PEMF Therapy for Migraines

A migraine is not just a simple headache. It is a disabling neurological condition affecting more than 39 million Americans.

If you are a card-carrying member of the migraine community, you know that when that head pain hits, it can be a debilitating, MAKE-IT-STOP experience. The intense, throbbing pain can last from a couple of hours to several days.

If you have frequent migraine headaches, you've probably tried painkillers and made lifestyle modifications to find relief. However, it's not guaranteed that these approaches will work for everyone. Painkillers may provide temporary relief during an attack, but what about preventing future episodes? The fear of experiencing that excruciating pain again can be daunting.

Not all headache or migraine attacks can be avoided, but regular use of PEMF (Pulsed electromagnetic field) therapy along with conventional treatment can prevent migraine attacks or reduce the severity of symptoms.

Let's discuss what migraine is

A migraine is described as a throbbing or pounding pain, often worse on one side of the head. You might also have symptoms like nausea, vomiting, numbness, chills, and sensitivity to light or sound. The symptoms may last anywhere from four hours to three days. After it's over, people often feel tired and have trouble thinking clearly, which is sometimes called a "hangover."

Migraine is more than twice as common in women than in men between the ages of 20 and 45. Women tend to have more severe and chronic headaches and more symptoms.

The exact cause of migraines isn't completely clear, but most researchers believe they result from unusual changes in certain brain chemicals. When these chemicals increase, they can lead to inflammation. This inflammation, in turn, makes blood vessels in the brain swell and press on nearby nerves, causing pain.

Migraine may also have a hereditary link. People who experience it might have genes that affect how specific brain cells work.

It's known that individuals with migraines react to various factors and events, known as triggers. These triggers can differ from person to person and don't always lead to

headaches. Typically, it's a combination of triggers, not just one thing or event, that's more likely to bring on an attack. Also, a person's response to these triggers can vary from one migraine episode to another.

Common triggers include:

- Changes in sleep patterns
- Skipping meals
- Sensory stimulation such as bright lights and loud noises
- Hormonal changes, especially during the menstrual cycle
- Stress and anxiety
- Weather changes
- Certain alcoholic beverages, such as red wine
- Excessive caffeine consumption or caffeine withdrawal
- Specific foods like those with nitrates, MSG, tyramine, or artificial sweeteners like aspartame

Types of migraine

There are different types, but the two most common are:

Migraine with aura (complicated migraine): People with this type might experience an "aura" about 10 to 15 minutes before the actual headache hits and resolve within an hour or less. During this time, your vision may become blurry or narrow, and you might see stars or zigzag lines.

Migraine without aura (common migraine): In this type, a person doesn't have an aura but still has all the other typical features of an attack.

What can be done to treat migraines?

Depending on the severity of your symptoms, your doctor may recommend painkillers or nausea medication. Your doctor may also suggest maintaining a headache diary in which you record the timing of your headaches and any activities or foods associated with migraine onset.

Some individuals also take antidepressants, blood pressure medications, or seizure medications daily to prevent migraines.

Migraines cannot be cured, but they can be effectively managed and improved. Conventional treatments, such as painkillers and anti-inflammatory drugs, primarily help alleviate symptoms. But these medications often come with side effects and the potential

for addiction. So, it's worth considering complementary and alternative treatments like PEMF therapy to enhance your quality of life.

How does PEMF help with migraine pain?

PEMF therapy offers a drug-free and non-invasive approach to alleviating migraine symptoms. Migraine fundamentally involves inflammation. Just like any other form of bodily pain, magnetic field therapy can be beneficial in alleviating migraine pain as well. PEMF treatment has anti-inflammatory effects.

But inflammation is not the only factor. Other factors, such as changes in blood flow, neurotransmitter imbalances, and sensory nerve activation, also play a role in migraine pathophysiology.

Here's how and why PEMF might help with other factors:

Neurotransmitter modulation: PEMF therapy stimulates the cells to activate neurotransmitter activity in the brain. Neurotransmitters, such as serotonin and dopamine, play key roles in regulating mood. Altered neurotransmitter levels are often implicated in depression and anxiety disorders. PEMF therapy may help rebalance these neurotransmitters, potentially improving mood and reducing symptoms of depression and anxiety, which are major causes of headaches and migraines.

Improved blood flow: During a migraine, the blood flow in the brain can become disrupted. This irregular blood flow may contribute to the pain and discomfort. PEMF therapy increases the production of nitric oxide (a compound that aids in relaxing and widening the blood vessels), which improves blood circulation and oxygenation in the brain. By doing so, it promotes a more balanced and smoother flow of blood in the brain, potentially reducing migraine symptoms.

Better sleep: Numerous studies suggest that PEMF therapy can be beneficial for individuals with sleep disorders. Improper sleep patterns have the potential to trigger migraine episodes, while migraines themselves can also disrupt one's sleep patterns. In both scenarios, the utilization of PEMF therapy can be beneficial.

Addressing silent symptoms: Migraine can manifest silently, causing discomfort in various parts of the body beyond the head. Since the nervous system connects the entire body, PEMF therapy's ability to stimulate and balance the entire body might make it a useful strategy for managing these silent migraine symptoms.

What have the studies found?

A study published in December 2015 in the Journal of Clinical Trials confirmed that PEMF therapy can be beneficial for people suffering from migraine.

The study found that exposing individuals with migraines to pulsing electromagnetic fields on their inner thighs for at least 3 weeks can be an effective short-term intervention, significantly reducing migraine headaches. During the first month of follow-up, 73% of those receiving actual PEMF exposure reported decreased headaches, with 45% experiencing a good decrease and 14% experiencing an excellent decrease.

This study is just one of many that highlight the advantages of using PEMF therapy to address migraine pain and symptoms.

Benefits of PEMF therapy for migraine

- Reduces migraine frequency.
- Shortens migraine duration.
- Decreases migraine intensity.

What is the preferred frequency of PEMF for migraine?

The use of frequencies around 10 Hz and field strengths in the range of 4-5 milliTesla (mT) as a prophylactic treatment option for refractory migraine has been suggested in some studies. This specific combination of frequency and field strength has shown persistent benefits for individuals with difficult-to-treat or refractory migraines. However, the effectiveness of PEMF therapy can vary from person to person, and individual responses may differ.

Will you get instant relief from migraines with PEMF?

Immediate results from PEMF therapy for migraine relief are not guaranteed, as the effectiveness can vary among individuals and depend on the specific circumstances of the migraine attack. However, regular and consistent use of PEMF therapy, typically over

several weeks or longer, may contribute to a reduction in the frequency and severity of attacks.

Takeaway

To prevent migraines, it's essential to identify and avoid your specific triggers. PEMF therapy can help manage the symptoms and some of the triggering factors. It offers a solution that conventional painkillers alone can't effectively treat.

If you experience frequent migraine headaches—occurring a few days a month or more—consider purchasing a PEMF device that you can easily use at home.

References

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