



# In Motion

Highlighting Articles Advancing Pain Research in Canada and the World

## Featured article:

Allen Demers, F., Zangrandi, A., Schneider, C. **Theta-Burst Stimulation of Forearm Muscles in Patients With Complex Regional Pain Syndrome: Influence on Brain and Clinical Outcomes.** *Frontiers in Pain Research*, 2021;2:736806. <https://doi.org/10.3389/fpain.2021.736806>

## Key insights from the study:

- **New Treatment Method:** This research explores how using the repetitive peripheral magnetic stimulation (rPMS) in the theta-burst frequency on forearm muscles can help relieve pain and improve how well muscles work in people with Complex Regional Pain Syndrome (CRPS).
- **Benefits for Brain and Body:** Early results suggest that rPMS can reduce pain, help patients control their muscles better, and might even improve brain functions related to CRPS.
- **Positive Patient Reports:** Patients noticed less pain and better movement and control of their muscles after receiving rPMS treatment, indicating it could be a helpful non-surgical treatment option for CRPS.

## What happened?

Eight patients with CRPS participated in this study, receiving a single rPMS session. Researchers measured how much pain the patients felt, how well they could sense and move their muscles, and their hand strength before and after the treatment. They also looked at brain activity to understand how rPMS might be helping.

## Why is it important?

This study is important because it offers a new, non-invasive way to potentially reduce pain and improve muscle function in CRPS, a condition that often doesn't respond well to usual treatments. Understanding how non-invasive and painless treatments like rPMS can change brain activity and relieve symptoms gives hope for better management of this challenging condition.

## What now?

Encouraged by these initial positive results, more extensive studies are needed to confirm these findings. Future research should continue to investigate how rPMS influences brain activity and physical symptoms in CRPS patients, which could lead to more effective treatments.