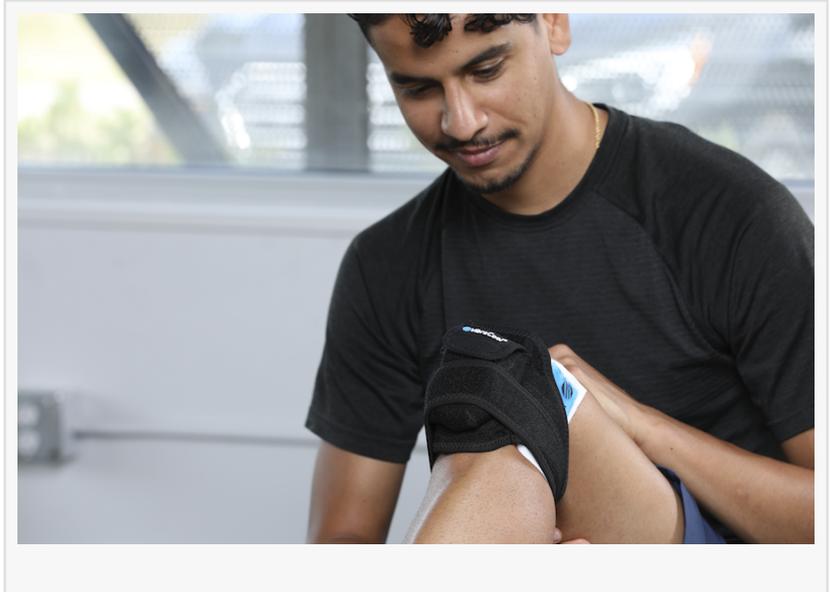


# Pain Care Labs' VibraCool® Named A Top Pain-Relieving Device on the Market

*Practical Pain Management* calls VibraCool “well-tested and based on fundamentally sound technology and good science,” effective for joint-related disorders

ATLANTA, GEORGIA, USA, September 23, 2020 /EINPresswire.com/ -- [Pain Care Labs](#), industry leader in noninvasive pain relief devices, announced today that its VibraCool® vibrational cryotherapy devices were chosen among 12 Top Pain-Relieving Devices on the Market as featured in the “[Practical Pain Management Journal](#)” (PPM).

The PPM guide focuses on FDA-cleared, drug-free pain relief options for patients to use at home as part of a comprehensive pain management plan, with VibraCool as the most affordable medical grade device listed.



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Our goal is to give patients options for acute and chronic pain conditions that are effective enough that opioids can be reduced or eliminated.”

*Amy Baxter, MD, Pain Care Labs CEO and Chief Medical Officer*

“As fewer Americans have safe access to medical offices due to the SARS-CoV-2 pandemic, the challenge of home pain management becomes more urgent,” explains Amy Baxter, MD, Pain Care Labs CEO and Chief Medical Officer. “Patients’ surgeries are delayed, and they lack their usual access to physical therapy, massage, and acupuncture. Doctors don’t want to prescribe opioids, so pain relief alternatives are even more critical.”

For over a decade, the mission of Pain Care Labs has been to eliminate unnecessary pain with affordable, clinically

proven, interventions. The Company's award-winning solutions are based on a patented M-Stim™ neuromodulation platform.

A number of the devices in the PPM guide rely on transcutaneous electrical nerve stimulation,

commonly known as TENS. VibraCool is different from TENS technology, specifically because VibraCool uses mechanical, not electrical, stimulation. While TENS can stimulate at most two of four gate-control nerves, VibraCool stimulates all four nerves for maximum pain inhibition. VibraCool adds an ice inhibition pathway, reaching five pain inhibitors. “The research on the effectiveness of mechanical stimulation over electrical stimulation is clear,” asserts Dr. Baxter. “The wearable mechanical stimulation frequency that powers VibraCool relieved overuse and musculoskeletal pain **3.6x better than TENS.**”

**Crossover Trial of Novel Mechanical Oscillatory Vibration Frequency Device Versus TENS for Musculoskeletal Pain**  
 PRESENTER: Amy Baxter MD  
**Objective:** To evaluate whether high frequency mechanical vibration in the Pacinian stimulation range (100-250Hz) relieves pain more than electrical stimulation.  
**Design:** Randomized non-blinded crossover trial  
**Setting:** Outpatient physical therapy  
**Participants:** 12 females and 7 males aged 25-81 missing physical therapy for OA (6), sacral dysfunction (2), shoulder injury (3), and surgery (5); osteoarthritis (3), sprain/strain (3), fibromyalgia (3), and bone cancer of the spine (2).  
**Interventions:** Crossover patients got a randomized 20-minute session of 100-250Hz mechanical oscillatory vibration (VibraCool) (VC), Pain Care Lab, Atlanta, GA, or a generic model TENS (20Hz) applied to pain. TENS units used 150Hz frequency with a pulse width of 200ms, amplitude adjusted to cause pain-wasness and antinociceptive as high as comfortable on a 0-100mm using a 500-gm hand-held vibrator. Most patients used the device on different days. On 2 locations when TENS was applied with no relief VC was used the same day.  
**Main Outcome Measures:** Visual analog scale (VAS) pre- and post therapy pain scores. (Score 0 = "no pain" to 10.)  
**Results:** Mean pain relief with VC high frequency vibration was 3.6x (p < 1.00) (95% CI 2.9 to 4.3). Pain relief with TENS was 3.4x (p < 1.00) (95% CI 3.0 to 3.8), with a mean difference of 0.2 (p < 1.00) (95% CI 0.0 to 1.5). (p < 0.001). Pain relief with VC was greater for spine, injury and pain relief with VC (laterar flexion); but patients had no relief with TENS (laterar flexion, OA), shoulder arthropathy, and OA (95%).  
**Conclusion:** Mechanical high frequency vibration in the Pacinian oscillatory frequency was superior to electrical stimulation for pain relief, with higher efficacy for injury, post-surgical and spinal conditions.

**Wearable mechanical stimulation frequency relieved overuse and spine pain 4x better than TENS.**

**Gate Control Pain Relief**  
 Mechanoreceptors fire at different mechanical frequency thresholds. Pacinian (100-250Hz) block pain most.  
 In the brain, annoying signals (cold) inhibit pain.  
 In the spine, mechanical signals override pain signal's transmission to the brain.  
 TENS uses electricity (2-5Hz & 80-150Hz) to twitch skin to make motion to fire nerves.  
 50% of patients tolerate the electricity amplitude needed to fire deep Pacinian.  
 100% of patients tolerate mechanical amplitude to fire Pacinian mechanoreceptors.  
 Mechanical waves stretch (firing Ruffini) > decay to trigger slower (Meissner) Hz.

**Pain Reduction by Etiology or Location**

**References**

1. Manfredi JK, et al. The effect of surface wave propagation on neural responses to vibration in primate globus pallidus. *PLoS one*. 2012;7(11):e31210.  
 2. Holms M, Cox C, Shan F. Pacinian signals: Determine the Direction and Magnitude of the Effect of Vibration on Pain. *Perception*. 2017; Aug;46(8):917-920.  
 3. Lopez GS, et al. Using TENS for pain control: the state of the evidence. *Pain management*. 2014; March;16(3):209.  
 4. Saravanantham D, et al. Intensity matters: Threshold-dependent dose of signal transduction electrical nerve stimulation. *Pain*. 2015; 2012;32(1):107-114.  
 5. Minetti M, et al. Contralateral effect of short duration unilateral AMES and heat vibration on healthy subjects. *Eur J Appl Physiol*. 2014; December;116(12):2129.  
 6. Holms M, McChesney K, Harper D. How does vibration reduce pain? *Perception*. 2014;43(1):9-16.  
 7. Guang X, Lohong S, and Tingting Sh. Pain Vibration Thresholds: Muscle Fibers, the Pacinian Muscle Waves. *IEEE TRANS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING*. 2018;26(6):1838-1846.

Pain Care Labs' wearable devices reduce chronic pain with noninvasive, non-pharmaceutical methods. VibraCool uses motion and ice to harness two newly discovered physiologic pain pathways: one mechanical frequency blocks pain, another competes with pain for the brain's attention. Proven effective in hospitals for even intense needle pain, this mechanothermal Oscillice® combination technology is now optimized for a wider range of pain conditions. In addition to the VibraCool products configured for ankle, knee, wrist, elbow, neck, shoulder, and foot, Pain Care Labs expects to deliver its new market-ready device to treat low back pain in Q1 2021.

“Current stay-at-home directives necessitated by COVID-19 mean patients need options to manage pain at home,” says Keith Cronin, Doctor of Physical Therapy. “VibraCool’s mechanical stimulation offers pain relief for inflammation, overuse, and post-operative recovery, and can be easily adapted to any home exercise program. The PPM guide helps patients looking for effective solutions at home.”

The same pain management journal published a review comparing VibraCool to other more expensive devices on the market. The authors found VibraCool to be an affordable, valuable adjunct to clinical treatments. Additionally, the ease of using VibraCool resulted in "both high compliance and tolerance."

Using vibration to treat chronic pain has a long history. Vibration, or the transmission of oscillatory mechanical stimulation, may be accomplished with auditory or ultrasonic waves, pulsed electromagnetic fields, electrical stimulation, shockwaves, or mechanical devices with motor-driven shaking platforms or eccentric flywheels. The PPM guide shows a range of vibration devices on the market. Among the options featured, VibraCool is the most studied

solution and the most affordable.

## ABOUT PAIN CARE LABS

Pain Care Labs is the industry leader in noninvasive pain relief solutions. Buzzy® has been used to block pain for over 35 million needle procedures. VibraCool® is an FDA registered 510(k) cleared device to treat myofascial pain caused by trigger points, restricted motion, and muscle tension. Established in 2006 by emergency physician and pain researcher Amy Baxter M.D., the Company is dedicated to effective, reusable, and affordable solutions for pain. The Company's award-winning solutions are based on patented Oscillice®, a mechanical stimulation/thermal neuromodulation platform, to give serious, simple relief. Pain Care Labs was named "Industry Leader for Localized Pain Relief" by Frost & Sullivan, a leading market research firm. For more information, including a list of published studies, please visit [PainCareLabs.com](http://PainCareLabs.com).

Sarah Lopez

Pain Care Labs

+1 877-805-2899

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