



<b>Area of study</b>	Gait	
<b>Name of trial</b>	The relationship of rhythm abilities and gait after stroke	
<b>Study Type</b>	Observational	
<b>Description of trial</b>	<p>People with stroke often have an uneven walking pattern, called temporal gait asymmetry. This can cause long-term problems such as poor balance, pain in the stronger leg, and bone loss in the weaker leg.</p> <p>Some research suggests that areas in the brain may be related to both movement and our ability to recognize and produce a rhythm (e.g. finding and tapping to the beat in a song). We think that some people who have had a stroke may have lost the ability to recognize a regular beat, which prevents them from walking in a regular, rhythmical way.</p> <p>The results of this study may be important if an association between rhythm perception and production and temporal gait asymmetry is found, which could improve therapy approaches for Canadians living with stroke.</p>	
<b>Objective of the Study</b>	The main purpose of this study is to describe the relationship between rhythm abilities and the ability to walk with a regular pattern, and also to self-evaluate the walking pattern after stroke. The other aim of this study is to describe brain activity when performing rhythm tests.	
<b>Eligibility requirements</b>	<p><b>Who can apply (inclusion criteria)</b></p> <ul style="list-style-type: none"> <li>• <b>First occurrence of stroke</b></li> <li>• <b>Ability to walk 10m</b></li> </ul> <p><i>*We are also looking to recruit participants with no history of stroke as a control group.</i></p>	<p><b>Who can not apply (exclusion criteria)</b></p> <ul style="list-style-type: none"> <li>• <b>Severe hearing loss</b></li> <li>• <b>Pre-existing conditions that significantly impact gait (e.g. osteoarthritis, Parkinson's disease)</b></li> </ul>



<b>Study Commitment</b>	<p>This study involves up to 3 study visits:</p> <ol style="list-style-type: none"> <li><b>1. Clinical assessment (2 hours):</b> You will be asked to perform some tests to describe how your stroke has affected your function, your rhythm abilities, and a test of your walking.</li> <li><b>2. Balance and walking assessment (1.5 hours):</b> You will complete some standing balance and walking tasks while we take detailed measurements of your muscle activity and body movements.</li> <li><b>3. Functional brain imaging – optional (2 hours):</b> Magnetic resonance imaging (MRI) will help describe the location of the stroke and determine the brain regions that are active during rhythm testing.</li> </ol>
<b>Location of trial</b>	<p>Visits 1 (clinical assessment) and 2 (balance and gait assessment) will take place at Toronto Rehabilitation Institute – University Centre, and visit 3 (functional MRI) will take place at Sunnybrook Health Sciences Centre.</p>
<b>Funder</b>	<p>This study is being funded by the Canadian Institutes of Health Research (CIHR) and Natural Sciences and Engineering Research Council (NSERC).</p>
<b>Contact information</b>	<p>Study Contact Information:  <b>Principal investigator: Dr. Kara Patterson</b> (<a href="mailto:kara.patterson@uhn.ca">kara.patterson@uhn.ca</a> or 416-597-3422 x 7877 or <a href="http://relearnlab.wordpress.com">relearnlab.wordpress.com</a>)  <b>Research coordinator: Jennifer Wong</b> (<a href="mailto:jennifer.wong@uhn.ca">jennifer.wong@uhn.ca</a> or 416-597-3422 x 7827)</p> <p>General Information      If you are interested in participating in or learning more about this study, please email <a href="mailto:research@canadianstroke.ca">research@canadianstroke.ca</a> or call 416-480-6100 ext. 80941</p>

