

***i*INCREDIWEAR**
Studies



Dr. Jackson Corley, CEO

I know first-hand how pain and injury can slow you down — but I firmly believe that it doesn't have to.

In 2009, a mountain biking accident left me with three herniated spinal disks, a lot of pain, and not a lot of mobility. Refusing to accept defeat, and determined to return to my active lifestyle, I pursued innovative healing alternatives. When I didn't find what I was looking for — I made it. By incorporating semiconductors into fabric, I was able to create a bioactive back-brace prototype, that I tested on: myself.

It worked.

And so, INCREDIWEAR was born.

We exist to help you heal, better and faster — because you deserve to keep moving.



***i*NCREDIWEAR**

**PATENTS ISSUED
TO INCREDIWEAR
FURTHER VALIDATE
PRODUCT EFFICACY**



In 2024 the USPTO has issued four patents to Incrediwear® that use specific language substantiating product claims for keys areas of therapeutic use:

-  Patent No. 12096809: Treats Arthritis
-  Patent No. 12102145: Emits Infrared Waves
-  Patent No. 12102825: Increases Cellular Movement (circulation)
-  Patent No. 12144985: Speeds Healing Time (recovery)
-  Patent No. 12179017: Decreases Muscle Load
-  Patent No. 12186552: Accelerates Wound Healing

In support, the patents cite Incrediwear's published research findings asserting product efficacy claims that no other brands of sleeves or braces can offer.

Patented technology. Backed by clinical research. Proven effective. That's the Incrediwear difference.

***i*NCREDIWEAR**

24/7 WEARABLE THERAPY

iNCREDIWEAR

INCREASED BLOOD FLOW LEADS TO FASTER HEALING AND RECOVERY

The Effect of Therapeutic Garments on Blood Flow as Measured by a Laser Doppler Blood Flow Monitor

Study Design

19 participants were tested after acclimating for 10 minutes to the ambient testing conditions. Then, they donned the garment for 20 minutes. Measurements of blood flow and blood speed were then taken for each participant in 8 different types of garments and 2 controls, for a total of 29 tests. Control garments were also measures for comparison.

Garments Tested:



SHOULDER
BRACE



WRIST
SLEEVE



CALF
SLEEVE



KNEE
SLEEVE



PERFORMANCE
PANTS



CIRCULATION
SOCKS



TREK
SOCKS



BRANDAGE
WRAP

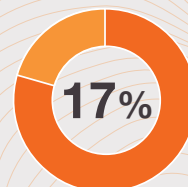
Measurement Technique: how does it work?

Laser doppler is a technique to measure blood flow and the speed that blood travels through microvasculature in the tissue.

Laser doppler works by determining the shift in light that is scattered by moving red blood cells within the blood vessels. The signal of light emitted vs light returned is used to determine a relative measure of blood flow. Laser doppler is a non-invasive, continuous measurement technique that is extremely useful in the clinical setting.

Results:

Increased blood speed and flow observed for all garments tested for all participants. An average increase of 17% in blood flow compared to the control garments was observed.



INCREASED
BLOOD FLOW

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24/7 WEARABLE THERAPY

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COMBINED REHAB PROTOCOL REDUCES OA KNEE PAIN AND IMPROVES OUTCOMES



Background

Clinical OA is believed to be highly prevalent today because of recent increases in life expectancy and body mass index and remains the most challenging arthritic disorder, with an estimated 32.5 million US adults diagnosed with clinical OA as well as a high burden of disease and no available disease-modifying treatments. Current treatments are limited by small effect sizes and adverse side effects. A multidisciplinary and sustained international effort involving all major stakeholders is needed.

The Limfa machine sends a dedicated pattern of ultra-weak complex electromagnetic sequences and has been shown to promote cartilage regeneration and reduce fracture healing time.

In this study, extremely low frequency (ELF) electromagnetic field therapy was combined with the Incrediwear non-compressive, soft knee brace in a comparative protocol to determine the effect of ELF alone and in combination with Incrediwear on pain and function for Knee OA.

Methods

35 patients were assigned to either Group 1: Limfa therapy or Group 2: Limfa therapy and Incrediwear knee sleeve. All patients participated in ten sessions of Limfa therapy with antiphlogistic and antiedema programs for 2 weeks, 5 days/week, followed by, without interruption, twelve sessions of bone and connective tissue repair programs for 4 weeks, 3 days/week. Patients in Group 2 wore the Incrediwear knee sleeve during rest and daily activity for at least 6-8 hr a day, every day, for 6 consecutive weeks.

VAS, KOOS and Lysholm scores were collected at baseline (T=0), after 2 weeks of treatment (T=1), after 4 weeks of treatment (T=2), and 6 weeks following completion of all treatment sessions (T=3). 22 patients per group were included, based on power calculations of 90% power, alpha of 0.05, difference of 2 cm (VAS) and standard deviation of 1.5 factoring in a 20% dropout rate.

Combined Rehabilitation Protocol in the Treatment of Osteoarthritis of the Knee: Comparative Study of Extremely Low-Frequency Magnetic Fields and Soft Elastic Knee Brace effect

Healthcare (Basel), April 2023



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24/7 WEARABLE THERAPY



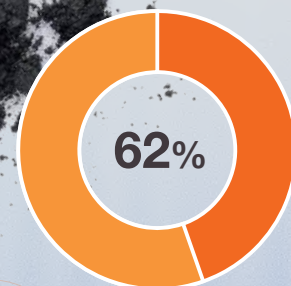
**Incrediwear
non-compressive
germanium
embedded
knee brace**

Study Design

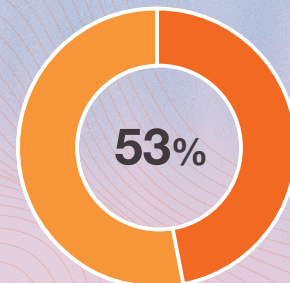
- The results showed that pain at rest, pain in motion, KOOS, and Lysholm Scores were significantly affected by ELF over time.
- Group 2 had a better response in terms of pain resolution at rest ($p < 0.05$) and a concurrent better response at the post-treatment follow up in terms of functional recovery ($p < 0.05$).
- Group 2 (Limfa and Incrediwear) showed 62% reduction in pain 6 weeks after completing all treatments and a 53% reduction in pain after just 2 weeks of treatment.
- Group 2 showed a 40% improvement in Lysholm Score and 29% improvement in KOOS 6 weeks after completing all treatments, and a 39% improvement in Lysholm after just 2 weeks of treatment.
- The combination of ELF and the Incrediwear non-compressive knee sleeve significantly reduced pain and improved outcomes for pain and function in patients with acute Knee OA

Authors

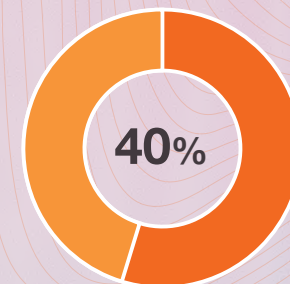
Paolucci T, Porto D, Pellegrino R, Sina O, Fero A, D'Astolfo S, Franceschelli S, Patruno A, Fusco A, Pesce M.



**REDUCTION IN PAIN
6 WEEKS AFTER
COMPLETING TREATMENT**



**REDUCTION IN PAIN
AFTER JUST 2 WEEKS
OF TREATMENT**



**IMPROVEMENT
IN LYSHOLM SCORE
AFTER 6 WEEKS**



NEW RESEARCH AFFIRMS THERAPEUTIC BENEFITS OF INFRARED WAVES EMITTED BY INCREDIWEAR®

Background

A 2024 independent review paper published in the journal of Pharmacological Research synthesizes the existing literature to provide a comprehensive overview of infrared therapy. This not only validates Incrediwear's patented technology, but also reinforces the growing body of scientific evidence supporting infrared therapy and the underlying mechanisms to explain its myriad therapeutic applications.



**Far-infrared radiation and its
therapeutic parameters:
A superior alternative
for future regenerative medicine?**

Pharmacological Research,
October 2024

View Full Study [Here](#)

Key Takeaways

1. Far Infrared (FIR) is uniquely effective because it is biologically active.

- a.** Infrared waves fall on the electromagnetic spectrum, between microwaves and visible light. The energy range emitted by Incrediwear products is precisely the same as the infrared therapy discussed in this review paper, referred to as Far Infrared (FIR).
- b.** The mechanism underlying Far Infrared (FIR) therapy is the energy transfer from infrared waves to biomolecules within the body – predominantly biological water – which leads to vibration within molecules and cells.

2. Influence on Cellular Activity:

- a.** Infrared therapy can alter cell membrane potential, increase mRNA expression, modify mitochondrial metabolism, and regulate cellular proteins.
- b.** This impacts cellular proliferation, function and regulation of a cell's lifespan.
- c.** Infrared can modulate levels of pro- and anti-inflammatory cytokines, enhance endothelial function, and reduce oxidative stress.

3. Impact on Cellular Differentiation and Gut Microbiota:

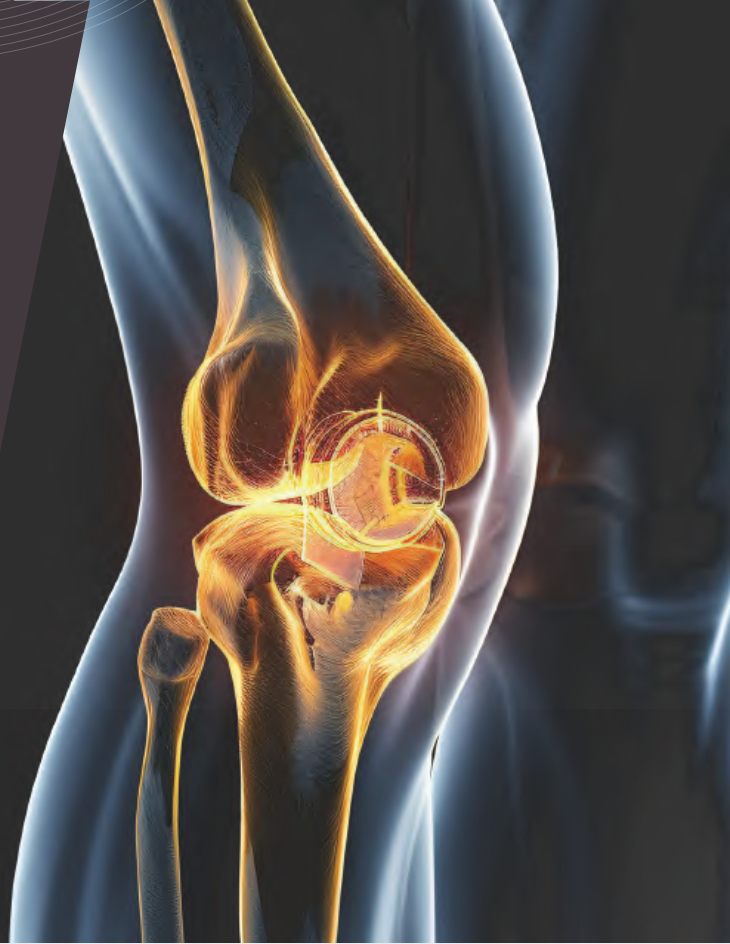
- a.** Infrared therapy activates G-protein coupled receptors (GPCRs), influences gut microbiota, and impacts cellular differentiation, inhibiting adipogenic (fat cell) and promoting osteogenic (bone cell) differentiation in stem cells.
- b.** Infrared therapy also facilitates angiogenesis and promotes vasodilation through nitric oxide regulation.
- c.** Infrared therapy facilitates angiogenesis and reduces pain by regulating nitric oxide production.



24/7 WEARABLE THERAPY

iNCREDIWEAR

LESS SWELLING VS. COMPRESSION FOLLOWING TOTAL KNEE REPLACEMENT



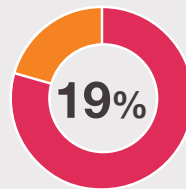
Background

Compression stockings are routinely prescribed after total knee arthroplasty (TKA). Non-compressive sleeves embedded with semiconductor elements (Incrediwear) are designed to enhance blood flow. The objective of this investigation is to compare compression stockings and Incrediwear on post-TKA measures.

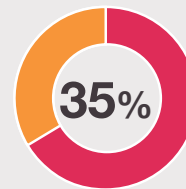
Methods

In this single-center prospective clinical study, patients undergoing TKA were assigned to either the compression stocking (control) or Incrediwear (experimental) group. Subjects were evaluated preoperatively and postoperative at 3 weeks for pain, knee effusion, knee range of motion (ROM), thigh and calf circumferences.

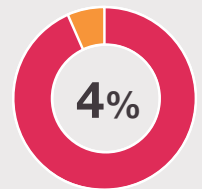
TOTAL KNEE ARTHROPLASTY STUDY



LESS SWELLING
WITH INCREDIWEAR



MORE SWELLING
WITH TED HOSE



GREATER R.O.M.
WITH INCREDIWEAR

Key Takeaways

- At Day 21 post-op, subjects who received Incrediwear had 19% LESS swelling
- At Day 21 post-op, subjects who received TED Hose (compression, standard of care) had 35% INCREASED swelling
- Subjects who received Incrediwear had less pain and had 4% better Range of Motion compared to the standard of care (compression) group.

**Non-Compressive Sleeves vs. Compression Stocking
After Total Knee Arthroplasty: A Prospective Pilot Study**
March 2024 Journal of Orthopaedics





Results

Incrediwear subjects had slightly higher preoperative effusion than controls (mean effusion 1.38 vs. 1.16, $p = .28$); however, by week 3, Incrediwear subjects had lower levels of effusion than controls (1.12 vs. 1.56, $p = .015$).

At week 3, when compared to pre-op, Incrediwear subjects experienced a 19% decrease in effusion while controls experienced a 35% increase in effusion ($p = .003$).

Preoperatively, there were no differences observed between Incrediwear subjects and controls flexion ROM (mean ROM 117 vs. 116, $p = .67$); however, by week 3, Incrediwear subjects had greater flexion ROM than controls (113 vs. 108, $p = .02$).

Incrediwear subjects experienced only a 3% decrease in flexion ROM while controls experienced a 7% decrease in ROM ($p = .07$).

Incrediwear subjects reported higher preoperative pain than controls (mean pain 4.2 vs. 3.2, $p = .051$); however, by week 3, there was no difference observed between these groups (2.9 vs. 3.0, $p = .440$).

Credit authorship contribution statement

T. Elaine Justice: Funding acquisition, Writing, Investigation, Data curation, Validation, Formal analysis. Paul B. Jacob: Conceptualization, Methodology, Project administration, Investigation, Supervision, Visualization.

Wearable **INFRARED**

*scientifically proven and
clinically validated*

22% Increased Circulation
LASER DOPPLER BLOODFLOW, 2017

51% Reduction in pain
ORTHOPAEDIC JOURNAL
OF SPORTS MEDICINE, 2019

31% Improved muscle
recovery overnight
SURFACE ELECTROMYOGRAPHY, 2021

54% Less swelling
vs compression
JOURNAL OF ORTHOPAEDICS, 2024



↑ **BLOOD +
LYMPH FLOW**

↓ **PAIN +
SWELLING**

24/7 WEARABLE THERAPY

iNCREDIWEAR

iNCREDIWEAR

THE WORLD'S LEADING WEARABLE INFRARED THERAPY



24/7 THERAPY

HEAL FASTER

**RECOVER
BETTER**

**PERFORM
STRONGER**

**INCREASE
CIRCULATION
AT REST AND
OVERNIGHT**

ACTIVATED BY BODY HEAT

The elements infused into INCREDIWEAR emit mid and far infrared waves when warmed by body heat

- Safe and therapeutic for 24/7 exposure
- Biological activity occurs through photobiomodulation
- Photobiomodulation is a therapeutic modality, including devices that emit biologically active electromagnetic waves

MID AND FAR INFRARED WAVES ARE BIOLOGICALLY ACTIVE AND PROMOTE HOMEOSTASIS

**INCREASED
CIRCULATION**

Circulation: Oxygen, nutrients and immune modulators to tissues through increased blood & lymph flow

**DECREASED
OXIDATIVE STRESS**

Reactive oxygen species are quenched by immune molecules which mediates chronic inflammation

**IMPROVED
CELL FUNCTION**

Ion channel activity improves, and cell function is enhanced to promote homeostasis

HEAL FASTER WITH LESS PAIN

iNCREDIWEAR

24/7 WEARABLE THERAPY

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LESS MUSCLE SORENESS AND FATIGUE FOR TRIATHLETES



Leg Sleeve Self-Reported Fatigue Evaluation in Elite Triathletes

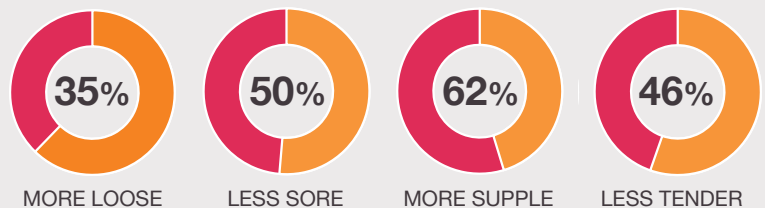
Study Design

A group of 20 elite triathletes completed questionnaires at the start and end of an intensive 5-day training period. After the first questionnaire was completed, the triathletes were provided with an Incrediwear leg sleeve and instructed to wear it only on one leg throughout the recovery periods for 5 days. The questionnaires asked the athletes to report the fatigue and recovery of each leg, specifically comparing the soreness, suppleness, looseness and tenderness of the muscles.

Athletes completed the following training volume during the study period:

ACTIVITY	DISTANCE
Swim	12,092 m / 7.51 mi
Bike	158.7 km / 98.6 mi
Run	43.6 km / 27.1 mi

Results: The leg on which athletes wore Incrediwear® was...



...than the leg without Incrediwear®.

This demonstrates a significant improvement in muscle recovery on the leg with Incrediwear, and is likely a result of the increased blood flow, reduction in inflammation, and improved healing ability of cells and tissues resulting from the Incrediwear non-compressive technology.

Conclusion:

The Incrediwear® leg sleeve provided statistically significant benefits in muscle recovery for the group of triathletes in this study, with improved muscle soreness, tone, looseness and tenderness after a 5-day intense training period.

iNCREDIWEAR

24/7 WEARABLE THERAPY

PROTOCOLS

ACUTE INJURY

Utilize sleeve as soon as possible to reduce pain and swelling. Sleeve should be worn 24 hours to promote blood flow and reduced edema (up to 4-6 weeks).* Sleeve may be worn as needed post recovery.

CHRONIC CONDITION

Utilize product A during the day to alleviate pain and swelling associated with any activity. Utilize product B at rest and while sleeping.

PRE-OPERATIVE

Utilize appropriate sleeve one week prior to surgery day and night to manage any localized swelling and pain.

POST-OPERATIVE

Day 1-10: Product A

Chosen product can be worn over a surgical dressing and applied immediately post-operatively. Patients should wear the product until the swelling has resolved (up to 4-6 weeks).

Day 11-30: Alternate products A / B

Utilize product A during the day to alleviate pain and swelling associated with any activity. Utilize product B at rest and while sleeping.

BANDAGE WRAP

Utilize if sizing or extreme swelling is an issue. May be used in conjunction with or separate from sleeves if preferred

**Sleeves may be worn in conjunction with physical therapy sessions to promote full range of motion*