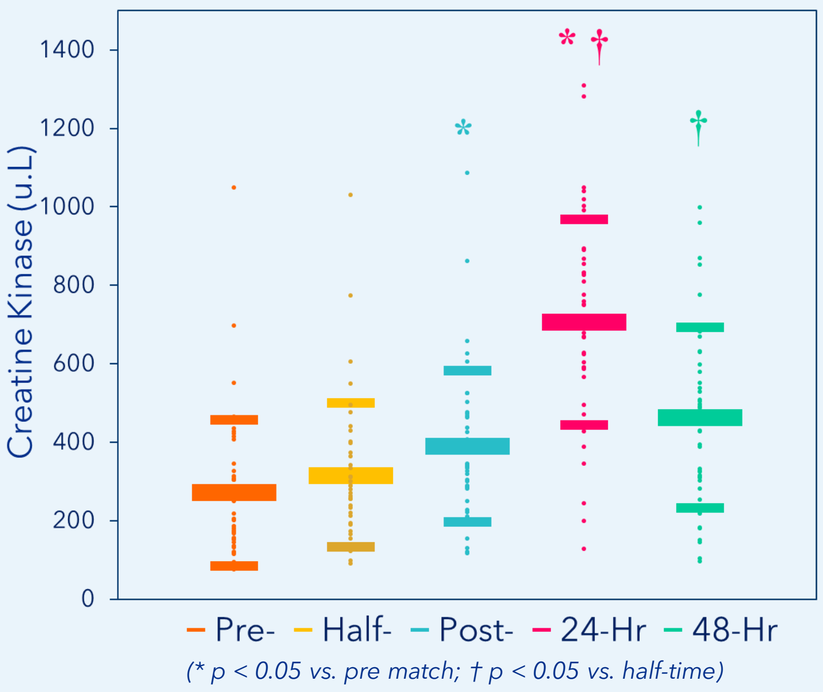
Background: The high-intensity intermittent nature of Gaelic football results in notable performance attenuation and neuromuscular fatigue. Players have limited recovery timeframes and it is thought that well-developed components of fitness are necessary to cope with the games high neuromuscular and metabolic demands, while mediating post-game recovery. The aim of this research was to assess markers of performance attenuation and fatigue during and following Gaelic football match-play, while investigating the influence of selected components of fitness on these markers and in-game workloads.

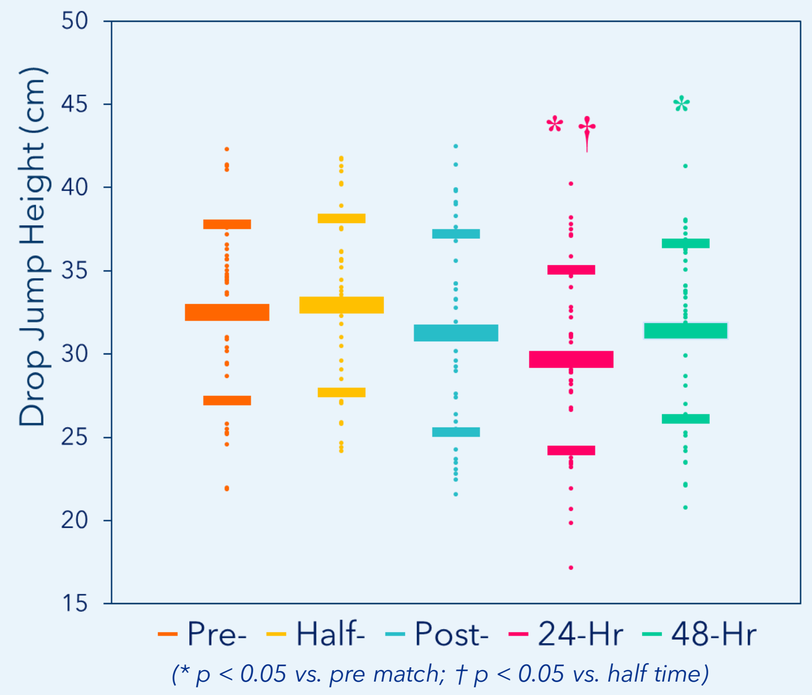
Methods: Senior club Gaelic football players (n=41) anthropometrics, running speed, strength, power, and aerobic capacity were assessed over two separate days, one week before a competitive match. Match-day testing occurred immediately prior to a competitive match, half-time and full-time. Post-match testing occurred 24-hrs and 48-hrs post- match.

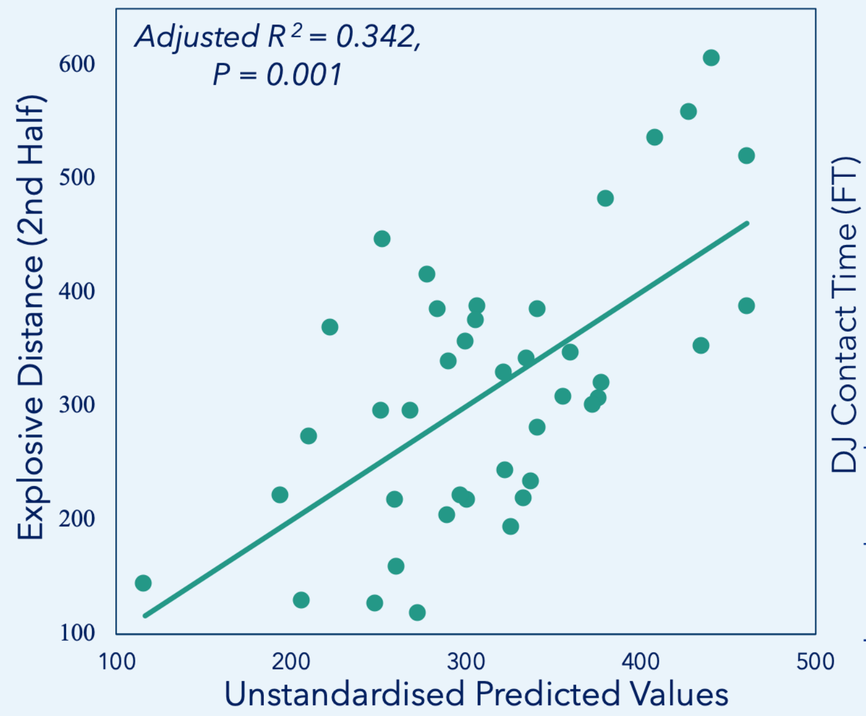
Methods



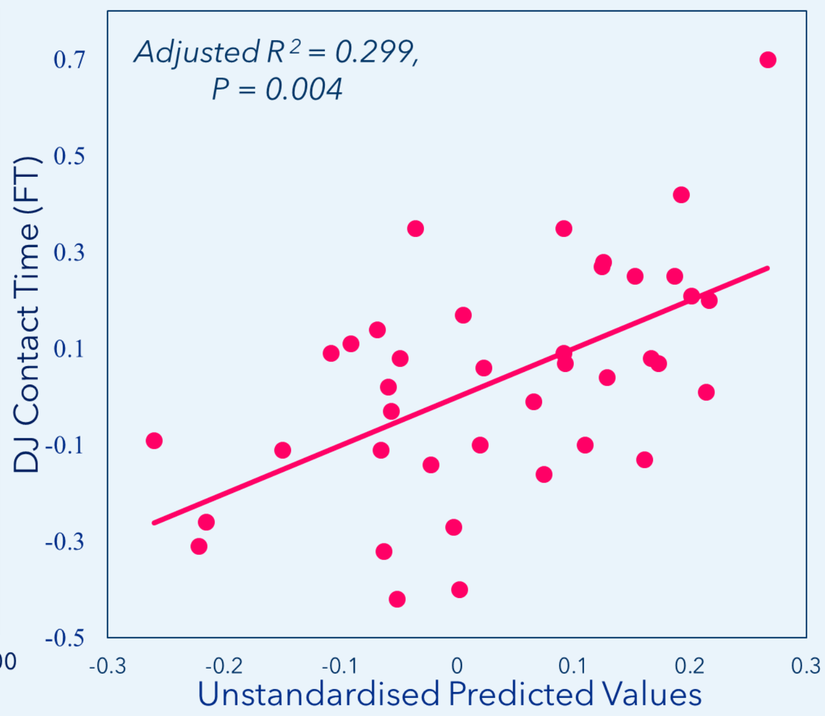
Results







Body Fat %, Aerobic Capacity
Countermovement Jump, Drop Jump



Back Squat, Countermovement Jump
Drop Jump, Aerobic Capacity

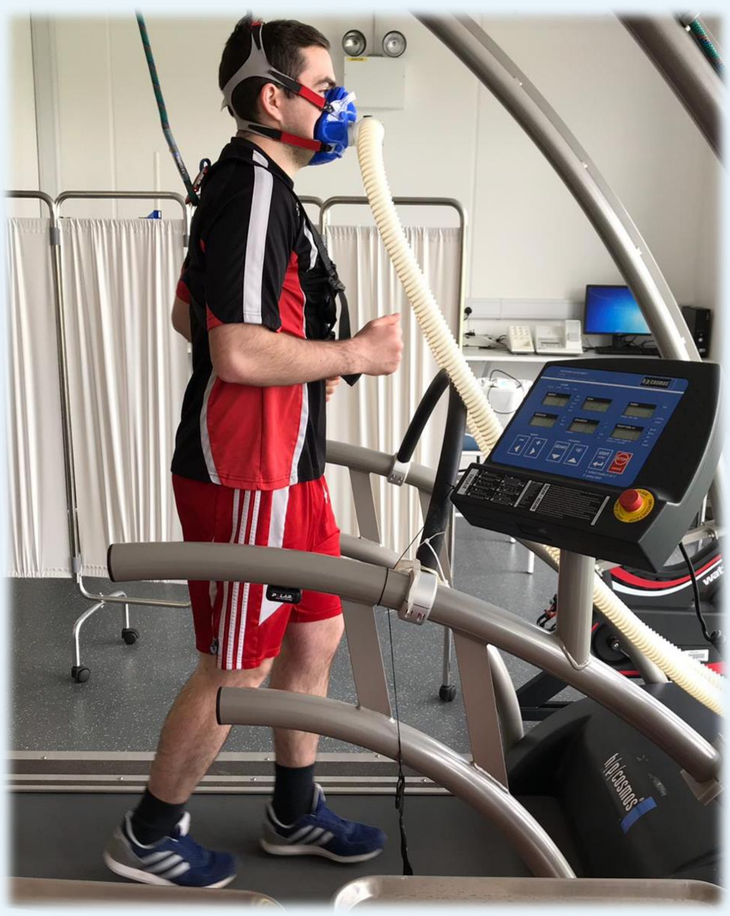


Figure 1 – *VO_2 max and running economy assessment using an incremental treadmill protocol.*

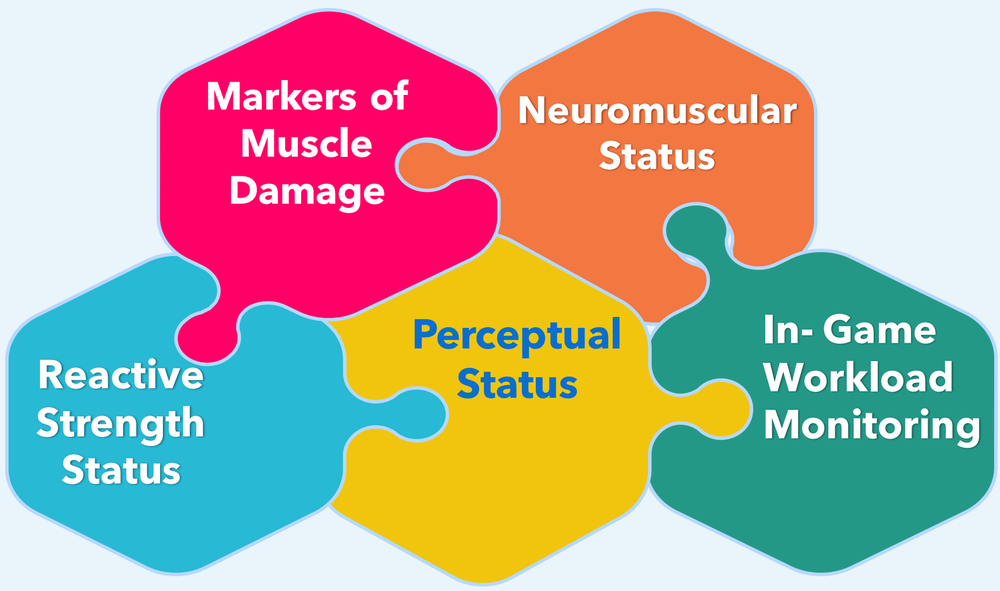


Figure 2 – *Creatine Kinase (CK) sample collection and analysis by means of a colorimetric assay.*

Conclusion

- There are large decrements in performance and substantial multifaceted fatigue experienced by players induced by a competitive senior club level Gaelic football match.
- Well-developed running speed, body composition and lower body power are positively associated with competition workloads.
- Measures of performance attenuation are reduced in players with well-developed aerobic capacity and lower body strength.

References

- McLellan, C. P. 2010. Neuromuscular, Biochemical, Endocrine and Physiological Responses of Elite Rugby League Players to Competitive Match-Play.
- McLean, B.D., Coutts, A.J., Kelly, V., McGuigan, M.R. and Cormack, S.J., 2010. Neuromuscular, endocrine, and perceptual fatigue responses during different length between-match microcycles in professional rugby league players. International journal of sports physiology and performance, 5(3), pp.367-383.