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## A Real Headache - Understanding Treatment Response to Migraine

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## **Chloe Cheung**

Migraine is both common and costly in the general population, affecting over 2.7 million Canadians and costing individual patients over \$23,000 annually. Migraine sufferers also experience impairments in quality of life, and brain structure and function compared to healthy people. While migraine medications exist, some patients experience insufficient relief or unpleasant side effects, fueling a need for alternative non-pharmaceutical interventions.

Studies show meditation can reduce headache days in migraine patients; however, a comparison of treatment responders (patients experiencing  $\geq 50\%$  reduction in headache days) to non-responders has not been done. Therefore, my research will use neuroimaging techniques to examine whether treatment response to meditation can reduce migraine symptoms and restore normal brain structure and function in migraine patients up to a year later.

If successful, my research will uncover brain mechanisms underlying treatment response, thus identifying potential targets for new migraine treatments and improving outcomes for millions of migraine patients.