



## **Activator & Urban Poling Studies in Canada & UK**

### **Effects of Walking Technique on Knee Joint Loading**

Dynamic knee joint loading is effected by the walking pole technique adopted. Decrease in dynamic knee joint loading was observed when poles are held away from the body and downward force was applied similar to the Activator technique.

Becharad et al., (2015) University of Western Ontario. Unpublished

### **Is there a place for Activator poles in rehabilitation following Spinal Surgery? UK Pilot Study**

This pilot study evaluated healthy adults' posture when walking with Activator poles (Aps) in comparison to elbow crutches and walking sticks with the aim to achieve the most upright posture. Difference between APs vs walking sticks / elbow crutches was statistically significant. Questionnaire feedback showed 100% of participants would prefer to use APs if available. 75% of participants would be willing to pay for the poles and 25% would not.

Rickenbach et al. (current) Royal National Orthopedic Hospital, UK.

### **Exploring the Effects of a Health Care Provider Led Physical Activity and Education Program on the Physical and Psychological Indicators of Fall Prevention and Subsequent Independent Living**

The study was conducted with the Nova Scotia Health Authority over a 9-week time span. The exercise sessions were based on the "Otago Falls Prevention Program" but modified with using the Activator poles. There was a significant change in the following tests: Timed Up and Go, Stride Length, and Single Leg Stork Stand, which are all indicators for falls risk. Gwynn-Brett & Hudec (2018) Cape Breton University. Unpublished.

### **Nordic Walking Using Activator® poles Increases Exercise Tolerance in Individuals with COPD Compared to Healthy Controls**

VO<sub>2</sub>, energy expenditure, heart rate, and minute ventilation were all significantly higher for participants using Activator poles. However, the distance walked during a 6MWT was shorter when patients with COPD walked with ACTIVATOR® poles. Dyspnea and leg fatigue ratings were similar walking with or without poles.

Antoniades, Lim, Gandhi, Montambault, Ricci & Spahija (current study) McGill University

### **Analysis of balance and gait pattern with Stepscan Pedway© technology, in individuals 80 years and older before and after a 12-week Nordic walking program with Activator poles®**

Participants in the Activator pole® Nordic walking program improved their balance as measured by the BERG balance test and there were no falls while the program was active. This improvement in the Berg and falls were not maintained after the program was over. Although the sample is very small, this project suggests that Nordic walking could be an appropriate intervention to maintain functional independence and prevent falls for the elderly. Ferland & Robbins (current) Ste-Anne's Hospital, Montreal.

### **Clinical Feasibility Project: Outdoor Walking Program with Activator® Poles and Their Impact on Balance, Muscle Strength, the Risk of Falls and Bone Health of Veteran Inhabitants in a Long-Term Care Centre**

Outdoor walkers with dementia used Activator poles in an innovative geriatric rehabilitation approach. These data suggest that the use of Activator walking poles contribute to the strengthening of the upper limbs while improving balance and could reduce the risk of falls from users. Bone density, walking speed and strength in the lower limbs were maintained, which is clinically significant for individuals in this population. Chassé, Germain, Ferland & Gareau (2017) Ste-Anne's Hospital, Montreal.

## **URBAN POLING**

### **Walk Away Stress: Urban Poling on Campus Research Study – Study using Urban Poles**

New ongoing study to determine if Urban Poling (also known as Nordic walking) is a suitable workplace fitness program to address overall wellbeing of employees at the University of Guelph-Humber and Humber College. Coutinho (current) HUMBER COMMUNIQUE

### **Effects of a Renal Nordic Walking Program on Quality of Life and Fitness in renal patients at St. Paul's Hospital, Vancouver, BC, Canada**

The NW group appeared less healthy compared to the non-NW group at baseline. However, the NW group had greater improvements in KDQOL-36 (Effect of kidney disease;  $p=0.021$ ), 6MWT distance (41.5m), and HGS (1.1kg) at 3-month indicating that a group-based supervised NW program may provide benefits to renal patients as part of their clinical care. Chao et al., 2019 (unpublished)

### **Effectiveness of Urban Poling with ACTIVATOR® Poles for Residents of Long-Term Care Facilities**

Although the sample size was too small to find significant results, there were improvements in participant's leg and core strength, flexibility, balancing abilities, and perceived physical functioning in an eight-week urban poling program with Activator® poles. MacPhee & Unwin, 2009 thesis Wilfrid Laurier University. Unpublished.

### **Case Review with a Gait Assessment Lab using the Zeno Walkway.**

Subject was an 88-year-old woman with medical history including: bilateral hips, knees and shoulders replacements. Compared walking independently vs walking with Activator Poles using Zeno Walkway at gait assessment lab at Jewish General Hospital. Results found; increased gait speed, gait stride, less gait variability, reduce gait width and a more normalized arm swing when subject walked with Activator Poles. Roscher (2018) Protokinetic. Unpublished raw data.

For more information on the research studies and gait assessment lab, visit [urbanpoling.com](http://urbanpoling.com) or [urbanpoling.us](http://urbanpoling.us) under Research and Health.

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