

THE  
HEALING  
POWER of  
**PEMF**



# What is PEMF?

PEMF stands for pulsed electromagnetic field. It is a widely used therapy for multiple problematic issues and has been in use in Europe for over 50 years. It was originally used in the United States for bone repair on horses, and is still widely used in the veterinary field.

Noting the success the veterinary community was having with bone fractures in horses, professional sports doctors began using PEMF therapy on athletes off label. Also taking note of the veterinary success, medical professionals began lab studies with PEMF to determine the effectiveness of PEMF therapy in human cases where bones were not knitting back together. The results were very convincing, and in 1979, the FDA approved PEMF therapy for use in non-union bone fractures.

PEMF therapy has been used for promoting healing, easing pain, and inflammation reduction. It has also been used in the successful treatment of arthritis, wound healing, broken bones, and the pain and fatigue of fibromyalgia and Lyme disease.

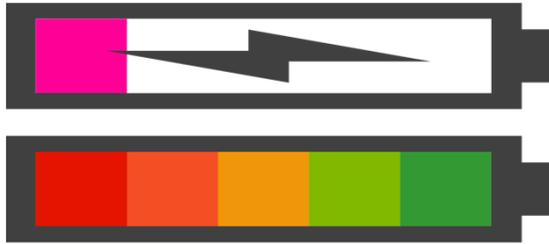
## How does it work?

In pulsed electromagnetic field therapy, low frequency waves are passed through the body. These waves pass through tissue, organs and bones without being absorbed or altered, but having passed through the body, they stimulate the electrical and chemical processes of the body.

Because the faulty metabolism of an impaired cell is caused by the disruption of its electromagnetic energy, PEMF therapy works by replenishing that energy. If the energy is not replenished, the cell continues to malfunction and deteriorate, and eventually die. Injured, unhealthy cells can cause multiple problems in the body, and disease conditions.

*The FDA has also approved PEMF therapy for treating urinary incontinence and muscle stimulation in 1998, for treating depression and anxiety in 2006, and for brain cancer/tumors in 2011.*

TMP (trans-membrane potential) is a gauge of the cell's electrical charge. High TMP results in cells that are highly functional and healthy. High TMP ensures optimal health so the cell's membrane channels can be opened to absorb nutrients and also to eliminate waste products. By contrast, low TMP results in an impaired metabolism. Because the cell is less able to take in nutrition and eliminate waste, its ability to function is undermined.



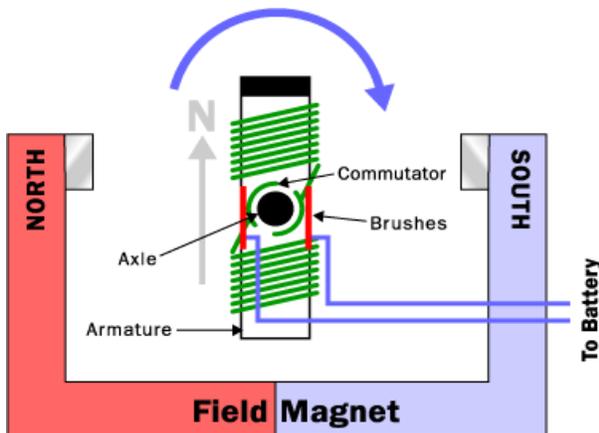
**A healthy cell is like a battery with a full charge—powered up and ready to supply energy. An unhealthy cell is like a battery that has run down, and has very little energy left to contribute. PEMF therapy effectively charges your cellular “batteries”, so they can perform in a healthy and productive manner.**

## Are there bad electromagnetic fields?

We are surrounded by magnetic fields—the earth itself creates a magnetic field. The US Geological Society explains, “The force a magnet exerts on an iron filing or the force the Earth’s magnetic field exerts on the needle of a compass are two common examples of magnetism. A magnetic field has both intensity and direction.

The strength of the magnetic force depends on the amount of magnetic material present and its distance and direction relative to the detector. The Earth’s magnetic field probably is caused by movement of partially molten iron in the Earth’s outer core. The Earth’s magnetic field changes in intensity and direction slowly over time.

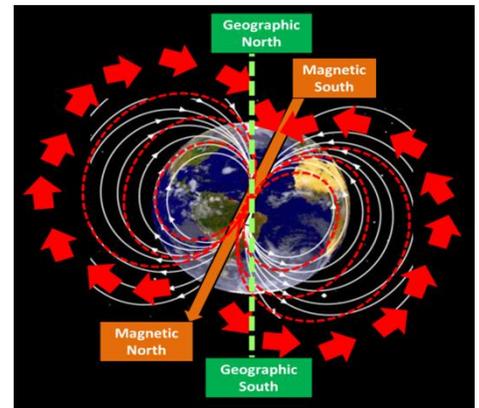
There are also man made magnetic fields, such as the ones used in electric motors and generators. Cell phones, Wi-Fi, microwaves, transformers and power lines all generate electromagnetic fields of a type that is unhealthy to human tissues. This type of harmful energy is referred to as “electronic smog”.



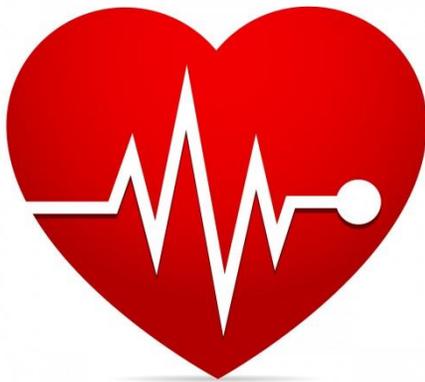
Prevention Magazine reports %Over the past few years, investigators have examined cancer clusters on Cape Cod, which has a huge US Air Force radar array called PAVE PAWS, and Nantucket, home to a powerful Loran-C antenna. Counties in both areas have the highest incidences of all cancers in the entire state of Massachusetts.+

## What's different about low frequency electromagnetic fields?

PEMF therapy uses electromagnetic fields in the extreme low frequency (ELF) range. This range is similar to the natural electromagnetic field created by the earth. Modern living ensures we don't get enough of the healthy fields. We are shielded from them by our houses, offices and automobiles.



Unfortunately, the natural magnetic field of the earth that we evolved with, that nurtures us, has been fading over time. Studies have shown a gradual reduction and weakening of that field. At the same time, the harmful high frequency magnetic fields have been increasing as we continue to build up our electrical grids and cell phone towers.



**Electromagnetic energy is what makes your body run. Most people are familiar with the EEG (electroencephalograph) test which measures the electromagnetic activity of the brain, and the EKG (electrocardiogram) which measures the electromagnetic activity of the heart. Electromagnetic energy controls everything down to the chemical interactions at a cellular level for the trillions of cells in the body.**

SPOTLIGHT

## Are there visible results at a cellular level?

Blood cells that are not at optimum health stick together in stacks. The stacks of cells resemble stacks of coins. This is called the Rouleaux effect. Sometimes, the clumping continues and creates branches off of the original stack. Cells that are clumped in this manner not only cannot flow correctly (in single file), but they also cannot intake the proper amount of nutrition, nor properly eliminate waste.

## Has medical research been done?

Several thousand scientific laboratory studies have been done on PEMF and its medical applications. PEMF has been used for years in the former Soviet Republic, and was available in hospitals. It was developed to use on Russian cosmonauts because after long missions in space they were found to have lost bone density and muscle tone. After seeing vast improvement in the health of their cosmonauts from PEMF therapy, it began being made available to the general public.

After the breakup of the former USSR, the technology was licensed and sold to other European nations where it was eventually miniaturized and modified for portability and ease of use.

New research continues to be explored at a strong pace, and PEMF therapy is becoming available for even more medical uses.



After PEMF therapy, the cells can be seen to be unstacked, and back to their healthy, free-flowing state which allows them to take in the nutrition they need and expel their toxins.



The medical community in America began studying the effects of PEMF on lab animals and finding encouraging results began the trials for the first FDA approved usage for non-union bone fractures which was approved in 1979. The FDA also approved PEMF therapy for treating urinary incontinence and muscle stimulation in 1998, for treating depression and anxiety in 2006, and for brain cancer/tumors in 2011.

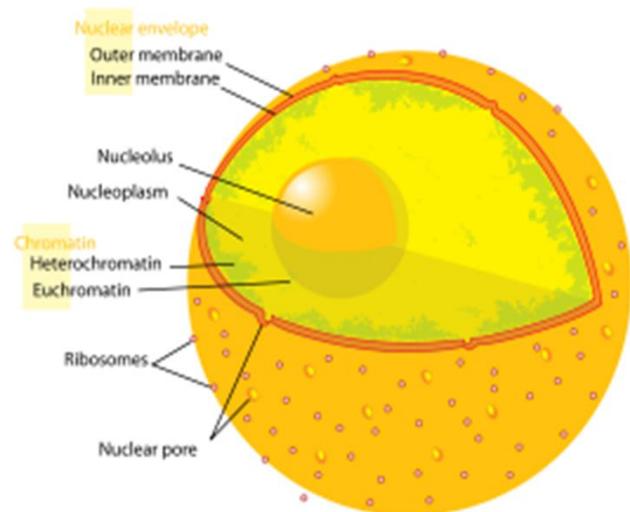
# Can PEMF therapy help me?

PEMF therapy is currently being used to help many different conditions with excellent results. Because it supplies the body with much needed energy at a cellular level, its ability to improve health is remarkable.

PEMF therapy can be used at a very basic level to simply improve overall health. Used as a proactive practice, it can bring about increased tissue oxygenation, enhanced metabolism, and better transportation of nutrients. It also increases the efficiency of waste disposal at the cellular level paving the way for improved tissue regeneration. PEMF therapy allows the body's natural defense systems to perform at their uppermost capacity.

## Can it help with body detoxification?

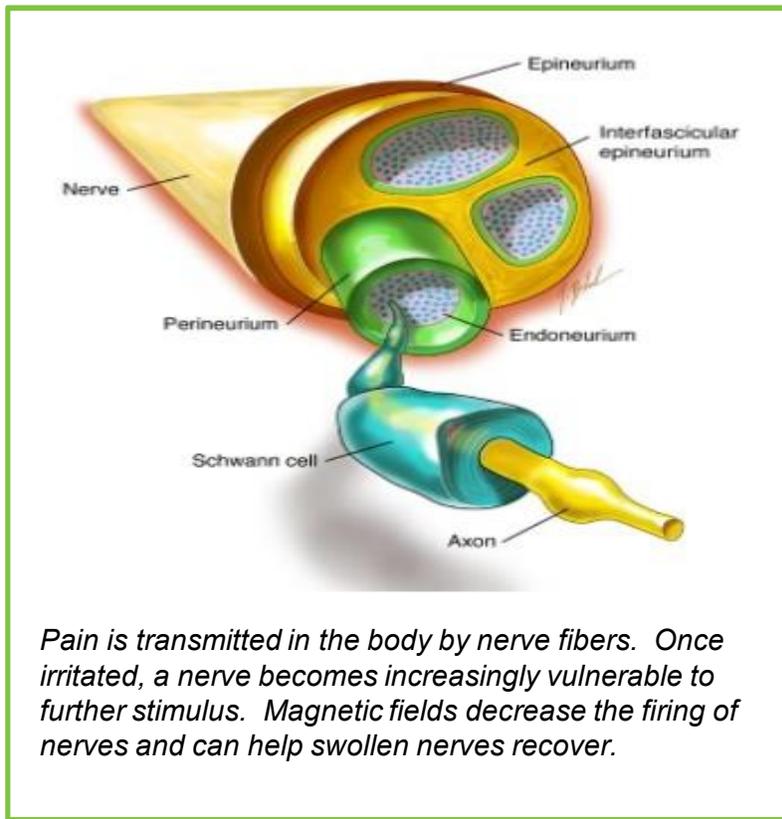
By stimulating the various functions of your body with PEMFs, it can more efficiently support and heal itself. PEMF therapy causes more effective removal of cellular waste, which results in improved circulation, better nutrient transportation, and oxygenation of the cells. Enhanced detoxification of the body induces the removal of old, damaged cells that clog the system and lengthen the repair time of tissues. This allows new cells to be born into a much healthier environment.



## Does it decrease inflammation?

There are different reasons for the body to generate an inflammatory response, from bacterial infections to traumatic injury. It is a necessary response from the body, but if it persists longer than it should, it can create a negative outcome of chronic inflammation. A chronic inflammatory condition can cause prolonged pain. PEMF therapy can reduce the occurrence of chronic inflammation.

# What about pain?



Poor blood flow caused by muscle tension and constricted vessels instigates pain, which can be reduced with PEMF treatment by increasing cellular oxygenation. PEMF therapy stimulates the body's own natural systems to fight pain which often reduces dependence on pain medication.

Not only does PEMF therapy help with pain, it also helps to heal the underlying condition causing the pain.

# Does it help with stress?

The amount of stress felt by many people today results in a myriad of health problems. Depression, anxiety, fatigue, concentration problems, and problems with the immune system caused by continuous stress can contribute to several diseases. When the body is in a continual battle with anxiety, there is insufficient energy left over to devote to keeping the body healthy.

PEMF therapy increases the body's ability to deal with the chemical results of stress. It creates cellular health in the hypothalamus which aids the body in removing excess adrenaline. It can also help inhibit the activation of the sympathetic nervous system and adrenal glands. Decreasing the overreaction to stress by the body, frees its natural energy to devote to other actions, such as supporting the immune system.

## Will it help alleviate insomnia?

Insomnia can be caused by stress, physical discomfort, and other strains on body and mind. Ongoing insomnia can lead to problems with concentration, tiredness and irritability. It can also raise the risk of heart disease.

PEMF therapy helps reduce pain, and induce relaxation. PEMF also stimulates the brain's pineal gland for higher melatonin production which aids in the sleep cycle. The results are a better night's sleep leading to a more energized day.



## Can I achieve enhanced sports performance?

A body with optimal energy is better able to fight illness and stay healthy. If cells don't have enough energy, it becomes difficult for the body to regenerate after exertion or sports injury. PEMF therapy improves energy balance at a cellular level, prevents cell damage, and prevents the body from being out of balance.

Several professional athletes and sports enthusiasts credit PEMF therapy with heightened performance and reduced recovery time. Increased circulation provided by PEMF therapy promotes tissue healing, reduction of swelling and removal of bruising. Peak energy levels are essential for muscles to work longer and work harder, and PEMF therapy provides that energy.

Blood oxygenation is increased with therapy, and results in increased energy production which can give a body the advantage in sports performance.



## *Heal the body with pulsed electromagnetic fields!*

The healing power of PEMF therapy is well documented, and in use around the world. From growing bone tissue to treating depression to treating brain cancer, the results are remarkable. New uses for PEMF treatment are being tested in medical laboratories in major universities and hospitals, and studies continue to show the bright promise of this powerful therapy for the future.