

SWIMMING NATATION CANADA SPORTS SCIENCE AND MEDICINE NEWSLETTER NO. 1



Hello Practitioners,

Over the years, we have all discussed better ways to connect and have discussions relevant to the daily training environments we all are committed to; as well as integrating some interdisciplinary brainstorming. However, the reality of our varied work demands has consistently limited the ability to gain traction on any communication idea. My intent of this and future newsletters, is to provide a medium discussion or dissemination of information that is relevant to strength and condition and injury management or prevention.

I will always include two article reviews relevant to S&C and paramedical services. In my opinion, S&C and paramedical are a key tandem in service provision from the grass roots level up to the High Performance Centres. These two services are also the most represented in terms of hours of service delivery in the nation's swim programs. Providing a medium to discuss recent and relevant research, clinical evidence and anecdotal 'best practice' with the intent to push the envelope of performance will be beneficial to Canada's swim community through our continued learning and world class service delivery.

This first issue looks at two articles that are relevant to the training cycles most of your programs are currently in. The first article discusses the validity of utilizing movement screens for your athletes. The other looks into optimal taper strategies. Enjoy the reads and please feel free to discuss and continue the conversations via emails or amongst your staff.

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High Performance Centre Network

<https://www.swimming.ca/en/national-teams/high-performance-centres/>

<https://twitter.com/HPCVictoria>

<https://www.instagram.com/hpcvictoria/>

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Article Review No. 1: *FMS Scores Change With Performers' Knowledge of the Grading Criteria – Are General Whole Body Movement Screens Capturing "Dysfunction"?* Frost, Beach, Callaghan and McGill (2015)

Pre-participation movement screens have been gaining traction in the S&C and therapy fields for the last few years. From the Functional Movement Screen to the SFMA, and every other variation, many practitioners utilize them to establish a baseline measure for their athletes. From there though, screen results have been used to predict performance and injury. Recent literature has been challenging these assumptions and have found that, similar to other complex movements, screen movements can be learned. In turn, the learning of these movements and the specific grading criteria can result in improved screen results. Frost et al. (2015) question the use of screens to capture physical 'dysfunction' as they explore FMS score changes when subjects are given knowledge of the grading criteria and screen movements.

Practical Considerations: Are your anticipated screen results predictive of specific sport performance or injury? Or are they just a matter of motor learning?

Article Review No. 2: Identifying Optimal Overload and Taper in Elite Swimmers over Time. Hellard, Avalos, Hausswirth, Pyne, Toussait, Mujika (2013)

Competition schedules and training cycles are well documented in YTP's. This plan paints a general picture of targeted competitions, workloads and training focus. However, the specific cycling of workload and unloading is often left to random protocols that leads to unreliable training cycles year to year. Hellard et al. (2013) suggest some guidelines for unloading elite swimmers for competition. What is interesting about this study is that the authors' use of elite level athletes from a variety of racing distances and training history; a rarity in much of the current sports research.

Practical Considerations: Do you have an unloading strategy for weights/dryland? Are you tracking workload? Is training age/history a consideration in your unloading protocols?