



## Editorial

## Relationships between training volume, intensity and injury-risk in professional rugby league players



This month's feature articles are led off by Cummins and colleagues, describing a model for a decision support mechanism in Rugby League utilising external workload metrics. In the second feature article this month, Aguila-Farias' group underline the need to ensure a weekend day is included when estimating weekly activity levels with the ActivPAL and in the final feature article, Cobley and co-workers describe corrective adjustment procedures for dealing with the relative age effect in swimmers.

Sekiguchi and colleagues outline factors affecting hydration status in NCAA Div. 1 Soccer preseason in the first of the sports medicine articles this month. In the second report in this section, Ackerman, Bohensky, Kemp and de Steiger describe the likelihood of knee replacement surgery up to 15 years post sports injury. McKays' group provide the results of work examining the impact of acute carbohydrate intake on iron regulation in race walkers. In the final article of this section, Renoux and colleagues report a cohort study of time to return to play and ultrasound-detected connective tissue involvement in acute muscle injuries in elite athletes.

In the second article in this month's sports injury section Gamage, Fortington, Kontouris and Finch report a longitudinal study of match injuries in Sri Lankan junior cricket. Leventer, Eek and Lames describe a worrying carry over effect of pre-season training injuries among German Bundesliga soccer players. In the final article in this section, Eckersley, Nightingale, Luck and Bass, using a modelling approach for head and neck kinematics, suggest that impact location and magnitude influence head kinematics more than cervical muscle state.

Ludyga and colleagues, utilising a cluster randomised model, describe the effect of a school-based physical activity program on retinal microcirculation and cognitive function in adolescents.

Kingsley's group report differences in accelerometry-derived estimates of physical activity from 9 wrist-specific predictive models and a reference hip-specific method. Tomaz's team report the first description of gross motor skills of South African preschool-aged children across different income settings. In the last article in this section, Kemp, Cliff, Chong and Parrish provide a systematic review of longitudinal changes in domains of physical activity during childhood and adolescence.

Leading off this month's sport and exercise science section, Scott and co-workers report a trial on the effect of 1,3-butanediol and carbohydrate supplementation on running performance. Jeffries and Waldron relate the outcomes of a meta-analysis of the effects of menthol on exercise performance and thermal sensation. Verheul's group question the use of a direct mechanical approach to estimate ground reaction forces from segmental accelerations. Russel and colleagues review the application of mental fatigue research in elite team sport. Bennett's team provide an assessment of the validity of a video-based decision-making tool for talent identification in youth soccer. In the final article of the month, Tribolet and co-workers describe the relative age effect in the Australian football talent pathway as potentially lasting into the adult professional game.

Once again, I commend to you this issue which provides an excellent range of articles of interest to researchers and clinicians in sport science and exercise medicine.

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