

RESONO 
OPHTHALMIC

REXONEYE

REINVENTING DRY EYE TREATMENT





REXON-EYE® TREATMENT

Rexon-Eye is a non-invasive device that treats the cause of the dry eye disease delivering long-term results for all forms of dry eye.

It works by applying a low power high frequency electrical current, which has an important anti-inflammatory ¹ action and is capable of stimulating the metabolism and natural regeneration of cells. ²

The treatment addresses all types of dry eye, both evaporative as well as aqueous deficient, as evidenced by subjective and objective measurements reported in published clinical studies. ^{3, 4, 5, 6}

The instrument is successfully applied and highly appreciated worldwide by ophthalmologists and optometrists.

THERAPY PROTOCOL

4

Treatment sessions

20

Minutes each

1

Week interval

BENEFITS

- ✓ Effective therapy for all types of the dry eye disease, evaporative, aqueous deficient and mixed dry eye.
- ✓ Long term benefits starting along or just after the treatment.
- ✓ Comfortable, pleasant and relaxing treatment for the patient.
- ✓ Stimulates regeneration of tissues and cells.
- ✓ Reduces inflammation.

HOW DOES IT WORK

The treatment is delivered by contact electrodes built in a mask, which is worn by the patient over closed eyes. The device setup is really easy and intuitive.

The operator only needs to select the power and the duration of the treatment by turning a rotary knob and then pressing it to confirm.

For a successful treatment set aside a quiet area and create a relaxed atmosphere to ensure optimal result.

For additional tips on how to improve therapy benefits, please refer to the Treatment page on our web site www.resono.it





QMR® is a registered trademark by Telea Electronic Engineering, Italy.

QMR® QUANTUM MOLECULAR RESONANCE

The principle of operation of Rexon-Eye® is the QMR® technology, which delivers a weak alternate electrical current containing a specific mix of frequencies (from 4 MHz to 64 MHz) that has been shown to stimulate the natural regeneration of cells ², in addition to having an important anti-inflammatory action. ¹

For more than 15 years, this patented technology has been safely and successfully employed to treat diseases in several medical domains, such as Aesthetic Medicine, Physiotherapy and wound healing. ⁷

1. Paolucci et al., Antioxidants, 2023

2. Sella et al., PloS ONE, 2018

3. Pedrotti et al., Br. J. Ophthalmol., 2017

4. Ferrari et al., Cornea, 2019

5. Trivii et al., J. of Optometry, 2022

6. Kavroulaki et al., Cureus 2023

7. Fracalvieri et al., Int. Wound J., 2017

The Rexon-Eye device is now bringing the QMR benefits to Ophthalmology. The first application we selected is the treatment of dry eye, a disease affecting several hundred million people worldwide.



Stop button for additional patient safety.



REXONEYE



Patented in EU, USA and other countries.

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TECHNICAL DATA

- ✓ LCD Display
- ✓ Supply voltage and frequency: 100-230 V, 50 / 60 Hz, power consumption 300 VA
- ✓ Maximum output power: 40W / 200 Ω dual channel (mask)
- ✓ Fixed frequency spectrum: 4-64 MHz
- ✓ Class IIa device (Directive 93/42/EEC)
- ✓ Weight: 8kg
Dimensions: 40x18x35 cm

DISTRIBUTOR



SIR oftalmica

DISTRIBUTING EXCELLENCE SINCE 1989

WWW.SIROFTALMICA.COM

Portable device with
customized trolley





QMR® IS AN INNOVATIVE AND UNIQUE TECHNOLOGY

Resono Ophthalmic is the sole company worldwide that applies the revolutionary QMR® technology to the treatment of eye disorders.

Clinical studies have proved significant benefits for patients with dry eye disease. ^{3,4,5,6}

Developed and patented by: **Telea Electronic Engineering**, an Italian company headquartered in Sandrigo (VI).

With over three decades of research and development in collaboration with Universities, Research Centers and hospitals, Telea Electronic Engineering made a remarkable discovery: the Quantum Molecular Resonance (QMR), a novel physical effect. This cutting-edge technology interacts with molecular (atomic) bonds using an electric field with a spectrum of frequencies transmitted simultaneously (all harmonics from 4 MHz to 64 MHz).



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Rev 02/2023 Subject to technical changes as part of product development, as well as errors and omissions.



QMR® PATENTED REVOLUTIONARY TECHNOLOGY

WHAT MAKES QMR® UNIQUE?

What makes QMR® technology unique and innovative is its capacity to stimulate biological tissue, promoting the **anti-inflammatory effect** and stimulating the **natural regeneration** of cells and tissues.

BIOLOGICAL SAFETY

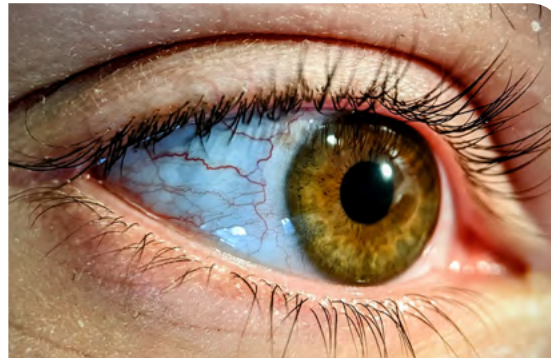
QMR® Technology is proven to be **biologically safe**. Rigorous studies on chromosomes, apoptosis, proteins, and 28,000 genes have affirmed its biological safety, assuring the absence of cellular damage in patients.^{*1}

QUANTUM MOLECULAR RESONANCE

QUANTUM: it is the smallest discrete unit of every energy solely determined by its frequency ($E_{\text{quantum}} = h \times f$). The higher the frequency, the greater the energy of quanta. QMR® utilizes its broad spectrum to create a variety of quanta, which interact with the biological tissue.

MOLECULAR: QMR® acts at molecular level, interacting with the atomic bonds of the biological tissue

RESONANCE: explains how quanta interact with the molecular (atomic) bonds. Thanks to the resonance effect, energy is transferred without increasing the kinetic energy and, consequently, without generating heat.



ANTI-INFLAMMATORY EFFECT

Inflammation plays a key role in what is called the “vicious circle of Dry Eye”.

Inflammation leads to tear film instability and ocular surface damage. As the eyes become drier, the level of inflammation increases. This heightened inflammation further exacerbates the dryness of the eyes.

QMR® interrupts this circle through its anti-inflammatory effect.

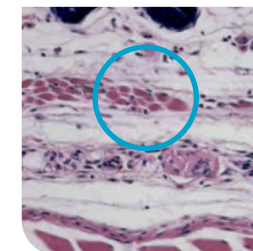
QMR® acts to modulate the macrophage polarization from pro-inflammatory M1 phenotype towards the anti-inflammatory M2 phenotype. Macrophages M2 reduce inflammation, downregulating inflammatory cytokines and releasing Anti-inflammatory cytokines.^{*2}



NATURAL REGENERATIVE EFFECT

QMR® emits packets of energy quanta capable of changing the ions concentration in the intracellular/ extracellular matrix (biochemical effect) which leads to a significant changes in transmembrane potential of the target cells.^{*7}

These changes trigger a metabolic pathways that stimulates MSCs (Mesenchymal Stromal Cells). Subsequently, MSCs differentiate into the needed cells. Through stem cells properties, the regenerated biological tissue has the same characteristics and functionality of the original one.



Studies on tissue showed that after a course of a QMR® stimulation, the parvocellular infiltrate (black dots) were observed inside the muscle bundles. This is a result of the regenerative process in progress.

*1. Sella et al., PloS ONE, 2018

*2. Paolucci et al., Antioxidants, 2023

*3. Pedrotti et al., Br. J. Ophthalmol., 2017

*4. Ferrari et al., Cornea, 2019

*5. Trivili et al., J. of Optometry, 2022

*6. Kavroulaki et al., Cureus 2023

*7. Maschio et al., BAM 2009