# Introducing KneeMo®: The First Smart Wearable Designed to Relieve Knee Pain During Activity and Improve Muscle Function

*Clinically Proven, Double-Patented Device Combines 50 Years of Biomechanics Research*
*With an Intelligent Vibration Solution*

MINDEN, NV, UNITED STATES, July 29, 2025 /EINPresswire.com/ -- SomaTX Design Inc. (SDI), an innovator in science-driven health technology, today announced the launch of KneeMo®, the first smart wearable device designed to change the paradigm of knee pain management by significantly reducing pain and improving muscle function during activity.


KneeMo®: A smart wearable device designed to help people with chronic knee pain stay active using motion-activated vibration.

Developed by Dr. Tom Andriacchi, Professor Emeritus at Stanford University, and Dr. Jenny Hledik, a biomechanical engineer specializing in human movement, KneeMo is built on over five decades of research in joint mechanics and rehabilitation. Chronic knee pain affects 25% of adults worldwide, often stemming from osteoarthritis, injury, or age-related decline. Without effective intervention, pain and muscle weakness can worsen over time, limiting mobility and independence.

> This technology transforms rigorous lab research into a wearable solution that empowers people to take control of their mobility”
>
> *Dr. Jenny Hledik, KneeMo Chief Operating Officer and Co-Inventor*

The launch comes at a pivotal time, as more people are living longer and striving to maintain an active lifestyle well into later life. KneeMo fills a critical, unmet need for a drug-free, wearable solution that supports mobility by reducing pain and enhancing muscle function during movement. By helping people stay active, it addresses the decline in health and quality of life that often results when pain makes movement difficult or

unsustainable.

KneeMo uses smart, motion-sensing technology that combines engineering, neurophysiology, and decades of gait laboratory research to reduce knee pain and enhance quadriceps muscle function during walking, stair climbing, jogging, and other daily activities. Using patented technology, the device senses each user's unique motion patterns and applies motion-activated intermittent vibration to block pain signals and recruit muscles at a critical phase of gait.

KneeMo® - designed for daily comfort and support.

KneeMo® in action — helping people with knee pain stay active and enjoy movement again.

"After decades developing products to treat musculoskeletal conditions, watching someone limited by knee pain experience immediate relief while walking with KneeMo has been the most rewarding moment of my career," said Dr. Andriacchi. "This technology transforms rigorous lab research into a wearable solution that empowers people to take control of their mobility," continued Dr. Hledik.

KneeMo is grounded in the science of the Gate Control Theory of Pain, which demonstrates that a non-painful stimulus like vibration reaches the brain faster than pain sensation and effectively "gates" pain signals. Laboratory research showed that activating intermittent vibration at specific phases of walking resulted in a positive response. In a longitudinal, randomized controlled trial, KneeMo significantly reduced pain and improved quadriceps function in patients with osteoarthritis or injury-related knee pain compared to a passive brace.

Designed for ease of use, the device consists of two rechargeable Active Units that users secure above and below the knee with adjustable straps. Embedded motion sensors and a programmed microprocessor deliver vibration precisely in sync with the wearer's gait. Through a Bluetooth-connected app, users can customize vibration intensity, select activities like cycling and jogging, and track their progress.

Scientific and Clinical Validation

- Immediate Functional Benefits: A clinical study published in the Journal of Biomechanics in 2019 found that 95% of participants using the initial prototype of KneeMo showed prompt improvement in quadriceps function. (Link to abstract: https://pubmed.ncbi.nlm.nih.gov/30381155/)
- Proven Pain Relief: Peer-reviewed research published in 2020 confirmed patients showed significant pain and symptom reduction over four weeks, while they had no significant differences with passive treatment. (Link to abstract: https://pubmed.ncbi.nlm.nih.gov/32485422/)
- Enhanced Mobility: Clinical research published in 2021 demonstrated that intermittent vibration can improve mobility during stair navigation, an often-challenging task for individuals with knee pain, by enhancing quadriceps function and improving movement control. (Link to abstract: https://pubmed.ncbi.nlm.nih.gov/33721689/)

“There is nothing else like this in the marketplace,” said Dr. Richard Berger, an orthopedic surgeon who integrates KneeMo into patient care. “It’s the perfect blend of a brace and a physical therapist rolled into one: simple to use, customizable, and effective.”

KneeMo was built for adults managing chronic osteoarthritis, athletes recovering from ACL or meniscus injuries, and anyone seeking non-pharmaceutical options to maintain an active lifestyle. The system is comfortable, easy to use, and promotes compliance by feeling good during wear and requiring minimal instruction.

KneeMo is FDA registered and protected by multiple patents. The device is already being used in clinical and rehabilitation settings nationwide. It is available at www.thekneemo.comstarting at $499, with financing options and a 30-day risk-free trial. Healthcare providers can purchase KneeMo at a provider rate, making it accessible for integration into patient care programs.

About SomaTX Design Inc. (SDI)
Founded in 2019, SDI is a health technology company focused on advancing mobility through smart, science-backed innovations. Its flagship product, KneeMo®, turns decades of biomechanics research into an intuitive smart device that delivers Pain Relief in Motion. The company is headquartered in Nevada and led by a team of clinical researchers, engineers, and health technology experts committed to improving joint health through movement-first solutions.

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