Participate in Research
Measuring brain synchrony between children and their parents while drawing pictures

Principal Investigator:
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Does your child love to draw? Participate in a study that measures brain activity while drawing together to understand social interactions between children and their parents!

What is this study about?

We are trying to understand how parents and children synchronize brain activity when working together by measuring the brain using near-infrared spectroscopy (NIRS) while drawing pictures. In the future we want to understand how brain activity in children could be used to diagnose autism and for developing brain-computer interfaces that can improve therapeutic interactions.

Who can participate?

We are looking for participants who:

- Are between 7 and 18 years old (with or without an autism diagnosis)
- A parent willing to participate with their child
- Can sit and focus on a task for at least 2 minutes and remain still for at most 30 seconds
- Can read and understand English instructions
- Have normal or corrected-to-normal vision/hearing and complete mobility of their upper body
- Have no history of neurological, cardiopulmonary, respiratory, or drug/alcohol-related conditions, traumatic brain injury or concussion

What's involved?

- You and your child will participate in **one, one-hour long session** at Holland Bloorview Kids Rehabilitation Hospital. Weekdays and weekends possible.
- During the session you and your child will be asked to draw pictures together or separately and play 'Simon Says'
- While playing these games, you and your child will wear a cap with sensors that measures brain activity

Potential Benefits?

There is no direct benefit for participation in the study. However, your participation can help with understanding how children's brain activity synchronizes with his/her parent during a social interaction to advance our understanding of autism.

Potential Risks?

There are no known risks of using NIRS to measure brain activity.

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

TO ASK QUESTIONS OR TO SIGN UP, CONTACT:

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Bloorview RESEARCH INSTITUTE
Canada's Only Hospital-Based Childhood Disability Research Institute

Holland Bloorview Kids Rehabilitation Hospital

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