



## Activator & Urban Poling Studies in Canada, UK & ISR

### Effects of Walking Technique on Knee Joint Loading

Dynamic knee joint loading is affected 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.

Bechard 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 Unpublished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 the posture of healthy adults when walking with Activator poles (APs) compared to elbow crutches and walking sticks with the aim to achieve the most upright posture. The 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 purchase the poles while 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 by the Nova Scotia Health Authority over a 9-week time span. The exercise sessions were based on the "Otago Falls Prevention Program" but modified by 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.

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 Unpublished.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) 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 no falls were reported while the program was active. This improvement in both the BERG balance test and falls rate was not maintained after the completion of the program. Although the sample is very small, the project suggests that Nordic walking could be an appropriate intervention to maintain functional independence and prevent falls in 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, Bone Health and Falls Risk for 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 thereby potentially reducing the risk of falls by users. Bone density, walking speed and strength in the lower limbs were maintained, which is clinically significant for individuals in this population group.

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 months thereby indicating that a group-based supervised NW program could 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 leg and core strength, flexibility, balancing abilities, and perceived physical functioning in participants during 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.**

The subject was an 88-year-old woman with medical history including: bilateral hip, knee and shoulder 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, reduced gait variability, reduced gait width and a more normalized arm swing when subject walked with Activator Poles.  
Roscher (2018) Protokinetic. Unpublished raw data.

### **A Simple Exercise Program for Patients with End Stage Kidney Disease to Improve Strength and Quality of Life: A Feasibility Study**

Strength tests, pedometers, and questionnaires that assess sleep and energy, will be used to assess patients with end stage renal failure treated with dialysis who are given a Prescription to Exercise using **Activator Poles** compared to patients receiving standard encouragement to exercise from dialysis staff. The intervention group will be given: access to a social network of study participants with similar levels of activity, an Exercise Prescription and **Activator Poles** to increase their baseline steps by 1200 to 2000 steps at least 3 days a week. If tolerated and accepted at 3 months- they will increase their prescription by an additional 600 to 1000 steps. This will be followed by a 6-month maintenance phase.

Zimmerman, Suri, Mois & Lok (current). Ottawa Hospital

### **Athletes in Training: Perceptions of Nordic Walking Among Older Adults**

This study evaluated perceptions about Nordic walking as a training method. The study followed up with focus groups after 5-week exposure to Nordic walking/Urban Poling to identify barriers and facilitators, instrumental beliefs, affective beliefs and the concept of a senior athlete in training was explored.

Hudec (current) University of Cape Breton

### **A study in Israel is scheduled to be completed in 2021.**

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.