



FOUNDATION for the Royal College of Chiropractic Sport Sciences Canada announces their 2023 Research Awards Winners

The FOUNDATION is pleased to announce the following awards

Dr. David Gryfe Academic Achievement Award:

Academic Achievement Award:

Academic Achievement Award:

Dr. Andrew Parks

Dr. Antonio Petrolo

Dr. Antonio Petrolo

Award of Excellence: Resident Category:

Award of Excellence: Fellow Category:

Dr. Andrew Parks

Dr. Alex Lee

Following are the abstracts (where available) and descriptions of the awards and the award winners;

Dr. Andrew Parks

Winner of the 2023 Dr. David Gryfe Academic Achievement Scholarship Award - Assessing Construct Validity of the Beighton Score as a Measure of Generalized Joint Hypermobility in Varsity Athletes

These scholarships are open to members of the Royal College of Chiropractic Sports Sciences (Canada) [RCCSS(C)] who have recently conducted scholarly written requirements as part of their Canadian Chiropractic Sports Sciences Residency Program (SSRP).

Abstract;

Using valid tools in clinical and research settings is of utmost importance. Unfortunately, too often are tools adopted dogmatically without a thorough understanding of what a given tool was originally developed for. Using the Beighton Score as a screening measure in athletes for generalized joint hypermobility is a perfect example of this, as the validity in this context has yet to be determined. Investigating for the construct validity of a tool is the first step towards understanding whether that tool can be used in a given context, and this was the intent of my study. Ultimately, I think that my research will provide a valuable contribution to sports medicine and sports chiropractic communities as we often engage in pre-season and pre-competition screening, and the Beighton Score is often a component of certain screening measures. Overall, this study may illustrate the potential inappropriateness of a commonly used tool in a healthy sporting population, and we also highlight how it may suggest the need for further work in this important area.

Winner of the 2023 Award of Excellence (Resident category)

Awards of Excellence are meant to recognize the outstanding achievement conducted by chiropractic students, RCCSS(C) sports residents and RCCSS(C) Fellows.

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Dr. Andrew Parks Biography;

Andrew is from Orillia Ontario and has completed CMCC's sports sciences residency program while also concurrently progressing towards his diplomate in clinical neuroscience and maintaining a private practice. His athletic history in collegiate hockey and his personal experiences with concussions have driven him to further his education and pursue sports chiropractic. Doing so, he's developed a passion and curiosity in neurology and the clinical applications we provide patients with concussions, but also in managing symptoms of dizziness, cognitive decline and helping athletes enhance their performance. He has completed independent research investigating the validity of the Beighton Score in healthy varsity athletes as part of his SSRP requirement. He is also the primary investigator for a systematic review on dysautonomia following mild traumatic brain injury in pediatric athletes, which has been accepted for publication. In future years, Andrew is looking forward to continuing to make contributions to sports chiropractic and sports medicine research. Specifically, to continue to disentangle the complex relationships between what we do as manual and rehab professionals and the influence we have on the nervous system, in both injured and healthy populations. He is grateful for the recognition from the Foundation and for this award.



Dr. Antonio Petrolo

Winner of two (2) 2023 Academic Achievement Scholarship Awards;

Meniscal lesion or patellar tendinopathy? A case report of an adolescent soccer player with knee pain

Kinematic Determinants of the Instep Soccer Kick in Elite Adult Soccer Players: A Systematic Review.

These scholarships are open to members of the Royal College of Chiropractic Sports Sciences (Canada) [RCCSS(C)] who have recently conducted scholarly written requirements as part of their Canadian Chiropractic Sports Sciences Residency Program (SSRP).

Abstract:

Background: Injuries to the meniscus are particularly prevalent in soccer players, with an incidence of 0.448 injuries per 1000 hours of playing. However, in the adolescent soccer player population, it has been reported that up to 63% of asymptomatic knees may demonstrate horizontal or oblique tears on MRI. These results may negatively influence clinical decision-making and plan of management for adolescent soccer players with knee problems.

Case presentation: A case of a 15-year-old soccer player is presented after having been diagnosed by his family physician with a left lateral meniscus tear as per MRI, following a 10-week period of anterior knee pain. He presented to a chiropractor for a second opinion before consulting with the orthopedic surgeon.

Management and outcome: Recommendations for progressive rehabilitation owing to the lack of clinical evidence for meniscal abnormality were made. A primary diagnosis of left patellar tendinopathy was determined and after a 6-week comprehensive rehabilitation program, the patient made a complete recovery.

Summary: A thorough history, physical examination, and understanding of the patient's injury mechanism are suggested before confirming/refuting suspicions of meniscal abnormalities via MRI. This will help to inform better clinical decision-making as well as decrease the occurrence of unnecessary imaging.

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KEY WORDS: chiropractic, meniscal tear, physical examination, diagnosis, rehabilitation, patellar tendinopathy, magnetic resonance imaging, adolescent, soccer

Abstract:

Background: Kicking is considered the defining action of the sport of soccer, with the instep kick being the most widely used variant. Until now, there have been no previous systematic reviews exploring the kinematic characteristics of elite soccer players over the age of 18. Previous investigations have either used narrative review study designs or had not isolated the adult elite level population.

Objective: The objective of this systematic review is to describe the kinematics associated with the instep soccer kick in elite adult soccer players over the age of 18.

Methods: As per PRISMA guidelines, articles were retrieved from searches across three online databases (MEDLINE, CINAHL, and SPORTDiscus). Studies investigating instep kicking kinematics in elite level soccer athletes

over the age of 18 were eligible for inclusion. The methodological quality of the included studies was assessed using a modified quality assessment tool developed around the major research aim of this review. The evidence synthesis in this review was reported using the SWiM checklist.

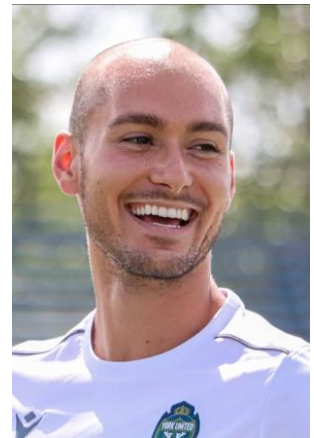
Results: Of 1836 papers identified initially, 12 papers were deemed directly relevant following screening. Data was presented sequentially according to the five distinct kinematic phases: preparation, backswing, limb cocking, acceleration, and follow-through. Coordinated proximal to distal sequencing of the kick leg during the downswing was observed in all elite athletes, along with eccentric formation and concentric release of a ‘tension arc’ between the torso, pelvis and kicking hip.

Conclusions: The results of this review descriptively demonstrate important kinematic characteristics related to timing, body positioning/coordination, and anatomical angular/linear velocities in elite adult soccer player instep kicking. However, according to quality assessment of the included studies, improved scientific and kinematic data collection methods are necessary in the future – specifically in achieving better reporting on segment coordinate systems, model properties and degrees of freedom, axes and order of rotations, and appropriate variability/reliability/repeatability procedures.

Keywords: soccer, kinematics, elite athletes, instep kick, adults

Dr. Antonio Petrolo Bio:

Dr. Antonio Petrolo graduated from the Canadian Memorial Chiropractic College (CMCC) with Summa Cum Laude distinction as well as having the honour of receiving the Royal College of Chiropractic Sports Sciences Award upon graduation. He currently is completing his second year of the prestigious Sports Sciences Residency at CMCC and had previously studied Kinesiology and Health Sciences at York University. As a former professional soccer player, Dr. Petrolo shares a tremendous passion for the sport and currently serves as a consultant for a variety of semi-professional and professional clubs, such as York United FC, Alliance FC, Prostars FC, and the Oakville Blue Devils. Dr. Petrolo’s passion for soccer has led him to conduct research in the sport as well.



Dr. Alex Lee

Winner of the 2023 Award of Excellence (Fellow category)

Awards of Excellence are meant to recognize the outstanding achievement conducted by chiropractic students, RCCSS(C) sports residents and RCCSS(C) Fellows.

These awards are open to members of the Royal College of Chiropractic Sports Sciences (Canada) [RCCSS(C)] who have recently conducted scholarly written requirements as part of their Canadian Chiropractic Sports Sciences Residency Program (SSRP).

Dr. Alex Lee Biography:

Dr. Lee started his academic career at the University of Waterloo where he earned a Bachelor of Science Honours degree in Kinesiology. His interest in sports medicine led him to the Canadian Memorial Chiropractic College (CMCC) where he graduated with magna cum laude honours and received the John M Wallace Memorial Award for clinical proficiency. Interested in specializing in sports health care, Dr. Lee completed his Sports Sciences Residency at CMCC which led him to obtaining his Sports Sciences Fellowship from the Royal College of Chiropractic Sports Sciences (Canada). Dr. Lee has worked as a provider in both the elite and amateur levels of hockey, martial arts, wrestling, volleyball, track & field, and endurance sports. He is an Associate Professor and Director of Education at CMCC, peer reviewer for various academic journals, and is actively involved in clinical research. He chairs the Research and Education Committee of the Royal College of Chiropractic Sports Sciences (Canada), is a member of the International Sports Chiropractic Federation Research Commission, and is the executive director of the Sports and Exercise Research Collaborative for Health Practice-based Research Network (SERCH PBRN).

