

# CWSF 2011 - Toronto, Ontario



## Demetrios Koziris, Iakovos Vathis

### Ischemic Preconditioning: Effect on Muscular Endurance

**Challenge:** Health

**Category:** Senior

**Region:** Montreal

**City:** Montreal, QC

**School:** Académie Royal West

**Abstract:** An experiment investigating how upper-limb ischemic preconditioning, a technique used before surgery to reduce damage caused by restriction of blood supply (oxygen deficiency) to tissues, can improve muscular endurance and therefore have applications in sports performance improvement; Ischemic preconditioning technique consisting of alternating vascular occlusion and reperfusion of upper limb. Results supported the hypothesis with a statistically significant increase of muscular endurance.

### Biographies

Demetrios - Hello! My name is Demetrios Koziris. I'm 17 years old and currently attend Royal West Academy in Montreal. Being passionate about my heritage, I attend Aristotelis Greek School every Saturday and I'm a member of a traditional Greek folk dancing troupe and AHEPA. I'm an avid reader (Orson Scott Card is my favourite author and I especially enjoy science fiction novels) and my hobbies include writing and drawing. I will be continuing my education in the sciences in cegep next year and am now taking physics, chemistry and pre-calculus courses in my final year of high school (grade 11). I plan to become an architect as I believe that would allow...

Iakovos - Hello! My name is Iakovos Vathis and I am currently attending my fifth and final year at Royal West Academy. I am looking to continue my studies in the science field, hoping to achieve my goal of becoming a sports physiologist. I am currently enrolled in the science program at my school, which is both challenging and engaging. Although I strive to achieve good marks in my studies, I enjoy physical activity such as hockey and down hill mountain biking. This was my first year participating in the expo-sciences and won multiple awards such as a gold medal at the Montreal Regional Science and Technology Fair. I am honoured to partake in the Pan-C...

### Awards

### Value

Statistical Society of Canada Award Sponsor: Statistical Society of Canada	\$1 000
Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	\$1 500
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$5 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$4 000
University of Manitoba Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of Manitoba	\$5 000
The University of Western Ontario Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: University of Western Ontario	\$4 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$4,000 Entrance Scholarship Sponsor: University of Ottawa	\$4 000
<b>Total</b>	<b>\$24 500</b>