

Tecartherapy White Paper

USA

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2022 edition

› INTRODUCTION TO TECARTHERAPY



Tecartherapy is a revolutionary technology for physiotherapists, osteopaths, chiropractors and sports physicians. It uses an innovative regeneration process to trigger the body's natural self-repair mechanisms, rapidly rehabilitating muscle and joint function.

The electric current of the tecartherapy stimulates an ionic movement. The positive and negative charged particles attract and repel each other thanks to the amplitudes of the positive and negative current. This ionic movement pushes the membrane to increase transmembrane exchanges by passive transport and facilitated diffusion. This stimulation of molecular exchanges caused by the TECAR current will accelerate cell metabolism and allow the cell to activate its maximum potential by ensuring cell stability.

Every living cell has a membrane polarization due to a difference in concentration of molecules on both sides of the membrane. A certain number of small molecules such as oxygen, carbon dioxide, glycerol, fatty acids and urea can cross the cytoplasmic membrane when their concentration in the extracellular medium is higher than that in the intracellular medium (concentration gradient). Tecartherapy thus allows to reach a balance of concentrations on both sides of the membrane. By stimulating the cell membrane, tecartherapy speeds up the natural healing process of the cell.

TECAR technology is now internationally recognized. It has opened up new horizons for the future of physical therapy and thousands of practitioners use it every day.

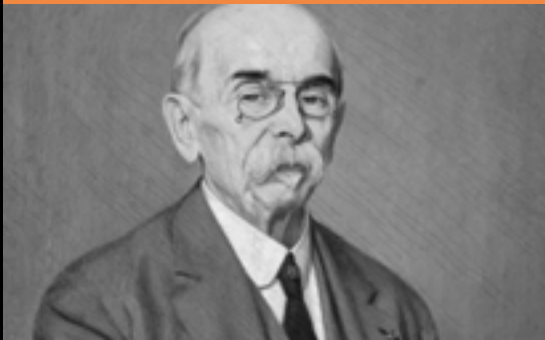
WINBACK tecartherapy products are approved medical devices that safely deliver a high-frequency current ranging from 300 kHz to 1MHz. This accelerates the natural regeneration of tissues. The process is completely non-invasive and the low-intensity energy is 100% natural for the human body. The therapeutic benefits of tecartherapy have been acclaimed by thousands of patients and elite athletes, and it has become a globally recognized reference point for treatment, with more than 10,000 centers adopting the technology over the last 10 years.

The effectiveness of radiofrequency treatment has been widely demonstrated in the fields of orthopedic surgery, cosmetic medicine and more recently in rehabilitation. Studies over the past 30 years have shown that the application of a high-frequency current relieves pain and stimulates tissue reconstruction naturally.

In their **1996** study 'The Dielectric Properties of Biological Tissues' (4), **C. Gabriel's** research team analyzed several tissue types and demonstrated the permeability of cell membranes in the 300 kHz – 1 MHz frequency range. Through the action of **Winback** energy, the polarization of cell membranes is modified, facilitating intra- and extracellular exchanges.

The theories underpinning this research, along with its main conclusions, have been cited in several scientific studies. The research community has investigated the cellular properties of biological tissues and the dielectric phenomena that occur when they are subjected to high-frequency energy. Scientists agree that cell response is a function of the frequency used and the type of tissue.

The researcher who first drew attention to this type of current was **Jacques Arsène d'Arsonval**, a famous French doctor who was also a physicist and inventor. In 1890, **d'Arsonval** discovered the benefits of plasma membrane permeability by increasing the frequency to over 100 kHz.



In the **1950s**, high-frequency current started to be used in surgery for electrocautery. The considerable increase in healing after the use of an 'electronic scalpel' encouraged cosmetic surgeons to take an interest in the application of this process, and to use it in developing electrodes (e.g. the Multipolar MIX) and exploring frequencies (1 MHz).

It was only in **1995**, in Italy, that medical lecturers studied the use of this high-frequency current and developed rehabilitation procedures using non-invasive mobile electrodes based on the work of d'Arsonval and Beaumont.

1995: The term TECAR (Capacitive and Resistive Electrical Transfer) was first used in Italy. New scientific studies were published. Frequencies of 500 kHz and 650 kHz. The effects of diathermy were the main focus.

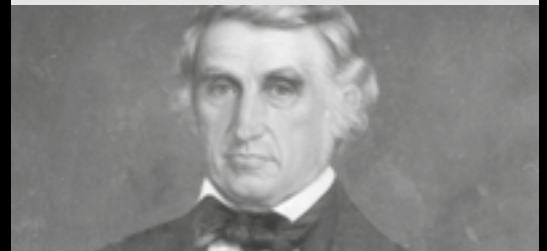
1890

1920

In the **1920s**, along with other researchers and doctors, he developed the first capacitive and resistive system with electrodes.

1939

In **1939**, a book by the English doctor and physicist **William Beaumont** explored the applications of 'diathermy' – the use of high-frequency electric current to stimulate heat generation within body tissues. His work used capacitive and resistive methods to develop the first physiotherapy equipment in the field, applying frequencies of around 500 kHz.



1950

1985

1985: High-frequency current with multipolar electrodes developed for use in cosmetic medicine. Frequency 1 MHz.

1995

2013

In **2013**, the **Winback** team developed physiotherapy protocols using a new generation of devices that were more intuitive, more adaptable and more effective. **Winback** energy was born.



- 1 ELIMINATE PAIN
- 2 FREE UP MOBILITY
- 3 SPEED UP HEALING

Overview

FREQUENCY AND DURATION

Treatment normally involves one to three sessions per week, but the frequency can be adjusted by the practitioner according to the patient's needs. If required, tecartherapy can be used on a daily basis.

Acute conditions. Thanks to the nature of tecartherapy, the duration of the sessions can be very short (3-10 minutes) and they can be incorporated into a standard physiotherapy session.

Chronic conditions. The duration of the sessions varies according to the pathology and the region to be treated. For example, a small area of less than 7,87 inches can be treated in 5-10 minutes. A larger area (greater than 7,87 inches) or condition involving several joints typically requires 15-20 minutes.



CURRENT

WINBACK tecartherapy uses a high-frequency current, ranging from 300 kHz to 1 MHz. This current accelerates natural regeneration of the tissue. The process is completely non-invasive and the low-intensity energy is 100% natural for the human body.



BENEFITS AND INDICATIONS

Analgesic and anti-inflammatory benefits
Breaks the cycle of pain and inflammation
Improves joint mobility
Reduces fibrosis, edema and effusion
Enhances the healing process, leading to reduced recovery time, enabling a more rapid return to activity



SCIENTIFIC DATA

Over 100 studies and scientific papers have been published on the effects of Winback tecartherapy.

Clinical studies show:

- A reduction in pain from the first the session
- Increased recovery speed
- Improvements to both chronic and acute conditions (in conjunction with other care protocols)
- Improved recovery of both soft tissue and fibrous tissue
- Safe operation

PRECAUTIONS

Winback tecartherapy is completely safe, but practitioners must be appropriately trained before using it. Certain precautions are required and care must be taken when treating specific conditions.

Global hyperthermic treatment can lead to mild to moderate hypertension. When treating vascular and bony disorders it is advisable to only use athermic treatment.

In cases involving major inflammation, athermic treatment only is recommended for the first three sessions.

- When treating bone disorders, only use athermic treatment during the initial sessions.
- When preparing athletes for competition, do not deliver long sessions in hyperthermic mode less than 24 hours before the competition.
- There are no known incompatibilities with other treatments, however it should be noted that the overstimulation of biological tissues can have an inhibitory effect on the response to treatment.

CONTRAINDICATIONS

Winback tecartherapy should not be used with patients who have the following conditions or characteristics:

Pacemaker; artificial organ; during pregnancy; bleeding disorders; cancer; insensitivity to temperature changes; burns; infections; around cartilage plates; hypotension; phlebitis; insensitivity to pain.

SIDE-EFFECTS

In some cases, a transient resurgence of pain can be felt up to 24 hours after the first session. This can occur if excessive power is used, and resolves spontaneously.



REHABILITATION

2x
FASTER

HEALING

97%
MORE EFFECTIVE

» BENEFITS OF TECARTHERAPY

» Benefits

- » REDUCTION IN PAIN FROM FIRST SESSION ONWARDS
- » IMPROVEMENT TO SCARRING OF SOFT TISSUE AND FIBROUS TISSUE
- » FASTER RECOVERY
- » LIMITED CONTRAINDICATIONS
- » IMPROVEMENT IN CHRONIC AND ACUTE PATHOLOGIES (WITH PROTOCOLS INVOLVING MULTIPLE TREATMENTS)
- » EXCELLENT LEVELS OF SATISFACTION DURING HIGH-FREQUENCY CURRENT TREATMENT FOR GREAT PATIENT EXPERIENCE

ACCELERATED HEALING: 97% EFFECTIVE (1)

Winback energy produces a flow of ions at the cellular level with extremely fast electrical oscillations. These oscillations make the plasma membrane permeable, stimulating intra- and extracellular transfer and enabling tissues to heal faster. (1) Over 6 sessions, 97% effectiveness was achieved for muscular and joint problems. Effective therapies that reduce healing time: Evaluation of the effect of multi-frequency capacitive diathermy treatment. S. Piolani, A. Soldadi, F. Speziale, P. Bonifacci, T. Cuzzani, M. Scacchetti, A. Marsotti, S. Alberti, M. Cagnani, R. Marzovillo, A. Garvalli, G. Poletti. Sport & Medicine. January-February 2009. Frequencies used 500, 750 and 1 MHz.

IMMEDIATE AND LASTING RELIEF FROM PAIN: 81% EFFECTIVE (2)

Winback energy inhibits the transmission of pain messages for at least 48 hours. This effect is due to the electrical oscillations that interrupt the normal transfer of pain signals (hyperpolarization, depolarization). The sensory impulses are interrupted and the patient feels immediate relief. (2) Study of Electric Transfer Hyperthermia to treat lumbago. Takahashi K., N. Tsuzuki, K. Zhong-Shi, K. Department of orthopedic surgery - Saitama Medical Center. Phys Ther. Sci 11: 45-51, 1999. Frequency used 650 kHz.

6X FASTER VASCULARIZATION (3)

TECAR energy increases the natural resistance of biological tissues, transforming energy into heat (diathermy) which is used by the circulatory system (vascular and lymphatic) to regulate the temperature of the part of the body in question. A localized increase in temperature allows for improved vascularization of areas with restricted movement (fibrosis, stiffening) and makes movement easier.

(3) T.E.C.A.R Therapy. Treatment of postoperative femoral fractures. A. TERRANOVA, G. VERMIGLIO, S. ARENA, A. Ciccio S. DI DIO M. VERMIGLIO - Vol. 44 - Suppl. 1 to 3 EUROPA MEDICOPHYSICA Oct. 2008

2X FASTER REHABILITATION (4)

Since 1999, studies have been carried out on high-frequency current confirming the therapeutic effects of a standard frequency: 0.5 MHz with an accepted range between 0.3 MHz and 0.65 MHz. Different devices have been used, all following the rules and principles of TECAR or CET RET. (4) Improvements seen twice as fast in the rehabilitation of the rotator cuff. Winback energy is a product of 'TECAR' technology, a term used in scientific studies since 1995. TECAR Therapy. New tendinopathy of the rotator cuff: our experience. Sanguedolce G., C. Venza, P. Cataldo, G. Mauro Letizia - Head of Physical Medicine and Rehabilitation - University of Palermo. September 2009.



Muscular, Joint & Lymph Disorders

Acute and chronic injuries or pains in the muscles and joints. Pain resulting from mechanical tension (lesions, stiffness, edema, fibrosis). Inflammatory or lymphatic issues.



Pain Relief & Anti-Inflammatory

For pain relief and anti-inflammatory purposes; to break the vicious circle of pain/inflammation/stiffness; improvements in joint mobility; fibrolytic effects; drainage of edema; improvement of the healing process.



Traumatology

Sprains, fractures and muscle tears. Post-traumatic pain: pain relief, anti-inflammatory and anti-edema purposes. For chronic post-traumatic syndromes or recurrences: fibrolytic effect, breaking the vicious circle of pain/inflammation/stiffness and improved mobility.



Rheumatology

Acute and chronic tendinopathy, epicondylitis, neck pain, acute and chronic pain in the lower back, capsulitis, joint stiffness.



Sports Physiotherapy

For recent or long-lasting muscle stiffness, muscle pain, muscular lesions: tensions, sprains, tears, acute and chronic tendinopathy, enthesitis, chondropathy, post-traumatic edema, muscular fibrosis and plantar fasciitis. Recovery and prevention

WINBACK TREATMENTS

Winback’s products are designed to treat a wide range of conditions and are used by many therapists. The following examples give an insight into some of the areas of application and protocols that are available, providing a glimpse of what Winback energy can bring to your daily work.

Treating tendinopathy with winback tecartherapy



A Winback tecartherapy session

It's when pain is very severe that treatment with Winback energy can bring the most benefits, both for acute and chronic inflammation, bringing about instantaneous pain relief.

The physiotherapist aims to **restore the patient’s mobility** by treating the secondary effects of their condition (for example contracture, fibrosis, inflammation, edema). This is achieved by combining Winback energy with manual techniques (such as deep transverse friction massage), along with other physiotherapy equipment, where required. By concentrating on the tendon injury, tissue healing is accelerated. During the course of the **20 minute** session, the patient receives therapeutic massages and mobilizations with a **very comfortable accompanying heat**. This heat is one of Winback energy’s biological actions that restores good **vascular circulation in the targeted tissues**. This allows the patient to **return to exercise faster**.

Achilles tendinopathy

Objectives: tissue revascularization and collagen matrix remodeling from Type III to Type I.

Strong heat ● Intermediate heat ● Mild heat

MODE	METHOD	OPTION
CET Dynamic	Gastrocnemius massage	CONVEX
RET	Pass the Fascia Skills tool along the calf, pressing a little on the myofascial junction and the tight muscle areas	FASCIA SKILLS
RET	Eccentric motions	5.0
RET	Eccentric mobilization	2.0

THE SPECIALIST'S POINT OF VIEW

“1. During the first session, my aim is to treat and eliminate tensions such as inflammation, contractures or fibroses which are the consequences of tendinopathy. With these tensions eliminated, movement is restored and the patient recovers their mobility.

2. The next step is targeted action to reduce the inflammation and kick-start the healing process. The time-saving process permits a global approach that involves releasing tensions remotely.

3. The following sessions are focused on healing and strengthening the muscles close to the joint. For this kind of condition, I prefer Winback energy's TECAR 3.0 setting in order to best achieve these outcomes.”

Loïc Dechaine, physiotherapist for the Sharks d'Antibes basketball team.

YANN DUBOIS, PHYSIOTHERAPIST IN CESTAS (FRANCE), WHOSE CONCEPTION OF HIS OWN JOB COMPLETELY CHANGED WITH WINBACK:

“I use BACK 3 every day, mainly to treat trauma, either on a table with manual therapy where I really hand-treat soft tissues, or in dynamics on a technical platform with neuromuscular reprogramming. What attracted me to Winback was technological innovation. I had to question my practice. With Winback, there's no question of leaving the patient in a corner with some electrodes on them: instead I can stay with them and maintain a relationship with him. The most impressive results are on adhesive capsulitis. I advise all my colleagues who work with athletes to get equipped. It's a great value device!”

OPINION OF FLORENT DERAÏL, SPORTS PHYSIOTHERAPIST AND WINBACK USER SINCE 2013

“I mainly use Winback on sports injuries, especially on tendinopathies and myoaponeurotic lesions. What impressed me with Winback was that it has been designed to meet the needs of physiotherapists. The equipment is innovative and treatment is fast and efficient. I use it very regularly and recommend it widely to my colleagues. Feedback from patients is unanimous: they are very satisfied and the speed of healing is incomparable. Winback can be used alongside a very wide range of techniques, ranging from electrotherapy to cupping, and dynamic and manual therapy. It is a very versatile tool.

For example, a marathon runner came to me in January complaining of tendinopathy. He was preparing for the French championships in April but was limping in training. Thanks to Winback, he was able to train and finished 4th in the French championships.”



NUMBER OF SESSIONS

A single session can be **enough to lessen the pain caused** by tendinopathy, although Winback recommends between three and five sessions to recover full mobility. During the session, the patient is guided through stretching and toning exercises. The treatment enables them to quickly return to activity, thus regaining control of their physical health, free from pain.

✔ Treating a sprained ankle with tecartherapy

Sprains are among the most common conditions treated by physiotherapists. The energy of Winback tecartherapy can **help you make your treatment sessions even more effective.**



Go further with tecartherapy

The benefits: Once the ankle swelling has gone down, you can speed up the healing of the ligaments by using Winback tecartherapy in CET mode or with the bands. **This really saves a lot of time** because the pain-relief effect means the patient can start exercising again sooner.

The final step of the rehabilitation consists of gentle proprioception exercises which help achieve a return to normal of the 'vigilance system', so the patient gets their sensation back and the ligament provides the correct information concerning the position of the ankle.

Still painful?

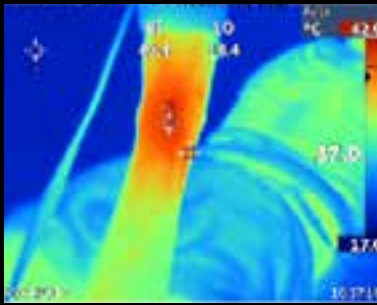
Despite receiving treatment, some patients may still feel pain. This is often the case with **severe trauma** or when the patient is **reluctant** to use their ankle. The pain relief effect of applying the electrodes to the ankle will help the patient realize that they don't feel any particular pain and they will thus **be able to move on.**



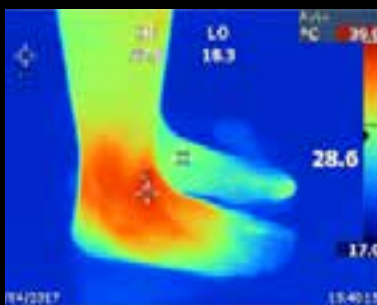
"I specialize in treating sports traumas and postural rehabilitation. I started using Winback in 2014 and use it with all types of athletes, ranging from dancers and triathletes to runners. They have many different conditions, relating to articulation, ligaments, tendons or serious contractures. Winback optimizes the treatment, and is first and foremost a time-saving tool to complement massage. You don't need to spend 20 arduous minutes relieving a contracture: 10 are enough! Healing is more effective, drainage is improved, and the reduction of pain is evident. Winback offers options for proprioception exercises. Muscle fibers and sensory receptors are better engaged.

For example, one of my clients was a runner who had been training for a marathon for a year. Five weeks before the race, she experienced a nodular tendinitis of the Achilles tendon. I treated her with Winback two to three times a week, and adapted her training to complement this. The result: she ran her marathon, and without pain! Another case involved a dancer from the Grand Théâtre with fissural tendinitis of the patellar tendon. It was impossible for him to stop performing. Therefore we started intense treatment with Winback, after which he was able to jump without any concerns. Healing took place despite the intense daily demands of his routine, as professional dancers usually practice for about eight hours a day. The result was a great success: he was able to complete his season."

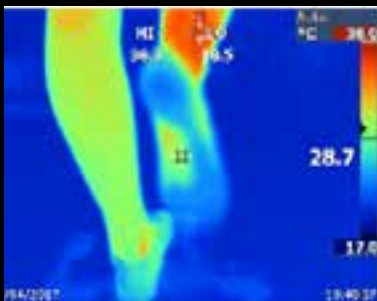
Sophie Paris, physiotherapist in Bordeaux (France), describes two remarkable recoveries with Winback



T0+20min ankle 40.4°C.
End of treatment



Temperature 37.8°C.
2 min after end of the treatment.



Foot arch 28.7°C

THE RESULTS CONFIRM

- » THE MULTI-JOINT EFFECT
- » THE CONCENTRATION OF THE ENERGY ON HARD TISSUES (JOINTS)
- » THE INCREASE IN TEMPERATURE ALONG THE VASCULAR SYSTEM
- » THE DRAINING ACTION OF THIS TYPE CONFIGURATION

Winback energy seen through a thermal imaging camera

Effect of the high-frequency current with RET in Winback 2.0 (fixed electrode).

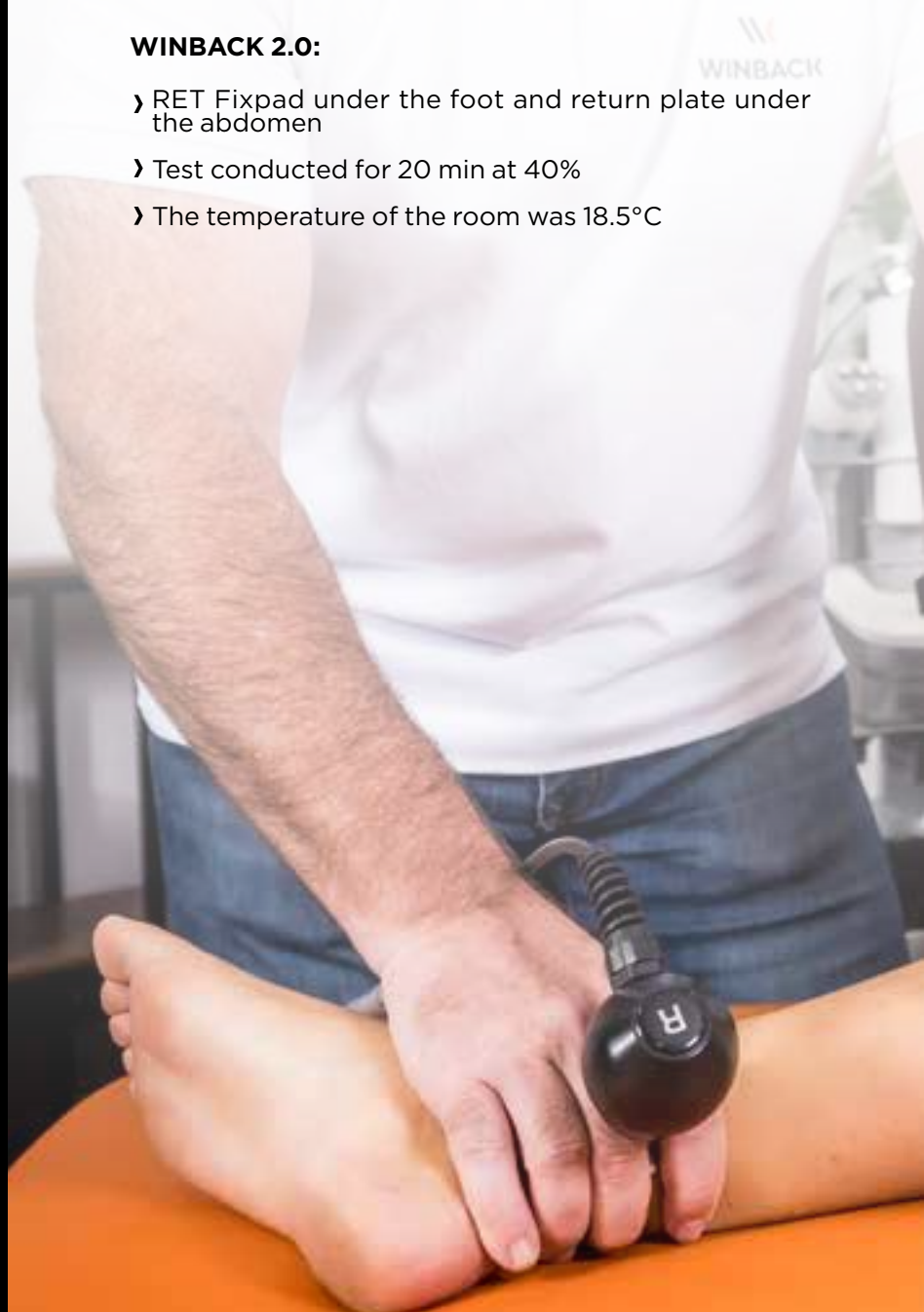
The thermal imaging camera allows us to see the diathermic effects of Winback energy.

In this case, the effects of RET current on the leg were studied, and the impact of applying heat for 20 minutes observed. The test was done using a TIS45 thermal imaging camera on a female patient aged, 30 presenting with no specific conditions.

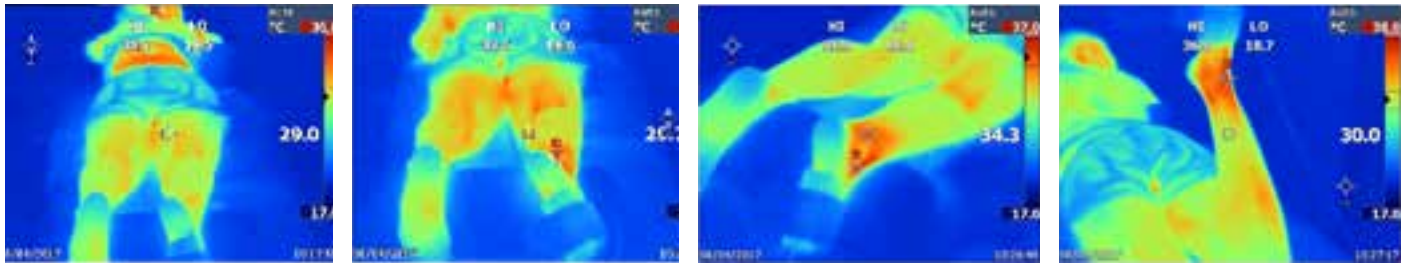
Test conducted by Andrei Gheorghiu - Romania

WINBACK 2.0:

- » RET Fixpad under the foot and return plate under the abdomen
- » Test conducted for 20 min at 40%
- » The temperature of the room was 18.5°C



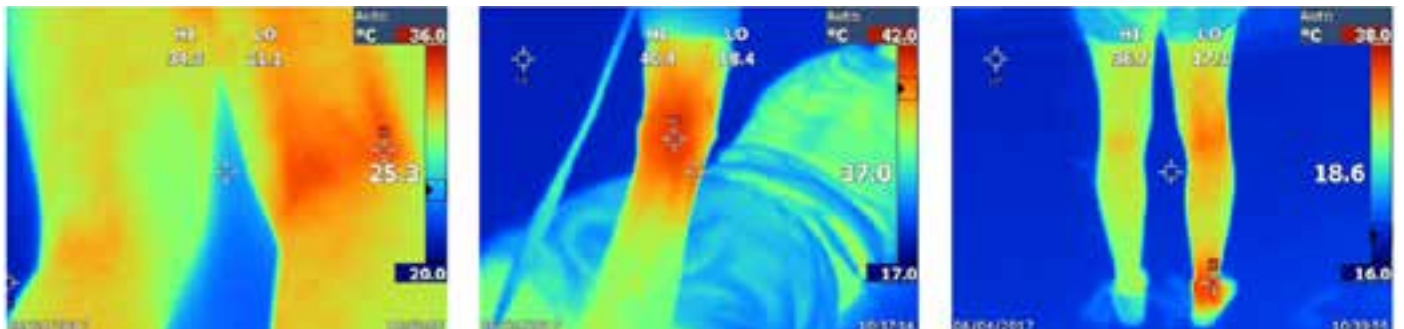
Test: female aged 30 years. Configuration: Winback 2.0 Fixpad, RET = foot arch, Neutral = lower back



Start at 10:18

T0+5 min

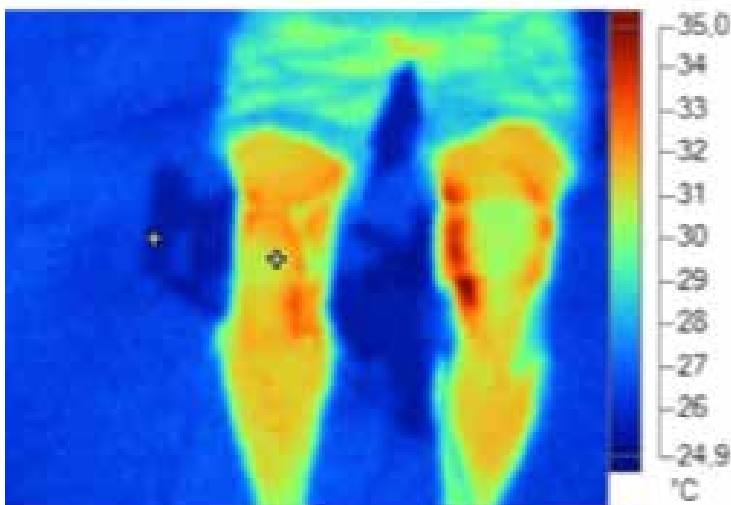
T0+5 min



COMPARISON OF THE USE OF 2 ADHESIVE RET ELECTRODES VS 1 RET FIXPAD AND ONE ADHESIVE ELECTRODE

WINBACK 2.0

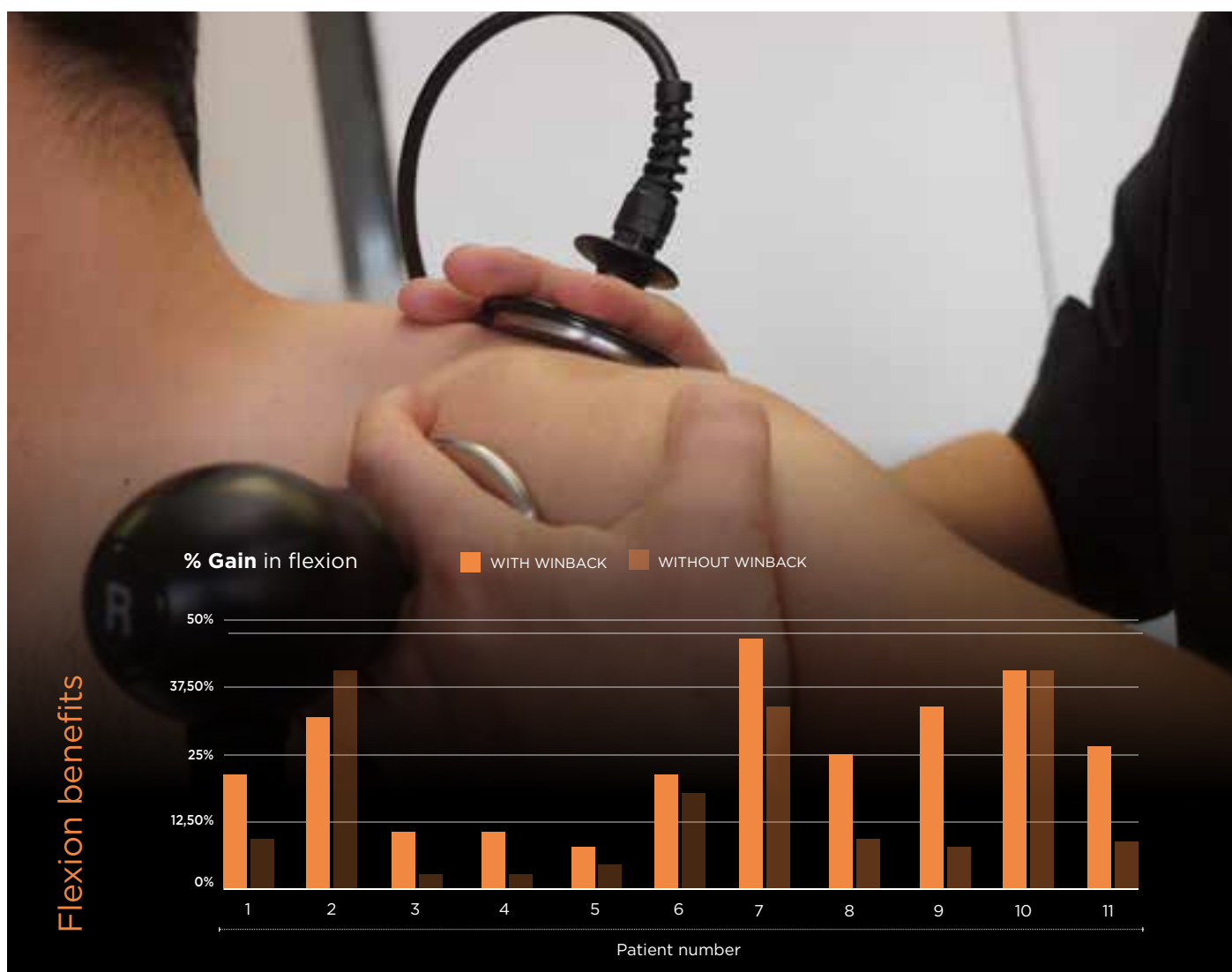
- › Left knee Fixpad on medial condyle of femur and return plate on lateral condyle of femur
- › Right knee: 2 adhesive electrodes, one on each side
- › Length of test: 20 min at 40% lowpulse
- › Initial temperature: 34.2°C
- › Final temperature:
 - Medial condyle left knee 37.6°C/right knee 36.5°C
 - Medial condyle left knee 35.9°C/right knee 36.5°C



This test confirms what was predicted: at the same intensity, there was greater heat under the Fixpad but it remained localized, whereas using two adhesive electrodes created an equal distribution.

⚠ The return adhesive plates shall not be used with WINBACK devices in the United States. SWIMS SAS/WINBACK assumes no responsibility for any damage resulting in their use in the USA.

Adhesive capsulitis with or without Winback treatment



CAPSULITIS & FASCIA SKILLS

Pierre Blanc, physiotherapist in Villenave-d'Ornon (France).

Example of protocol for treating capsulitis with 3.0 mode and Fascia Skills:

MODE	METHOD	OPTION
CET DYNAMIC	Relax the supra and infraspinatus muscles, teres minor, biceps tendon	1.0
RET	Fascia Skills on trapezius, deltoid and latissimus dorsi	FASCIA SKILLS
RET	Use the two mobile electrodes to mobilize the joint	3.0

● Strong heat ● Intermediate heat ● Mild heat

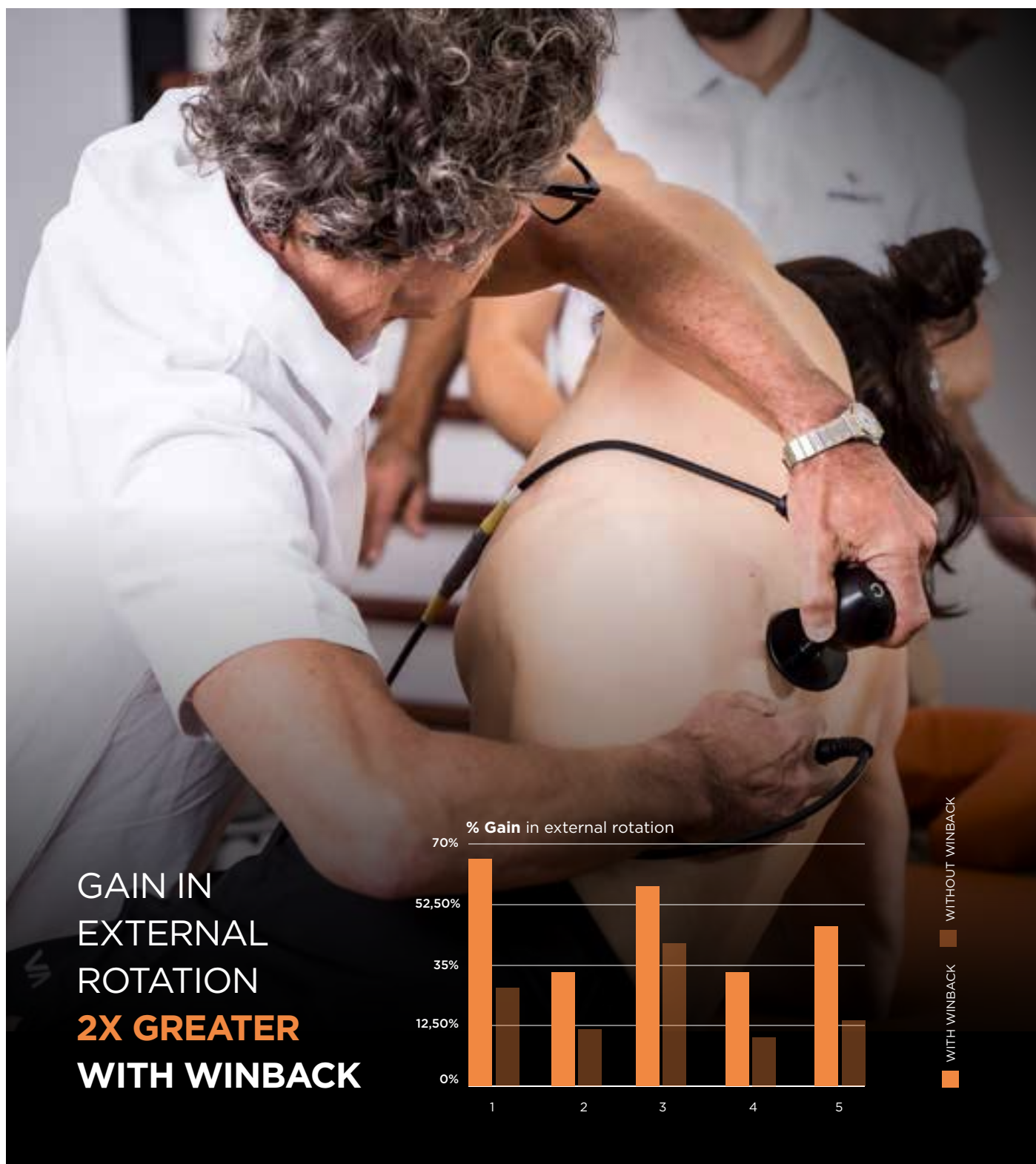


We compared the degree of flexion and external rotation and the level of pain with and without Winback treatment. Practitioners were free to use any techniques they wanted, as long as they included one session with and one without Winback.

RESULTS

10 out of 11 patients **experienced a greater gain in amplitude with Winback** than without, with an average gain of **24.7%** (compared with 16.3% without Winback treatment), representing an average difference of **8.4% in Winback's favor**.

This study currently includes 11 patients suffering from adhesive capsulitis.



External rotation was studied in 5 patients. The average improvement in external rotation with Winback was 47.2%, compared with 23.8% without Winback, a difference of 23.4%

WITH WINBACK
+42%

WITHOUT WINBACK
+23,8%

PAIN RELIEF BENEFITS:

The use of Winback led to an average decrease of 1.7 points on the visual analog scale (VAS) compared with only 0.6 points without Winback.

The results are very positive as **all patients** saw a **benefit in terms of increased movement and pain reduction**.

Treatment post breast cancer

A post breast cancer treatment has been developed using **BACK 3** (in combination with manual techniques and an electric massager offering kneading and rolling) to offer a physiological and esthetic treatment that **reduces the symptoms of lymphedema**.

The drainage and arm and shoulder stretching exercises carried out as part of Winback tecartherapy significantly **reduce the pain caused** by lymphedema.

A manual lymphatic drainage treatment is undertaken to increase circulation in the lymph nodes.

The protocol adapts to suit the different stages of treatment.

The first stage focuses on rehabilitating movement in the shoulder, which is essential following medical treatment such as radiotherapy.

MODE	METHOD
CET	Application around the edge of the scar. Size of the electrode adapted to the size of the scar
MIX3 Face	Circular motion around the irradiated area
RET	Restore mobility planes around the ribcage

In the second stage, treatment is targeted at preparation for reconstruction, with significant attention paid to making **the scarred skin more supple**.

Back 3 provides great benefits. If lymphedema persists, this is treated in line with the first stage

MODE	METHOD
CET Dynamic	Mobilization of all surrounding muscles: pectoralis major, pectoralis minor, rotator cuff, rhomboids and levator scapulae
RET	Work around muscle insertions followed by passive/active mobilization. Neural mobilization of the upper limb's three nerves
CET	Cool-down around the shoulder joint



During the third stage, treatment is adapted to suit different reconstruction methods. This includes techniques focused on drainage, **resorption of hematomas** and **work on scarring** using manual lymphatic drainage following the Schlitz method. Back 3 is used with MIX to **improve circulation** and promote the **resorption of hematomas** in the area of the probes, along with **improved healing**.

MODE	METHOD
DEEPCET	Stimulation of the abdominal aorta through 10-second applications of pressure in a circular motion. Pressure is decreased by 10% between each application to maintain an acceptable level of hyperthermia and maximum vasodilation.
CET	Recruitment of the deep subclavian venous system followed by the deep venous systems of the axilla and elbow. Repeat 10-second applications of pressure to achieve maximum vasodilation.

Treatment post breast cancer

PATIENT EXPERIENCES

«I started rehabilitation sessions very soon after my total ablation of the left breast and several lymph nodes (D+10). Treatment with Winback gave me real relief; it gave me back full mobility in the shoulder and freed up the lymph cording that was causing the pain and giving me a sensation of heaviness in my left arm. The treatment is very pleasant and I have it twice a week: it's a great help.»

Catherine

«After a lymphocele appeared by the ablation scar on my right breast, resulting in the scar not healing as it should, I was prescribed rehabilitation sessions to treat the scar in preparation for my reconstruction. The reconstruction took place in several stages with liposculpture, along with the insertion of a prosthetic. The liposculpture was traumatic and left huge bruises. I received Winback drainage treatments around the bruises, after which they disappeared. It's great as I was having trouble finding a position to sleep in.»

Marie-France



THE PRACTITIONER'S PERSPECTIVE

FABIENNE MALIGE.

Physiotherapist specializing in post breast cancer work.

When preparing artwork update the following section with Fabienne Malige's testimony:

Treatment post breast cancer with Back 3 in combination with manual techniques and an electric massager offering kneading and rolling.

The protocol adapts to suit the different stages of treatment. The first stage focuses on rehabilitating movement in the shoulder, which is essential following medical treatment such as radiotherapy:

- Combating pain
- Work on scarring
- Freeing up of cording or superficial lymphatic thromboses
- And most importantly treating lymphatic complications by stimulating the lymph nodes in CET mode with a small, gently heated electrode.

Then using MIX3 gentle thermal mode on painful areas and those with fibrosis.

In the second stage, treatment is targeted at preparation for **reconstruction**, with significant attention paid to making **the scarred skin more supple**. Back 3 provides great benefits. If lymphedema persists, this is treated in line with the first stage.

Finally, the treatment is adapted to suit different reconstruction methods:

- Dorsal flap
- Expander followed by a prosthetic
- Liposculpture with liposuction of the abdomen and/ or outer thighs
- Our work consists of drainage, resorption of hematomas and work on scarring using manual lymphatic drainage following the Schlitz method. Back 3 is used with MIX to improve circulation and promote the resorption of hematomas in the area of the probes, along with improved healing.
- Patients are treated over a period of up to two years, with a marked improvement and speeding up of the process thanks to Back 3, with the use of MIX being essential.

A post breast cancer treatment has been developed to offer a physiological and esthetic treatment that reduces the symptoms of lymphedema. The drainage and arm and shoulder stretching exercises carried out as part of Winback tecartherapy significantly reduce the pain caused by lymphedema.

With this treatment, Winback is deeply committed to supporting women who have been affected by breast cancer. The aim is to offer a treatment that has both physiological and esthetic effects, reducing pain and helping women regain their self-confidence.

The Winback Woman program offers a variety of treatments carried out by health professionals that combine the physiological and the esthetic.





> Pain, migraines and mobility of the cervical vertebrae



Hyoungh-ryeol Lee¹, BHSc, PT, Jae-hun Shim², PhD, PT, Duck-won Oh³, PhD, PT
1 Dept. of Physical Therapy, Saehaneul Orthopedic Surgery Clinic
2 Dept. of Physical Therapy, Division of Health Science, Baekseok University
3 Dept. of Physical Therapy, College of Health Science, Cheongju University

CONTEXT

The active trigger points in the suboccipital region are involved in tension headaches, with an increase in their local sensitivity and their associated pain.

AIM

This study aims to determine whether the combination of high-frequency current applied to the suboccipital zone with muscular relaxation is more effective than suboccipital muscular relaxation only in the treatment of tension headaches.

METHOD

30 patients were divided into 3 groups of 10. Group 1: stretching of suboccipital muscles combined with Winback high-frequency current (frequency 300 kHz and resistive electrode). Group 2: stretching of suboccipital muscles only. Group 3: control group without treatment. The evaluation tools used were Headache Impact Test-6 (HIT-6); pain in the suboccipital muscles when put under pressure; the Neck Disability Index (NDI) and the mobility of the cervical vertebrae.

The sessions lasted 10 minutes and took place twice a week for 4 weeks. Evaluation measurements were taken after each session.

HIT-6 Score : Migraine

HIT-6 is a scale used to evaluate the impact of migraines on a person's function.



RESULTS

A comparison of the groups before and after the sessions showed a statistically significant difference for all parameters ($p < 0.05$), with the exception of lateral tilts of the cervical vertebrae.

Group 1 showed significant post-treatment improvements in all of the parameters, compared with the control group. However, there was no difference between group 2 and the control group in muscular tension pressure in either of the two temporal areas.

There were significant differences between groups 1 and 2 in HIT-6 scores and the pressure threshold for pain in the right temporal area.

For the first two groups, the difference before and after treatment was significant ($p > 0.05$), except for pain in the right temporal region when pressed which was only significant in group 1.

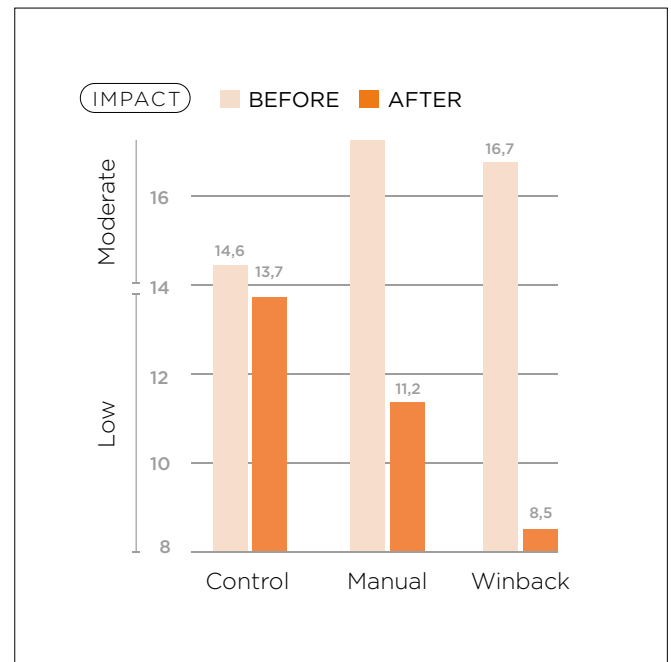
DISCUSSION

The study analyzed patients with chronic migraines relating to the trigger points of suboccipital muscles who underwent Winback treatment. It shows the value of the manual therapy provided by physiotherapists. Winback enhances its contribution by acting alongside the physiotherapist's manual treatment, undeniably improving its performance.

Winback can make treatment more effective as measured

NDI Neck mobility index

The Neck Disability Index (NDI) is a measurement tool that covers domains including: pain, reading, lifting, working, driving and sleeping.



by the pain perception threshold and the tissue quality, and can also improve cervical mobility thanks to the increase in local temperature it generates, which allows greater tension relief of the tissues without damaging them.

Our study has opened up a wide field of investigation, as part of which we need to verify these results with a larger group of patients. The progress this study has made is encouraging, and merits the close attention of the medical community for the surprising speed with which patients become more comfortable. It therefore represents an alternative solution to pharmaceutical treatments.

Winback is an alternative solution to pharmaceutical treatments and deserves the close attention of the medical community.

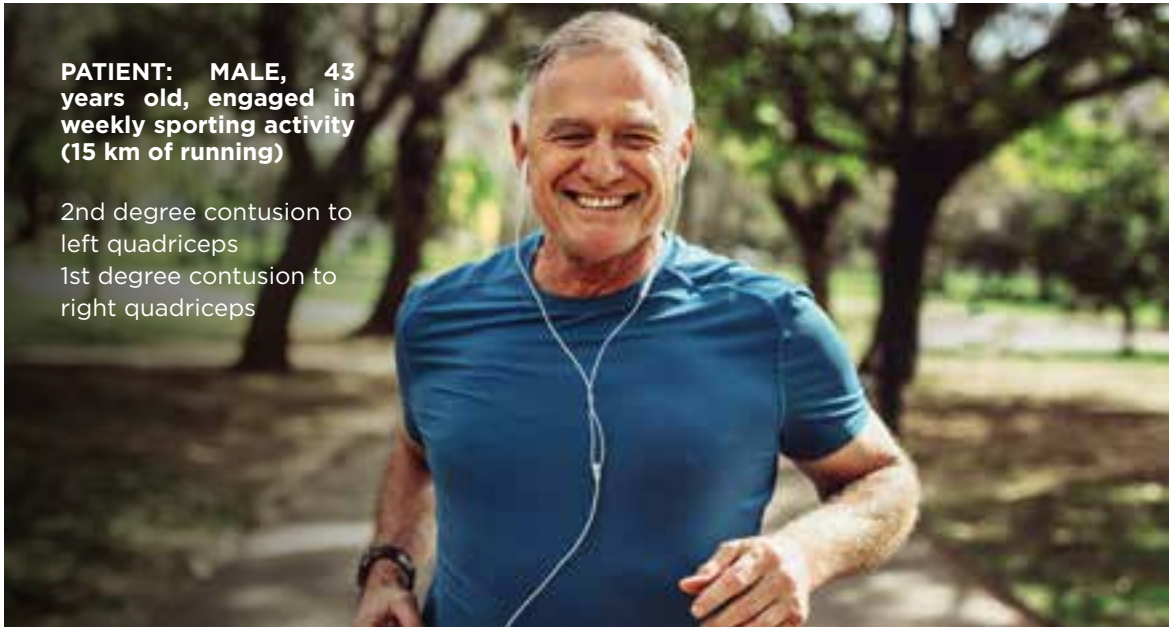
CONCLUSION

These results show that techniques to relax the suboccipital muscles can be beneficial in treating headaches and accompanying tensions, and in improving mobility of the cervical vertebrae, and that the benefit can be increased by using high-frequency current. As high-frequency current is safe and easy to use, it would be interesting to conduct other studies combining it with other manual therapy techniques.

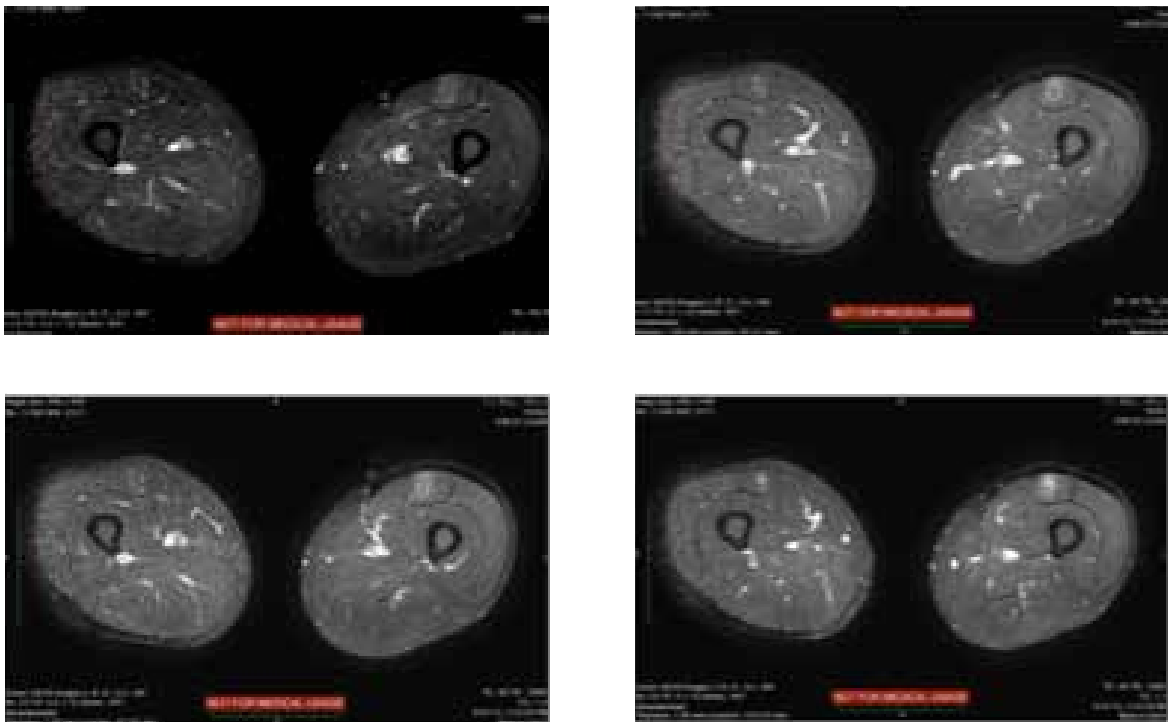


Case study of a second degree contusion

TREATMENT **Nicholas Chatzoglou** – Physical medicine and rehabilitation doctor
 & Panagiotis Psychidis, radiology doctor



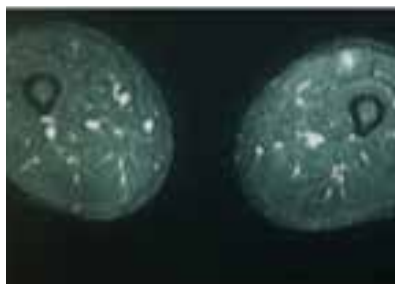
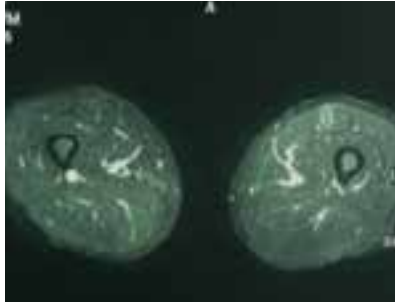
3RD DAY AFTER INJURY



5TH DAY AFTER INJURY

First treatment with Winback tecartherapy on the left quadriceps

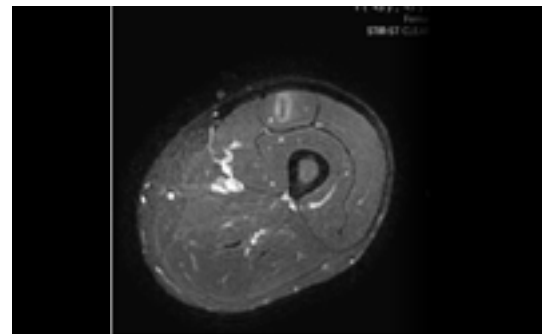
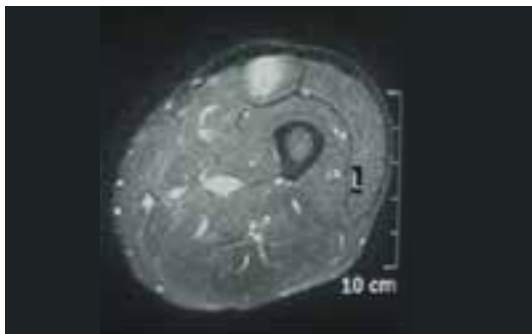
The second treatment was administered five days after the first and nine days after the injury to both quadriceps, during a period of total rest.



60%
REDUCTION
IN EDEMA
in the left
quadriceps.

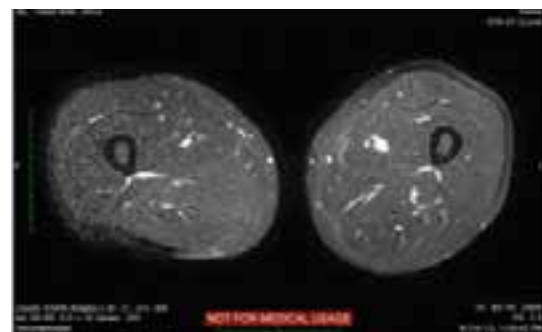
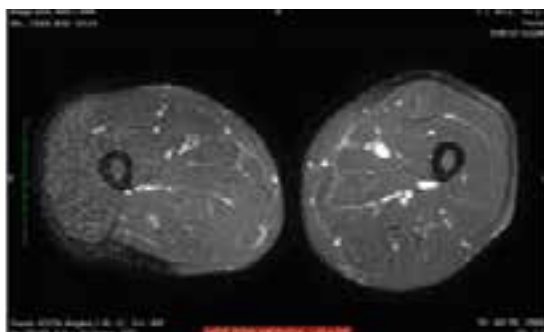
9TH DAY AFTER INJURY

Before second treatment



20TH DAY AFTER INJURY

The athlete resumed all his sporting activities 25 days after the injury, with total resorption of the edema on both sides.



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EQUIPMENT



BACK^{1S}

WINBACK 1.0: 1 Capacitive handle, 3 capacitive electrodes, 1 resistive handle, 3 resistive electrodes

WINBACK 2.0: 1 Fixpad capacitive, 1 fixpad resistive, 1 fixpad neutral

WINBACK 3.0: 1 Movable neutral handle, 1 protection ring, 1 resistive electrode

WINBACK 5.0: 1 Double resistive cable, 1 resistive adhesive cable, 2 resistive bracelets

OPTION
FASCIA PACK



Winback energy, but lighter

The **BACK 1S** offers all the benefits of **WINBACK** technology with minimum weight for maximum efficiency! At just 8lb, therapists can take it anywhere. A carrying case has been specially provided for this.

Application: SPORT - REHABILITATION - WOMEN

FEATURES

Output Capacitive Power: 100W

Output Resistive Power: 100W

Frequency: 500 kHz & 300 kHz

Function: DYNAMIC
LOW PULSE
SUPER PULSE
TIC - SCAN

Training: PHYSIO

Size: 12,99x12,99x5,906 in

Weight: 8.82lb



2 year equipment warranty - 1 year accessories warranty.
Manufactured to ISO13485 - Kiwa 1984 standards. Certifications: medical device

*Photo for illustration only, the carrying case may be different



FDA

BACK^{3SE}

WINBACK 1.0

CET MOBILE: 3 electrodes of different sizes for focused or radial action

RET MOBILE : 3 electrodes of different sizes for small and large areas

FIXED: Return plate

WINBACK 2.0 : 1 fixpad cet/ret/neutral

WINBACK 3.0 : 1 mobile electrode (return)

WINBACK 4.0 : MIX3 (Body) - MIX3 (Face)

WINBACK 5.0 : 1 Double resistive cable, 1 resistive adhesive cable, 2 resistive bracelets

OPTION

PACK FASCIA

✓ The best of WINBACK Tecar therapy in your practice

The **BACK 3SE** model is the top of the WINBACK Tecar therapy range. It can be equipped with 5 types of Winback Tecar therapy (from 1.0 to 5.0). Very practical, its accessories cradle and mobile trolley allows easy movement between colleagues. It is also scalable for future innovations.

Application: SPORT - REHABILITATION - WOMEN - AESTHETIC

FEATURES

Output Capacitive Power: 100W

Output Resistive Power: 100W

Frequency: 1 Mhz, 500 Khz & 300 Khz

Function: DYNAMIC - LOW PULSE
SUPER PULSE - TIC - SCAN
SWAP - BEAT - RET+

Training: PHYSIO - PHYSIO-AESTHETIC
PELVIC FLOOR

Weight: 8.82lb

Weight trolley: 33.07lb

Size: 14,17x12,2x5,91 in

Size trolley: 20,08x13,78x39,76 in

Trolley & accessories cradle





PHOTO CREDITS

We would like to thank our Winback Academy International members:

Ken Johnson - Director of rehabilitation department John Hopkins Hospital, Baltimore, US.

Dr Jeffrey Tucker - President of ACA Rehab Council, Los Angeles, US

Doug Adams - PT and CEO ACE Running, Philadelphia, US.

Gareth Zyambi - PT UK Diving Olympic team, London, UK.

Federico Morini - Masseo therapist and Italian Cycling team, Milan, Italy.

Aurore Chambaudu - PT and Osteopath Women's health specialist, Paris, France

