

Radiofrequency in Musculoskeletal Pain

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Introduction

Radiofrequency energy is acclaimed by thousands of patients and high level sports people for its therapeutic benefits. Its energy is a high frequency current, ranging between 300 KHz and 1 MHz it accelerates “natural regeneration” in the biological tissue. The low level of energy means it is totally non-invasive and 100% natural for the human body. Studies over more than thirty years have shown that the therapeutic effects stimulate natural tissue reconstruction and pain relief. In the 300 KHz – 1 MHz frequency range, the C Gabriel Research team highlights the Permeability of cellular membranes by analyzing several types of biological tissue for their Study “The dielectric properties of Biological tissues”.

The founder of this current is Jacques Arsène d’Arsonval, a famous doctor, but also a French Physicist and inventor. In 1890, d’Arsonval discovered the benefits of the permeability of Plasma membrane by increasing frequency to more than 100 KHz. In the 1920s, with other researchers and doctors, he developed the first capacitive and Resistive electrodes. A work By William Beaumont in 1939 dealt extensively with these modes of applications.

1995: The term TECAR (Transfer Electrical, Capacitive and Resistive) is first used in Italy.

New scientific studies are published in Italy. Frequencies of 500 KHz and 650 KHz. The Diathermy effect is prioritized generation of more intuitive, more dynamic and more efficient Equipment.

Effects

- Accelerated healing (97% EFFECTIVE) [1]
- Immediate and lasting pain relief (81% EFFECTIVE) [2]
- Accelerated vascularization (6X QUICKER) [3]
- A rehabilitation 2X as fast [4]

Indications

For analgesic and anti-inflammatory purposes, improvement of joint mobility, fibrocystic Action, reduction of edema. Decrease in recovery time, acceleration of return to activity. Sprains, fractures and muscle tears. Acute post-traumatic. (Sport Physiotherapy) arthritic syndromes, Acute & chronic tendinopathies, epicondylitis, neck pain, acute and Chronic lower back pain, capsulitis and joint stiffness.

Contraindications

Pacemakers and artificial organs, pregnancy, bleeding disorder, insensitivity to temperature changes, burn, infection, cancer, growth cartilage, hypotension, phlebitis.

References

1. S Piolani A, Soldadi, F Speziale, P Bonifacci, T Cuzzani, et al. (2009) 6 sessions, 97% EFFICIENCY on the Muscle and joint disorders. Effective therapies that Reduce healing time: Evaluation of the effect of multi-frequency capacitive diathermy treatment. Sport & Medicine.
2. Takahashi K, N Tsuzuki, K Zhong- SHI (1999) Study of Electric Transfer Clinic Hyperthermia pour lumbago treatment. Department of Orthopedic Surgery - Medical Center- J Saitama. Phys Ther. Sci 11: 45-51,
3. A Terranova, G Vermiglio, S Arena, A Ciccio S. DI DIO1 Mr. Vermiglio T.E.C.A.R therapy. Treatment of postoperative femoral fracture 44: 1-3.
4. Sanguedolce G, C Venza, P Cataldo , G Mauro Letizia (1995) Earnings twice as fast on the rotator cuff rehabilitation. The winback energy comes from Technology « TECAR « a term used by the scientific studies since 1995. TECAR therapy. New tendinopathy of the rotator cuff: our experience.

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