

Help for people with muscle cramps?

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A new treatment may bring hope for people who suffer from muscle cramps or spasms from neuromuscular disorders, diseases such as multiple sclerosis or simply from nighttime leg cramps that keep people from sleeping, according to a study released today that will be presented at the American Academy of Neurology's 67th Annual Meeting in Washington, DC, April 18 to 25, 2015.

"We estimate that approximately four million US adults over the age of 65 suffer daily from nocturnal leg cramps, a condition for which there is significant unmet need since there are no approved treatments," said study author Rod MacKinnon, MD, Nobel laureate and co-founder of Flex Pharma in Boston. "These leg cramps can cause distress, interrupted sleep, reduced quality of life and interference with activities of daily living."

The treatment is based on research showing that cramps are caused by excessive firing of neurons in the spinal cord that control [muscle contraction](#). The treatment is designed to stop the firing of the neurons by stimulating the transient receptor potential (TRP) ion channels.

For the study, the researchers used an electrical neurostimulator to induce [muscle cramps](#) in the feet of 37 healthy people. In the randomized, blinded study, half of the participants received the treatment while half received a placebo. Then both groups received the other treatment.

When participants received the treatment, which was taken by mouth,

their cramps were three times less intense than when they received the placebo. The treatment took effect within minutes and lasted up to six to eight hours.

"These results support our belief that this [treatment](#) has significant potential as a solution for people suffering from muscle cramping and possibly spasms from a broad range of [neuromuscular disorders](#), nighttime leg cramps, [multiple sclerosis](#), spinal spasticity and cervical dystonia. Cramps can impact even the world's fittest athletes at critical times," said MacKinnon.

Provided by American Academy of Neurology

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