

# CWSF 2017 - Regina, Saskatchewan



## Megan Syho, Kai Leong

### An Ankle-Dorsiflexion Exercise Program to Improve Seniors' Balance and Gait

**Challenge:** Health

**Category:** Intermediate

**Region:** Greater Vancouver

**City:** Vancouver, BC

**School:** Killarney Secondary

**Abstract:** The purpose of this investigation was to determine whether an improvement in Ankle-Dorsiflexion through three static exercises led to improved balance and kinematics during gait for older adults. 8 seniors aged 65-90 were gathered to complete a daily three week exercise program. Upon completion, our results show that an improvement in Ankle-Dorsiflexion led to a significantly improved Berg Balance Scale and Quadriceps Angle during gait.

#### Biographies

Megan - Megan Syho is a grade 10 mini school student at Killarney Secondary and is ecstatic to be attending the Canada-Wide Science Fair this year. Since her involvement in grade 9, Megan has fostered a new love for science and learning. Aside from science, she has lots of experience in event fundraising and youth mentoring through her involvement as the Co-President of Young Variety, and within her school; Vice-President of Key Club and Director of Finance in the Business Elite Club. In the community, Megan enjoys immersing herself within various business competitions and MUN conferences. Along with her affinity for academic excellence, she enjoys t...

Kai - Kai Leong is a 10th grade student attending Killarney Secondary in Vancouver, BC. Kai intends to pursue his passion for science in the future. However, Kai is still unsure exactly where his aspirations lie. His uncertainty fuels his desire to discover and learn. Kai finds that science fairs are the perfect media for him to discover and share his ideas. A marriage of two things he loves, science fairs offers a setting that combines both public speaking and innovation. Currently, Kai is actively participating in business competitions where he explores problem solving in finance and economics. While Kai is involved in his academic pursuits, ther...

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000