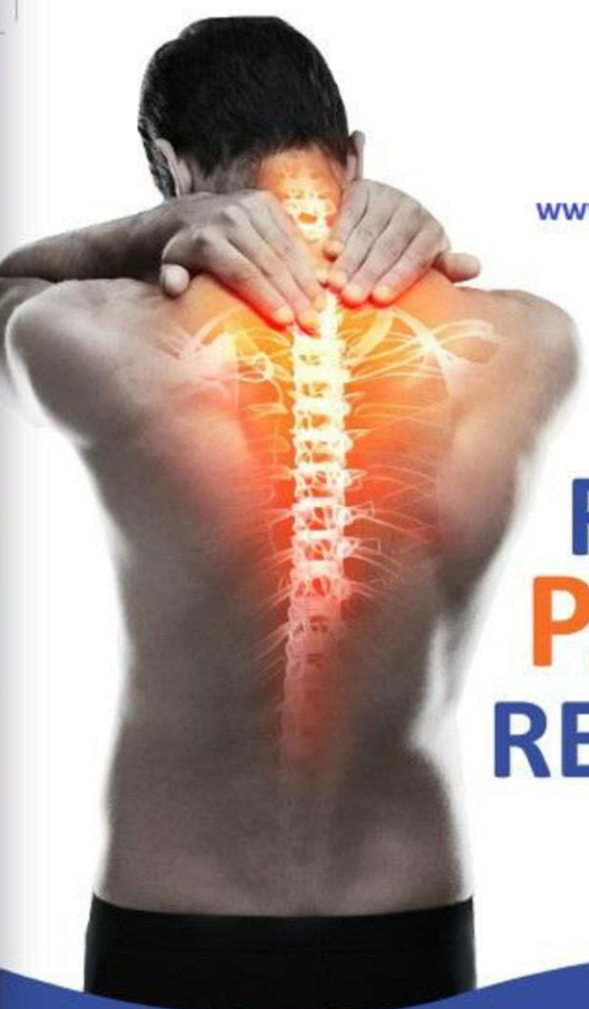




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**DRUG
FREE
PAIN
RELIEF**

Leaders in Pulsed ElectroMagnetic Field (PEMF) Therapy
Devices and Complimentary Drug Free Pain Relief Products

PEMF The Most Advanced Technology Ever

Pulsed Electromagnetic Field Therapy brings hope to millions of patients faced with surgery or life of a cripple. Surgery should be preserved for patients crippling diseases who do not respond to more conservative treatments. We should think of surgery only when all other safer and less traumatic treatments fail.

World's **1st**
Technology For Pain
Management

Walk Again With Comfort

OSTEORTHRITIS
Cure Without Surgery

Reversing & Preventing Osteoarthritis
New hitech revolutionary PEMF technology

Avoid
Knee / Joint
Replacement

***'On Earth, this device could be useful in the treatment of various muscle diseases, age and cancer related muscle atrophy, osteoporosis and other bone and joint related diseases.'* -NASA**

PEMF-Trans are the India leaders in PEMF therapy whether you want a device for homecare, clinical applications ,Transcranial Magnetic Stimulation Helmet or just looking to find a clinic near you, PEMF -Trans can help you gain access to PEMF therapy and its endless benefits

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What is PEMF Therapy?



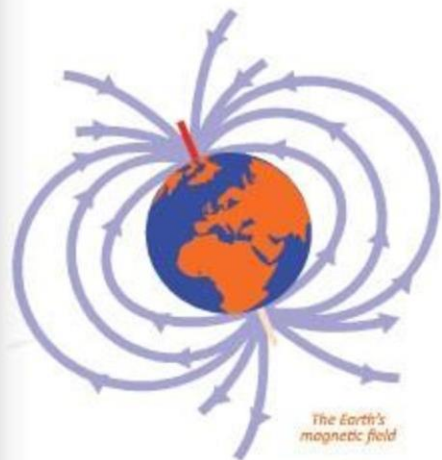
Low intensity Pulsed Electromagnetic Field (PEMF) therapy mimics the Earth's natural magnetic field. Many people do not realize that we need the earth's magnetic field to survive. PEMF therapy was introduced by NASA when they found out that taking astronauts away from the Earth's magnetic fields was a key factor to ill health when in space. The magnetic fields are strongest at the earth's poles and get increasingly weaker towards the equator and with the addition of modern infrastructure cancelling out the beneficial properties of the magnetic fields; it is no surprise that we would need to regularly top up our magnetic therapy.

As mentioned, NASA uses PEMF therapy in their space stations to maintain the health of the astronauts. In space there are no magnetic fields and without gravity it is hard for astronauts to exercise properly this leads to bone weakness and muscle

wastage. Progressive muscle wastage leads to weakness and fatigue, bone loss causes an increased risk of bone fracture and kidney stones. NASA explains that PEMF is a non-invasive countermeasure to enhance bone retention, prevent or alleviate muscle wastage, augment natural healing and regeneration processes.

There is currently a lot in the news and media about negative Electromagnetic Frequencies (EMF) from the ever increasing wireless technologies such as mobile phones, laptop computers and microwaves, etc. PEMF therapy can be used to reverse those negative effects on our bodies that are caused by negative EMF. EMF causes our bodies' cells to stick together and has been linked with cancer and being an influencing factor of many illnesses.

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PEMF therapy introduces pulsed electromagnets in a non-invasive, painless and risk free treatment; you will feel the benefits right away in your health, wellbeing and mood.

The positive effect of PEMF has been shown to reverse these effects and allows the cells in our bodies to move freely, enable the body to produce healthy cells, and increase oxygen distribution around the body.

Our PEMF therapy systems are all part of the modernisation and evolution into our new surroundings. We need a healthy body and for a healthy body we need good circulation, cell regeneration and an immune system to defend against disease. PEMF therapy boosts our ability to naturally repair our bodies and regenerate our essential antibodies to prevent illness and fight disease or the issues that cause pain. It is a modern way to replenish the natural magnetic therapy that we are deprived of due to modernisation. One quick boost of

PEMF therapy everyday can prove to have huge benefits to our health and wellbeing and stop pain in its tracks. In this day and age we shouldn't need to live with pain or illness, so let's boost ourselves back with a proven therapy, through thousands of studies. Need reassurance? Please look at the reference page at the back of this leaflet or our case studies available on our website.



How does PEMF

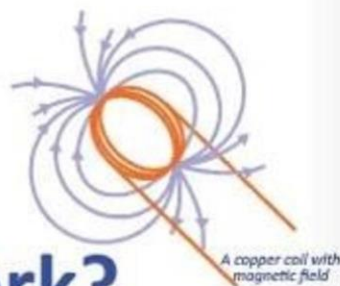
Therapy Work?

The PEMF - Trans devices bring U.S and Germany technology to the India and offers PEMF therapy that aid the regeneration and energy output of the body's cells which leads to a better performing body and improves recovery time after injury or disease. The PEMF therapy system have a wide range of applications and can help with a variety of disorders, disease, conditions or injury's because the therapy targets the body at a circulatory and cellular level rather than specific issues.

How PEMF therapy works; from the beginning

PEMF therapy is applied by running an electrical current through a copper coil which creates a magnetic field, this can be integrated into many different styles of devices, depending on what an individual is treating or using the device to support. The electro-magnetic field can produce a current in any conductive substance and can transfer the charge into the body. A pulsed electromagnetic field is able to penetrate deep into the body's tissues and target individual cells.

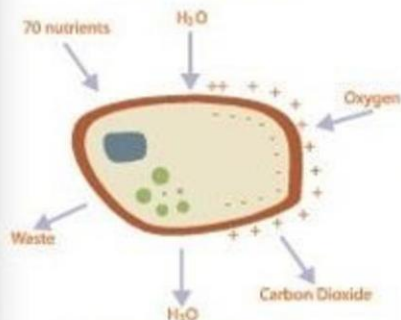
PEMF therapy works by stimulating blood circulation and increasing cell metabolism. The human body consists of many billions of cells. Each particular cell represents a small component of the entire body, it has the task of using



nutrients from the food we consume and oxygen we breathe to fuel the body and afterwards to excrete the waste, carbon dioxide and water. In this metabolic process adenosine triphosphate (ATP) is gained.

The cell membrane has an electrical surface tension of approximately -70 to -90 mV. If it falls below this, protein channels in the cell membrane are closed blocking nutrients from entering the cell and waste products from leaving. This impacts on daily bodily functions, and has an adverse effect on general wellbeing, slows recovery time and makes an individual more susceptible to disease and disorder. With the use of very low intensity pulsating magnetic fields, within the Microtesia (μT) range, it can be used to stimulate the cells. These magnetic fields work like many small batteries, which provide the necessary surface

A Health Spa For Your Cells

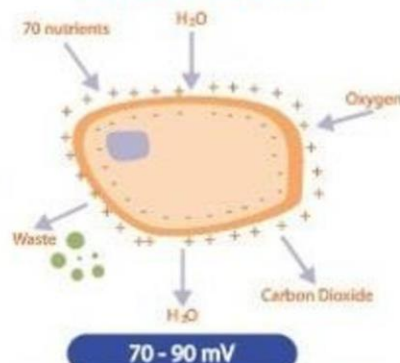


Before PEMF

tension in order for the cells to once again open up their protein channels. Now the vicious circle is interrupted and all the factors are present to once again ensure optimal cell activity.

The main principle of PEMF therapy devices are that they maintain all the body's cell membrane electrical surface tension. The cell membrane has an electrical surface tension of approximately 70 to 90 millivolts and if the tension drops below 70 millivolts then the cell does not perform very well, by having a slow metabolism rate and a low energy output. The PEMF revives the millivolts back up to 90 millivolts. By maintaining the cell membrane electrical surface tension it causes tissue, muscle and neuron cells to maximize their productivity by allowing nutrients to move readily into the cell and efficiently remove waste out of the cell. The red blood

After PEMF



cells performance is also improved by maintaining the cell membrane electrical surface tension by making it easier for them to pick up and off load more oxygen molecules, which provides a better quality blood supply for the body, in turn boosting the immune system and allowing the body to heal itself quicker. Improving cell function has a knock-on effect to the performance of the body as a whole by increasing the energy available for movement or recovery.

Nobel Prize Winners, Linus and Pauling, found that in a lot of healthy and non-healthy people's red blood cells, which contain hemoglobin to carry oxygen as well as transport various other nutrients and waste products, were only picking up from the lungs and delivering to the capillaries 1 molecule of oxygen. Red blood cells hemoglobin is capable of transporting 4 oxygen molecules which means that most bodies are only performing at 25% of their potential capacity. Introducing PEMF therapy can make sure our cells are working more efficiently and delivering closer to 100% of the circularity's systems potential.



PEMF And You

There are a number of different PEMF therapy devices with High and Low intensities and running at different frequencies (Hz), therefore how do you know what one is right for you? **pemf India** have searched the market far and wide to not only make accessible, a range of devices to the UK but also provide those which are proven to work with years of experience that we feel cater for all needs. It is important for us to know your needs before we can recommend a specific device to get the maximum benefits. As a very general rule, low intensity, full body systems are for systemic benefits and localized applicators for specific areas of pain. High intensity devices are best suited to health clinics and

sports therapists for on the spot, instantaneous treatment.

We cannot replace a healthy lifestyle with PEMF therapy and it is still important for us to fuel our bodies with the nutrients it needs through healthy living. We need to fuel our body with healthy eating as well as a sufficient supply of water and for this we should be drinking sufficient quantities (at least 2 or 3 litres per day, provided there is no medical condition which advises not to do so). This is probably one of the easiest things we can do to stay healthy. Through a healthy diet, regular exercise and daily boosts of PEMF therapy we can prevent/ repair the effects of many chronic illnesses



**OUR NEW
WHOLE BODY PEMF MATTRESS**
We are using **NASA** recommendation

..in down to PEMF Mattress

Use while watching or watching TV

and causes of pain.

The main principle of a PEMF therapy device is that it maintains all the body's cell membrane electrical surface tension. The cell membrane has an electrical surface tension of approximately 70 to 90 millivolts and if the tension drops below 70 millivolts then the cell does not perform very well, by having a slow metabolism rate and a low energy output. The PEMF revives the millivolts back up to 70 millivolts. By maintaining the cell membrane electrical surface tension it causes tissue, muscle and neuron cells to maximise their productivity by allowing nutrients to move readily into the cell and efficiently remove

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What are the benefits?

Using a PEMF therapy device daily rejuvenates your cells and increases their metabolism by:

- Improving ATP (energy) production increasing oxygen supply to cells
- Enhancing circulation by utilising all oxygen carried by the blood
- Facilitating detoxification of the body
- Allowing for a better absorption of nutrients

This provides support for:

- Muscles, tendons and ligaments in preparation for and recovery from exercise and strain
- Bone regeneration in recovery from exercise, maintaining density and bone regrowth
- Wound healing by increasing the stimulation of new cell growth and the output of current cells
- Boosting the immune system and aiding in prevention of injury and disease.



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There are many different applications that PEMF can be used for:

- There are general benefits to health by rejuvenating and energising the body before a day's work or physical activity, also by winding the body down, recovering after physical activity and helping to go to sleep on a daily basis.
- Recovery time from injury or disease is improved by using the PEMF therapy devices to make the body more efficient in repairing itself.
- Pain management with common conditions like arthritis, fibromyalgia, osteoporosis and back pain can be helped using PEMF.
- Athletes can use PEMF therapy device before a sporting event to prepare the muscles for exercise, which can prevent injury and maximizes performance, as well as after a sporting event and physical strain to speed up the recovery process by efficiently removing waste products from the cells and replenishing energy stores.

Guidelines and recommendations:

NICE UK recommends TMS (transcranial magnetic stimulation) for treating depression and migraines

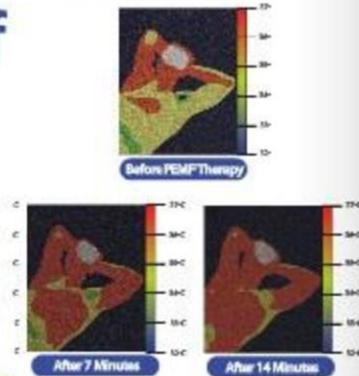
The FDA (US) has already approved many PEMF devices to aid:

- Fusing broken bones
- Healing wounds
- Pain and tissues swelling
- Depression





Common misconceptions with the use of PEMF Therapy



Static magnets vs Electromagnets

Magnetic fields from static or permanent magnets do not penetrate the skin because there is not an electrical current running through them. There is no scientific evidence to support the effectiveness of static magnets. They are not classed as medical products and are sold as 'wellness products' whereas electromagnets are class IIa medical products which requires clinical evaluation and PEMF is used by Doctors, by physiotherapists and by private households.

Static Magnets	Pulsed Electro- Magenets
Very little clinical evidence to show any effect	Over 7000 clinical studies showing the positive effects of Pulsed Electro-Magnets and physical changes it influences throughout the body
The magnetic force barely penetrates the skin and does now create any sensation	The Magnetic field easily passes through the body, muscles and easily through bones, again without any sensation or pai
Magnetic bracelets are similar to those used on a fridge. They are not electrically charged	PEMF is different technology and is created by passing electric current through long reels of copper. This creates a magnetic field similar to the one creates by the earth's core. The intensity of the magnetic field can be regulated and frequency changed to create therapeutic effects on the body

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TENS Vs PEMF

TENS (Transcutaneous Electrical Nerve Stimulation) is the act of passing small electrical impulses through the muscle to encourage a response. The electrical impulses can block or reduce the pain signals going to the spinal cord and brain, which can help reduce or relieve pain or muscle spasm. The electric currents can also stimulate the production of endorphins, which are the body's natural painkillers (NHS.co.uk)

PEMFT (Pulsed Electro-Magnetic Field Therapy) is a different concept entirely. It involves creating a magnetic field, either that of the earth's natural magnetic field or stronger more intensified forms of magnetic fields and applied to the whole body or a targeted area. These magnetic fields are able to penetrate through the body without pain or invasive methods. Like TENS, PEMFT can block pain signals from travelling around the body but where it differs from TENS it can encourage the body's natural ability to heal its self rather than just blocking the pain signals. Therefore over time the therapy can aid in the body's ability to heal to fix the source of the pain rather than just mask it, like pain killers. PEMFT also encourages better circulation and cell regeneration to heal areas of the body causing pain.

TENS	PEMF
Electical impulses	Varied Strength Magnetic Fields
Temporary pain relief through body's natural pain killer (endorphins)	Encourages the body to heal at the source of the pain. Therefore fixing the problem rather than masking it temporarily
Non-invasive but can cause muscles to convulse and cause a tingling sensation	Non-invasive and completely pain free. There is no sensation on low intensity PEMF systems

Magnetic properties in blood

A common misconception is that magnets attract the iron ions, in the 4 haem groups of the hemoglobin in erythrocytes and this then increases the circulation rate but, this is not the case. What happens is the pulsed electromagnetic fields increase the performance of the erythrocytes by increasing the amount of oxygen passed between them and tissue cells. The pulsed electromagnetic fields can move past the skin and penetrate deep into the body unlike static magnets fields which cannot reach past the skin.





Pain

Management

If you live your life with constant pain then you may have already tried many forms of therapy, failing that you may try to mask your pain with pills and organise your daily plan around your pain. This cycle is practiced for such a long time until the body develops a medication resistance, which is often the case with taking so many pain-relievers. The other consequences of long term pain medication are stomach problems, which can actually cause more suffering than the original reason for taking the medication. Today there are alternative therapies to treat arthritis, osteoporosis, rheumatism, migraine, fibromyalgia and other ailments which do not cause unwanted side effects and are not necessarily expensive.

Introducing PEMF therapy alongside a healthy diet and regular exercise can speed up this cell regeneration and repair process to enable us to move with less pain and more mobility which will help alleviate symptoms for many musculoskeletal disorders. Patients have seen huge benefits in previous trials and have reduced the medication they need after a short time.

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Diagnosed Conditions

If you have a diagnosed condition PEMF therapy can be used to reduce symptoms. With diseases such as osteoarthritis and osteoporosis pain management can be a huge part of your life and with plenty of evidence to support how PEMF therapy can make a massive difference to your daily pain. By improving the daily pain you will be free from the prison that these conditions create and you can enjoy things that these diseases prevent you from completing.

Illness or Injury

If you have recently been ill or had an injury, PEMF therapy can be used to help speed up recovery time. With surgery or fracturing, bruising and lacerations our body needs a lot of help to heal. PEMF therapy has been shown to improve the healing time of most types of injuries by motivating cells to work at their maximum capacity, to repair damaged cells and promote fresh and healthy tissue growth.

General Wellbeing

If age is catching up with you or you just generally need an injection of energy in your life then using PEMF therapy can help you feel fighting fit again, and ready to take on the world. Pulsed Electromagnetic Fields provide a perfect way to re-energise yourself on a day-to-day basis and having you showing your best self at work, spending time with your family or completing hobbies and activities that you enjoy.

Introducing PEMF therapy has shown to have beneficial effects to help alleviate the suffering and pain from many different conditions. There are many case studies and clinical trials that have been conducted to show the trend in a patient's condition after introducing PEMF therapy. You can find more information about proven studies on our website. Please ask for references of similar conditions and previous case studies as well as a 2 week trial of our device to see the benefits for yourself.

The PEMF therapy systems do not use magic, but they stimulate our bodies to operate more efficiently and help us to regenerate cells. When we suffer from arthritis, our normal movement causes our bones to rub together and wear away. Our body's ability to repair those damaged cells and bone structures is compromised by our age or another conditions. PEMF therapy has actually proven to regenerate cartilage naturally. This was shown in 1998 when ECKSTEIN et al. proved through resonance tomograph imagery how PEMF regenerated cartilage in the knee joint of a patient with knee gonarthrosis.



Sports

Enhancement & Recovery

Why sit on the sidelines when you could be competing?

Sports injuries are a common occurrence when it comes to playing and competing in sports, especially in contact sports. Introducing PEMF therapy following an injury has been shown to dramatically reduce the recovery time and get someone competing again. PEMF therapy then encourages cell regeneration, better blood circulation and more effective blood cells to efficiently carry oxygen to our bodies during high intensity sports. With more efficient recovery systems and quicker rejuvenating cells we will recover much quicker from injuries. The results from studies have been emphatic and clearly show how PEMF therapy can get you competing again quickly. Common repetitive strain injuries, like tennis elbow, have been seen to improve and completely be removed from the equation in past studies when looking at how PEMF therapy can benefit those in sport.

Using PEMF therapy on a daily basis leading up to an event can oxygenate our blood and ensure our bodies are working to their maximum capabilities. Our cells are carrying around the good nutrients and distributing the maximum amount of oxygen to the areas that most need it, as well as recovery time whilst training being decreased. Both methods of preparation have similar outcomes, but one can be done from the comfort of our own homes or training/ Rehabilitation centre.

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Specific conditions

If you suffer from Tennis Elbow (Lateral Epicondylitis) or Golfers Elbow (Medial Epicondylitis), which is caused by repetitive strain to the bony prominences where the tendons insert. PEMF therapy works to reduce inflammation; encourages the repair of micro-tears in the tendons, as well as reduce symptoms and relieve pain from sufferers. If you are susceptible to joint inflammation or muscle strains from exercise then by using PEMF therapy on a regular basis reduces the risk of injuries, speeds up recovery time and ensures continuous performance.

Even if you do not have an underlying condition regular PEMF therapy can really improve your performance and works best if used before and after exercise.

Benefits to a warm-up prior to exercise

PEMF therapy prepares your muscles, ligaments and tendons for exercise to minimise the risk of injury. It does this by increasing the blood circulation and improving the lymphatic system to make sure there are no toxins in the muscles and a supply of energy and nutrients ready for exercise.

Benefits to a cool-down post exercise

PEMF therapy aids the general recovery from exercise through the removal of waste products such as CO₂ and lactate. Recovery is also aided by replenishing energy stores in the muscles and liver with adenosine triphosphate (ATP), glycogen, myoglobin. Also it aids the repaying oxygen debt during recovery by increasing gaseous exchange at the capillary-alveoli membranes.

General improvement and injury recovery time

The general improvements to your body are that it increases performance including improved venous return, improved muscle blood flow and an improved oxygen uptake. Also PEMF therapy helps to repair myofibril tears and rips to make muscles stronger and to prevent delayed onset muscle soreness (DOMS) after excessive and repeated strain.





In addition to recommendations in NICE (National Institute for Health and Care Excellence) and FDA (Food and Drug Administration), there have been thousands of studies on Pulsed Electro-Magnetic Field Therapy and these can be used to show how PEMFT can support and provide benefits for the following conditions:

Anti-depressant
 Arthritis
 Auditory disorders
 Back pain
 Bone healing and repair
 Cancer
 Cardiac stimulation
 Cartilage growth
 Cerebral ischemia (stroke)
 Chronic pain
 Congenital pseudoarthrosis
 Coronary protection
 Crohn's
 Depression
 Endocrine ophthalmopathy
 Fibromyalgia
 Gastro disorder
 Golf arm
 Gonarthrosis
 Hearing disorders
 Heart disease and failure
 Hip arthroplasty
 Human standing balance
 Incontinence
 Insomnia
 Intervertebral lumbar fusions
 Joint diseases
 Lateral epicondylitis

Lateral humeral epicondylitis
 Lower back pain
 Multiple sclerosis
 Musculoskeletal disorders
 Myocardial protection
 Nerve related pain
 Neuroendocrine system
 Neurological disorders
 Operation recovery
 Osteoarthritis
 Osteoporosis
 Osteotomies
 Pain management
 Perthes disease
 Psychiatric disorders
 Psychophysiological regulation
 Recovery
 Rheumatoid arthritis
 Rotator-cuff tendinitis
 Sciatica
 Shoulder impingement syndrome
 Sleep disorders
 Soft-tissue regeneration
 Spinal fusions
 Stress
 Tennis elbow

And many more...

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About PEMF-Trans

PEMF-Trans was established in 2014. As a reputed entity of the industry, our company is passionately engaged in providing our clients premium quality **PEMF Devices**. Our offered bed is widely used in various medical industries for the treatment of almost all orthopedic problems. This **PEMF Devices** is tested by a team of quality controllers on different stages in order to fulfill the medical need of the clients. In addition to this, clients can avail this bed at reasonable rates across the nation. We self-certify our devices are compliant to Indian IS/IEC 62233:2005 and European radiation exposure standards IEC/EN 62311. We are calibrating our devices based on US and German high precision Gauss meters.

Features:

- Durable finish
- Easy maintenance
- Intricate design
- Robust construction

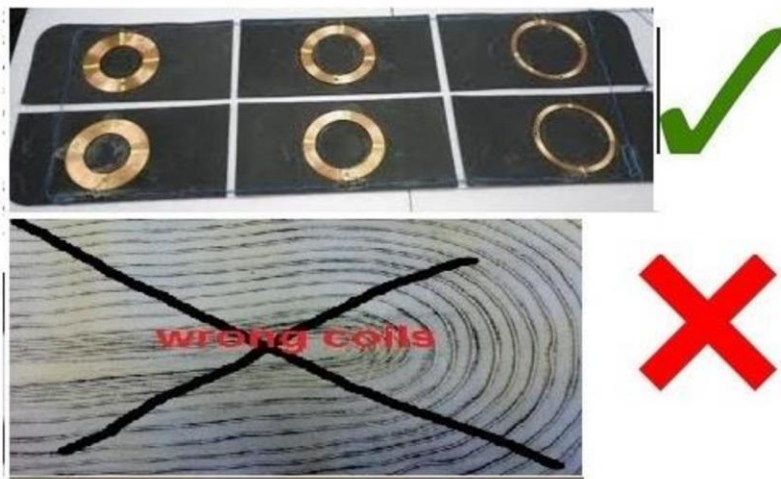
Company Profile

The PEMF-Trans products are produced and made in Chandigarh so has quality and intelligent design built in. *Our organization tops the rank list of most prominent manufacturers, exporters, wholesalers distributors and suppliers of PEMF devices and rTMS Helmets. We have team of well qualified graduate engineers from IIT and Punjab Engineering College Chandigarh who have rich experience in electrical and electronic engineering field who are known for making their products in abidance with international quality norms. The products we offer are one of the best pulsed magnetic field therapy goods, widely used for having perfect sitting & standing positions. Apart from offering remarkable products, we are identified as a coveted service provider, ending PEMF Therapy treatment. These are provided by well qualified professionals, keeping norms of medical industry in mind.*

Why should you choose a PEMF system from PEMF-Trans

Since there are many holistic therapies and many different devices currently available from other countries and your health is most valuable thing to you, it is important that you invest in the correct product for you and for your conditions. With any magnetic therapy you need to be aware of low-cost sham products. Important thing is to look out for when buying a PEMF therapy system is whether it has qualified NASA recommendation like

- 1) Earth frequencies (1-30 Hz)
- 2) Biorhythm Clock
- 3) Amplitude or Intensity as per NASA research has recommended
- 4) Sawtooth Wave
- 5) Proven Wave Form
- 6) Full body mat with pure copper coil & an Alternating Polarity
- 7) Graduated Intensity
- 8) Polarity changes on every Two Minutes
- 9) Pure pulsating Field



How many coils are in medical devices and the quality and the production of the coils. It makes huge difference to the effectiveness of the therapy if the cheap, fully-completed coils are used rather than continuous copper coils that some products have. **PEMF - Trans fulfil the recommendation given by NASA research and all our devices are manufactured with international standards and qualify all safety norms. We are also giving 3 years warranty and support on our devices.** We can suit each device to your specification needs and ensure you are getting the right products to improve the most important thing in your life Your's Health .

<http://www.pemft.net/buyers-guide-updated.html>

2015 Buyers Guide to PEMF Devices

OUR PRODUCTS ARE FOR HOME USE



PEMF Whole Body Mattress

Size 6 feet x 2.5 feet

Intensity 0 - 80 Micro tesla

Frequency 0-30 Hz

Wave form Sawtooth

Applications: Knee pain (no need of knee replacement surgery in 80 -90% cases), back pain, slip disc, osteoporosis, osteoarthritis, fibromyalgia, frozen shoulder, muscular skeleton pain, herniated disc, numbness in hand and feet, sciatica , increase blood circulation, old age problem, rheumatism , spine injuries, muscle pain, nonunion of bones ,bone necrosis ,heart ,liver ,kidney problems ,skin diseases and many more

No medicine and absolutely zero side effects



Low Field Transcranial Magnetic Stimulation (TMS) Helmet for Neurological and Psychiatric Diseases

Intensity 100 -150 Micro tesla

Frequency 0-30 Hz

Wave form Sawtooth

Applications :- Migraine, Depression, Cerebral palsy, Alzheimer disease, Parkinson disease, Stroke, Multiple sclerosis Schizophrenia, Tinnitus, Cerebral degeneration, ADHD, OCD, Autism, Post Trauma Stress , vegetative patient after injuries, ataxia, motor neuron diseases, vision problem, diabetic retinopathy macular disease and many more diseases



PEMF Applicator

Intensity — 200 microtesla

- Program 1 2 Hz**
- Program 2 5 Hz**
- Program 3 7.8 Hz**
- Program 4 10 Hz**

Applications :- Chronic back pain, Knee pain, Shoulder Stiffness, Calf muscle pain, Arthritis, Rheumatism, Spondylitis, Cervical Problem, Hip joint pain, Nonunion of fractures, Body ache, Sprain, Osteoporosis, Osteoarthritis, Sciatica, Fibromyalgia, Numbness in hand and legs, Avascular necrosis, old age problem, heart, liver, kidney, **Skin Problems etc.**

No side effects

Using PEMF to Accelerate Cartilage Repair

The use of PEMF is critical in accelerating cartilage repair. PEMF energizes the chondrocyte cells which produce the cartilaginous matrix thus speeding up the production of cartilage. The stimulation of these cells produces new cartilage where previously it was damaged or worn out. At the same time the osteoclasts break down bone structure that has been damaged, worn out, or weakened, while the osteoblasts are stimulated to regenerate new bone structure.

Regrown Cartilage in the Knee

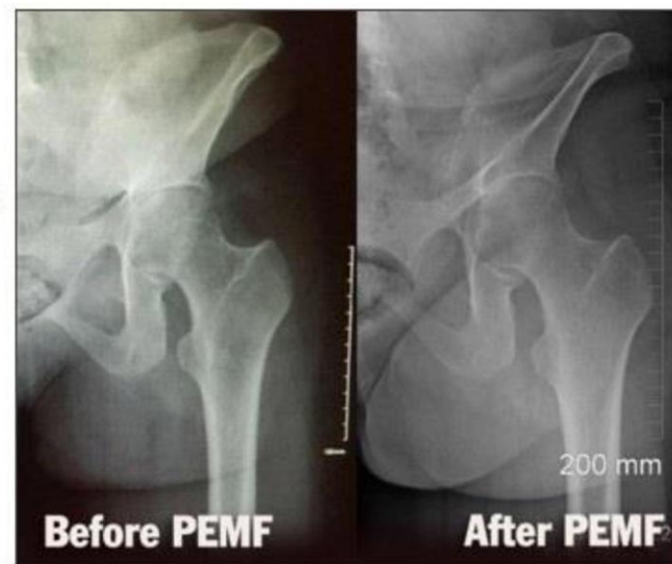
Patients have experienced regrowth of cartilage in knee joints changing the bone-on-bone situation, recreating the cartilage between the bones increasing the glide and removing the pain. The X-ray below shows the knee of a 70-year-old female who was experiencing extreme pain when walking because the cartilage had degenerated. The PEMF encouraged cartilage growth between the bones (on right) removing the need for a knee replacement.



Left: before, bone on bone, Right: after PEMF cartilage has been regrown

Avoiding Hip Replacement

A common feature of middle to old age is the degeneration of the hip joint. The bone structure is diminished due to a drop in bone density from osteoporosis. The cartilage gets worn out as the structure collapses resulting in bone on bone. Usually the treatment is hip replacement, however this is often not prescribed for those experiencing hip degeneration at an early age. The PEMF stimulated both bone and cartilage regeneration, avoiding hip replacement. The X-ray shows the regeneration of a hip in a middle aged woman, removing the need for the hip replacement on this hip.



PEMF has consistently resulted in cartilage and bone regrowth, repairing knees and hips and removing the need for invasive surgery with the potential for nerve damage, infections and a much longer recovery time.

Scientific studies.

Scientists and researchers around the world have been finding significant results with the use of PEMF in cartilage regrowth and bone repair.

The department of Orthopaedics from the Christin Medical College and the Sree Chitra Tirunal Institute for Medical Sciences and Technology in India reported:



“PEMF stimulation of osteochondral defects with calcium phosphate scaffold is effective in hyaline cartilage formation. PEMF is a non-invasive and cost effective adjuvant treatment with salvage procedures such as abrasion chondroplasty and subchondral drilling.”⁽¹⁾

The Department of Biochemistry and Biophysics at the University of Rhode Island produced a report which stated:



Pulsed electromagnetic fields (PEMFs) of certain configuration have been shown to be effective clinically in promoting the healing of fracture nonunions and are believed to enhance calcification of extracellular matrix. In vitro studies have suggested that PEMFs may also have the effect of modifying the extracellular matrix by promoting the synthesis of matrix molecules.... Histomorphometric studies indicate that the maturation of bone trabeculae is also promoted by PEMF stimulation. These results indicate that a specific PEMF can change the composition of cartilage extracellular matrix in vivo and raises the possibility that the effects on other processes of endochondral ossification (e.g., fracture healing and growth plates) may occur through a similar mechanism.”⁽²⁾

Conclusions from a study conducted by the University of Ottawa stated:



“Current evidence suggests that electrical stimulation therapy may provide significant improvements for knee osteoarthritis...” (3)

The Royal Veterinary Basic College in London also reported:



“The influence of pulsed electromagnetic fields (PEMF) on proteoglycan composition in cartilage extracellular matrix has been investigated.... PEMF treatment... significantly stimulated the retention of glycosaminoglycans in the explants and reduced the release of glycosaminoglycans into the media... It is concluded that PEMF treatment preserved extracellular matrix integrity of cultured cartilage explants by down-regulating proteoglycan synthesis and degradation in a co-ordinated manner without affecting their gross structural nature. (4)

Building Blocks

PEMF will stimulate the osteoblasts and the extracellular matrix in rebuilding bone structure and cartilage. Good nutrition, minerals, and supplementation are required to provide the building blocks for the cells to work in reconstruction. Due to soil depletion, healthy diets may not contain the necessary nutrients in the adequate amounts to make a difference. Consult your health care professional to find viable sources of supplements such as collagen, hyaluronic acid, vitamin K2, and minerals like calcium, magnesium, boron and silica.

PEMF will provide an important foundation for healthy aging and repair of wearing body structures, enabling the participation in an active lifestyle.

No surgery, no drugs

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Stay flexible: Don't let arthritis restrict your mobility.

DR. L. SIVABALAN

With tomorrow being World Arthritis Day, take a look at newer methods that help handle arthritic pain naturally.

Living with arthritis is a dilemma for majority of sufferers. With painful symptoms like stiffness, painful and creaky joints, swelling and restricted mobility, the disease lasts a lifetime. Many people mistakenly assume that arthritis is part of the ageing process and so they put up with it.

The fact, however, is people with arthritis lead painful, restricted lives because they choose to

ignore symptoms during initial occurrence and do not to visit the doctor at the right time. In such cases arthritis can be disabling.

Upon diagnosis, well-guided treatment options in advancing orthopaedics guarantee great improvement in the quality of living, especially for the elderly. Sometimes the symptoms may be well-defined, sometimes vague. So, accurate diagnosis of the exact type of arthritis can be made by a thorough physical examination and a few tests.

Treatment options

The effectiveness of treatment is largely dependent on the patient carrying out the doctor's directions. General options for arthritis may involve medications, arthritis-friendly exercises, joint protection techniques, natural remedies, pain relief techniques, changes in diet and nutrition, weight control, adapting to work habits and coping strategies.

Generally, patients get immediate relief by taking anti-inflammatory medicines. But this is not a wise option. Prolonged use of pain killers and other similar drugs have severe side-effects. There are other non-invasive ways to get relief. Natural ways are the best options as it is non-invasive way of treating the disease.

Painless therapy

One of the most-recent treatment techniques to help patients suffering from musculoskeletal disorders is Pulsating Electro-Magnetic Field (PEMF) Therapy. Without using drugs or surgery, this painless therapy approved by the European Union uses a patented technology, which mimics natural signals in order to activate and stimulate normal healing processes that lead to the growth and repair of tissues. This unique therapy harnesses the body's ability to heal itself. Tremendous benefits are documented from the PEMF therapy, now also available in India. It helps patients reduce medication while offering absolutely no side effects.

PEMF is found to be effective on the spine, hip, hand, foot and the knee. It is also found to have bone healing protocols that produce end-result in non-union fractures and failed arthrodeses. Treatment with PEMF protocols also reduces time taken to heal the fracture.

The long list of treatable conditions under PEMP includes arthritis, back pain, bursitis, cervical arthritis, coxitis, osteo-arthritis, peri-arthritis, tendonitis, sciatica, fractures, delayed fractures, varicose veins, varicose ulcers, wound healing, diabetic ulcers, non-healing ulcers, and trauma wounds. Patients can resume complete mobility and carry on with their daily activities without restriction and guarantee great improvement in the quality of living.

While conventional methods like proper diet and exercising continue to keep the body going, non-invasive treatment options like the new technology PEMF provide effective solutions to pain.

People with arthritis need not lead painful, restricted lives. It is possible to relieve the pain and lead an arthritis-free life. What better way to shed the many misconceptions of arthritis on World Arthritis Day!

A dose of magnets to repel all diseases?

By Pooja Virendra Kumar/TNN

Bangalore: How about going magnetic? From treating skin ailments to severe brain injuries to disorders in the central nervous system, electromagnetic therapy — better known as energy medicine — is proving beneficial for those who have given up on modern medicines. Energy medicine is a drugless and painless therapy, where the patient is made to lie down on a bed and electromagnetic waves are passed around it. It improves tissue and bone damage conditions.

Dr S Krishnan, a 73-year-old retired deputy district medical officer in Kerala who has been practising electromagnetic treatment for the past 18 years and has recently moved from Kerala to Bangalore to set up a clinic at Kasturi Nagar, explains how the electromagnetic field works.

A human body is composed of innumerable cells which are enveloped in a cell membrane. A cell is positively charged on the outside and negatively inside. When the negative ions decrease and positive ones increase, the absorption of nutritional elements and discharge of wastes from the cells becomes difficult.

"This causes poor metabolism, leading to weaker physiological functions, causing illness. Most of my patients are those who had tried all other medicines and had become therapeutically resistant," he said.

How does energy medicine work:

The electromagnetic field influences cell behaviour by inducing electrical changes

around and within the cell. Improved blood supply increases oxygen pressure, activating and regenerating cells. Increased calcium transport stimulates the repair and growth of cartilage, decreasing the pain. "While a healthy cell has a 'working voltage' of -70 to -90 mV, the membrane of a tumour cell is as low as -15 to -20 mV which leads to a lasting energy deficit, resulting in degeneration of the cell," Dr Krishnan said.

The pulsed magnetic field therapy permeates these cells, enhances ion exchange, normalises circulation and increases oxygen utilisation of cells.

Jyoti is counting on electromagnetic treatment for her seven-year-old son suffering from cerebral palsy. "After trying everything from allopathy, homeopathy to ayurveda, I had given up hope. But energy medicine, which my son is being

treated with for the past nine months, has shown 200 per cent improvement."

Surya was suffering epileptic attacks since birth and was on medicines to check it. Since resorting to energy medicine six months ago, he has not suffered any attacks; his vision, vocals and immunity system have improved, reducing his medicine intake. Usha Narendran, a 63-year-old who was suffering from a severe backache and leg pain after a disc dislocation, went in for electromagnetic treatment as she did not believe in allopathy and ayurvedic treatments did prove ineffective. "Energy treatment has been wonderful. It involves just lying down on the bed and I feel completely healthy today," she said.



Magnetic therapy major hope against depressive disorder

Malathy Iyer | TNN

Mumbai: Six months ago, south Mumbai-based executive Ramesh Joshi's behaviour started worrying his family. He would take two hours to finish a meal. While walking, he would suddenly freeze at a spot. He would stammer if he had to speak more than a couple of lines. The medical diagnosis — major depressive disorder — stunned his family.

They were even more shocked when nine anti-depressants a day failed to help him. Finally, they sought rTMS or repetitive transcranial magnetic stimulation, the newest entrant in the field of depression treatment in the city. Over three weeks and 20 sessions of magnetic stimulation later, his sluggishness and diffidence almost disappeared. His daily dosage of anti-depressants was down to two. Today, the 35-year-old is back at work and speaks clearly. "I could feel my family's shock as I took one spoonful of food every 10 minutes, but I couldn't help it," he said.

Joshi's psychiatrist, Dr Shamsah Sonawalla, who studied rTMS during her stint in Harvard University, says the non-invasive therapy helped

WHAT IS rTMS THERAPY

MAJOR DEPRESSIVE DISORDER (MDD)

- > 20% women & 10% men experience clinical major depression
- > MDD will be the second-most common illness in the world

ADVANTAGES

- > Few or no side-effects
- > Quick onset of therapeutic effect (usually 2 to 4 weeks)
- > Painless procedure
- > Non-invasive
- > No anaesthesia required
- > Outpatient therapy

LIMITATIONS OF CURRENT TREATMENTS FOR MDD

- > About 70% patients taking psychiatric drugs have several side-effects
- > Antidepressants have a delayed onset of action

SIDE-EFFECTS

- > Slight pain or discomfort at the site of application of magnetic field
- > Transient headaches
- > Seizures are very rare

Studies have shown rTMS to be effective in the following conditions

- > Major depression
- > Treatment-resistant depression
- > Auditory hallucinations
- > Schizophrenia
- > Bipolar disorder
- > Obsessive Compulsive Disorder
- > Eating disorders such as anorexia and bulimia

transform him in the shortest possible time.

Sonawalla said: "While taking down Joshi's medical history, we realized he was battling mild depression perhaps for seven to eight years. This time, he experienced psychomotor retardation (when speech and action slow down)." But rTMS transformed him in the shortest possible time, she added.

Magnetic therapy made its debut in the city almost two years ago, but its clinical efficacy among Indian patients is only now getting established. Sonawalla has treated 65 people with major depression using the technique at her Trans Mag Well-Being Clinic on Peddar Road. "Of these, 28 had treatment-resistant depression, 37 had moderate to severe major

depression," she said. Each patient responded to the waves, but in different measures. Those who were resistant to medical treatment showed 60% response, while persons with moderate to severe depression registered 90% improvement.

A handful of clinics across Mumbai and Delhi have started offering rTMS, with each session ranging from Rs 500 to Rs 7,000. Dr Yusuf Matchewalla has just brought his second rTMS machine for his clinic in Masina Hospital, Byculla. "The demand for this non-invasive treatment is so high that I felt the need for a second machine," said the psychiatrist, who uses it to treat varied conditions, ranging from depression to schizophrenia. Delhi's Dr Sanjay Chugh was among the first

in the country to acquire this technology, having added another machine in his practice recently.

The therapy, which won the US FDA approval in 2008, involves using magnetic field externally to stimulate nerve cells in the brain. "An electromagnetic coil is placed on the scalp at a predetermined site. The rTMS device then delivers focused magnetic pulses to the brain," said Sonawalla, who also consults at Jaslok Hospital. The 20-minute sessions are typically held daily for 2 to 4 weeks.

Anusha Nambodiri is another case in point. The 42-year-old was in between jobs, managing a household and children as a single parent because her husband worked in Dubai. "I would start crying for the slightest reason," she said. It was when she started harbouring suicidal thoughts that she was brought to Trans Mag clinic. "Within a couple of her 15-session schedule, a positive change was noticeable. She is now happy at her new job and reads for hours," said Sonawalla.

The growing popularity of this treatment is also a measure of the growing incidence of depression in India. (Names of patients changed on request)

चुंबकीय चिकित्सा से बोल सकते हैं स्ट्रोक पीड़ित

सिडनी, आइएनएस : ब्रेन स्ट्रोक (मस्तिष्काघात) से बोलने की क्षमता खो चुके रोगियों के लिए चुंबकीय चिकित्सा रामबाण औषधि साबित हो सकती है। क्वींसलैंड विश्वविद्यालय में किए गए एक शोध में पाया गया कि मस्तिष्काघात के जिन रोगियों के इलाज में ट्रांसक्रेनियल चुंबकीय उत्तेजना (टीएमएस) की मदद ली गई

उनकी बोलने या इशारों में बात कहने की क्षमता में तेजी से सुधार हुआ। यूरोपियन जर्नल आफ न्यूरोलॉजी में छपी इस रिपोर्ट के मुताबिक टीएमएस मस्तिष्क के उन हिस्सों को सक्रिय कर देता है, जो स्ट्रोक के कारण निष्क्रिय हो चुके होते हैं। इस विधि से इलाज के लिए विद्युत चुंबकीय प्रेरक तार सिर के उस हिस्से में लगा दिया जाता है, जिधर मस्तिष्काघात हुआ हो।

विश्वविद्यालय द्वारा जारी वक्तव्य के मुताबिक बीते छह साल में मस्तिष्काघात के शिकार कुछ मरीजों का न्यूरोजेनिक

खतरनाक है बचपन का आक्रामक व्यवहार

टोरंटो, प्रेड्र : आक्रामक व्यवहार वाले बच्चों को भविष्य में स्वास्थ्य संबंधी परेशानियों का सामना ज्यादा करना पड़ता है। एक नए अध्ययन में दावा किया गया है कि जो लोग बचपन में आक्रामक होते हैं, वयस्क होने पर उनमें जीवनशैली संबंधी बीमारियों का खतरा ज्यादा होता है। इस अध्ययन 'कनेडियन मेडिकल एसोसिएशन जर्नल' में प्रकाशित हुआ है।

यूनिवर्सिटी ऑफ शेरब्रुक, कॅनक्रोडिया यूनिवर्सिटी, यूनिवर्सिटी ऑफ कैलिफोर्निया और यूनिवर्सिटी ऑफ ओटावा के शोधकर्ताओं ने इस संयुक्त शोध में कई दस्तावेजों का अध्ययन किया। इस अध्ययन के द्वारा बचपन में व्यक्ति के आक्रामक व्यवहार और जीवनशैली से जुड़ी बीमारियों में



वृद्धि के बीच मजबूत संबंध दिखाया गया है। आक्रामक बच्चों में वयस्क होने पर मोटापा और डायबिटीज जैसी बीमारियों का खतरा ज्यादा होता है। इस अध्ययन में लगभग तीन हजार युवाओं को शामिल किया गया।

कम्युनिकेशन डिसऑर्डर रिसर्च केंद्र पर इस विधि से इलाज किया गया, तो उनमें 80 फीसदी तक सुधार पाया गया।

शोधकर्ताओं ने पाया है कि यह विधि न सिर्फ उपयोगी है बल्कि बेहद सुरक्षित भी है।

Magnetic therapy for spine injury

Magnetic therapy may help people with spinal cord injuries.

Doctors at Imperial College London administered magnetic stimulation to the brains of people with partial damage to their spinal cord.



Spinal injuries can cause paralysis

The therapy led to improved muscle and limb movement, and increased ability to feel sensations.

Details of the technique - known as repetitive transcranial magnetic stimulation (rTMS) - are published in the journal Spinal Cord.

It works by using an electromagnet placed on the scalp to generate brief magnetic pulses, about the strength of an MRI scan.

These pulses stimulate the part of the brain called the cerebral cortex.

The technique was tested on four patients with what are known as incomplete spinal cord injuries.

This is where the spinal cord has not been entirely severed, but the patient has still lost the ability to move or feel properly below the injury point.

Brain signals

Researcher Dr Nick Davey said: "Through rTMS we may be able to help people who have suffered partial injuries to the spinal cord recover some of their movement and feeling.

"We think it works by strengthening the information leaving the brain through the undamaged neurons in the spinal cord. It may work like physiotherapy but instead of repeating a physical task, the machine activates the surviving nerves to strengthen their connections."

एम्स ने लिया नई तकनीक का सहारा, दो सौ लोगों को हुआ फायदा

20 मिनट में मैग्नेट से माइग्रेन का इलाज

नई दिल्ली | निशि भाट

सिर में लगातार दर्द है और दवाओं से भी आराम नहीं हो रहा तो माइग्रेन का आधुनिक इलाज आपके लिए कारगर हो सकता है। एम्स ने मैग्नेट बानी चुम्बकीय तरंगों के जरिए माइग्रेन का कारण तबका खोजा है। इस तकनीक को रिपेटेड ट्रांजल मैग्नेट स्टिम्युलेशन (आरटीएमएस) नाम दिया गया है। इसके जरिए अब तक 200 लोगों को ठीक किया जा चुका है। खास बात यह है कि मरीज को 20 मिनट के अंदर ही इसका फायदा नजर आने लगता है।

एम्स के मनोचिकित्सा विभाग के डॉ. नंद कुमार ने बताया कि दिमाग के एक विशेष हिस्से (सप्लीमेंट रिमोट मोटर) में रुकावट होने पर माइग्रेन होता है। इसका दर्द एक सिरे से दूसरे सिरे तक पहुंच सकता है। इस रुकावट को दूर करने के लिए दवाएं दी जाती हैं लेकिन कुछ मामलों में दवा कारगर नहीं होती।

महाराष्ट्र से इलाज के लिए आई एक महिला को भी इसी तरह की समस्या थी। वह तीन साल से माइग्रेन की दवा खा रही थी लेकिन उसका खास फायदा नहीं हो

कोई शुल्क नहीं

एम्स के दूसरे तल पर स्थित मनोचिकित्सा औपिडी के कमरा नंबर छह में इस तकनीक से रोजाना चार से पांच मरीजों का इलाज किया जाता है। यूएस में सबसे पहले प्रयोग की गई मशीन को पहली बार सरकारी अस्पताल में एम्स में शुरू किया गया है। इस इलाज पर कोई शुल्क नहीं है। सीजोफ्रेनिया और ओसीडी में भी कारगर : आरटीएमएस का प्रयोग

सीजोफ्रेनिया और ओसीडी में भी किया गया है। डॉ. नंद कुमार ने बताया कि सीजोफ्रेनिया में कान के निचले हिस्से में आवाज का कंपन महसूस होता है। इस मरीजों को चार चरण के इलाज से ठीक किया गया है। इसी तरह ओसीडी (ऑब्सेसिव कंपलसिव डिसऑर्डर) में मरीज को बार-बार एक ही काम करने की बुरा लगी रहती है।

हल्के में न लें माइग्रेन को

● दिनभर में यदि दो से तीन घंटे सिर दर्द होता है ● यदि एक घंटे से अधिक टीबी नहीं देख सकते हैं ● कंप्यूटर पर काम करते ही आंखों में चुभन होने लगती हो ● सर्दियों में यदि अधिक परेशान करें सिरदर्द तो हो जाए साधधान ● एक समय के बाद दवा या बम के सहारे न तलाशें माइग्रेन का इलाज

रहा था। फिर उसका इलाज चुंबकीय तरंगों से किया गया, जिसका कारफे असर देखने को मिला।

इस तरह होता है इलाज: आरटीएमएस विधि में मशीन के जरिए मरीज के मस्तिष्क के दाएं और बाएं हिस्से तक चुंबकीय तरंगें पहुंचाई जाती

हैं। एक मॉनिटर के जरिए तरंगों की गति को नापा जाता है। गोलाकार रूप के चुंबकीय घेरे को सिर पर घुमाया जाता है। यदि माइग्रेन की समस्या पुरानी है तो इसे चार से पांच चरण में दिया जाता है, जबकि पुरानी समस्या न होने पर 20 मिनट में ही इलाज हो जाता है।

अब तक 200 मरीज उठा चुके हैं फायदा, इलाज में दवा के बजाए नई तकनीकों का हो रहा इस्तेमाल

एम्स की ब्रेन लैब में मानसिक रोगों का फटाफट इलाज

नई दिल्ली | निशि माट

तनाव, चिड़चिड़ापन, आत्महत्या का ख्याल आना या फिर मस्तिष्क से जुड़ी कई बीमारियों का इलाज दवाओं से नहीं, बल्कि आधुनिक तकनीक से कुछ दिनों में संभव है। एम्स की ब्रेन लैब में ऐसी ही कुछ नई तकनीकों का इस्तेमाल करके अब तक 200 मानसिक रोगियों को ठीक किया जा चुका है। नई तकनीक की मदद से दो से तीन सत्रों में मनोरोगी को ठीक किया जा सकता है।

एम्स के मनोचिकित्सा विभाग के एसोसिएट प्रोफेसर डॉ. नंद कुमार ने बताया कि मानसिक रोगों में अब तक दी जाने वाली दवाएं मरीज को

कुछ समय तक तो फायदा देती हैं लेकिन अधिकांश मरीज दवाओं के सहारे अधिक दिन तक नहीं रहना चाहते। ऐसे मरीजों के लिए डिफ्रेंशियल या फिर मैग्नेटिक तरंगों के इलाज को बेहतर कहा जा सकता है। ब्रेन लैब में हर रोज पांच मरीजों का इलाज किया जा रहा है।

क्या है ब्रेन लैब : इसमें डेंटल चेयर की तरह दिखने वाली एक कुर्सी पर मरीज को बैठाया जाता है। फिर नेविगेशन की मदद से मस्तिष्क के अंदर की सभी नसों को मॉनिटर पर देखा जाता है। नेविगेशन के साथ ही मशीन से जुड़ा मैग्नेटिक हाईबीम लेंस मस्तिष्क की प्रभावित जगहों पर तरंगों को पहुंचाता है।

इन तकनीकों से होता है उपचार



● **ट्रांसमैग्नेटिक स्टिमुलेशन (टीएमएस) :** इसमें बेहद कम वेग की न्यूरोमैग्नेटिक तरंगों को मस्तिष्क के प्रभावित जगह पर पहुंचाया जाता है। एक विशेष उपकरण को सिर के ऊपर रखकर तरंगों को मस्तिष्क में प्रवाहित किया जाता है। साधारण एंजाइटी, डिप्रेशन लंबे समय के दर्द को इस विधि से सही किया जा सकता है।



● **वीएस नर्व स्टिमुलेशन (वीएनएस) :** एपिटेप्सी के इलाज के लिए इस तकनीक का इस्तेमाल किया जाता है। इसमें मस्तिष्क की ऊपरी सतह पर छोटे से उपकरण को लगाया जाता है, जो मस्तिष्क को जरूरी संदेश भेजता है। लंबे समय के डिप्रेशन का इलाज भी वीएनएस से संभव है। इसे कॉलर बोन पर लगाते हैं।

● **डीप ब्रेन स्टिमुलेशन (डीबीएस) :** यह एक तरह का मस्तिष्क में इस्तेमाल किए जाने वाला पेसमेकर है। जिसे न्यूरोसर्जिकल विधि से दिमाग में लगाया जाता है। पार्किंसन के इलाज के लिए डीबीएस का प्रयोग होता है। इसमें मस्तिष्क की प्रभावित जगह तक रेडियोफ्रीक्वेंसी को पहुंचाते हैं।

● **रिपीटिटिव ट्रांसेनियल मैग्नेटिक स्टिमुलेशन (आरटीएमएस) :** इस तकनीक में मस्तिष्क के हैलिरोसन (कान में बेदज्ज की आवाजें आना) की स्थिति को ठीक किया जाता है। इसमें मैग्नेटिक तरंगों को मस्तिष्क के प्रभावित जगह पर पहुंचाया जाता है।

हिन्दुस्तान 02

नई दिल्ली • मंगलवार • 16 सितंबर 2014

अलजाइमर दिवस पर विशेष

हलके में न लें बार-बार चीजें भूलने की आदत

अलजाइमर का चिकित्सकीय इलाज मुमकिन नहीं है लेकिन इससे हम मुंह भी नहीं मोड़ सकते हैं। दुनियाभर के वैज्ञानिक न सिर्फ इसके सटीक कारणों का पता लगाने के लिए शोधरत हैं, बल्कि इसके इलाज के लिए कोशिश कर रहे हैं। इसे साधारण भुलक्कड़पन के धोखे में लेना ठीक नहीं होगा। समय रहते इसकी पहचान से बीमारी को विकराल रूप लेने से रोका जा सकता है। एक नजर rTMS

अलजाइमर से अर्धव्यवस्था पर असर

2050 तक 78 करोड़ हो जाएंगे अलजाइमर के शिकार

600 खरब डॉलर से ज्यादा है इसकी वैश्विक लागत

60 साल से ऊपर के 13 प्रतिशत मरीजों को लंबी देखभाल की जरूरत

इन लक्षणों से सचेत रहें

● नाम भूलना, चीजें खो देना, चीजों को सीखने और उन्हें याद रखने में कठिनाई, घर या मोहल्ले का नाम-पता याद नहीं रहना ● अक्षरों और अंकों को पहचानने में कठिनाई, हिस्साब-किताब करने में मुश्किल होना ● किसी काम को करने के फैसला करने में परेशानी होने पर सतर्क हो जाना चाहिए

क्या हैं खतरें

● आवेश में आने से लंबी या छोटी अवधि की याददाश्त गुम हो सकती है। पीड़ित अपने रिश्तेदारों या दोस्तों को पहचानने में असमर्थ हो सकते हैं ● शारीरिक तालमेल बिगड़ने से शरीर में गंभीर चोट लग सकती है, जो जानलेवा भी साबित हो सकती है ● समय, तारीख और जगह न याद रख पाने के कारण पीड़ित अपने घर का पता भी भूल सकते हैं और पीड़ित भटक सकते हैं

ब्लड टेस्ट देगा बीमारी का पता अमेरिका स्थित एमरी यूनिवर्सिटी में हुए शोध के अनुसार निकट भविष्य में अलजाइमर की पहचान रक्त नमूनों की जांच से संभव हो सकेगी। ● अमेरिका के टेम्पल्स स्कूल ऑफ मेडिसिन में हुए अध्ययन के अनुसार तनाव से कोर्टिकोस्टेरोयड रासायनिक हार्मोन का स्तर बढ़ता है। इसका स्तर अलजाइमर के मरीजों में दूसरे मरीजों की तुलना में तीन गुना तक अधिक था।

इलाज की नई विधियां

चुंबकीय प्रभाव चुंबकीय कंपन से अलजाइमर की बीमारी को बढ़ने से रोका जा सकता है। चुंबकीय तार याददाश्त से जुड़े दिमाग के हिस्सों में कंपन पैदा करते हैं। इससे कोशिकाओं के बीच जुड़ाव को मजबूत करने में मदद मिलती है। नारियल तेल

नारियल तेल में अल्जामाइस से लड़ने की क्षमता होती है। यूनिवर्सिटी कॉलेज ऑफ लंदन के शोध के मुताबिक इसमें ऐसे यौगिक बहुतायत में पाए जाते हैं जो कीटोस उत्पन्न करने में मदद करते हैं।

काँफी का सेवन इतिनॉय यूनिवर्सिटी के एक नए अध्ययन में पता चला है अलजाइमर पीड़ितों के दिमाग में सूजन हो जाती है। काँफी में मौजूद कैफीन इसकी रोकथाम में मददगार हो सकता है।

ग्रीन टी ग्रीन टी के पाचन के बाद निकलने वाले रसायन अलजाइमर से बचने में काफ़ी मदद करते हैं।



अगर अपने बच्चों, पति या पत्नी, करीबी रिश्तेदारों का नाम याद करने में परेशानी हो, फोन डायल करने का तरीका भूल जाएं या यह याद न रहे कि नाश्ता किया या नहीं तो इसे मामूली तौर पर न लें। यह बीमारी याददाश्त में कमी नहीं बल्कि अलजाइमर हो सकती है, जिसके लिए किसी मनोचिकित्सक से संपर्क करना जरूरी है। डॉ. संजय पटनायक, दिवंगत होस्पिटल में वरिष्ठ मनोचिकित्सक

Magnetic pulses could overcome depression, schizophrenia

08 Feb 2012, 16:16

Jagran Post Editorial | Last Updated: 08 Feb 2012, 16:16

Sydney: Magnetic pulses could stamp out neurological disorders such as Parkinson's, depression, schizophrenia, epilepsy and stroke after researchers unravelled how they work to stimulate the brain.

Jennifer Rodger, research associate professor at the University of Western Australia School of Animal Biology, and her team tested the therapy, known as repetitive transcranial magnetic stimulation (rTMS) – on mice to find out how it can be applied to treating human neurological disease.

"Our work demonstrated for the first time that pulsed magnetic fields promote changes in brain chemicals that correct abnormal brain connections, resulting in improved behaviour and brain function," Rodger was quoted as saying by the journal FASEB (Federation of American Societies for Experimental Biology).

"rTMS is an exciting therapy that stimulates the brain. It has shown promising results in treating the damaged human brain. Our research helps to explain how this therapy works on the cells of the brain," added Rodger.

Previously, evidence of its usefulness was mainly from anecdotal clinical evidence, a university statement said.

Rodger explained that the structural and functional changes caused by the therapy in malfunctioning circuits were not seen in the normal healthy brain, suggesting that the therapy could have minimal side effects in humans.

(Agencies)

Magnetic Stimulation Effective in Helping Parkinson's Patients Walk

Non-Invasive Treatment Shows Promise In a New Restorative Neurology and Neuroscience Report

SEPTEMBER 1, 2015

About 50% of patients with Parkinson's disease (PD) experience freezing of gait (FOG), an inability to move forward while walking. This can affect not only mobility but also balance. In a new study published in *Restorative Neurology and Neuroscience*, researchers report that repetitive transcranial magnetic stimulation (rTMS) can reduce FOG and improve other motor skills in PD patients.

In a study conducted by researchers at the Sungkyunkwan University School of Medicine, Seoul, Korea, 17 PD patients experiencing FOG were treated with either real or sham high-frequency rTMS in five sessions over a one-week period. After a two-week interval, the patients in both groups were switched to the other treatment. Patients were assessed at three times: at the beginning of the study before stimulation began (pre-rTMS at day 1), immediately after the intervention (post-rTMS at day 5), and one week after cessation of the intervention (follow up at day 12). After switching, the three assessments were repeated. All medications were kept constant throughout the study and all interventions were performed at the same time of day. Both the researchers and the patients were not informed whether real or sham treatment was being administered.

"This study demonstrated that five cumulative sessions a week of 10 Hz high-frequency rTMS was likely to alleviate FOG in patients with PD, and the effect continued for a week. Similar results were found in the motor and the gait function," explained lead investigator Yun-Hee Kim, MD, PhD, Professor in the Department of Physical and Rehabilitation Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea. "This study provides evidence that the cumulative high-frequency rTMS is a good candidate as an add-on therapy for FOG in PD."

The location in each patient's scalp for optimal stimulation of the anterior tibialis muscle (the front of lower leg) was mapped by stimulating the muscle and moving a pickup coil over the scalp to find the greatest response. This position was then used for each treatment.

A magnetic stimulator was placed and 20 pulses of 10 Hz rTMS were delivered to the target motor cortex areas of the dominant hemisphere. Each pulse lasted five seconds, with 55-second intervals between pulses, delivering 1,000 pulses in 20 minutes. Sham stimulation was conducted with a coil held at a 90 degree position in order to ensure that the magnetic field did not stimulate the motor cortex.

Patients were evaluated after treatments using the FOG-Q, a self-assessment scale for evaluating FOG symptoms in Parkinson's syndrome. In addition, participants were instructed to walk to a target (traffic cone) one meter behind them, turn around, and then return, as part of a Timed-Up-and-Go (TUG) task during a modified Standing-Start 180 degree Turn Test (SS-180). The TUG task was repeated twice in each direction, and the entire process was video recorded to quantify FOG.

When patients underwent real treatment, the FOG-Q and TUG at post-rTMS significantly improved compared with pre-rTMS and these results continued into the follow up period. However, there were no significant changes in FOG-Q or TUG at post-rTMS and follow-up in patients when experiencing the sham treatment.

Power to spark limb regrowth?

Frankenstein's Dream Can Come True, Say Experts

London: In a declaration with echoes of Frankenstein, scientists have suggested that electricity could one day be used to regenerate tissue and regrow lost limbs.

Researchers from the Aberdeen University believe electric currents and fields hold the key to major advances in tissue engineering.

In the distant future they may even help people with severed limbs, such as victims of industrial accidents or soldiers, to grow new arms and legs, the Daily Mail reported.

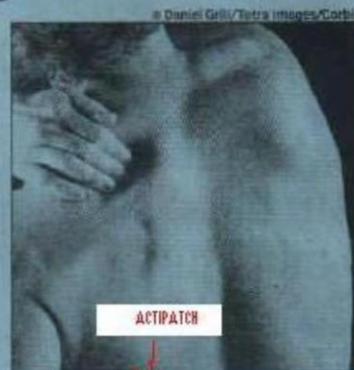
Electrical stimulus has already shown some success in stimulating sensory nerve regrowth in people with damaged spinal cords. There is also evidence that bio-electric fields play a role in regenerating lost fingertips, especially in children.

However, the importance of electricity in wound healing and tissue repair has been largely overlooked because of its association with Victorian quackery and Frankenstein, according to Dr Ann Rajnicek.

"Electricity is key; it's something that has been under-appreciated. But people still think of Frankenstein and the Victorian age. Even when you try to sell the idea to a research funding agency, they say 'oh no, I'm not sure about that,'" Rajnicek added.

In Mary Shelley's novel, electricity provides the spark that brings Frankenstein's monster to life.

Rajnicek's new research has demonstrated the effect of electricity on



QUICK RELIEF IS ON THE WAY

E-device to kill muscle pain in 30 minutes

A new hand held 'e-cell' device as small as a computer mouse could help ease muscle pain within 30 minutes of use, researchers have claimed. Pulsed electromagnetic field therapy (PEMFT) has already been proven to speed up the healing of bone fracture and osteoarthritis, but no scientific evidence exists on whether it can help in the recovery of muscles, said researcher Harry Banyard. The e-cell device was tested over a period of six months on both male and female volunteers. "The results showed that the e-cell treatment significantly enhanced the recovery of muscle function," Banyard added. PH

flatworms. "We're using flatworms that multiply asexually by spontaneous fission. The worm snaps itself in two like an elastic band so you have one end missing a head and other missing a tail," she was quoted as saying by the paper. PH

South Florida Sun

TIMES

THURSDAY, APRIL 19, 2012 • 26 PAGES • VOLUME 10 • ISSUE 33

MIAMI BEACH • PEMBROKE PINES • PEMBROKE PARK • SURFSIDE • SUNNY ISLES BEACH

END CHRONIC PAIN WITH MAP PEMF THERAPY

A revolutionary cure for pain, No Pills, No Surgery! Featured on the Dr. OZ Show

Chronic pain is debilitating, and quickly erodes quality of life. Now, a new medical technology allows many patients suffering from back or joint pain to avoid surgery and return to the activities and lifestyles they enjoyed previously.



Treatment helps patients avoid hip and knee replacements and provide rapid alternative recovery methods at the Wellco Health and Wellness Center in Hallandale Beach. Give them a call now at 954-251-0809.

Map PEMF Therapy is a painless noninvasive method of delivering a pioneering new branch of an invisible treatment that provides a revolutionary cure you were waiting for.

A rapid acceleration which recovers and restores a pain-free lifestyle. The treatment works on all joint problems, tears, sprains, fractures and repetitive injuries such as carpal tunnel, arthritis, and osteoarthritis. What's truly amazing about MAP PEMF Therapy is

Transcranial magnetic stimulation benefits in Parkinson's disease

Published on April 25, 2013 at 9:15 AM · No Comments



By Eleanor McDermid, Senior medwireNews Reporter

A course of low-frequency repetitive transcranial magnetic stimulation (rTMS) delivered over the supplementary motor area (SMA) improves motor symptoms in patients with Parkinson's disease (PD), shows results from a randomized controlled trial.

The effects lasted for at least 3 months after treatment, making rTMS of the SMA a "good candidate as an add-on therapy" for patients with PD, say lead researcher Yuichiro Shirota (The University of Tokyo, Japan) and colleagues.

The benefit was also seen over and above the placebo response to rTMS. The researchers stress the importance of having a "realistic" sham rTMS treatment, which reproduces the sensation on the skin and also the clicking sound of genuine treatment. By week 9, which was 1 week after the conclusion of the 8-week treatment period, sham treatment of 34 patients produced an average 4.03-point improvement in the primary endpoint of change on the Unified Parkinson's Disease Rating Scale (UPDRS) part III.

The 34 patients given low-frequency (1 Hz) rTMS had a 4.91-point improvement in the primary endpoint and the 34 given high-frequency (10 Hz) rTMS had a 4.71-point improvement. There were no significant differences between the groups, which the team attributes to a "substantial sham effect" concealing the true benefits of treatment.

The effect of sham treatment had largely disappeared by 20 weeks after treatment, with these patients' UPDRS part III scores improved by an average of 2.71 points relative to baseline. By contrast, the average score in patients given low-frequency rTMS was 6.84 points improved from baseline, and this change was significantly better than that in the sham rTMS group. There were no improvements in nonmotor symptoms, apathy, or depression, however.

At week 20, the average UPDRS part III score in patients given high-frequency rTMS was just 0.71 points lower than at baseline. "Because the time course of change in UPDRS part III score was similar to that in the sham group, the transient improvement was likely caused by a nonspecific, placebo-like effect," write Shirota et al in *Neurology*.

They note that low- and high-frequency rTMS are thought to work by suppressing and stimulating brain activity, respectively. The benefits of low-frequency stimulation of the SMA are therefore in line with the benefits of deep-brain stimulation of the subthalamic nucleus, which also appears to result in reduced activity in the SMA.

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Related Stories

- [Researchers report role of two gene-regulating molecules in Parkinson's disease](#)
- [Study shows antipsychotic medication increases death risk in patients with Parkinson's disease psychosis](#)
- [Low-dose lithium lowers involuntary motor movements in mouse model of Parkinson's disease](#)

Comparison between iMRS vs Bemer 3000 vs pemfindia PEMF Mat

Features*	iMRS	Bemer 3000	pemfindia
#1 - Earth Frequencies	yes	No	Yes
#2 - Biorhythm Clock	yes	No	Yes
#3 - Higher Intensity Pain	yes	No	Yes
#4 - Sensitive Setting	yes	No	No
#5 - Graduated Intensity	yes	No	Yes
#6 - Pure Pulsating Fields	yes	No	Yes
#7 - Sawtooth Wave	yes	No	Yes
#8 - Proven Square Wave	yes	No	No
#9 - Switch Polarity	yes	Yes	Yes
#10 - Light and Sound Option	yes	No	No
#11 - Biofeedback	yes	No	No
#12 - Digital/Easy Upgrade	yes	Yes	No
#13 - Database Protocols	yes	No	No
#14 - FDA Registered	yes	Yes	No
#15 - Company Progressive	yes	Yes	Yes
#16 - Good Value	yes	Yes	Yes
#17 - 3 year Warranty	yes	Yes	Yes
#18 - Mat Comfortable?	yes	No	Yes
#19 - Excellent Training /Support	yes- Best in Industry	Yes	Full support
Warranty	3 years Standard (Extended Warranty up to 5 years)	3 years	3 years
Applicators	Whole Body Mat, Pillow	Whole body mattress pad and smaller pillow pad	Whole Body Mat
Accessories	Probe, iSLRS, iMORE, Iguide+ more	Local Applicator + more	Local Applicator cost extra
Intensities	.09 - 70 uT / up to 300 uT Probe	3.5-35 uT/ up to 100uT on local applicator	0-100 uT
Frequency	.5 - 25 Hz	10 Hz/33 Hz	0-30 Hz
Waveform	Sawtooth Mat/ Squarewave Pillow & Probe	Complex Sinusoidal	sawtooth/ squarewave for applicator
Cost Basic System	\$ 3990 to 5590	\$4290 for the Classic System, \$5990.00 for Professional	\$1500 With 3 years warranty and Support
FDA Registered?	yes	yes	No
Manufactured	Germany	Liechtenstein	India

PEMF TRIALS IN INDIA

- 1) The first research programme in India will be conducted at the prestigious Escorts Heart Institute and Research Centre, New Delhi. Escorts hospital is internationally renowned for state-of-the-art facilities, services and technology. They are also involved in providing highest quality healthcare as well as conducting independent and collaborative research studies and trials in various specialized fields.
- 2) The clinical study on Intermittent Claudication (Smoker's Legs) has been approved by the Independent Ethics Committee and will be conducted by Dr. Ashok Gupta, Consultant Vascular Surgeon and Dr. Naresh Trehan, Executive Director and Chief Cardiothoracic and Vascular Surgeon. Title of study: A clinical placebo-controlled study to investigate the effects of Pulsed electromagnetic therapy on patients suffering from intermittent claudication, in the Indian scenario.
- 3) A clinical study is also being conducted at The Faculty of Sports Medicine and Physiotherapy at Guru Nanak Dev University, Amritsar, which is internationally renowned for excellence in education and research. Guru Nanak Dev University has been awarded a 5 star status (the highest level) by National Assessment and Accreditation Council (NAAC) and their Centre for Excellence in Sports provides medical treatment and rehabilitation to athletes of national and international repute.
- 4) The University will be conducting extensive and specialized research on the beneficial effects of the PEMF Therapy in sports injuries under the guidance of Dr. Jaspal Sandhu, Dean of Faculty of Sports Medicine and Physiotherapy Guru Nanak Dev University, Amritsar. Collated with clinical evidence and experience from PEMF Clinics, the Indian research project can open new avenues in the management of major and minor sports injuries.
- 5) A research project is also proposed to be conducted at the Indian Spinal Injuries Centre, Vasant Kunj, N. Delhi. I.S.I.C is an Indo Italian project in collaboration with San Raffale Hospital, Milan (Italy). It is the biggest spinal injury centre in India with the largest & well-equipped state of the art facilities of patient care. A clinical placebo-controlled study to investigate the effects of Pulsed electromagnetic therapy on Fracture Healing in the Indian scenario will be conducted at I.S.I.C under the supervision of Dr. H.S. Chhabra, Orthopaedic Surgeon, Addl. Medical Director, I.S.I.C.
- 6) A research project in Orthopedic Unit 3 in C.M.C. Vellure is on going and AIIMS New Delhi Orthopedic department is starting soon.

For more information or any queries
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PEMF Therapy for PEOPLE

Is pain holding you back from living the life you want???

Are YOU one of the 100+ Million experiencing Chronic Pain???

PEMF Therapy can offer DRUG-FREE Relief from Chronic Pain and so much more...



**PEMF Therapy can help YOU Relieve Your Pain,
Regain Your Health and Reclaim Your LIFE!**

PEMF is an exciting alternative to conventional medicine for pain relief and healing.

Safe, Effective and Non-Invasive.

PEMF has NO Side-Effects, NO Toxicity, No risk of Addiction or other Complications

Solve your Psychiatry Disorder with our PEMF based rTMS Device



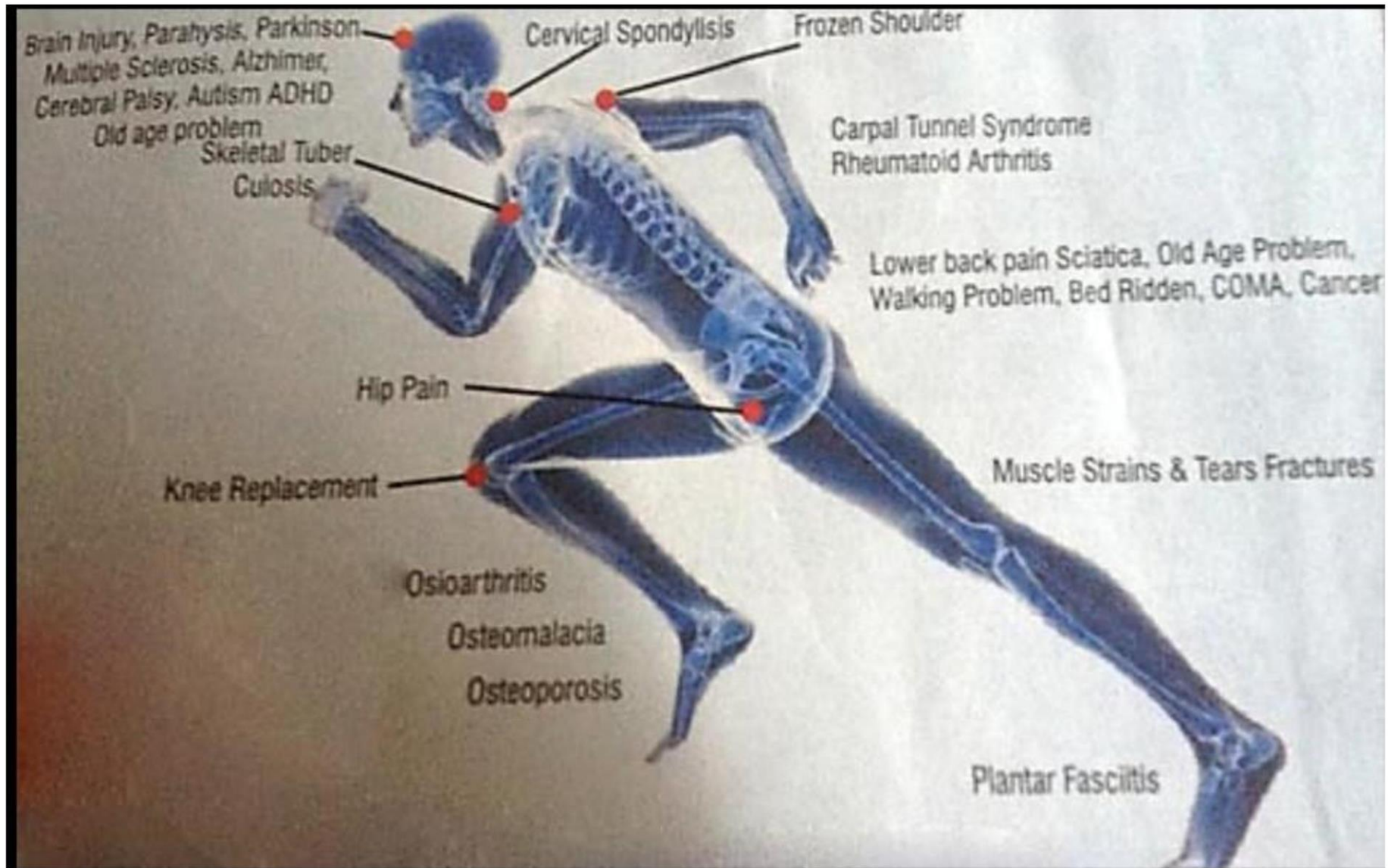
rTMS In PSYCHIATRY & NEUROLOGICAL DISORDERS



Highly effective (based on results of clinical research, rTMS surpasses the success rates of Pharmacotherapy intervention and Electro Convulsive Therapy), Painless procedure, Non-invasive, No anesthesia required, Outpatient therapy, Excellent ability to target specific neu-ron circuits, Effectiveness only requires 2 to 4 weeks of treatment, Ability to provide therapeutic benefit for treatment-resistant individuals. Patients do NOT have to stop taking medication in order to receive rTMS, Equivalent effectiveness in treating both patients with Major Depressive Disorder and those suffering from Bi-polar Disorder




Dystonia, Tremor, Movements with Parkinson's Disease, Depression, Obsessive compulsive disorder (OCD), Tourette's disorder or Tic Disorder, Epilepsy, Multiple sclerosis, Autism, Brain stroke, Lazy Eye (Amblyopia), ADHD, Schizophrenia, Bipolar disorder, Decreasing Anxiety, Eating Disorders (Anorexia Nervosa & Bulimia Nervosa), Migraine, Mental Retardation, Learning Difficulties, Hyperactivity in children, Dementia, Alzheimer's Disease, Cerebral Palsy, Motor Neuron Disease, and many more.....



FOR YOUNG PEOPLE


- Maintaining good health and preventing illnesses
- Improving physical fitness and mental performance thus achieving more success at work

FOR OLDER PEOPLE




- Easing of age-related ailments, resulting in better well-being and increased fitness
- Improvement of sleep
- Better vitality
- Sexual performance
- Quality of life

FOR ATHLETES



- Faster regeneration and thus better performance and less danger of injury
- Faster recovery after injuries and thus shorter periods without training

FOR THE WHOLE FAMILY



- Living to an old age in a state of health and fitness
- Being efficient and successful at work
- Nervous system harmony
- Purification
- Metabolic stimulation

दर्द से राहत पाये बिना दवाई एवं बिना ऑपरेशन

❖ कमर दर्द

❖ साईटिका

❖ स्लीप डिस्क

❖ सिर दर्द

❖ गर्दन दर्द



❖ घुटना दर्द

❖ कोहनी दर्द

❖ कलाई दर्द

❖ कंधा दर्द

❖ एड़ी दर्द

मणका दबना, हाथ-पैर सुन पड़ना, लकवा, मुंह का तिरछा होना
फ्रेक्चर के बाद हड्डी जाम हो जाना, घुटना घिस जाना
घुटने में गेप हो जाना, शरीर में कमजोरी लगना
खेल-कूद में हुई मोच इत्यादि

शारीरिक रूप से कमजोर तथा अविकसित बच्चों का उपचार

PULSED ELECTRO MAGNETIC FIELD THERAPY OR PEMF

यानी बिना दवाई एवं बिना ऑपरेशन के विभिन्न शारीरिक बीमारियों एवं व्याधियों के उपचार की चिकित्सा पद्धति है। जिसमें उपरोक्त शारीरिक बीमारियों एवं व्याधियों का हमारे यहां नवीनतम चिकित्सा तकनीक एवं नवीनतम चिकित्सीय उपकरणों से उपचार कर उसका निदान किया जाता है।



H - 48 Basement Green Park Extension New Delhi Ph - 09868066770

email :- samir_singhal0@yahoo.com

दर्द ? अब कभी नहीं...

बिना सर्जरी, बिना पेन किलर्स, होमिओपैथिक मल्टीथेरेपी द्वारा बिना किसी साइड इफेक्ट के सफल इलाज...

सियाटिका

नस का दबाव

सुन्नपन

माइग्रेन

सरवाइकल

जोड़ों का दर्द

स्पाइडनल सर्जरी

कमर दर्द
Back Pain, Slip Disc
के रोगी
ऑपरेशन से पूर्व संपर्क करें



सियाटिका, नस का दबाव, सुन्नपन, माइग्रेन, सरवाइकल, जोड़ों का दर्द एवं स्पाइडनल सर्जरी के उपरान्त गंभीर दर्द का इलाज विशेषज्ञ डॉक्टर के द्वारा (Interventional Pain Medicine) की अति आधुनिक नवीनतम तकनीक से बिना भर्ती, कम से कम दवाओं को उपयोग एवं दैनिक कार्यों में रुकावट नहीं इलाज किया जाता है।

PEMF Recommendations for Common Problems and Diseases

Allergies.....	10 minutes @ 5-10 Hz
Alzheimer's Disease.....	20-30 minutes @ 2-8 Hz
Angina pectoris.....	20-30 minutes @ 2-8 Hz
Arrhythmia.....	20-30 minutes @ 7-8 Hz
Asthma.....	20 minutes @ 7-10 or 12-15 Hz
Bronchitis.....	12 minutes @ 4 Hz
Bruises.....	15 minutes @ 10 Hz
Carpal Tunnel Syndrome.....	10 minutes @ 6 or 20 Hz
Circulatory Dysfunction.....	15 minutes @ 7-10 Hz
Dental and Oral Diseases.....	30 minutes @ 30 Hz
Depression.....	10 minutes @ 3 or 20 Hz
Diabetes.....	20 minutes @ 2-6 or 20 Hz
Dislocations and Sprains.....	20-30 minutes @ 10 Hz
Erectile Dysfunction.....	20 minutes @ 6 Hz
Fibromyalgia.....	20 minutes @ 18 Hz
Fractures.....	20 minutes @ 10 or 20 Hz
Frozen Shoulder.....	20-30 minutes @ 7-8 Hz
Headache.....	15 minutes @ 3 or 6-10 Hz
Herniated Disc.....	20-30 minutes @ 16-20 or 30 Hz
Hyperactivity.....	10 minutes @ 20 Hz
Hypertension (High Blood Pressure).....	20-30 minutes @ 1-5 Hz
Ligament Injuries.....	20 minutes @ 10-15 Hz
Lumbago.....	15 minutes @ 10 or 20 Hz

Menstrual Pain.....	20 minutes @ 5-7 Hz
Multiple Sclerosis.....	20-30 minutes @ 5, 13 or 20 Hz
Nerve Pain.....	10 minutes @ 6 Hz
Osteoporosis.....	20 minutes @ 8-10, 15 or 19 Hz
Parkinson's Disease.....	20-30 minutes @ 20 Hz
Rheumatoid Arthritis.....	20 minutes @ 10 or 20 Hz
Sciatica.....	20 minutes @ 16-20 Hz
Sleep Disorders.....	10-20 minutes @ 1-5 Hz
Stomach Ache / Duodenal Ulcer - No Bleeding!.....	12 minutes @ 10 Hz
Strains or Sensitivity to Weather Fronts.....	15 minutes @ 11-15 Hz
Stress.....	15 minutes @ 3 or 5 Hz
Stroke.....	15 minutes @ 7-10 or 20 Hz
Tendinitis.....	10 minutes @ 8 Hz
Tennis or Golf Elbow.....	10 minutes @ 8 Hz
Tuberculosis (TB).....	12 minutes @ 4 Hz
Wound healing.....	15 minutes @ 1-5 Hz

Use General PEMF Programs for 20-30 Minutes for Colon, Crohn's Disease, Glaucoma, Hepatitis, Liver, Pancreas, Psoriasis, Spinal Injuries, or Systemic Lupus Erythematosus (SLE).

PEMF - Infratonic Frequency Chart

CONDITIONS	FREQ. (Hz.) - Day	FREQ. (Hz.) - Night	APPLICATION AREA
Acne, Eczema, Neurodermatitis, Psoriasis	10 - 15 Hz.	1 - 5 Hz.	Whole Body
Allergies	10 - 15 Hz.	2 - 5 Hz.	Whole Body
Anxiety	2 - 8 Hz.	1 - 3 Hz.	Whole Body
Art.Nen. Circulatory Disturbances	12 Hz.	2 - 5 Hz.	Whole Body
Arthrosis (Degenerative Rheumatism)	15 Hz.	2 - 5 Hz.	Local
Asthma & Spastic Bronchitis	10 - 15 Hz.	4 - 6 Hz.	Local, Whole Body
Bone Breaks & other Sports Injuries	24 Hz.	2 - 10 Hz.	Local
Cervical Vertebra Pain	15 - 20 Hz.	1 - 5 Hz.	Local
Climacteric Troubles (Menopause)	5 - 8 Hz.	1 - 8 Hz.	Whole Body
Constipation	5 Hz.	2 - 5 Hz.	Whole Body
Dizziness	10 - 15 Hz.	2 - 10 Hz.	Whole Body
Dorsal Vetebra Pain	15 - 20 Hz.	1 - 5 Hz.	Local
Dystonia Neurovegetativa	22 - 24 Hz.	2 - 5 Hz.	Whole Body
Elbow Pain	15 - 20 Hz.	1 - 5 Hz.	Local
Headaches & Migraines	4 - 10 Hz.	1 - 5 Hz.	Whole Body
High Blood Pressure	2 - 6 Hz.	1 - 4 Hz.	Whole Body
Hip, Knee & Ankle - Joint Pain	15 - 20 Hz.	2 - 10 Hz.	Local
Immune System Enhancement	24 Hz.	2 - 10 Hz.	Whole Body
Low Blood Pressure	20 - 24 Hz.	2 - 10 Hz.	Whole Body
Lumabgo, Sciatica	15 - 20 Hz.	3 - 6 Hz.	Local
Lymph Circulatory Disturbances	12 Hz.	2 - 5 Hz.	Whole Body
Menstrual Problems	10 Hz.	2 - 10 Hz.	Local, Whole Body
Muscle Inflammation	15 Hz.	1 - 5 Hz.	Local
Muscle Spasms & Nerve Inflammation	20 Hz.	1 - 5 Hz.	Local

Muscle Spasms & Nerve Inflammation	20 Hz.	1 - 5 Hz.	Local
Neck & Shoulder Pain	15 - 20 Hz.	1 - 5 Hz.	Local
Neuralgia Trigemini	15 - 20 Hz.	2 - 10 Hz.	Local, Whole Body
Osteoporosis	24 Hz.	2 - 5 Hz.	Local, Whole Body
Phantom Limb Pain	15 - 20 Hz.	1 - 5 Hz.	Local
Prostate Inflammation	5 - 8 Hz.	1 - 8 Hz.	Local
Psychosomatic Syndrome	22 Hz.	2 - 10 Hz.	Whole Body
Rheumatic Inflammation of Joints & Muscles	10 - 15 Hz.	2 - 10 Hz.	Local, Whole Body
Sensitivity to Weather Changes	3 - 8 Hz.	1 - 8 Hz.	Whole Body
Skin Allergies, Decubitus, Ulcus Cruris & Wound Healing	10 - 15 Hz.	1 - 5 Hz.	Local, Whole Body
Sleep Disorders	5 - 8 Hz.	1 - 5 Hz.	Whole Body
Stomach Aches	10 - 15 Hz.	2 - 10 Hz.	Whole Body
Stress	2 - 8 Hz.	1 - 5 Hz.	Whole Body
Swelling (Edema - Various Causes)	10 Hz.	1 - 5 Hz.	Whole Body
Toothaches	15 - 20 Hz.	2 - 5 Hz.	Local

REFERENCE: MAGNETIC FIELD THERAPY - Dr. Thomas Torossian M.D.
 Also please see the [PEMF - Frequency Chart 2](#).

NOTE: For Energy and IMPROVED Immune Response, please do the Experimental PEMF Infratonic Treatment on top of the Head, bottom of the Feet, along the Center of the Chest on the Heart Center, Solar Plexus and below the Navel, using the Frequency of 8 Hz..

When you are treating the Whole Body (see APPLICATION AREA), the Magnetic Coil/Transducer should be placed on the Area about 5" above the Navel.

You can also use your Magnetic Coil/Transducer to experiment with other PROVEN &/or Experimental Frequencies (up to 3000 Hz.).

If DETOXIFICATION becomes TOO UNCOMFORTABLE or ANY ADVERSE Reactions occur, then DISCONTINUE &/or MODIFY the Experimental PEMF Infratonic Treatment, and if possible, try to continue this Experimental PEMF Infratonic Therapy Treatment.

According to FDA Regulations, I must post the following:
 Consult your Physician before use.

CAUTION - The Magnetic Coil/Transducer should never be used with a Frequency LOWER than 5 Hz., while driving a Vehicle to AVOID the DANGER of falling ASLEEP at the Wheel.

The Magnetic Coil/Transducer can produce Infratonic Frequencies, which tend to dissolve Blood Clots. Therefore, this Unit should NOT be used in the following circumstances:

- (1) on anyone, who has a Phlebitis.
- (2) on anyone, who has Thrombosis, especially using 10 Hz..
- (3) on anyone, who has NOT had several weeks of GOOD Healing after Major or Minor Surgery.
- (4) on anyone, who has suffered a Stroke, which was caused by an Artery rupturing in the Brain.

User Manual –PEMF Mattress

Welcome to the world of PEMF (Pulse Electromagnetic Field) therapy–The fifth element of health and wellness after FOOD, WATER, SUNLIGHT AND OXYGEN. PEMF mattress provides low frequency and low magnitude magnetic waves near to the Earth's natural field for natural recovery and healing process. It adheres to WHO standard for radiation.

Some of the known benefits of using this mattress are as follows:

- eliminate pain and inflammation naturally
- get deep, rejuvenating sleep
- increase your energy and vitality
- feel younger, stronger, and more flexible
- keep your bones strong and healthy
- help your body with healing and regeneration
- improve circulation and heart health
- plus many more benefits

Items in the box:

- 1) PEMF Mattress/Helmet
- 2) Signal Generator
- 3) Power cord for Signal Generator with DC adaptor
- 4) Coaxial cable to connect Signal Generator with PEMF mattress/helmet

Warning:

Please read this manual carefully before using this mattress/helmet.

- 1) This bed should not be used by patients who have implants like stents or pace maker.
- 2) This bed should not be used by pregnant ladies without consultation with their gynecologist.
- 3) Please don't use this mattress on bed with iron rods like folding beds or bed with iron mesh.
- 4) Please don't use this mattress around heavy machinery or motors and use it in the home environment away from strong magnets.
- 5) Please sleep flat with back resting, maximum body parts touching the mattress and head near to mattress socket. This is because the mattress is designed to have lower magnetic field on the head side and higher field towards the legs.
- 6) We recommend using some cotton thick bed sheet to be put on the mattress to absorb any sweat oozing from the body.

Making the physical connection before powering the equipment

- 1) Please plug the power cord from AC power supply to the back of signal generator(as shown in fig 1 below).



Fig 1

- 2) Please plug one end of the coaxial cable on signal generator (as shown in fig 2 below). Plug the other end of coaxial cable on the mattress (as shown in fig 3 below). Press the coaxial cable end against the socket and rotate it to lock it.



Fig 2



Fig 3

This coaxial cable is long enough to keep the signal generator near the mattress/helmet so that it can be operated and switch-off at a hand distance.(refer addendum for helmet)

- 3) Please check the connections are as per figure 4 below.

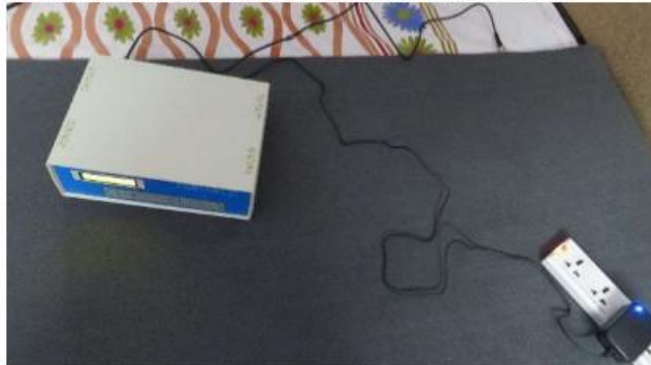


Fig 4

- 4) Please power on the signal generator by pressing the black switch down in back side of signal generator (Fig 1 above) and wait till the display stabilizes.

- 5) Please ensure that there are no loose connections by pressing the "START/STOP" button on the front panel and see the "Start" being displayed on bottom right corner with the beep sound. Press and hold "Check" button in the front of panel. If the LED near to the check button is blinking, when Check button is pressed and hold, that indicates the equipment is perfectly connected and there are no loose end. Please ensure this step is performed every time you switch on the bed before normal operations are started.



Fig 5

Now you can operate the equipment:



Fig 6

- 1) Press "Stop" button again to select the "MODE" in which you want to operate.
- 2) Select the mode by pressing "MODE" button to toggle between following modes of operation
- 3) Day and Night mode
 - a. Day mode has higher intensity (30-50 μ T) and higher frequency range alpha and beta frequency range (7-30 Hz). Day mode (Fig 7 below) should be used normally for 1-2 cycles of operation during the day.

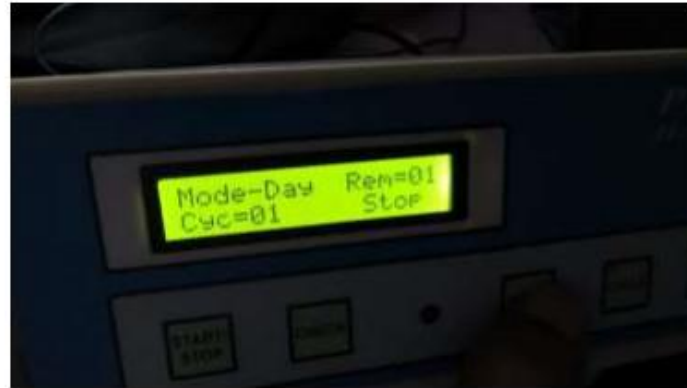


Fig 7

- b. Night mode has lower intensity (20-30 μ T) and lower frequency range theta and delta frequency range (0-7 Hz). Night mode (Fig 8 below) should be used more for relaxing before sleep in the night.



Fig 8

- c. "DayM" or Day manual mode(Fig 9 below) has higher intensity (30-50 μ T) but the frequency can be manually set from 1 to 30 Hz with steps of +/- 1 Hz by pressing "+" or "-" button below "Manual frequency" label.



Fig 9

- d. "NhtM" or Night manual mode(Fig 10 below) has lower intensity (20-30 μ T) but the frequency can be manually set from 1 to 30 Hz with steps of +/- 1 Hz by pressing "+" or "-" button below "Manual frequency" label.

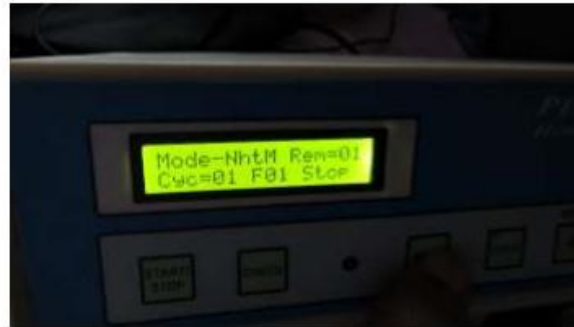


Fig 10

- 4) Select the duration for which you want to operate by pressing the "CYCLE" button for cycle ranging from 1-10 and 99. Each cycle is of sixteen minutes each and can be increased from 1-10 and 99 and again 1 by pressing cycle button again and again.
- 5) We normally recommend 1-2 cycles of operations twice a day for maximum benefit. However in case of more pain or stressful situation the night mode can be used for higher no. of cycles. When stop button is pressed the system is reset to the start point of the cycle.
- 6) Default cycle will be "1" cycle of 16 minutes and no. of cycles will be in multiples of 16 minutes.
- 7) The display will show the no. of cycles remaining "Rem=XX", no of total cycles selected "Cycle=XX", Mode=Day/Night, if cycle remaining then "Rem" will decrement after completion of every cycle. Once all the cycles are completed the display would reset to original state at the start of operation and displaying "Stop".

Steps for usage for longer duration and usage at night for getting sound sleep

- 1) Switch on the unit and select the night mode.
- 2) Select the cycles to be on higher side and in case of extreme conditions cycle can be set to maximum 99 cycles.
- 3) Lie down on the mattress and enjoy sound sleep for whole night.
- 4) Once you are getting sound sleep then you can slowly start reducing the no. of cycles and return to 16-32 minutes daily routine as described above.

You are all set to enjoy the benefits of PEMF mattress/helmet.

Troubleshooting and maintenance

In case the signal generator Check button LED is not glowing on pressing "CHECK" button, please make sure connection is proper as per Fig 4 and "START/STOP" button is pressed once to indicate "Start" in the display on the bottom right corner. Please make sure Signal generator is powered on with display glowing. Please press the coaxial cable end against the socket and rotate it to lock it.

Please make sure to fold mattress properly with not more than three folds on length side. Take out all the connections before folding the mattress. Keep the mattress clean and away from heat and dust.

Please don't hesitate to call at 01126163555 in case of any questions.

Addendum for PEMF Helmet (Low Field Magnetic Stimulation)

Step 1

Please connect the helmet with the signal generator and power chord for signal generator as shown in figure below.



Step 2

Please use the signal generator in Day Manual mode



Step 3

Set the manual frequency between F01 to F05 (1 to 5 Hz) considered best frequencies for Nervous system disorders like depression, Alzheimer, Multiple Sclerosis, Fibromyalgia, etc.

Step 4

Set the cycle to 2 for 30 to 45 minutes running twice a day.

User Manual for Local applicator

Welcome to the world renowned, NASA recommended Earth based Pulse Electro Magnetic Field (PEMF) therapy for relief from any kind of pain and enhancing cell reunion.

Important notice

Please do not try to fold the middle square portion of the elastic strap as it has the coil which would get damaged.

We don't recommend using local applicator for people having any heart related implant or pace maker as it may interfere with the pace maker. Pregnant ladies should consult their gynecologist before using this applicator. Please don't use this applicator while the body is in motion like walking or running. Please wrap the applicator to the localized area by tightening the elastic strap. Please use the applicator for 30-45 minutes in one sitting and normally once or twice a day. Please don't use this applicator for more than one hour in one sitting or while going to bed at night as you may leave it working and fall asleep.

Package contents

We have provided the local applicator, connecting cable, elastic strap and 12 Volts external adaptor. The applicator can be worn around back on any of the joints like elbow, knee, wrist, ankle, etc. or applied directly or localized area for pain relief. We recommend our whole body mat for healing and local applicator for pain management and cell reunion.

Connecting the equipment

The external adaptor is plugged into power source and its other end is plugged to the applicator, the local applicator is connected to belt through co-axial cable(please see the figure below for connections). The AC power is switched on and local applicator power switch is switched on, you will see the display glowing and press "Check" to see if the LED is blinking. If LED is blinking then local applicator is ready for working. Please do press "Check" button and LED is blinking every time you start the equipment.



Set the mode to “High” for higher intensity or “Low” for lower intensity. Set the Frequency to F1 - 2 Hz, F2 - 5 Hz, F3 - 7.8 Hz and F4 - 10 Hz. F1 and F2 are relaxing frequencies which causes body to relax and sleep. F3 and F4 are more pain relieving and cell reunion frequencies.

Set the cycle to 1, 2, 3, till 10 for steps of 16 min each. Once you have setup the mode, Frequency and Cycle then press start button to start operation. Please have the middle square portion of the elastic strap covering the local area where the pain is located. If there is regular use of 30-45 mins twice daily then you would start seeing positive results in 4-6 weeks timeframe.

Visit us at www.pemfindia.com

Thank
you!

A colorful, stylized graphic of the words "Thank you!". The word "Thank" is on the top line, and "you!" is on the bottom line. Each letter is a different color and has a decorative, hand-drawn style with patterns like dots or stripes. The letters are surrounded by several colorful flowers in shades of blue, pink, and purple. The entire graphic is set against a light blue background.