

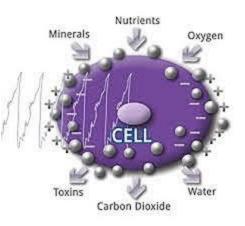
Pulsed Electro-Magnetic Frequency Therapy Dr. Larry Basch, D.C., CCSP, CCEP, CLT

PEMF – Pulsed Electro-Magnetic Field Therapy

Medical PEMF therapy has been accepted in many countries around the world. The US FDA accepted the use of PEMF devices in the healing of non-union bone fractures in 1979, urinary incontinence and muscle stimulation in 1998, and depression and anxiety in 2006. Israel has accepted the use of PEMF devices for migraine headaches. Canada has accepted PEMF devices for many uses. The European Union has many acceptances for the use of PEMF therapy in many areas including healing and recovery from trauma, degeneration and the treatment of the pain associated with these conditions.

PEMF- Pulsed Magnetic Frequency Therapy re-energizes aging and damaged cells by inducing electrical charges within the cell helping to restore it to its normal healthy state.

This PEMF energy causes cellular membrane changes resulting in increased cell uptake of oxygen and nutrients and removal of cellular waste products enhancing the cells natural metabolic ability to function and repair. The PEMF energy produces percussive muscular contractions, resulting in increased vaso-dilation and circulation, tissues regeneration, increased immune function, the breaking up of intramuscular adhesion/trauma and decreased inflammation. The restoration of human cell function is what set this technology apart from all other devices, it helps your cells function better. When using in combination with our other services, we can achieve greater pain reduction and restoration of health, quickly, safely and naturally.



PEMF (pulsed electromagnetic field therapy)

- reduces pain
- reduces swelling
- reduces inflammation
- improves joint range of motion
- in any damaged or malignant tissue, it moves physiology towards its normal parameters
- balance of acid-base balance, transmembrane potentials, oxygenation, circulation, energy production
- FDA approved for non-healing fractures and depression refractory to drugs

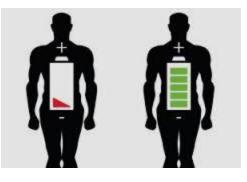
Our Earth has a magnetic field that fluctuates (pulses) and this pulsed electromagnetic field (PEMF) is a key component for life. In fact many researchers refer to PEMFs as "The Fifth Element." Along with food, water, oxygen and sleep, the body needs PEMFs to survive. Unfortunately the Earth's magnetic field is getting weaker and some research suggests that it is almost 100 times less powerful as it was during the time of dinosaurs. Each of the approximately 75 trillion cells in your body vibrates or oscillates. Using the appropriate frequencies, electromagnetic impulses can induce resonant vibrations to stimulate a variety of cellular functions. However, only specific range or

spectrum of electromagnetic frequencies are readily accepted by the body (called the biological window) trigger physiological responses. One key function of the cell membrane is to regulate the environment for biological processes inside the cell. This is achieved through selectively allowing water, nutrients, and elements to enter or leave the interior of the cell.

One way the cell membrane achieves selective "permeability" is through the establishment of a membrane potential. PEMF normalizes cell membrane potentials. PEMF therapy is similar to charging a battery, which is each and every one of your cells. PEMF stimulates atoms, increases electronic spin, aligns molecules, and generates very small microcurrents that tend to run along nerve pathways. This leads to an increase in intercellular communication, metabolic processes in part due to increased circulation, oxygenation, alkalization, ATP production(the form of energy used by cells to perform work such as running enzymes), and optimized cell membrane potential. As a result, cells regenerate, oxidative stress and inflammation is reduced, immune responses are more robust, the feel-good endorphins are boosted, depleted adrenal and other endocrine gland functions are restored. Healing, rejuvenation, and regeneration. This is the foundation of PEMF therapy.

PEMF – Pulsed Electro-Magnetic Field Therapy

- 1. Reduced pain
- 2. Reduced inflammation
- 3. Increased range of motion
- 4. Faster functional recovery
- 5. Reduced muscle loss after surgery
- 6. Increased tensile strength in ligaments
- 7. Faster healing of skin wounds
- 8. Enhanced capillary formation
- 9. Accelerated nerve regeneration
- 10. Reduced tissue necrosis



benefits of Pulsed Electro-Magnetic Field ("PEMF") therapy have been demonstrated Many through more than 2,000 University level, double-blind, medical studies done in many countries with many different PEMF therapy devices. Some of the positive effects of PEMF therapy were well established by the mid 1900's. The first commercially produced low power PEMF devices entered the market in the early 1900s. These were used for studies and experimentation in healing and cellular wellness. They were sold to both consumers and as medical devices to doctors. The first commercially produced high power PEMF devices entered the market around 1975. They focused on the health of bones, muscles, nerves, tendons, ligaments and cartilage, on reducing pain and on cellular and tissue regeneration.

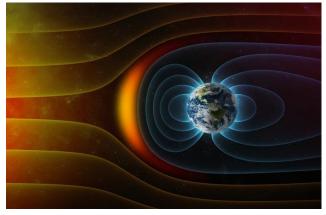




Introduction to Magnetic Science Dr. Larry Basch, D.C., CCSP, CCEP, CLT

Magnetic field therapy or PEMF can be effective in a wide range of health conditions. But before it is used for healing, it is important to have a basic understanding of some of the physical characteristics of magnetic science, including electric and magnetic fields and some of their actions on the body. All matter is made up of moving particles. Forces exist in the space around these moving (electrical) particles. Those forces are magnetic fields. By definition, force is an interaction that changes the motion of an object.

An electric field is the force field created by the flow of electricity (caused by the attraction and repulsion of electric charges). A magnetic field is the force field created as a consequence of the flow of electricity. Electric fields and magnetic fields always exist in tandem – one cannot exist without the other. An electromagnetic field, then, is the combination of an electric field and a magnetic field.



Let's back up briefly and talk about charge. Electric charges can either be positive or negative. Positively charged substances repel other positively charged substances, but

attract negatively charged substances. Conversely, negatively charged substances repel other negatively charged substances, and attract positively charged substances.

Our bodies are fundamentally electric. When a person goes into cardiac arrest, for example, a defibrillator is used to apply electrical energy to the heart so that it can reestablish a normal rhythm.

So, the electricity that flows through our body creates electromagnetic fields. External magnetic fields and the body's native magnetic fields interact regularly. Because of these interactions, a magnetic field passing through the body will have an electromagnetic effect on a cellular level.

Electric and magnetic fields control our chemistry by changing and influencing the motion of charged particles. This movement stimulates a vast array of chemical and electric actions in tissues, helping them rebalance or heal themselves where necessary. Additionally, this increased motion of ions and electrolytes helps cells increase their available energy by as much as 500%.

Electromagnetic fields affect the charge of the cell membrane, rebalancing it so that membrane channels can open up. These channels are like the doors and windows of a house – by opening them, oxygen and nutrients are better able to enter the cell, and carbon dioxide and waste are more easily eliminated from the cell. This helps to rebalance and restore optimum cell function.

If you restore and rebalance enough cells, they will all work more efficiently. Cells of the same type come together to make tissues, which come together to make organs. By restoring or maintaining cellular function, you will in turn restore or maintain organ function, allowing the entire body to function better. This is the basis for magnetic field therapy – affecting and improving basic cellular function in order to combat a variety of health conditions and when possible, prevent cellular damage from happening in the first place.