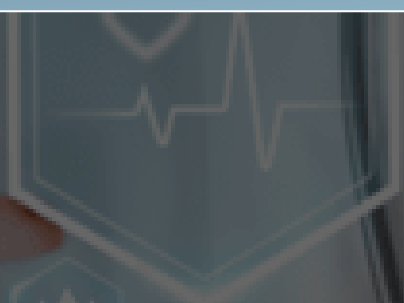


# Energy Wellness Partners



PEMF (Pulsed Electromagnetic Frequency)





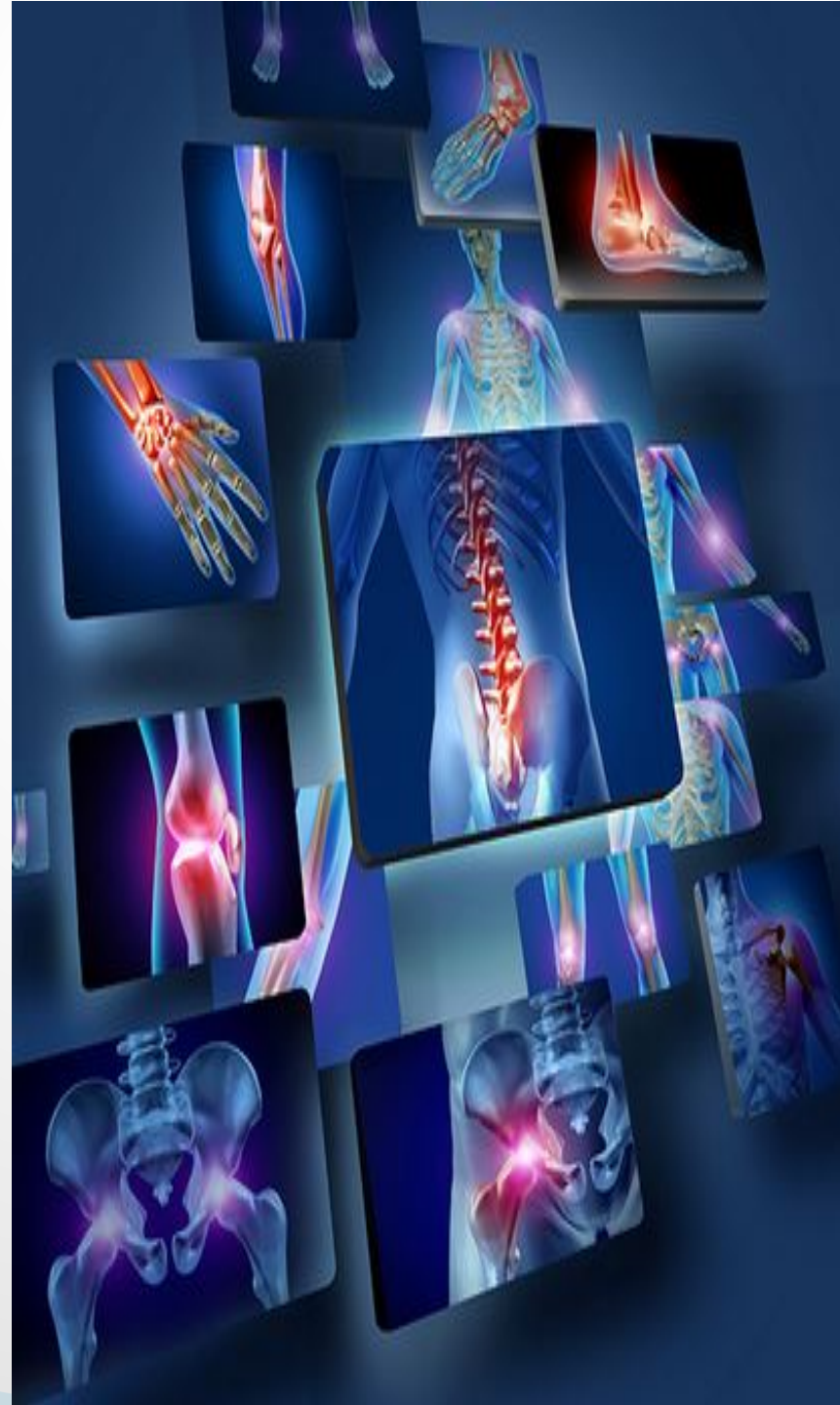
## Introduction to PEMF

Pulsed Electromagnetic Field Therapy (PEMF) is a regenerative technique that is used to stimulate cellular repair. Clinical evidence shows that PEMF therapy reduces pain associated with trauma from accidents, sports injuries, surgeries and burns as well as from disease and degeneration. PEMF therapy improves these conditions in many different concurrent ways including mechanical, chemical, electrical and magnetic processes within the cells of the body.

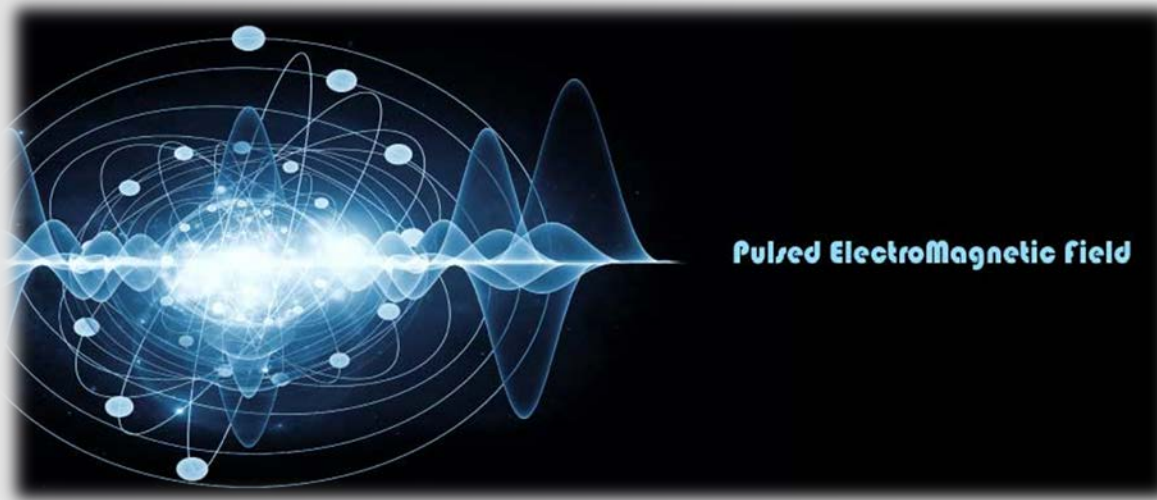
# Benefits of PEMF

- ✦ Reduction of pain and inflammation
- ✦ Improved energy
- ✦ Improved circulation
- ✦ Improved blood and tissue oxygenation
- ✦ Accelerated repair of bone and soft tissues
- ✦ Muscle relaxation
- ✦ Improved blood pressure and cholesterol levels
- ✦ Improved balance of the immune systems
- ✦ Stimulation of RNA and DNA
- ✦ Promoting Wellness for Cancer Clients\*

\*FDA Clearance for Brain Cancer, however we promote wellness for all Cancers



# Making a Case for PEMF



After conducting in-person interviews of more than 23,000 American adults, the National Center for Complementary and Integrative Health (in conjunction with the National Center for Health Statistics) found that almost 40 percent of those surveyed used some type of complementary and alternative medicine (CAM) in an effort to obtain and retain a higher level of health.<sup>1</sup> While many different forms of CAM exist, many of which you as a healthcare professional likely use in your office daily, one that is less talked about yet offers a scientifically proven positive healing response is PEMF.



# What is PEMF?

PEMF stands for Pulsed Electro Magnetic Field therapy; using this particular process involves directing powerful, pulsed energy waves toward damaged or injured areas of the patient's body. These waves painlessly and quickly pass through the cells in the damaged region, increasing the spin of the electrons contained within them as a result.

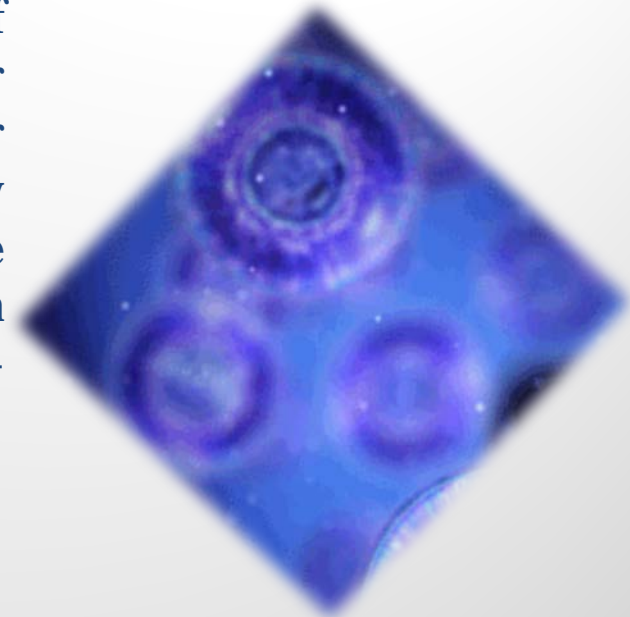
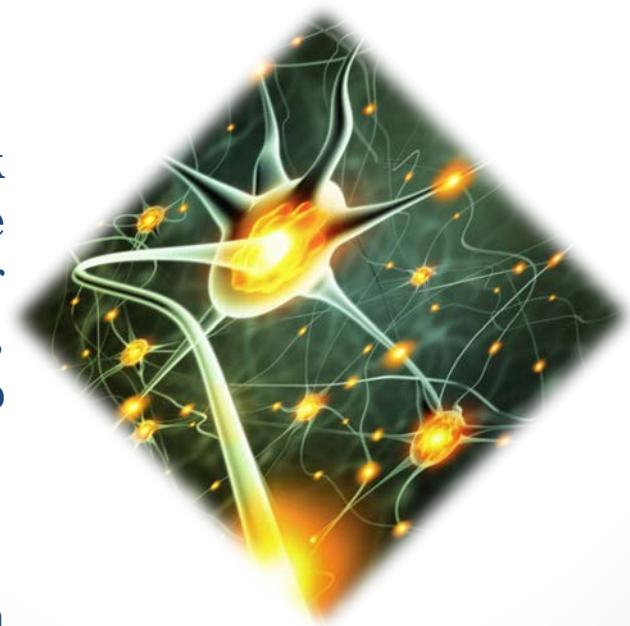
It is this amplified electron spinning which restores the cell's potential (its energy), regulating its volume at the same time. And, unlike some other forms of CAM, this positive cellular effect lasts for as many as four days after the treatment session has ended. With that, PEMF therapy is: The induction of electricity into the cells to help stimulate or promote healing.



# How PEMF Works

Perhaps the easiest way to understand PEMF is to think in terms of each cell in your body as if it were a little battery. Like with any battery, sometimes your cells become tired and worn, whether due to age, stress, overuse, or damage, making it more difficult for them to fight off any type of potentially damaging force or illness.

Through PEMF therapy, your batteries (i.e. your cells) essentially become recharged. The energy supplied via PEMF waves gives them the energy they need to ward off whatever is threatening them, whether it's a trauma or disease-based threat. This makes it easier for your patient's body to restore its health naturally, simply by using the electrical currents and impulses that are already interacting within and throughout their cells. In essence, high-powered PEMF is like a "battery re-charger" for your depleted cells.



# PEMF and NASA

NASA 4-year collaborative study on the efficacy of electromagnetic fields to stimulate growth and repair in mammalian tissues.

CHIEF INVESTIGATOR: Thomas J. Goodwin, Ph.D. Lynden B Johnson Space Center

When it comes to research studies, it does not get any better than NASA. Of more than 10,000 research papers and 2000 plus double blind studies on PEMF therapy; none was more thorough and conclusive as the 4 year NASA study lead by Dr. Thomas Goodwin, PhD, on the ability of PEMF to improve the growth and repair of tissues in mammals.

This study is a landmark in proving the efficacy of PEMF therapy on human cells for healing, growth and regeneration, specifically the stimulation of neural stem cells. This research summary is of necessity somewhat complex, because of the complexity of the science. It is likely to be mostly of interest to those who have a scientific or engineering background. Nonetheless, this summary serves to highlight the impressive and in-depth scientific and engineering background that served as the basis for using PEMF therapy.



# PEMF and NASA (continued)



“We have clearly demonstrated the Bioelectric/Biochemical potentiation of nerve stimulation and restoration in humans as a documented reality.”

To Read The Complete NASA Study Click on the Link Below on the NASA Website

<https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20030075722.pdf>

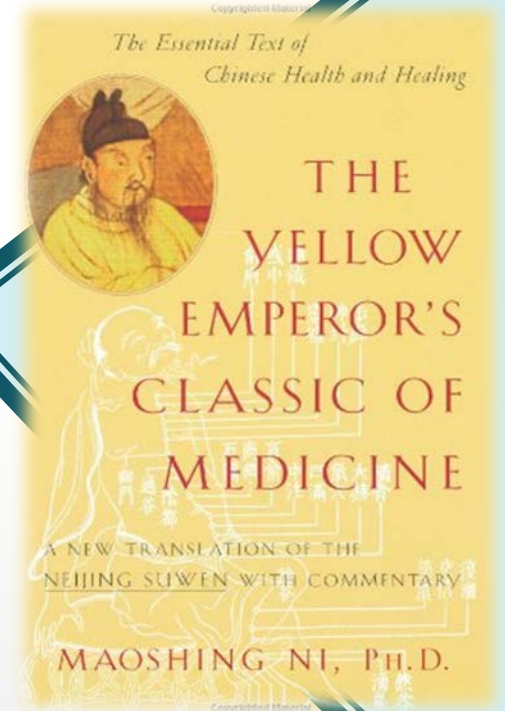


# The History of PEMF

Pulsed electromagnetic field (PEMF) therapy isn't typically as well-known as other forms of treatment such as chiropractic massage, and physical therapy. Therefore, many people assume that it's a relatively new remedy, leaving it wide open for speculation when it comes to its positive effects. However, the truth is, PEMF has actually been used to help people live a healthier life for quite a long time, *thousands of years, in fact.*

The use of magnetic therapy can actually be found as early as 2000 B.C., which is when Chinese book, The Yellow Emperor's Book of Internal Medicine, noted that "magnetic stones" were used for various health issues.

Centuries later, during the Middle Ages, use of these types of stones was again recorded, this time referring to them as "lodestones" which were placed upon the patient's body in an effort to achieve greater health.



# The History of PEMF (continued)

Then, in the late 1800s, science increased our understanding of electrons and electro-magnetism, prompting healthcare professionals to consider using magnetism and electricity for a number of different ailments, ranging from an inability to sleep to actual physical convulsions.

In fact, magnetic therapy was deemed so powerful, magnet-based products such as boots, girdles, and caps were sold through the mail. Fast-forwarding briefly to more recent times, Thomas F. Valone's 2003 presentation to the Whole Person Healing Conference & Tesla Energy Science Conference shed some light on PEMF's early beginnings even more.

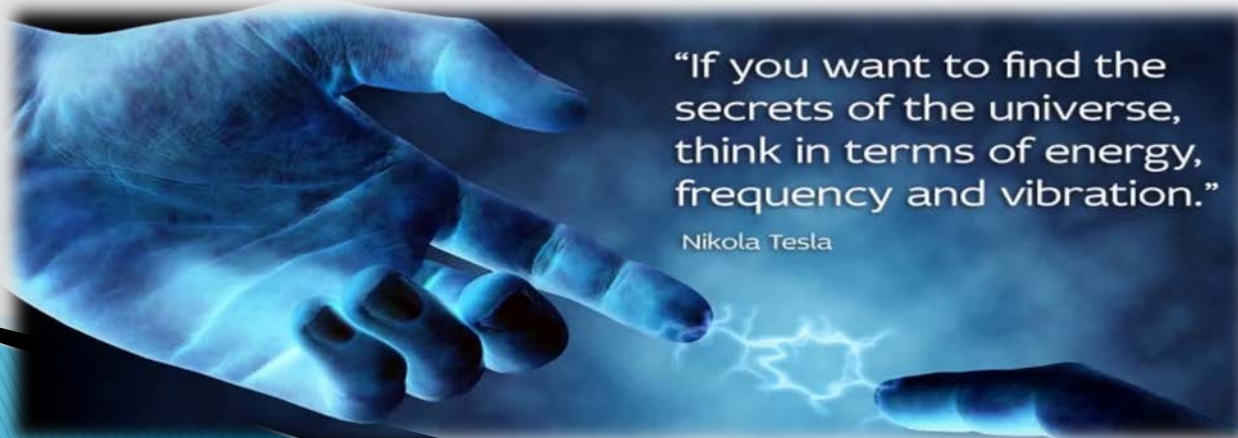
Specifically, Valone shared how it was Nikola Tesla who would majorly impact PEMF's use—forever. Thomas F. Valone's 2003 presentation specifically shared how it was Nikola Tesla who would majorly impact PEMF's use-forever.



# Nikola Tesla and PEMF

Valone said that it was two years short of the 20th century when Tesla reportedly addressed the American Electro-Therapeutic Association, telling its members that “One of the early observed and remarkable features of the high frequency currents, and one which was chiefly of interest to the physician, was their apparent harmlessness which made it possible to pass relatively great amounts of electrical energy through the body of a person without causing pain or serious discomfort.”

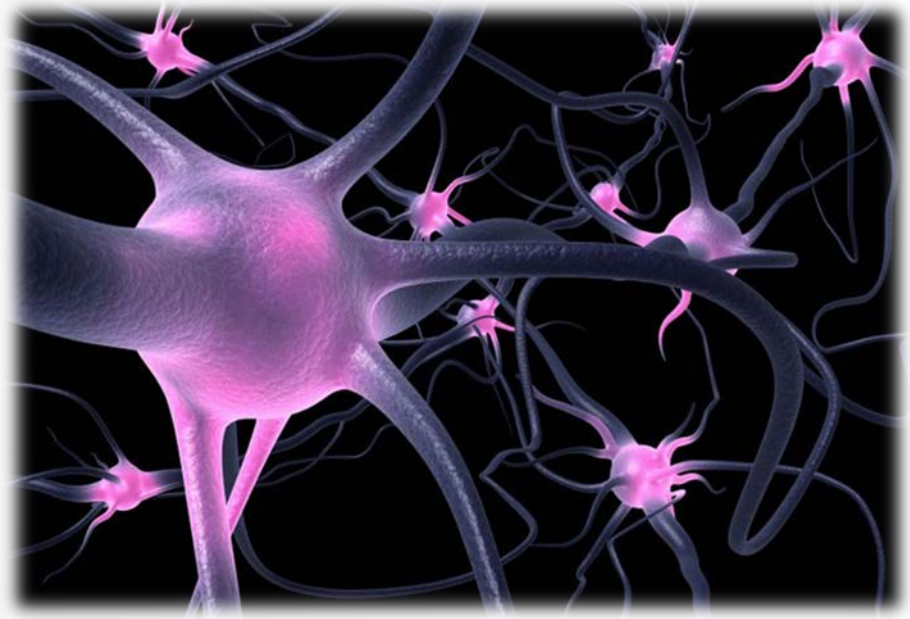
Tesla made this assertion after having used coils as big as three-foot in diameter to treat ailments without making any type of physical contact with their bodies. And it is because of this breakthrough device and its related findings that magnetic field strength today is measured in Tesla (T). While this was all new and extremely hopeful information, especially for that period of time, it wouldn't be until more than two decades later that PEMF as we know it today would begin to really take form.





# A Therapy Takes Form

In his presentation, Valone went onto say that it was 1922 when Alexander Gurvich, a Russian doctor, and his wife discovered that our body's cells can communicate certain bits of information with each other—even if they are physically separated by a plate of glass.



Three years later, this concept was taken one step further when Georges Lakhovsky shared his ideology and theories that the reinforcement of cell oscillation with radio waves increased their ability to fight off damage or disease. It did this by making them stronger and more resilient, Lakhovsky ascertained. Over the course of the next several decades, many researchers—Royal Raymond Rife, Antoine Priore, Robert Becker, and Abraham Liboff, to name a few—would each identify and research various pieces of information which, together helped create PEMF as we know it today.



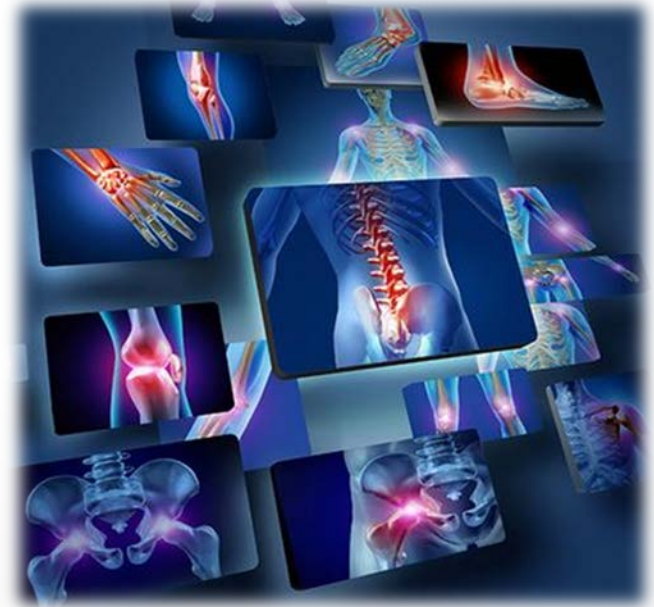
# PEMF Today



Although electromagnetic therapy techniques essentially started with Tesla's three-foot coils, engaging in PEMF therapy today is simpler on the patient and doctor alike. PEMF devices are available in all shapes and sizes, even offering options for home use for patients who want to continue their treatment sessions between office visits. However, if it weren't for the ideas, curiosities, and ahead-of-their-time findings of individuals such as Tesla, Gurvich, and Lakhovsky, PEMF therapy would not be where it is today. Who knows? It may not even be at all.

# Conditions Clinical PEMF Helps Treat

Some treatment devices offer relief limited in nature and due to FDA regulation requirements, we are only allowed to state that many of these therapies are for “wellness” purposes. Take dental braces, for instance. These are devices designed for one reason and one reason only: to align and straighten your teeth, thereby improving the health of your mouth. To apply them anywhere else on your body would serve no beneficial purpose whatsoever (not to mention, probably look more than a little foolish).



The same is true with foot orthotics. They were created to correct foot and leg defects due to trauma or disease, or any type of issue that occurs as a result of bio mechanical inadequacies. However, if you wear them on your hands, this would do you absolutely no good.

But this is where a PEMF device is different as it is one of the few treatment devices that offer users many different health-related benefits—from head to toe.

# Head and Neck

The American Osteopathic Association reports neck pain is the third most common chronic pain, afflicting more than one in four Americans at any given time.



Fortunately, PEMF can often help with issues in this area of the body. Case in point: one study in *Rheumatology International* found that subjects with cervical osteoarthritis had pain levels which “decreased significantly” after PEMF.

Study participants also reported improvements in disability and range of motion, especially when compared to a control group who received sham PEMF treatments.



# Back

PEMF also helps treat numerous back-related issues, even if they occur post-surgery. In fact, one study in *Current Orthopedic Practice* found that PEMF prompted increased bone formation for 85 percent of the participants, all of whom endured failed posterior lumbar inter body fusion.

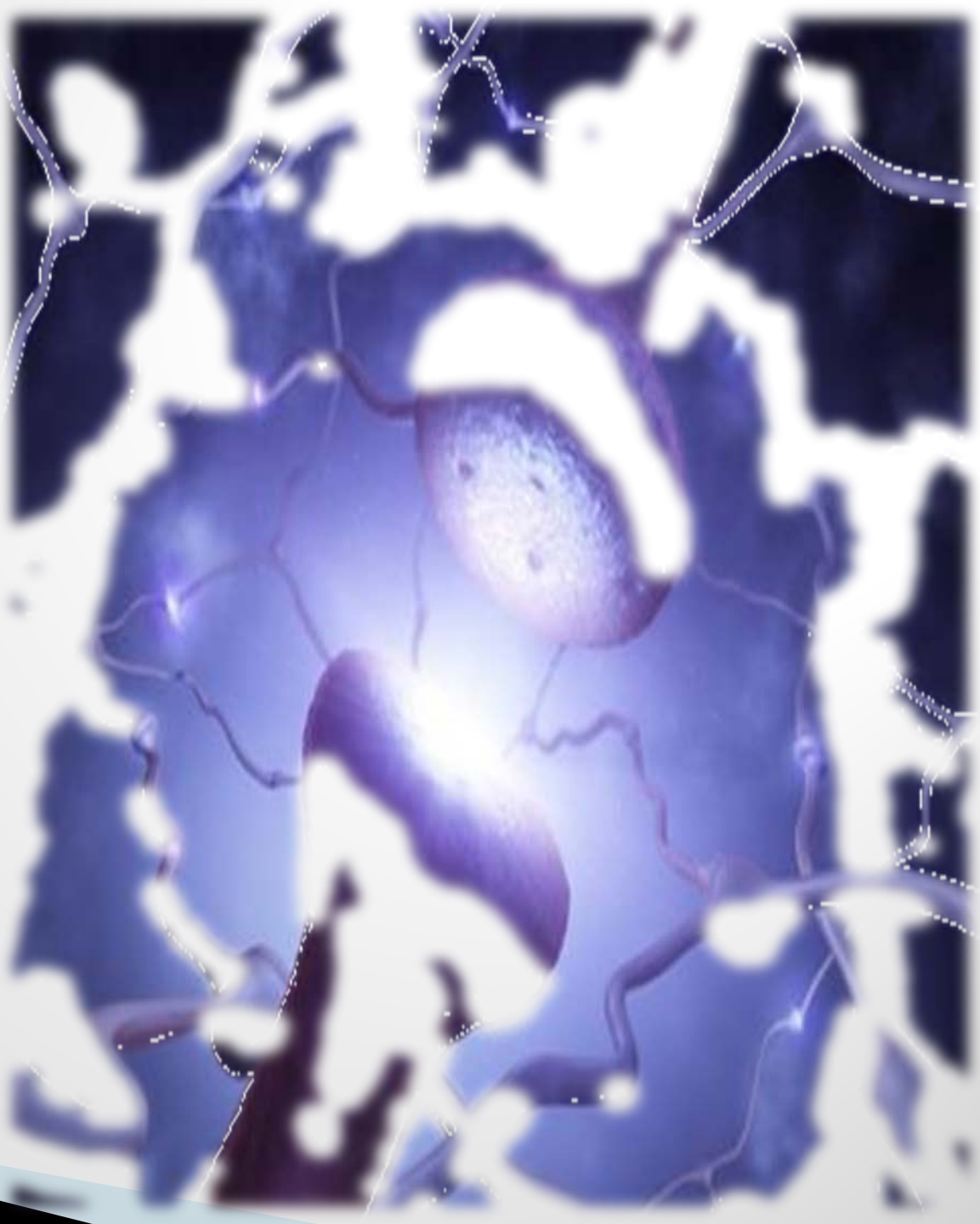
Seventy-seven percent achieved body-to-body fusion after being treated with PEMF. The researchers involved in this study also pointed out that PEMF “required no hospitalization, reduced morbidity, and avoided the risks associated with surgical intervention”—three more reasons why this remedy is a preferred treatment choice.





# Joints

When it comes to joints, arthritis is often one of the biggest concerns. However, PEMF helps not only with arthritic symptoms, but also potentially the cause as one piece of research in the Indian Journal of Experimental Biology found that “the use of PEMF for arthritis cure has conclusively shown that PEMF not only alleviates the pain in the arthritis condition but it also affords chondroprotection, exerts anti-inflammatory action and helps in bone remodeling.”



# Chronic Body Conditions



PEMF is even helpful when it comes to chronic conditions that affect your entire body.

For instance, one study published in Pain Research and Management found that, after seven days of twice-daily PEMF treatments, participants who struggled with fibromyalgia responded positively to the pulsed electromagnetic therapy, reporting less pain after treatment sessions.



# Chronic Body Conditions (continued)

Another study, this one in Chinese Medical Journal, concluded that “low frequency PEMFs relieves the pain of primary osteoporosis quickly and efficiently, enhances bone formation and increases BMD [bone mineral density] of secondary osteoporosis.”

PEMF has also shown positive effects with Alzheimer’s disease, Lou Gehrig’s, cancer, heart disease, depression, diabetes, endometriosis, epilepsy, headaches, glaucoma, hepatitis, kidney problems, lung disease, lupus, multiple sclerosis, pancreatitis, Parkinson’s, sexual disorders, sleep disorders, spinal cord injury, stroke, Tourette’s, ulcers, urinary problems, and more.



# Is PEMF Safe?

When it comes to choosing a treatment option, one of the first questions most patients ask is: “Is it safe?”

According to the World Health Organization (WHO), “Patient safety is a serious global public health issue.”<sup>1</sup>

They back this statement by reporting that even hospitalized patients are at risk, with one out of every ten harmed while in what is supposed to be one of the safest medical environments. It only goes to reason then that safety is also a major concern and consideration for patients who are interested in PEMF therapy. So what’s the answer to the question of whether or not PEMF is safe? If you answer this question based on research alone, then PEMF is in fact a safe treatment remedy.





# A Safe Treatment Option

For instance, in the May-June 2008 issue of The Spine Journal, a clinical study was published involving 323 patients with a compressed cervical nerve root and symptomatic radiculopathy, leading into anterior cervical discectomy and fusion.

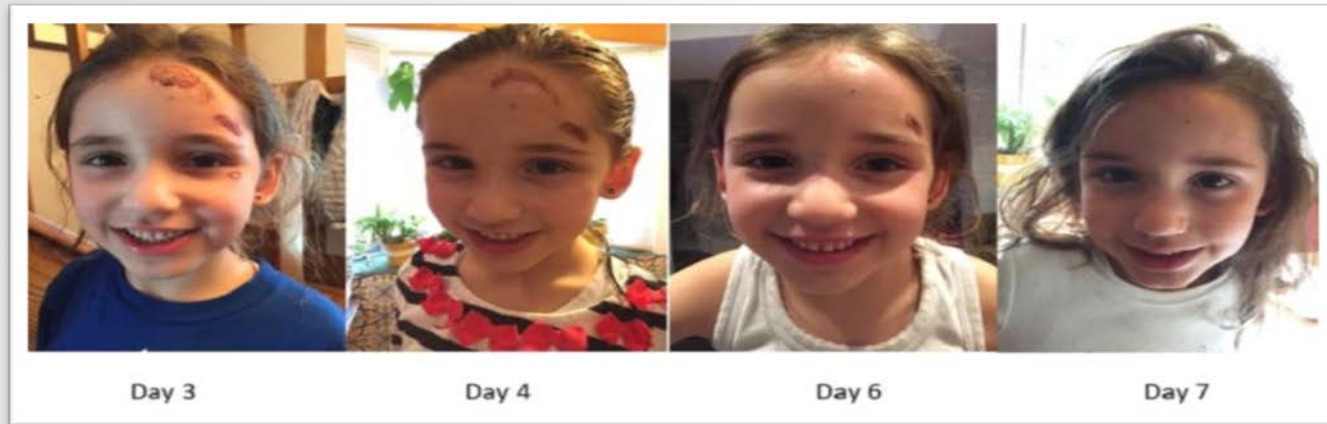
Post-surgery, approximately half of the participants engaged in PEMF therapy while the other half served as a control. After evaluating the patients' statuses at one, two, three, six, and twelve month intervals, the researchers concluded that, "There were no differences in the incidence of adverse events in the two groups, indicating that the use of PEMF stimulation is safe in this clinical setting." It's important to note that, although PEMF was deemed safe in this study, there was still one major difference between the group who participated in this therapy and the group that did not.

**That major difference is in the positive effects that PEMF offered.**

Notably, the researchers found that the PEMF group had an 83.6 percent fusion rate at six months' post-op compared to the control group's 68.6 percent. Additionally, fusion rates for the PEMF group were still higher at the 12-month point, with a 92.8 percent success rate for their group versus only 86.7 percent for the control.



# Safety Matters



Another study, in Bio-electromagnetics, looked at 11 different trials involving PEMF to determine its level of therapeutic effect as well as whether or not it was safe. Some of these studies involved PEMF's effects on osteoarthritis, fibromyalgia, or pain perception, while the rest focused on how PEMF impacted skin ulcers, fatigue related to multiple sclerosis, heart rate variability, and overall well-being.

While the researchers ultimately recommended that more research be conducted on this particular treatment method to be able to clearly say that it is effective for a variety of different health conditions, they also noted that "Acute adverse effects have not been reported." This was after reviewing 11 PEMF studies in total, each of which had anywhere from 12 to 71 participants.

The list could go on and on as there are several more studies that have focused on the same thing, too many to mention to be honest. However, there is one common theme among all of them and that is that PEMF is absolutely a safe treatment option. That makes this one concern that can be crossed off your patient's list.

# History of PEMF and FDA Approval

Pulsed Electromagnetic Field (PEMF) therapy is still expanding its research in treating a multitude of chronic conditions and the degenerative effects of aging. Although now just becoming a popular therapy in the U.S., this technology has been used worldwide and as a standard therapy in Europe for decades.

PEMF research dates back to include the work from thought leading innovator, Nikola Tesla. NASA uses PEMF to reverse bone loss and muscle wasting experienced by astronauts.



**Today, in the US, the FDA has approved this powerful tool in the treatment of the following:**

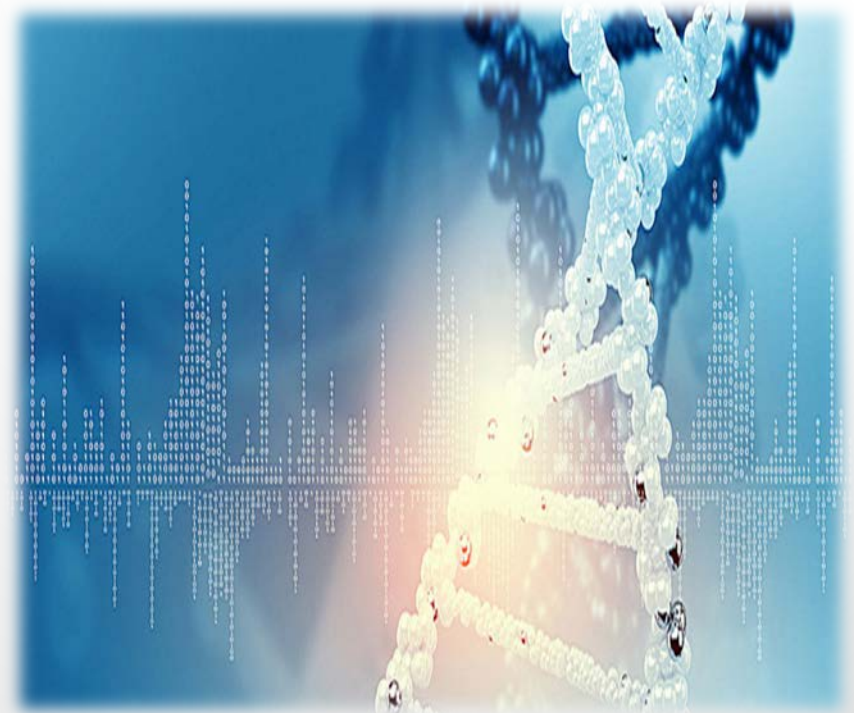
- 🚩 **1979- FDA approved PEMF therapy for stimulating bone growth.**
- 🚩 **1987- FDA approved for adjunct therapy for treating post-operative edema and pain.**
- 🚩 **2004- PEMF is now used as an adjunct to cervical fusion surgery.**
- 🚩 **2008- Approved for treatment in DEPRESSION for patients unresponsive to medication.**
- 🚩 **2011- FDA approved PEMF Therapy for treatment of brain cancer.**



# History of PEMF and FDA Approval (continued)

As the research continues to show remarkable results regarding tissue healing and recovery, this will likely only be the beginning of FDA approved conditions. As far as the overall health benefits from this harnessed natural phenomenon, the physiology and measurable benefits to cellular health are undeniable. For more information on PEMF medical research, [click here](#).

The Wellness Doctor clinic provides PEMF therapy for a multitude of conditions. The effects on acute injuries regarding bone and ligamentous injuries have patients telling their families and friends. Chronic inflammatory conditions such as arthritis have shown remarkable benefits to this therapy. And for those who have tried everything regarding chronic conditions, overall poor health and a failure to thrive, this treatment is often used in conjunction with a Functional Medicine approach regarding lifestyle and dietary changes to optimize and support the body's healing potential.





# Frequently Asked Questions

Still have questions about PEMF? That's okay. We are here to answer them for you.

## **What is PEMF?**

PEMF uses pulsed electromagnetic fields to bathe low energy cells in pure, raw energy. Each cell in your body is actually like a capacitor, or battery, which holds a charge. Your entire body is electrical and your cells each need a measurable electrical charge to function optimally. In order to maintain good wellness, cells must be doing their jobs. PEMF Exercise supports the body's natural abilities to optimize balanced body functions –the definition of wellness.

## **Who Benefits From PEMF Therapy?**

Everyone in the modern world is subject to environmental stresses that can challenge optimal wellness. Today, our bodies rarely make direct contact with the earth which puts us closer to the inherent electromagnetic fields of energy from the earth. The charged atmosphere above us is a standing wave of energy that is stimulate thousands of times a second by lightning and an environment that humans evolved in. Today these natural energies are no longer experienced by people in their pure form. With the establishment of mobile internet, bluetooth and data transmissions, exposure levels have reached an unexpected dimension and quality. Therapeutic PEMF devices operate at an extremely low frequency, are non-ionizing and have been used safely around the world for decades. PEMF is an outside energy source that recharges stressed, underpowered cells like the batteries they essentially are so they can meet the energy demands for optimal cell function.

The great thing about PEMF is that it can be used by just about anyone—from the elite athlete who relies on his or her physical ability to the everyday person who's simply looking to enhance his or her own personal health.

Although a number of medical practitioners use PEMF to help their human patients, PEMF is also used by veterinarians to increase the health and healing power in the animals they treat. It's even used by environmental specialists because of its positive effects on nature itself. It can literally be used by everyone.

# Frequently Asked Questions (continued)

## **Why High Voltage (or High Intensity) PEMF as Compared to Low Voltage?**

PEMF will pass completely through the body whether it is of high or low intensity. Human biology evolved in the magnetic fields of the earth and is affected by and responds to a vast range of magnetic field intensities. The difference is the amount of charge the field will stimulate in your tissues as it is passing through the body.

Essentially, higher voltage is more effective when low voltage isn't enough. High voltage PEMF also produces a sensation that patients can actually feel which helps reassure them the device is working.

## **What Types of Health Conditions Does PEMF Treat or Address?**

As Magda Havas, Associate Professor of Environmental & Resource Studies at Trent University states, "PEMF (pulsed electromagnetic field) devices do not treat a specific condition. Instead they optimize the body's natural self-healing and self-regulating function.

## **Is PEMF Electricity?**

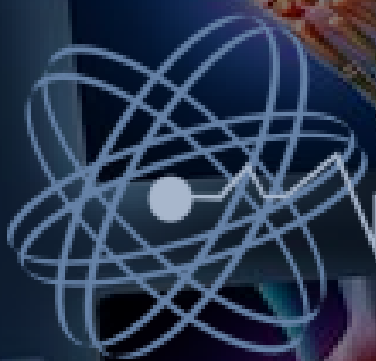
No, while electricity can be dangerous, PEMF is actually quite safe as it is doesn't involve use of the same type of direct current and stimulation. In fact, PEMF devices can actually be used both in and around water with no potential of harm whatsoever, whereas electricity cannot.

**More Questions, Please Contact Us Today**

**1.484.222.9351**

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Energy Wellness Partners

