

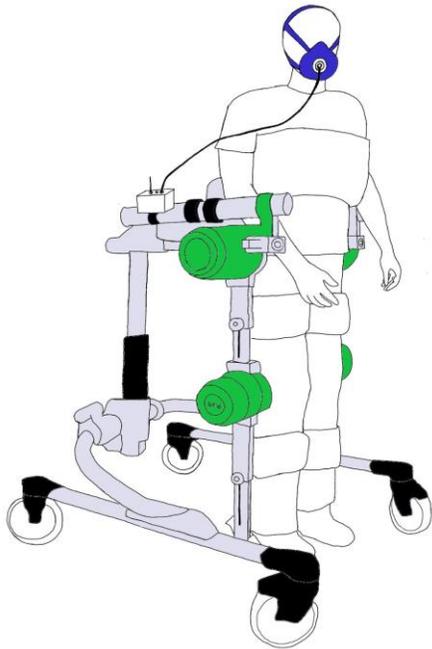
Participate in Research

Evaluating the Metabolic Cost of Walking in Children with Cerebral Palsy Using a Motorized Lower-Limb Exoskeleton



Principal Investigator:

Dr. Tom Chau



TO ASK QUESTIONS OR TO SIGN UP, CONTACT:

Marita Cafazzo

MASc Student
PRISM Lab

Email:

mcafazzo@hollandbloorview.ca

Phone: 416-425-6220 x3179

Date Posted:

Version Date: 11/10/2025

Does your child with cerebral palsy have limited exercise opportunities?

Consider participating in a research study to explore the impact of lower-limb exoskeleton-based exercise.

What is this study about:

Our team is studying how much energy children with cerebral palsy use when walking with the help of a motorized exoskeleton. This device is a wearable robot that helps their legs move.

Who can participate?

We are looking for participants (aged **10-14**) who:

- Have **Cerebral Palsy** GMFCS Level III or IV
- Often uses power wheelchair for mobility
- Can wear a mask that is secured through elastic straps around the back of the head
- Able to follow instructions in English and communicate discomfort (non-verbal communication accepted)
- Has not had orthopedic surgery in the last 6 months

What's involved?

- **Two 90-minute sessions** at Holland Bloorview
- Walking supported by a motorized exoskeleton for 6 minutes at a time
- Wearing a mask to measure breathing rate and other biological signals
- Wearing heartrate monitor and sensors on abdomen

Potential Benefits?

- The opportunity to walk using advanced robotic technology
- Contribute to research that supports use of exoskeletons as a form of exercise for children with Cerebral Palsy

Potential Risks?

- Muscle strain or soreness

Participants will receive a small token of appreciation to thank them for their time.

REB #:779