



PEMF Prime Academy

Certified PEMF Expert

Module 3

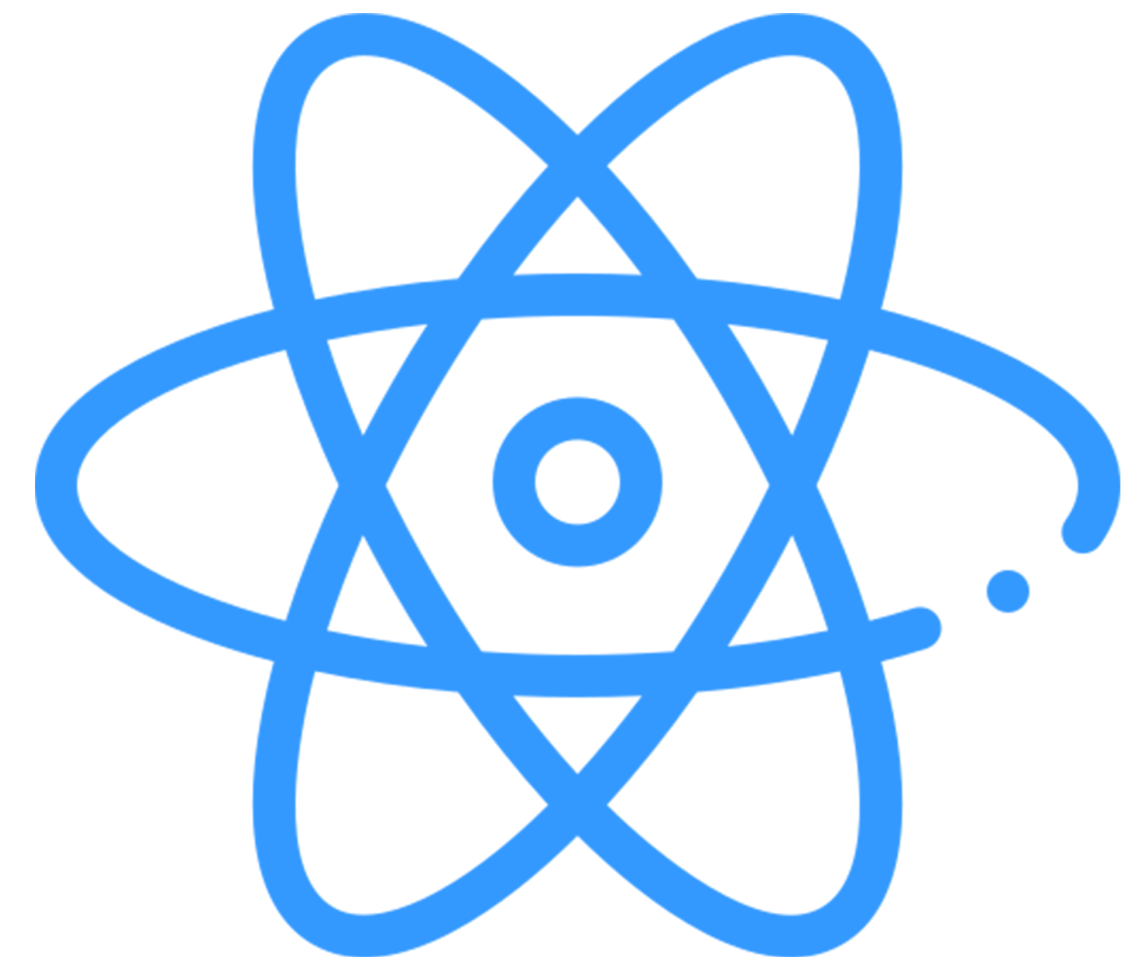
PEMF - The Science and Medical Application Range

PEMF Prime Academy

Science

- ◆ FDA, Health Canada and more approvals have been addressed in our previous segment
- ◆ All approvals are based on clinical trials using independent researchers
- ◆ 2,000 university level double-blind studies on the effectiveness of pulsed electromagnetic field therapy
- ◆ Some studies are on particular health conditions, while others are on the general actions of magnetic fields
- ◆ Research is conducted with non-commercial devices and is based on set parameters
- ◆ Applied properties produce the results

(More on that later - how to customize and apply research with the iMRS prime trial)



Science

2 different types of studies:

- ◆ **Industry friendly studies:** initiated and paid for by manufacturers for the purpose of selling their device – biased study
- ◆ **Independent studies:** peer-reviewed and conducted by an independent source who does not have an industry or financial interest

Links to find independent studies:

- ◆ <https://www.ncbi.nlm.nih.gov/pubmed/>
- ◆ <https://www.tandfonline.com/toc/iebm18/0/0>
- ◆ <https://josr-online.biomedcentral.com>
- ◆ <https://onlinelibrary.wiley.com/journal/1521186x>



Applications

PEMF effective as a stand-alone modality to:

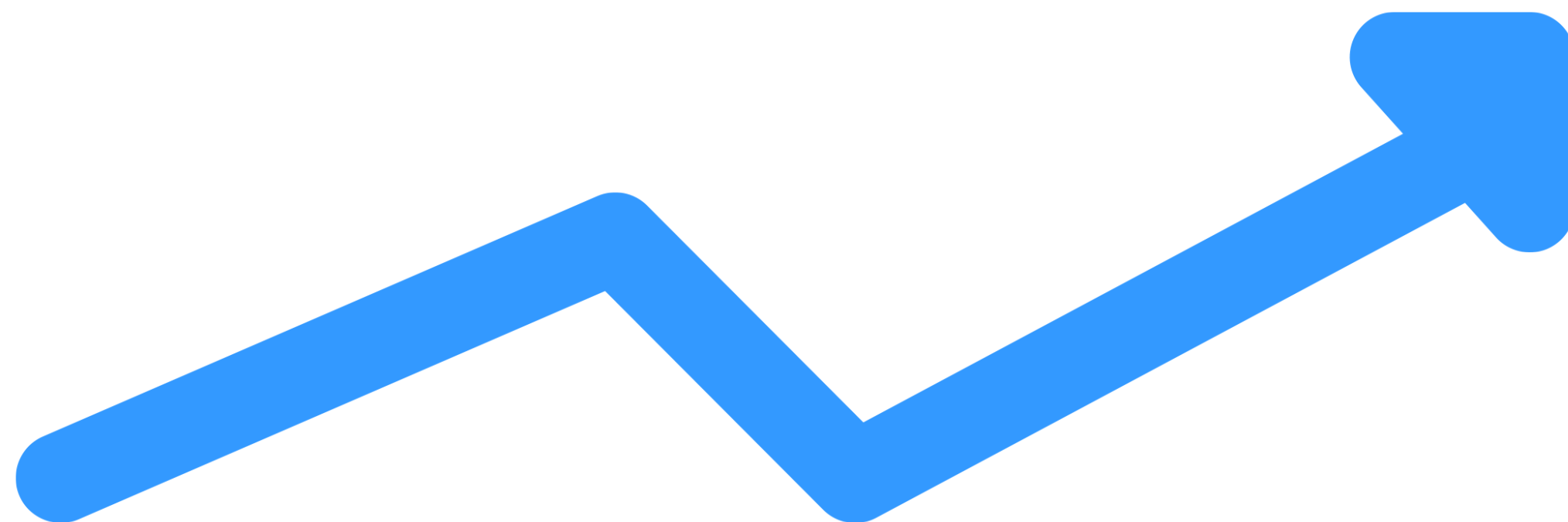
Increase energy, improve sleep, better mood, less brain fog, better circulation, reduced pain, etc.

More effective when coupled with:

Exercise, good nutrition, yoga, meditation, sufficient water intake and overall healthy lifestyle choices

Very effective when combined with:

Physiotherapy, chiropractic, nutritional counseling, massage therapy, stroke rehabilitation, naturopathic, conventional or alternative cancer treatments, psychological or psychiatric counseling and treatments



Medical Applications

Pain Relief:

- ◆ Has short and long-term effects
- ◆ How: pain blocking, reduced inflammation

TMP (Trans-Membrane Potential):

- ◆ Voltage difference between interior and exterior of cells
- ◆ Sodium- potassium pump uses ATP energy
- ◆ Transmits signals among cells

Studies:

- ◆ Dr. Laycock (1997): PEMF effects pain transmission at the level of neurons
- ◆ Warnke (1983, 1997): PEMF effects quiescent potential of neural synaptic membrane
pain signals can be blocked



Medical Applications

Inflammation

- ◆ PEMF reduces inflammation

Blood Circulation

- ◆ PEMF increases angiogenesis – growth of new blood vessels
- ◆ Increases flow of ions (blood flow) and vital organs detoxify

Increase cellular membrane permeability

- ◆ PEMF influence ATP production
- ◆ PEMF increase supply of oxygen

Increase of cell metabolism

- ◆ PEMF works as an antioxidant (terminate free radicals)
- ◆ Accelerate ATP synthesis
- ◆ Study: Dr. Szent-Gyorgi (1976): cell membrane can rectify and induce voltage



Medical Applications

Increase energy storage and cellular activity

- ◆ Protein gain electrons, increase energy storage potential
- ◆ Mitochondria converts ATP

Blood Circulation

- ◆ PEMF can increase collagen production (anti-aging)
- ◆ PEMF increases muscle flexibility
- ◆ PEMF increases range of motion



Medical Applications

Increase cellular genesis:

- ◆ Intra and inter cellular processes lead to faster cell and tissue regeneration
- ◆ Shown by studies in bones, spine, cartilage, intestines and more

Swiss Medical Tribune (2014)

- ◆ “Improvement of blood circulation, relief from pain, improvement of bone healing and the stimulation of nerve cells. Not only is PEMF effective in disease conditions, it is also an excellent means of preventing stress, assisting in regeneration and recovery.”



Medical Applications

Summary of PEMF:

- ◆ Stimulates cellular activity, promotes neural regeneration and brain function, improves neuro-muscular function and general health
- ◆ Increases blood circulation in and around damaged tissue and helps to heal damaged cells.
- ◆ Improves micro-circulation, increases supply of oxygen, ions and nutrients to cells
- ◆ Increases ATP production by excitations of electrons
- ◆ Stimulates RNA and DNA production
- ◆ Accelerates protein biosynthesis by electron and energy transfer
- ◆ Increases calcium transport and absorption for stronger bones, joints and muscles
- ◆ Enhances cellular and tissue elasticity with increased collagen production



Medical Applications

Summary of PEMF:

- ◆ Increases cellular genesis promoting bone, cartilage, tendon and soft tissue growth
- ◆ Stimulates cellular repair mechanism (wound healing)
- ◆ Enhances macro circulation, de-clumping of blood cells, alternately dilating and constricting vessels and through angiogenesis, promotes growth of new blood vessel (blood pressure decreases)
- ◆ Accelerates detoxification of cells and organs
- ◆ Decreases swelling, inflammation and pain
- ◆ Boosts immune system by improving the rolling and adhesion behavior of white blood cells
- ◆ Supports the body's internal self-regulating mechanism

