

- Call to action: Do you have limited motor control or movement? Consider participating in our study.

- Who can participate: Individuals with:

- limited motor control or movement (including, but not limited to: spinal cord injury and muscular dystrophy)
- good vision with or without glasses
- ability to follow instructions
- ability to subtract a two digit number from a three digit number
- ability to read at a grade 6 level in English
- ability to communicate in English
- ability to concentrate on a monitor for at least 15 minutes
- ability to make YES/NO decisions

- What's Involved: In this study, we are investigating a technology that can potentially be used as a communication device for people who have trouble moving or speaking. Study participants will attend five research sessions (each 1.5 hours in length) at the Bloorview Research Institute over a span of 1-2 weeks. Participants will try to control a computer using their brain signals. We will measure brain activation using light. This study will hopefully assist us in developing a communication device for individuals with severe motor disorders.

- Participants will receive a small token of appreciation, a \$25 gift card to thank them for their time.

- Deadline: December 2014

- Interested in Participating?: If you are interested in participating in this study or have additional questions, please contact Sabine Weyand at (sabine.weyand@mail.utoronto.ca, 416-425-6220 x3260) with your interest, and they will get back to you shortly. Contacting us does not obligate you or your child to participate in the study.

Summary: Brain-computer interfaces (BCIs) allow individuals to use only brain activity to interact with their environment. In this study we will measure brain activation using light. Current BCIs tend to be cognitively demanding and lack in user-friendliness. The main goal of this work is to develop a more intuitive and easier to use BCI. The development of a more user-centered BCI may provide a more effective means of communication and a better quality of life for individuals with severe motor impairments.