

INDIBA[®]
revitalizing lives

Rehabilitation



Movement is Life

www.indiba.com

INDIBA Rehabilitation & Sports

INDIBA technology offers a revolutionary approach to recovery treatments, harnessing the natural repair processes of tissues. This results helps patient recovery, improved mobility, and reduced pain. INDIBA technology is particularly beneficial during the acute phases of musculoskeletal injuries, as it helps to enhance tissue drainage and diminish pain perception.

Furthermore, INDIBA's rehabilitation portfolio includes devices that are ideal for patients with particular chronic conditions like knee osteoarthritis or spine issues, as well as those with acute traumatic injuries such as specific sprains, tendon injuries, fractures, and contusions. By utilizing INDIBA technology, patients can experience improved recovery, restored mobility, and reduced pain, ultimately leading to an improved quality of life.

Our K-Laser products provide cutting-edge laser therapy treatments designed for patients recovering from injuries or managing chronic pain. The diverse range of treatments offered by K-Laser caters to various conditions, including joint pain, back pain, sports injuries, and more. Whether your patient is dealing with a chronic condition or going through the recovery process after an injury, K-Laser rehabilitation treatments can assist in their recovery journey.

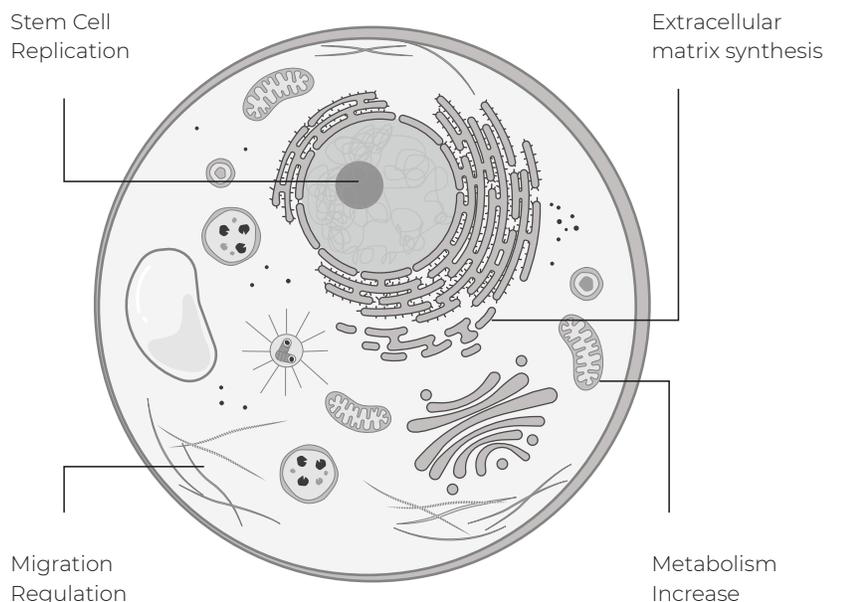
How does our Technology Work?

Radio Frequency Technology

INDIBA technology utilizes the power of radiofrequency to enhance the body's natural healing process, providing various therapeutic benefits to patients. The treatment method relies on the well-studied frequency of 448 kHz, which has been proven scientifically to produce consistent clinical outcomes.

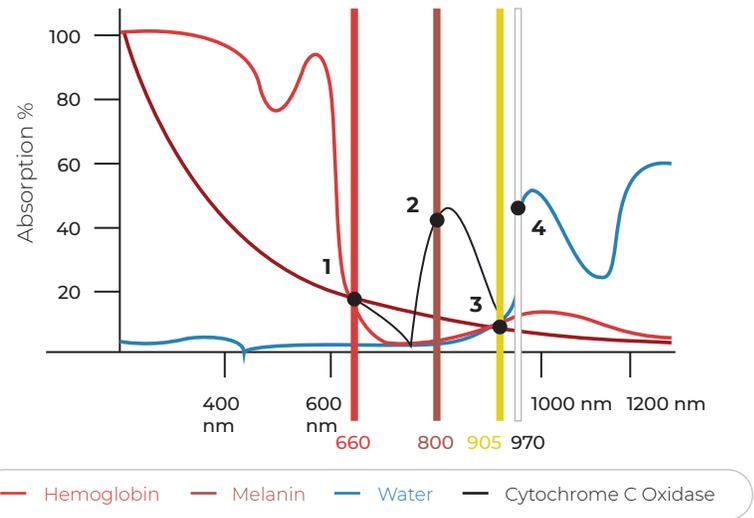
Numerous studies demonstrate how our unique fixed radiofrequency at 448 kHz can stimulate stem cell proliferation, mobilize fat deposits, accelerate fibroblast migration, promote chondrocyte differentiation, and improve cartilage quality¹.

How INDIBA works on a cellular level



Laser Technology

K-Laser treatments use unique laser technology that operates at wavelengths of 1064, 970, 905, 800, and 660 nm. These wavelengths enable it to target various biological chromophores. This process is important as it produces cellular-level effects that significantly boost collagen synthesis, matrix remodeling, and the stimulation of mesenchymal cells, all of which are beneficial to the acceleration of the healing process.



Our Treatments

INDIBA®
revitalizing lives

- Improves drainage
- Induces stem cell proliferation
- Enhances proliferation and migration of fibroblasts
- Improves cell trophism
- Induces elastin and collagen synthesis

- Increases tissue temperature
- Controls inflammatory processes
- Increases blood flow volume and intensity
- Improves oxygen and nutrients supply
- Improves metabolism
- Analgesic effect
- Accelerates the healing process
- Accelerates resorption of oedema and hematomas

K-LASER®

- Improves nerve function
- Modulates cell oxidative stress
- Accelerates recalcitrant wound healing

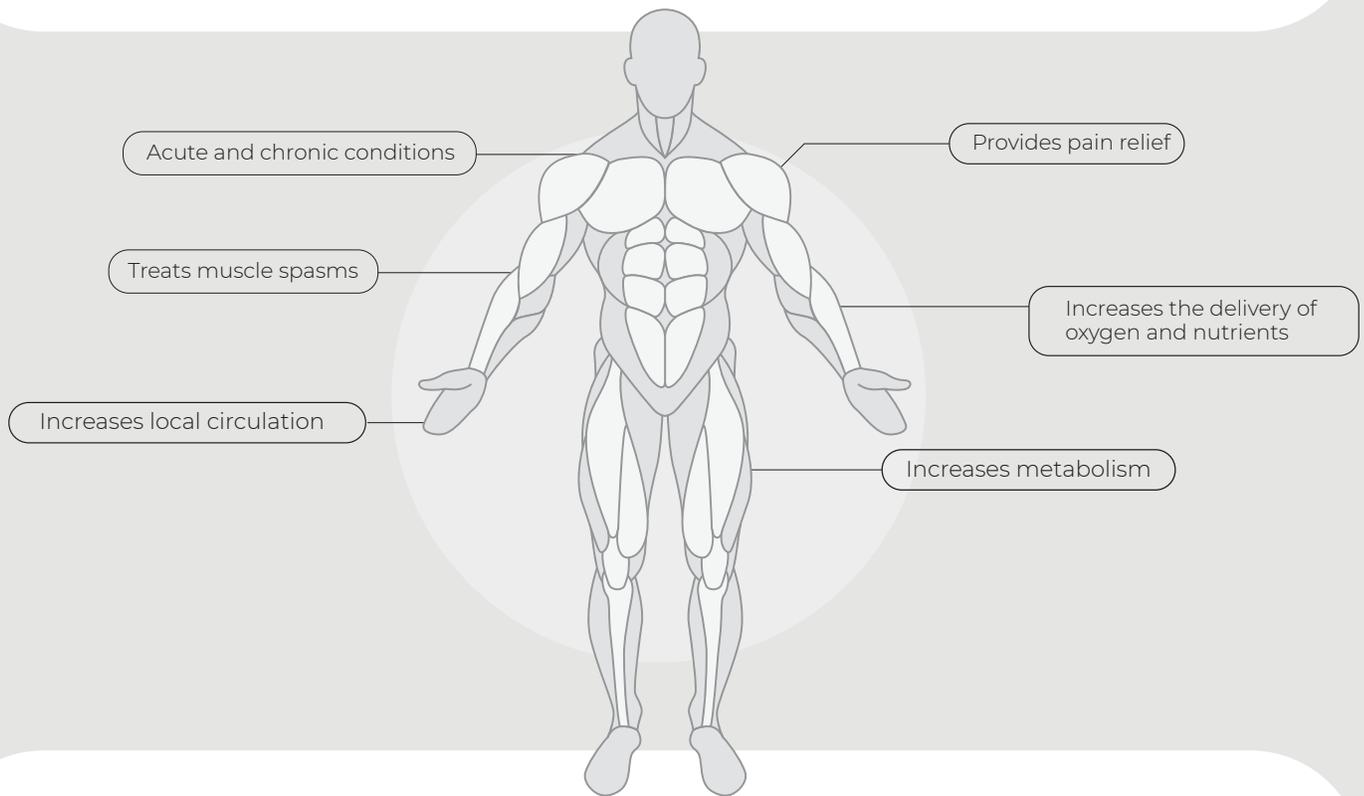




Our Expertise Musculoskeletal

By leveraging distinct mechanism of action, INDIBA and K-Laser offer effective solutions for a variety of conditions. INDIBA utilizes a fixed radiofrequency at 448 kHz, while K-Laser employs biomodulation of specific chromophores. These techniques have shown remarkable results in reducing both acute and chronic pain, alleviating local tissue inflammation, and optimizing tissue repair. Consequently, they can play a significant role in enhancing the quality of life for patients.

Indeed, this combination of technologies allows for the targeting of numerous musculoskeletal pathologies in the world of physiotherapy and rehabilitation, proving to be an effective integrated solution for the following conditions:



Our Expertise Sports-Related Injuries and Physiotherapy

INDIBA and K-Laser's rehabilitation technology is trusted by some of the world's premier sport teams and athletes. These include cyclists, tennis players, soccer teams, and Olympic athletes. This is because INDIBA and K-Laser have a long and proven track record of accelerating the recovery and improving the performance of top performers across disciplines.

INDIBA and K-Laser accomplish this by providing pre-and post-training and competition treatments that:



Engage in injury prevention strategies



Improve tendon elasticity



Improve contractile strength



Enhance range of motion in numerous joints

Clinical Evidence



Tissue Renewal Stem Cell Proliferation

By applying a radiofrequency treatment at the frequency of 448 kHz (known as CRET: Capacitive Resistive Electric Transfer), we can effectively stimulate the proliferation of stem cells while preserving their capacity to differentiate into various cell types¹.

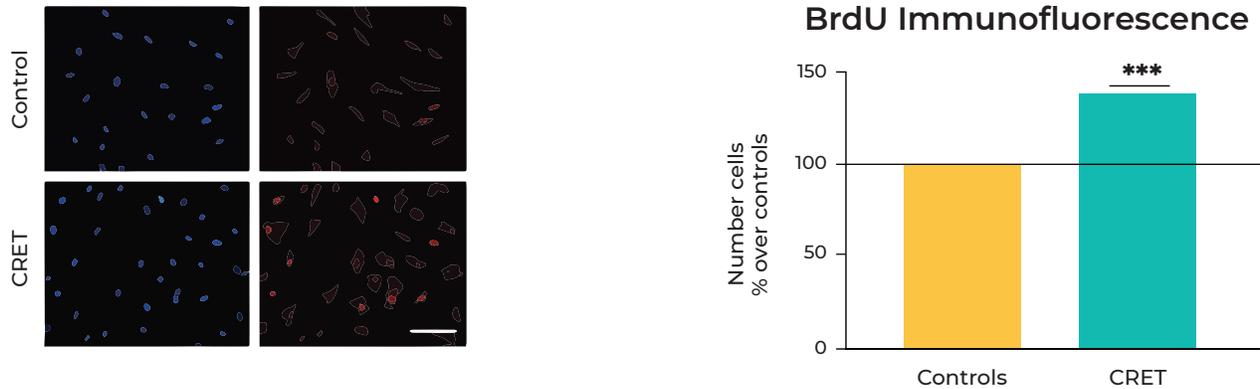


Figure 1. INDIBA increases stem cell proliferation. BrdU staining measurement in Control compared to CRET treated cells. *** means $p < 0.001$. Statistically significant differences (CRET Capacitive Resistive Electric Transfer). Figure adapted from Bule 2014.



Cell Matrix Remodeling

Treatment with an electrical current at 448 kHz stimulates chondrocyte differentiation and increases the synthesis of type II collagen as well as glycosaminoglycans, key components of the extracellular matrix of cartilage tissue².

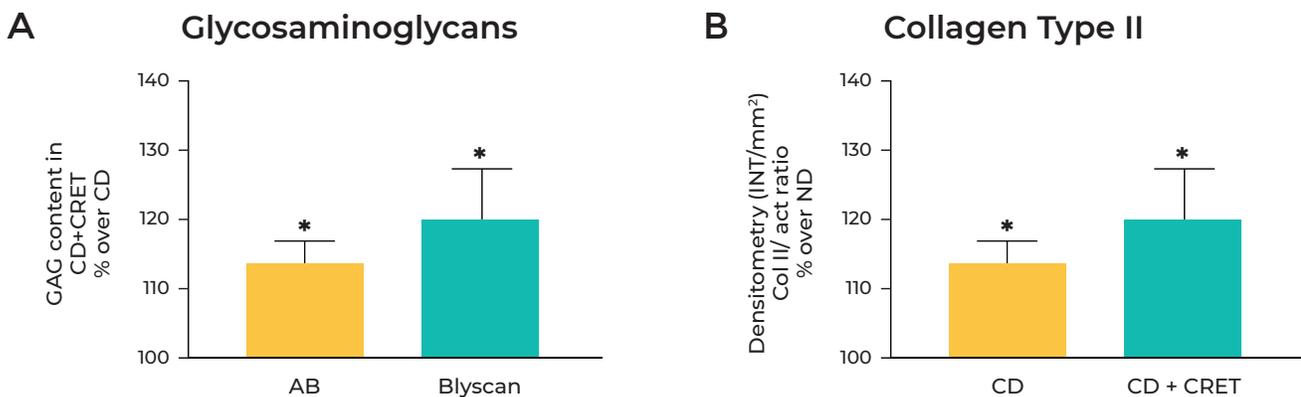


Figure 2. INDIBA modifies extracellular matrix (A) CRET increases matrix glycosaminoglycans in cartilaginous tissue. **(B).** CRET significantly increases collagen type II synthesis in chondrocytes. * means $p < 0.05$. Statistically significant differences (AB: Alcian Blue; CD: Differentiated Controls; CRET: Capacitive Resistive Electric Transfer). Figure adapted from Bule 2017.



Wound Healing: Fibroblast Migration

When a wound is present, the migration of fibroblasts and keratinocytes is essential for the healing process. However, in cases where wound closure is inadequate, a fibrotic condition can arise. By utilizing radiofrequency at 448 kHz as well as laser therapies, the proliferation and migration of fibroblasts and keratinocytes can be regulated, resulting in proper wound healing^{3,4}.

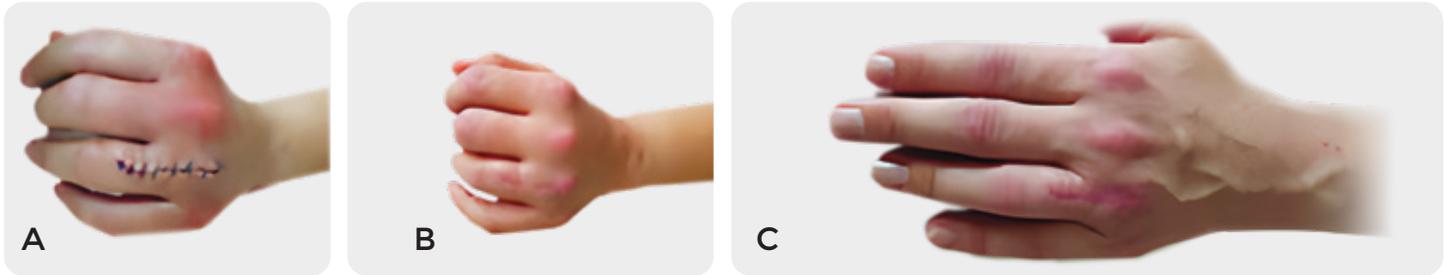


Figure 3. INDIBA improves wound healing and tissue renewal. Progression of the left hand before treatment sessions. (A) Week 2, third session where the stitches were observed along with a slight inflammation (B) Week 3, fourth session where the stitches were no longer seen and the tissue was in the process of healing (C) Week 4, fifth session where there was improvement in the wound and the quality of skin surrounding it. The wound and in the surrounding skin. Data on file. Case of INDIBA.



Pain Reduction

INDIBA 448 kHz radiofrequency technology reduces pain in numerous pathologies such as osteoarthritis, lumbago, and bursitis. We have also clinically demonstrated INDIBA's effects in the recovery of function. Additionally, INDIBA makes scientific studies core to their technologies, and are proven to support the recovery of function and the improvement in mobility in these pathologies^{5,6,7}. Laser therapies are also effective in pain treatments due to the analgesic effects of biomodulation^{8,9,10}.

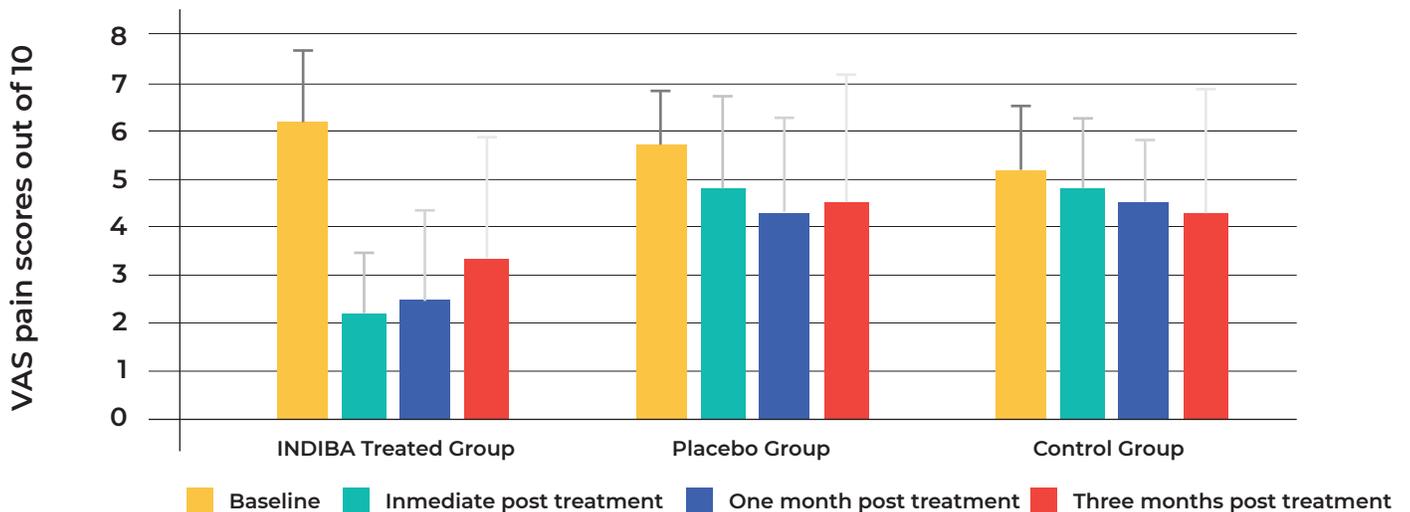


Figure 4. INDIBA treatment can improve pain and function in patients with knee osteoarthritis in the short term. INDIBA treated group had a 66% reduction in pain from baseline, at 3 months follow up pain was still reduced by 45%. Control up was 8%. (VAS: Visual Analog Scale). Figure adapted from Kumaran 2020.



Treatment of Soft Tissue Injuries: Tendinopathies and Ligament Injuries

INDIBA uses a distinctive radiofrequency technology operating at 448 kHz. This technology offers several advantages in the realm of injury management. Firstly, it can expedite the resorption of oedemas in acute injuries, facilitating the healing process. Additionally, INDIBA aids in stabilizing hematomas resulting from injuries or surgical procedures¹².

Moreover, our technology is particularly beneficial for treating soft tissue injuries such as tendinopathies or ligament injuries. It demonstrates efficacy in addressing conditions like lateral elbow, Achilles, or rotator cuff tendinopathies. By incorporating INDIBA into the treatment regimen, significant improvements can be achieved for these specific injuries.



Figure 5: INDIBA improves the edema and hematoma reabsorption.
Treatment of an sprained ankle grade II Data on file. Fiso ACTIV Clinic, Madrid.



Fractures and Muscle Tears

Many individuals often experience muscle injuries, whether from participating in sports or daily activities. Fortunately, INDIBA has shown its ability to effectively treat bone fractures and muscle tears through its tissue regenerative function.

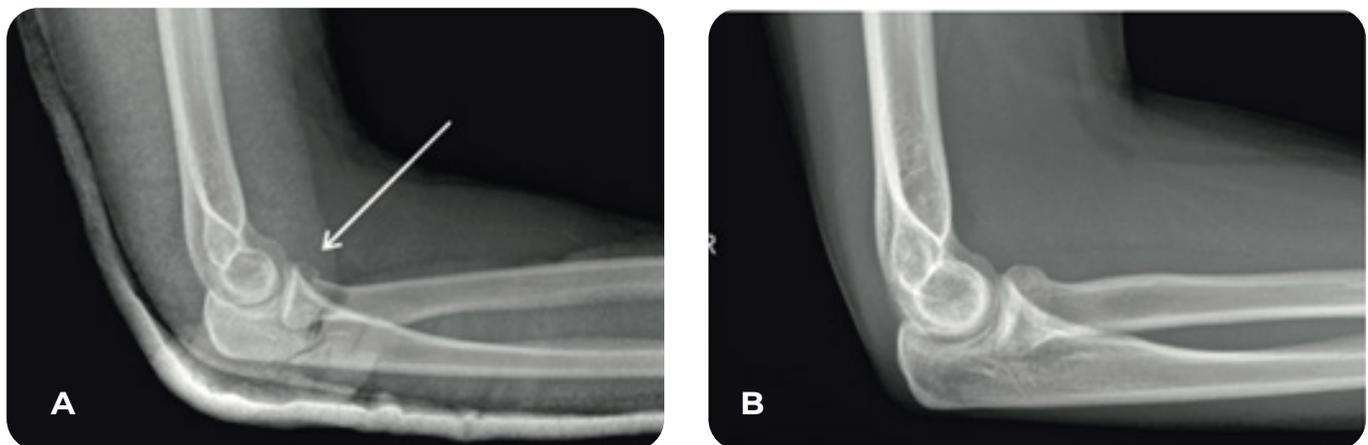


Figure 6. INDIBA improves tissue renewal and accelerates the return to play. Right radius fracture before treatment (A) and 27 days after INDIBA treatment (B). Data on file. Case of INDIBA.



Reduces Injury Recovery Time

INDIBA has demonstrated its effectiveness in addressing sports injuries by reducing inflammation and accelerating tissue regeneration. As a result, in most cases, the time required for athletes to return to play is significantly reduced¹³. INDIBA serves as a valuable tool for facilitating the transition of any athlete who experiences an injury while performing and get them back to a pre injury state.

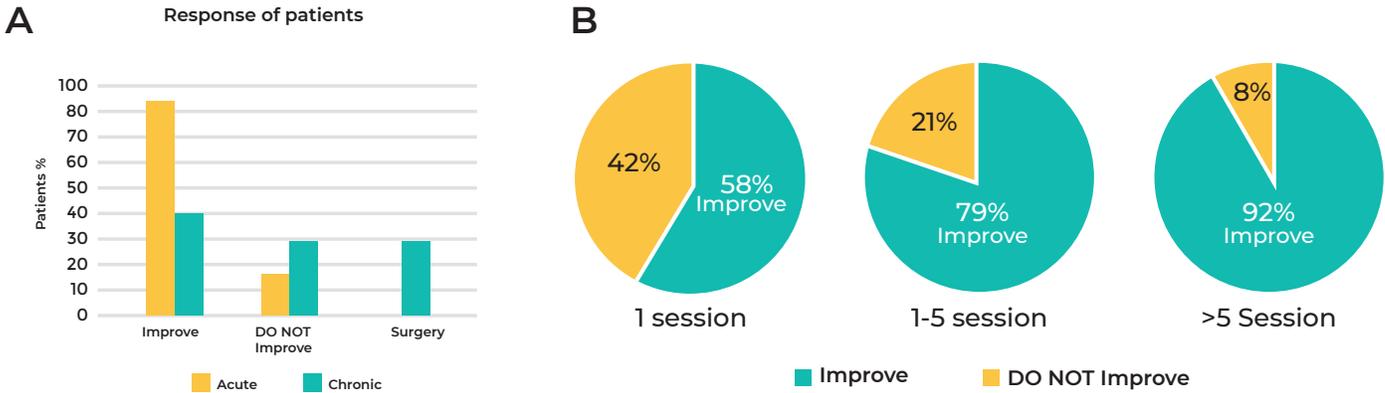


Figure 7. INDIBA increases functional mobility and reduces the recovery time. (A) Graphical data showing patient classification regarding the injury condition and the response to the treatment. (B) Improvement percentage relating to the number of performed sessions. Data on file. Vall J. 2012.



Sports Performance Improvement

Adequate oxygen supply is crucial for proper muscle function. INDIBA is proven to enhance blood flow in the tissue, thereby increasing the delivery of oxygen and nutrients to the muscle, helping to improve sporting performance¹⁴.

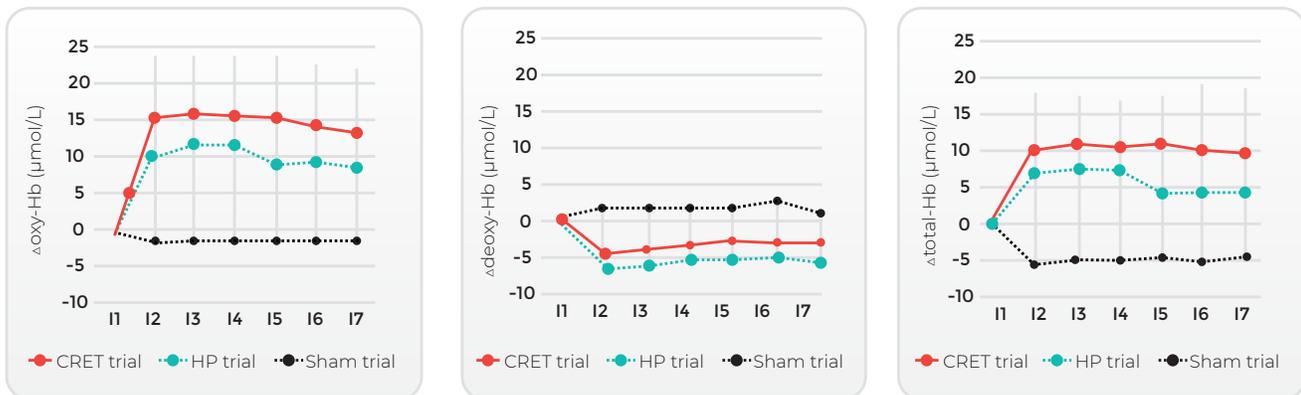


Figure 8. INDIBA improves local blood circulation. Changes in blood circulation in each intervention, where: 11 (before intervention), 12-17 (at 5 minutes intervals after intervention) (CRET: Capacitive Resistive Electric Transfer; Hb: Hemoglobin). Figure adapted from Yokota 2017.



Injury Prevention

Maintaining optimal flexibility and elasticity in tendons is essential for injury prevention and enhancing sports performance. Our technology offers the ability to increase tendon elasticity and strengthen the tissue effectively, helping to engage in injury prevention strategies for various types of pathologies^{15,16}.

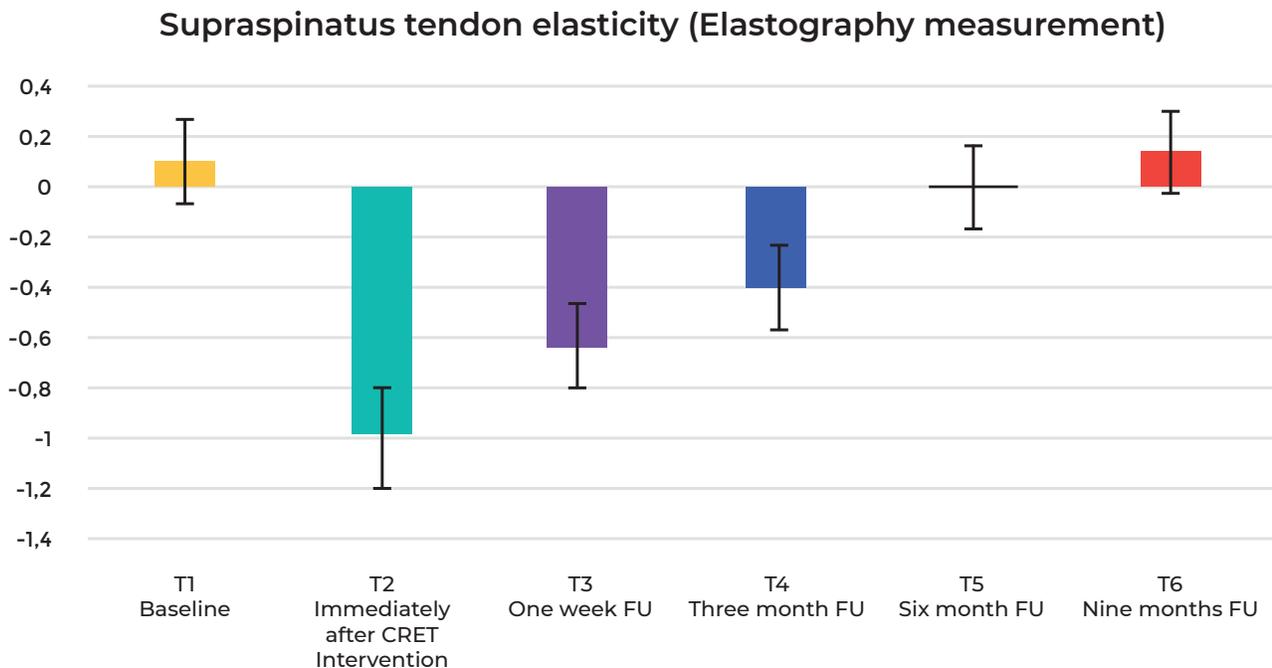


Figure 9. INDIBA changes the elasticity of the supraspinatus tendon. Differences on supraspinatus tendon elasticity at baseline; after the intervention (T2); and at one-week (T3), three-month (T4), six-month (T5) and nine-month (T6) follow-ups (FU), where a negative difference means an improvement in elasticity. (CRET: Capacitive Resistive Electric Transfer). Figure adapted from Ledesma 2020.

Academy

Our main goal is to ensure that physiotherapists and other professionals have a deep understanding of our technology and the INDIBA and K-Laser methodologies. Our training covers both theoretical knowledge and practical application, providing our clients with the confidence to achieve the desired results in their treatments.

Since our establishment, we have continually refined our training program in line with emerging scientific evidence. We are unwavering in our commitment to developing efficacious solutions and outstanding results for professionals and patients alike, which is why we allocate annual funding to support research projects. We recommend that you take advantage of our extensive training programs to broaden your horizons. These include courses such as:

- Treatment of musculoskeletal disorders.
- Sports rehabilitation and performance enhancement.

Technology for Rehabilitation

INDIBA AT7

This lightweight and compact device makes it the perfect solution for clinics that want to maximize treatment options and clinic space.

Technical aspects:

Frequency: 448 kHz | Max output power RES: 130 W

Average output power CAP: 250 VA



INDIBA CT8

The advanced features and capabilities of the INDIBA CT8 enable the delivery of precise low and high output power in both operational modes, namely CAP and RES.

Technical aspects:

Frequency: 448 kHz | Max output power RES: 200 W

Average output power CAP: 350 VA

INDIBA CT9

The CT9 is an exceptional device for medical practices of all sizes, designed for optimal performance with best in family speed and power.

Technical aspects:

Frequency: 448 kHz | Max output power RES: 400 W

Average output power CAP: 450 VA



Technology for Rehabilitation

K-Laser Devices



CUBE 4

A lightweight and transportable device designed to be highly intuitive.

Technical aspects:

20 W Intense Super Pulse | 15 W Continuous Wave
4 wavelengths: 970 nm, 905 nm, 800 nm, 660 nm
Cube Plus 30

CUBE PLUS 30

The ultraportable highest power ideal solution in post-surgery and rehabilitation treatments that stimulate rapid tissue repair.

Technical aspects:

30 W Intense Super Pulse | 25 W Continuous Wave
4 wavelengths: 970 nm, 905 nm, 800 nm, 660 nm
Activ Photonics Modulation- APM distal handpiece



SPECIALE

The only therapeutic laser with an intelligent handpiece, capable of measuring depth of penetration for wavelengths and tissue.

Technical aspects:

- 50 W Intense Super Pulse /40 W Continuous Wave
- Smart handpiece
- Thick and resistant fiber
- Activ distal handpiece: Active Photonics Modulation
- Technology by effects

- 7 active sensors
- 5 Wavelengths
- 7.5 Kg / 9.92 lbs
- Dimensions: 310 x 300 x 260 mm / 12.2 x 11.8 x 10.2 in

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