

# TMR<sup>TM</sup> Professional

THERAPEUTIC MAGNETIC RESONANCE

Medical device dedicated to professional use for the clinical treatment of  
Orthopedic, Vascular and Degenerative Pathologies.



## THERESON

**THERESON** is an Italian biomedical company that for years has focused on clinical and scientific research with the aim of demonstrating efficacy in the treatment of vascular diseases, microcirculatory disorders, orthopedics and degenerative pathologies using **TMR®** Therapeutic Magnetic Resonance, in particular in the presence of chronic systemic diseases.

Extremely versatile device dedicated to professional use.  
Includes the ability to manage the choice of therapy, application time and diffusion method used.



## Applications

TMR® is indicated for the treatment of many pathologies, including:

### Vascular Diseases

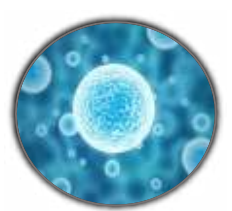
- ✓ DEGENERATIVE MICROCIRCULATORY DISORDERS
- ✓ DIABETIC FOOT LESIONS
- ✓ ACUTE AND/OR CHRONIC SKIN LESIONS
- ✓ VASCULAR, ARTERIAL AND MIXED LESIONS
- ✓ VASCULITIS AND PHLEBITIS LESIONS
- ✓ POST-SURGICAL WOUNDS
- ✓ TRAUMATIC INJURIES
- ✓ COMPLICATED, NEUROPATHIC AND PRESSURE ULCERS
- ✓ ANTI-AGING
- ✓ SEXUAL PERFORMANCE

### Orthopedic Pathologies

- ✓ SPORTS INJURIES
- ✓ SPORTS PERFORMANCE
- ✓ OSTEOARTHRITIS AND OSTEOARTHROSIS
- ✓ OSTEOPOROSIS AND BONE MARROW EDEMA
- ✓ TENDINITIS AND CALCIFIC TENDINOPATHIES
- ✓ SIMPLE AND COMPLEX FRACTURES
- ✓ EPICONDYLITIS
- ✓ ARTHRITIS, ARTHROSIS AND JOINT STIFFNESS
- ✓ DELAYS IN FRACTURE CONSOLIDATION
- ✓ INJURIES RESULTING FROM SURGERY OR TRAUMA, INCLUDING THOSE COVERED WITH PLASTER CASTS

### Regenerative Medicine

- ✓ REDUCTION IN OXIDATIVE STRESS AND FREE RADICALS
- ✓ REDUCTION IN LOCAL AND SYSTEMIC INFLAMMATION
- ✓ REACTIVATION OF MICROCIRCULATION
- ✓ ACCELERATION OF CELL REGENERATION PROCESSES
- ✓ DEGENERATIVE AND NEURODEGENERATIVE DISEASES



## How is TMR<sup>®</sup> different from other conventional magnetotherapy methods?

TMR<sup>®</sup> is based on pulsed electromagnetic fields at frequencies that are optimized and variable during stimulation. Numerous cellular tests have been performed to optimize the range and values of the most effective magnetic frequencies in tissue repair.

The use instead of a single carrier frequency, typical of all other methods (e.g. the widely used 75 Hz), prevents the complete stimulation of the various factors necessary for tissue repair. For example, a 20Hz frequency reduces free radicals in endothelial cells, but increases them in fibroblasts.

TMR<sup>®</sup> uses frequencies of proven efficacy, varying these frequencies during therapy to prevent cells becoming resistant to stimulation.

TMR<sup>®</sup> is the only method able to promote the healing processes of deep lesions, from skin to bone, both chronic and acute.



## How it works

**In the treatment of lesions:** TMR<sup>®</sup> has shown, both biologically and clinically, a remarkable effectiveness in stimulating skin lesion repair processes, regardless of the originating cause of the lesion. It acts by reducing inflammatory processes and increasing the proliferation of repair cells, in particular fibroblasts and endothelial cells. TMR<sup>®</sup> also helps tissue regeneration processes. This means that it is also effective in reducing recidivism.

**In Pain Reduction:** TMR<sup>®</sup> significantly reduces pain, through multiple mechanisms of action: reduced transmission of the painful stimulus, maintenance of the efficacy of hyaluronic acid action and reduced inflammatory processes. Unlike other conventional methods of magnetic therapy, therefore, TMR<sup>®</sup> acts not only on the symptoms, but also on the causes of pain.

**In Osteogenicity:** TMR<sup>®</sup> with the use of pulsed electromagnetic fields replicates the mechanical effect necessary to stimulate bone growth and remodeling (Wolff's Law). The physiological mechanisms of osteogenicity are altered when bone consolidation is delayed. TMR<sup>®</sup> is the only method that combines both mechanical stimulation and restoration of bone repair capability. It is, for example, the only method capable of increasing the production of alkaline phosphatase in bone, as well as osteonectin, osteopontin and osteocalcin. This allows excellent results to be achieved in fractures and bone mineralization deficits, reducing the duration of individual daily treatments and the therapy cycle.

**In Regeneration:** TMR<sup>®</sup> has shown a significant reduction in oxidative stress and free radicals, a reduction in local and systemic inflammation, the reactivation of microcirculation and vascular function, and the acceleration of cell repair and regeneration processes. It is particularly indicated in multifactorial diseases, generally degenerative and in particular neurodegenerative, where chronic alterations of the biological system are important factors contributing to the disease.

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THERAPEUTIC MAGNETIC RESONANCE

**Extremely versatile device dedicated to professional use.  
Includes the ability to manage the choice of therapy, application time and  
diffusion method used.**

TMR<sup>®</sup>, THERESON makes the benefits of Therapeutic Magnetic Resonance available in a compact, lightweight and extremely easy to use medical device.

The TMR<sup>®</sup> system is designed to be used directly by the patient at home, without the help of a medical professional. The sessions do not require special dressings or preparations, the patient does not need to undress or remove bandages, plaster casts or braces.

All the controls are clear and simple so that everyone can use them; no special training or familiarity with the technology is required. The data on therapies conducted using TMR<sup>®</sup> **can be sent to physicians, thus allowing effective** continuity of care to be maintained between healthcare professionals and patients across the region.

**TMR<sup>®</sup> is the only instrument capable of acting on both the tissue repair  
process and cell regeneration processes.**



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