

Haptic Patch Reduced Pain and Improved Range of Motion in Randomized Controlled Trial Presented at Business of Pain 2026

Randomized study of 118 adults: drug-free FREEDOM haptic patch significantly reduced pain and improved range of motion vs. placebo in 14 days.

NARRAGANSETT, RI, UNITED STATES, October 8, 2026 /EINPresswire.com/ -- A wearable, drug-free haptic patch significantly reduced pain and improved range of motion compared with a placebo patch, according to results of a randomized, double-blind, controlled study presented today at the Business of Pain 2026 meeting at the Fontainebleau Miami Beach in Miami Beach, Florida. The study was conducted by Clarity Science, LLC.

The presentation, "Reducing Pain Severity and Improving Range of Motion with a Vibrotactile Haptic Patch: Results of a Randomized, Controlled Study", was authored by Jeffrey Gudin, MD, of the University of Miami Miller School of Medicine, and Peter Hurwitz, President of Clarity Science, LLC.

Study Design

The study enrolled 118 adults (58 men, 60 women) with myofascial, musculoskeletal, arthritic, or neuropathic pain. Participants were randomly assigned to wear either the FREEDOM Patch, which incorporates Haptic [Vibrotactile Transduction](#)/Trigger Technology (VTT) (n=64), or a similar-appearing placebo patch (n=54). The patch was applied near the source of pain and replaced daily for 14 days, and all 118 participants completed the study. Pain was measured with the validated Brief Pain Inventory (BPI), and range of motion with the Schober test, goniometer, and inclinometer.

Key Findings

- Pain severity ($P=.001$) and pain interference ($P=.012$) improved significantly more with the active patch than with placebo at Day 14.
- In the active group, pain severity fell by a median of 2.75 points on the 0–10 BPI scale ($P<.001$).
- Range of motion and flexibility improved significantly more with the active patch than with placebo at both Day 7 and Day 14 (inclinometer $P<.001$; goniometer $P=.009$). In participants with low-back pain, the Schober test improved 2.17 cm more with the active patch than with placebo ($P=.0015$).
- By Day 14, 92% of active-patch users reported pain relief within 20 minutes of application, 95%

reported using less oral pain medication, and 94% were extremely satisfied with the patch, compared with 56% satisfaction in the placebo group.

- No adverse events were reported in either group.

“Many people living with pain don’t get adequate relief from the treatments available to them, and pain medications carry risks of their own,” said Jeffrey Gudin, MD, of the University of Miami Miller School of Medicine. “In this placebo-controlled study, a simple topical haptic patch reduced pain severity and interference and improved mobility within two weeks, without any adverse events. These results support considering haptic vibrotactile technology as a non-drug option for pain, on its own or alongside other therapies.”

How the Technology Works

Haptic Vibrotactile Transduction/Trigger Technology (VTT) is designed to stimulate mechanoreceptors in the skin. The resulting signal is thought to engage PIEZO1 and PIEZO2 mechanosensitive ion channels, the touch-sensing receptors recognized by the 2021 Nobel Prize in Physiology or Medicine, which carry sensory information through the peripheral nervous system to the brain. In pain, this signaling is theorized to disrupt the pain neuromatrix, the network of brain regions that shapes how pain is perceived.

Disclosure

The study was funded by SRYSTY Holding Co./The Super Patch Company, the patch manufacturer, and conducted by Clarity Science, LLC under independent IRB oversight (Advarra).

About Clarity Science, LLC

Clarity Science, LLC, headquartered in Narragansett, Rhode Island, is a contract research organization (CRO) that conducts randomized, placebo-controlled clinical studies of non-pharmacological and pharmacological health technologies. Its studies are conducted with academic and clinical collaborators under independent Institutional Review Board oversight, and its findings have been published in several peer-reviewed scientific journals.

About The Super Patch Company

The Super Patch Company (www.superpatch.com), based in Toronto, Canada, is a privately held wellness technology company that develops drug-free, non-invasive wearable patches incorporating Haptic Vibrotactile Transduction/Trigger Technology (VTT). Each patch carries an embedded pattern designed to stimulate mechanoreceptors in the skin.

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