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# **Superior to all other PEMF Devices**

Regenetron™ is a revolutionary advancement in PEMF therapy

Every PEMF device manufacturer has their own theories about the best pulse rate, amount of magnetic energy, shape of waveform and treatment time.

They are all just opinions. Not a single manufacturer has ever done any actual research to determine any of these parameters.

Different manufacturers pulse rate varies dramatically.

Some manufacturers claim, "The Schumann pulse rates are the best." The Schumann resonances (7.83Hz) are a set of spectrum peaks in the extremely low frequency (ELF) portion of the Earth's electromagnetic field spectrum. But, this in no way makes them a good pulse rate at all for PEMF. There is no testing whatsoever.

Some manufacturers say, "NASA determined that 10Hz is the best pulse rate for PEMF." NASA never said that. NASA did use 10Hz as one of their test pulse rates, but no study was ever done by NASA or anyone else to see if it was a good pulse rate.

Others say, "2 to 7 Hz is the best pulse rate." But they give no justification or studies for using these pulse rates. Some manufacturers have pulse rates as high as 1000Hz.

No one actually know what the best pulse rates are. The same is true about the amount of magnetic energy, the waveform and the treatment time.

Every other PEMF device on the market has factory preset controls that are unchangeable. **Except Regenetron™!** 

All Regenetron™ models are computer controlled and are totally reprogrammable for life for free by Regenetron™.

This is revolutionary and completely changes the way PEMF devices operate. This means, as additional PEMF medical studies are done and new information is learned; Regenetron™ can be reprogrammed to deliver optimum healing therapy.

No other PEMF device can be updated or reprogrammed.

## **Differences in PEMF Therapy Devices**

### Power Level

The magnetic energy produced by the various PEMF devices can be as little as that of the Earth's magnetic field to more than 10,000 times as powerful. The lower power devices are generally used for cellular health and bone healing. The higher power devices are generally used for recovery of trauma from accidents, sports injuries and surgery, as well as for control and improvement of degenerative diseases. Both low power and high power devices help reduce pain, but the higher power devices are more effective in doing so.

### Continuous or Pulsed Waveform

Although there are exceptions in both types, most low power PEMF devices have a continuous waveform while most high power PEMF devices have a pulsed waveform.

### • Shape of Waveform

The continuous waveform PEMF devices can produce a square, a saw tooth, a sine or a custom waveform. The pulsed output PEMF devices usually produce a biphasic short duration pulse.

### Control of Pulse Rate

Many low power PEMF devices have preset pulse rate to choose from according to the various manufacturers' individual theories. Most high power PEMF devices have a user variable control of the pulse rate.

### Duration of Treatment

Depending on the power level of the PEMF device, the treatment duration can be from three minutes to hours.

## A Brief History of PEMF Therapy

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

Medical PEMF therapy has been accepted in many countries around the world. The US FDA accepted the use of PEMF devices in the healing of non-union bone

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

### **Primary Benefits of PEMF Therapy**

Clinical evidence shows that PEMF therapy reduces pain associated with trauma from accidents, sports injuries, surgeries and burns as well as from disease and degeneration. PEMF therapy improves these conditions in many different concurrent ways including mechanical, chemical, electrical and magnetic processes within the cells of the body.

In 1995, Siskin and Walker provided a summary of clinical results on soft tissue damage. They observed no adverse effects and the following positive effects were reported:

- Reduced pain
- Reduced inflammation
- Increased range of motion
- Faster functional recovery
- Reduced muscle loss after surgery
- Increased tensile strength in ligaments
- Faster healing of skin wounds
- Enhanced capillary formation
- Accelerated nerve regeneration
- Reduced tissue necrosis.

In the "Beneficial effects of electromagnetic fields", Bassett C. (Bioelectric Research Center, Columbia University, NY, 1993) applied time-varying pulsed magnetic fields designed to induce voltages similar to those produced normally during the dynamic mechanical deformation of connective tissues in an effort to control cellular function and understand the mechanisms by which PEMF treatment operates and concluded: "As a result, a wide variety of challenging musculoskeletal disorders has been treated successfully over the past two decades... Many of the athermal bioresponses, at the cellular and subcellular levels, have been identified and found appropriate to correct or modify the pathologic processes for which PEMFs have been used... As understanding of mechanisms expands, specific requirements for field energetics are being defined and the range of treatable ills broadened. These include nerve regeneration, wound healing, graft behavior, diabetes, and myocardial and cerebral ischemia (heart attack and stroke), among other conditions. Preliminary data even suggest possible benefits in controlling malignancy".