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# Journal of Science and Medicine in Sport

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Journal of Science and Medicine in Sport

## Editorial

### Match performance indicators and outcome in Australian Football



Using a modelling approach, Young and co-workers lead off this month's feature articles by describing the relationship between match performance indicators and outcomes in Australian Football. In the second feature article this month Cadenas-Sanchez and the PREFIT group describe physical fitness standards for pre-schoolers. In the third of our featured articles, Lulińska-Kuklik's team question whether there is a relationship between TNC gene variants and risk of ACL injury.

The first article in this month's sports medicine section, by Beale and co-workers, describes ECG findings in elite professional cyclists according to the 2017 international recommendations for ECG interpretation in athletes. Way's team provide a meta-analysis of the effect of high intensity interval training versus moderate intensity continuous training on arterial stiffness and 24 h blood pressure responses. Shih et al. describe changes in ankle tendon morphology and hemodynamics in young pre-professional dancers. Porter et al. outline changes in cortical activity and network organization during physical and cognitively exerting tasks. Vainshelboim and co-workers, in a report of a prospective cohort study of 4920 males, describe both reduced mortality and longer survival times in individuals with higher cardiorespiratory fitness.

In the second article in this month's sports injury section Kierkegaard and co-workers question whether individuals receiving surgical intervention for femoroacetabular impingement have recovered their hip muscle strength one year out. Staynor et al. outline the need for appropriate statistical tools when modelling clustered motion data to ensure translatability of injury biomechanics research. Thompson et al. describe changes in the spinal level sensorimotor control of individuals with chronic ankle instability.

This month's physical activity section is lead off with a report by Watson and co-workers on the positive impact of active breaks

on academic and physical activity outcomes in Year 3 and 4 primary school students. Pan and co-workers describe the relationship between musculoskeletal pain and physical activity and physical work capacity in a subset of participants in the UK Biobank study. Beltran-Valls' group describe marked sex and age specific differences in vigorous intensity physical activity levels in participants in the Gateshead Millennium Study. Howie and team provide evidence for critical early life factors influencing participation in organised sport over childhood and adolescence.

Leading off this month's sport and exercise science section, Schoenmakers and Reed describe the effect of recovery duration on physiologic and perceptual measures in trained runners following self-paced HIIT sessions. Pihoker's group describe the impact of nutrient timing on training adaptation in resistance-trained females. Craike et al. outline the need for further education of medical practitioners in the role of exercise physiologists in the prevention and management of chronic disease. Darche and co-workers, in a retrospective review, question the utility of yearly pre-season laboratory testing of athletes in the professional sporting environment. Murray's team provide initial evidence for the use of stride variability changes as an indicator of response to training load. In the final article of the sport and exercise section this month, Allison and co-workers, reporting the results of a cross sectional study, suggest that fight load index and body composition are most associated with combat physical fitness in female Marines.

I commend to you the April 2019 issue which continues to reflect the Journal's readership with an excellent mix of articles across the spectrum of science and medicine in sport

Gordon S. Waddington  
*Editor in Chief*