

# Ophthalmic Electromagnetic Stimulation

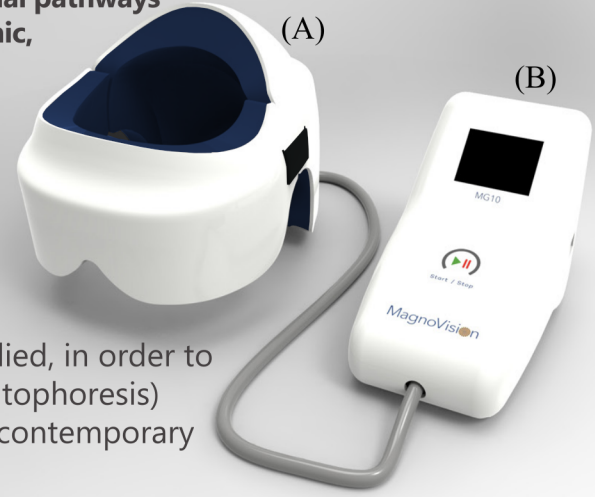
## MagnoVision™

MagnoVision MG10 is an electromagnetic stimulation / iontophoresis medical therapy device that is used without touching the eyeball (bulbus oculi) via its specially designed helmet. It is a new method that can be safely used alone or in combination with other treatment methods in the treatment of some retinal and optic nerve diseases that cannot be effectively treated with current methods



By simultaneously stimulating the retina, optic nerve and visual pathways electromagnetically, it is efficient in the treatment of dystrophic, neurodegenerative, ischemic and traumatic retinal / optic nerve diseases like:

- Retinitis Pigmentosa
- Degenerative/dystrophic maculopathies
- Retinal ischemic diseases
- Optic neuropathies
- Chronic central serous chorioretinopathy
- In cases where growth factor source or Anti-VEGF drugs are applied, in order to increase the transmission of bioactive molecules into neurons (iontophoresis)
- MagnoVision MG10 can also be used in combination with other contemporary methods when the current treatment methods are insufficient



### WITH ELECTROMAGNETIC STIMULATION

- The level of reparative neurotrophic growth factors in the microenvironment increases
- Growth factor - tyrosine kinase receptor sensitivity and efficiency increase
- Capillary blood flow in neural tissue increases and thrombocytes are degranulated
- Chronic inflammatory cytokines in the microenvironment are suppressed
- Cleaning of harmful metabolic wastes in neural tissue is accelerated
- With the iontophoresis effect, the concentration and efficiency of growth factors and drugs are increased in the damaged tissues
- Axonal regeneration of neurons is accelerated
- Activities of synaptic connections and ion channels in neural tissue is regulated

**BY INCREASING THE EFFICACY OF THE GROWTH FACTOR OR STEM CELL THERAPY, MAGNOVISION MAY SLOW OR STOP THE PROGRESSION OF THE RETINITIS PIGMENTOSA, DEEP RETINAL CAPILLARY ISCHEMIA AND CHRONIC CSCR**

There are millions of patients suffering from progressive eye diseases which can result in blindness. While these progressive neurodegenerative diseases can be treated at varying degrees with contemporary treatment methods, in some stages and cases they may be insufficient. MagnoVision MG10 therapy device, used alone or in combination with other treatment methods, can slow or stop blindness in appropriate cases.

MagnoVision MG10 has a specially designed helmet (A); that stimulates the retina and the visual pathways without touching the eyeball by generating electromagnetic field and a control unit (B); where the treatment parameters are set by the doctor and secured so that it cannot be changed by the patient.

High-frequency repetitive electromagnetic stimulation (high-frequency rEMS) generated by the device is a safe and harmless method because it is far below the specified safety limit.

### Clinical Studies

Özmert E, Arslan U. Management of Retinitis Pigmentosa Via Wharton's Jelly-Derived Mesenchymal Stem Cells or Combination With MagnoVision: 3-Year Prospective Results. *Stem Cells Transl Med.* 2023 Oct 5;12(10):631-650.

Arslan U, Özmert E. Management of Retinitis Pigmentosa via Platelet-Rich Plasma or Combination with Electromagnetic Stimulation: Retrospective Analysis of 1-Year Results. *Adv Ther.* 2020 May;37(5):2390-2412.

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Arslan U, Özmert E. Treatment of resistant chronic central serous chorioretinopathy via platelet-rich plasma with electromagnetic stimulation. *Regen Med.* 2020 Aug;15(8):2001-2014.

Özmert E, Arslan U. Management of toxic optic neuropathy via a combination of Wharton's jelly-derived mesenchymal stem cells with electromagnetic stimulation. *Stem Cell Res Ther.* 2021 Sep 27;12(1):518.