



# BUYERS GUIDE

**This comprehensive buyer`s guide is designed to provide accurate and up-to-date answers on the most critical questions you may ask prior to obtaining a PEMF unit for your personal use!**

# 1

## Is the PEMF system safe to use?

Product safety of any PEMF product for wellness use is the most basic and critical requirement. Proof of safety is defined by international regulations and the following norms have to be fulfilled by a PEMF manufacturer in order to ensure the electrical safety of the wellness product:

Electrical safety: Provision of a **valid** “CE” Certificate (electrical safety and electromagnetic compatibility), in the USA it can be also labelled as “UL”, in Canada as “CSA”!



### Summary:

If a manufacturer/supplier of a PEMF system for wellness use omits or is not able to provide proof of electrical safety certificates, including pertinent regulations, their wellness product is NOT conforming to electrical safety standards. This by itself can result in risks for the user!

## 2

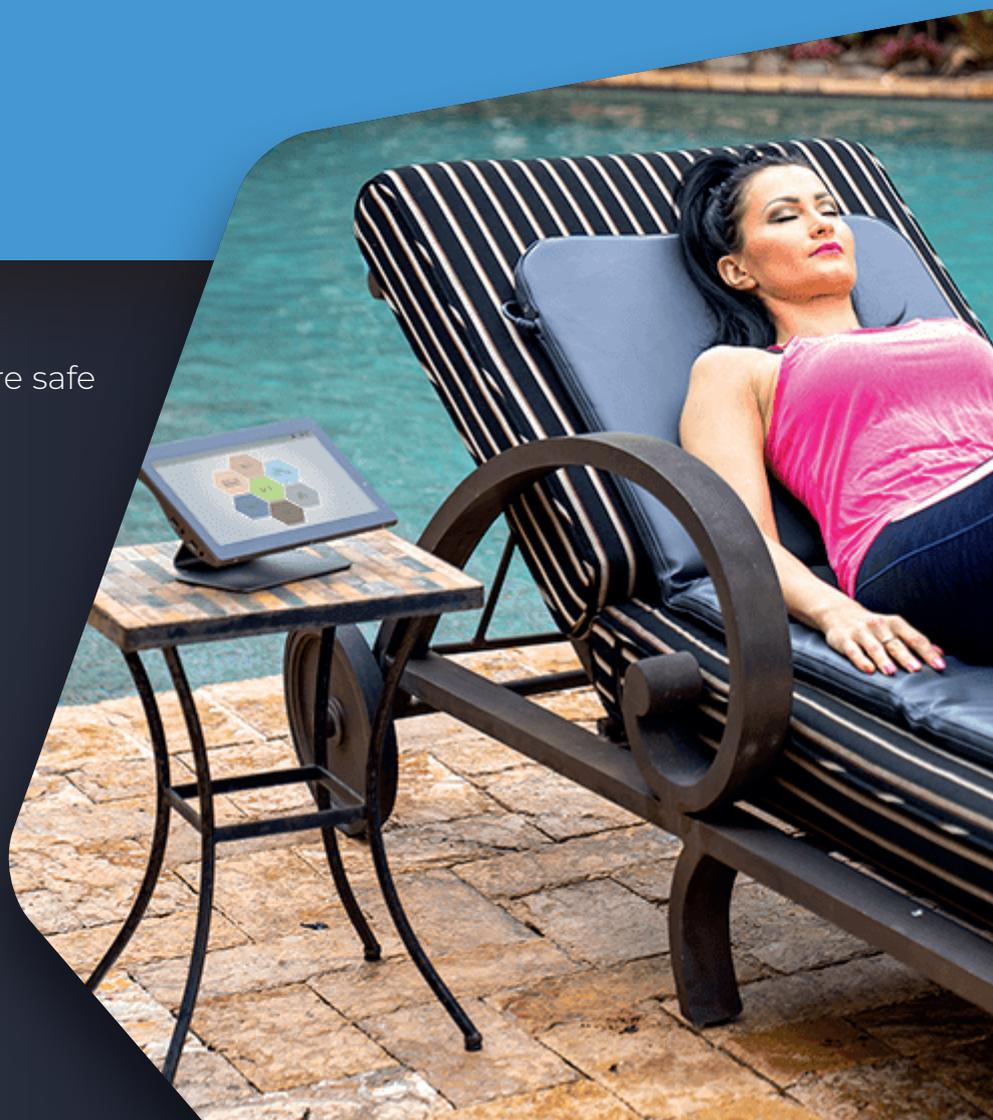
# Is the intensity of the applied electromagnetic field crucial for its effectiveness?

PEMF systems for wellness use appear on the market in all kinds of intensity levels. **Low-intensity PEMF systems** (usually within the range of approximately 1-300 microTesla) are very safe for wellness use without the necessity of a trained technician onsite. Low-pulsed PEMF systems range between 1 and 300 microTesla, mimicking the earth's natural magnetic field strength, nowadays measured between 20 to 70 microTesla.

Whole-body applications within these intensity levels have proven most effective in activating the body's own wellness mechanisms.

### Summary:

Low-intensity PEMF products are safe for wellness use.



# 3

## Is the frequency of the applied electromagnetic field crucial for its effectiveness?

In general frequency (measured in Hertz = Hz) is defined as the “information content” of the applied pulsed electromagnetic field. Similar to intensity, you can find PEMF products for wellness use emitting very high frequencies (up to the high kilohertz = KHz range) as well as very low frequencies (0-30 Hz). The phrase “less is more” perfectly describes the best approach. Low carrier frequencies in the range between 0.1 and 30 Hz are also abundantly present in nature (Schumann waves, 7.83 Hz, carrier frequency of the earth magnetic field, roughly 11.7 – 11.9 Hz) as well as in our brainwaves (Beta, Alpha, Delta and Theta, between roughly 0.2 and 38 Hz). Low-frequency PEMF wellness products utilize the principal of resonance: It describes the phenomenon of increased amplitude that occurs when the frequency of a periodically applied force is equal or close to a body’s natural frequency!



### Summary:

Low-pulsed PEMF systems utilize carrier frequencies within the natural range (0.1-30 Hz). This ensures a high potential of resonance and with it a much more positive wellness response of the targeted area. At the same time, low-frequencies do not create a noticeable thermal effect, the exposed tissue will not get warm or even hot. The most efficient PEMF systems for wellness use are within this described “natural frequency range”.

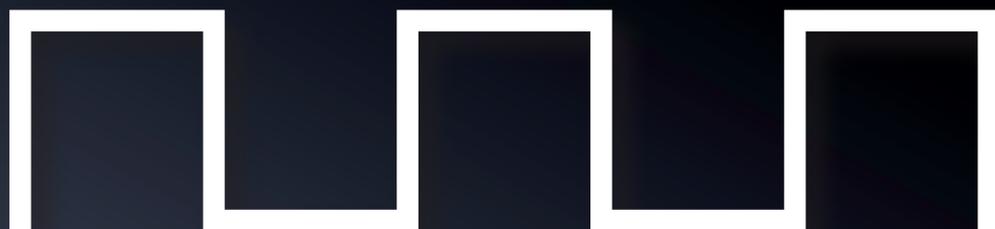
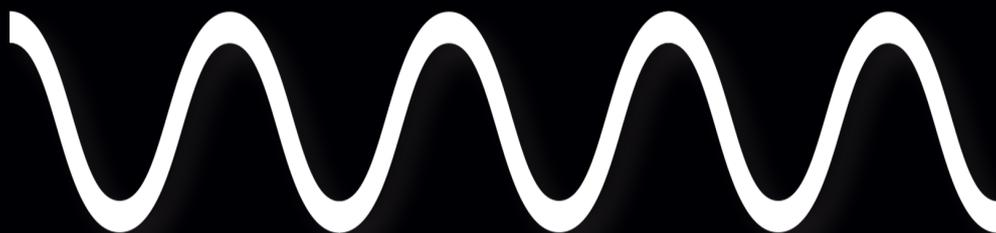
# 4

## Is the waveform of the applied electromagnetic field crucial for its effectiveness?

Another important parameter of a PEMF system is the so-called waveform. It describes the concept of transmitting frequency of a pulsed magnetic field as it would appear on a graph. The simplest waveform is hereby the sine wave. In order to transmit 5Hz from the sender to the receiver via a simple sine wave, the wave needs to repeat its cycle 5 times per second in sequence. This waveform is technically easy to gain but very limited in efficiency and extremely time-consuming in transferring information from the sender to the receiver. Surprisingly, most available low-pulsed PEMF systems for wellness use on the market are still using simple sinewaves. Engineering, development and also manufacturing of such frequency generators are very cheap but also less effective. A more complex waveform is the so-called square wave. A square wave is a non-sinusoidal periodic waveform in which the amplitude alternates at a steady frequency between fixed minimum and maximum values, with the same duration at minimum and maximum. Square waves are also producing odd harmonics, which are very important to increase resonance effects. Due to its sharp rise and fall times, the immediate rate of the wellness response is much higher. The most complex wave form used in modern PEMF systems for wellness use is known as the saw tooth. Saw tooth waves are characterized by a constant rise and rapid fall time and are producing all odd and even harmonics of its basic frequency. Since the main objective of an effective PEMF system for wellness use is to target ALL areas of your body, the wave form is a very crucial parameter to be aware of. Some manufacturers advertise "patented" wave forms, which are not documented in common physics. Such waveforms are artificially altered sine wave combinations, offering little independent evidence as to their effectiveness.



Sine  
Wave



Square  
Wave

Saw tooth  
Wave



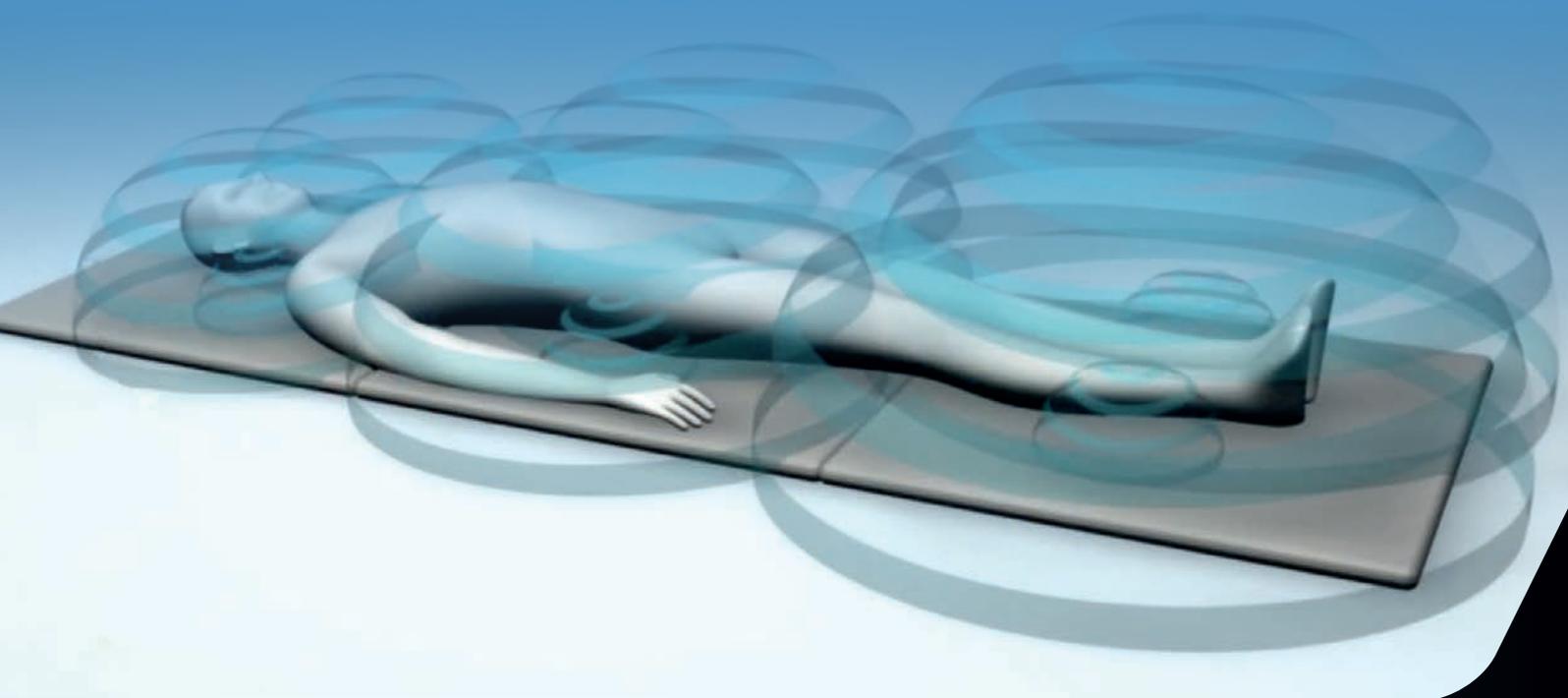
### Summary:

PEMF wellness products with sine wave frequency generators are not only outdated and cheap to manufacture, but also ineffective in creating the desired resonance effect. Applying only one frequency at a time with slow rise and fall times, inhibits and/or delays resonance with most parts in the body. Square waves are scientifically proven to be very effective for local, targeted applications. Modern PEMF wellness products offer square wave signals to treat isolated body parts. As of today, the most valuable saw tooth patterns are only used by very few manufacturers. The saw tooth wave is regarded as the gold standard for whole-body applications. Its signal is ideal to make use of upper harmonics within the even and uneven range, resulting in the highest resonance effect on the body. Recently only two systems in the world are capable of producing the extremely complex triple sawtooth pattern, which progressively increases the desired resonance effect!

# 5

## How do PEMF systems transfer the electromagnetic field from the applicator to the user?

Electric fields are created by differences in voltage: the higher the voltage, the stronger the resultant field. Magnetic fields are created whenever an electric current flows through a conductor. Manufacturers of modern PEMF systems for wellness use are using different concepts of conductive designs. The most simple and cheapest approach is the use of flexible, insulated mesh wire coils of all kinds of shapes and sizes (round, oval, square). Companies using this concept usually advertise the advantage of better transport handling since the applicators can be rolled. However, the major disadvantage of this concept is the inevitable spacing between consecutive, insulated windings which distorts the magnetic field lines leading to an impure signal, consequently diminishing the inductive force. High-end PEMF wellness products solely utilize pure, uninsulated and solid copper coils, assuring an uninterrupted signal structure which then creates the highest inductive force.



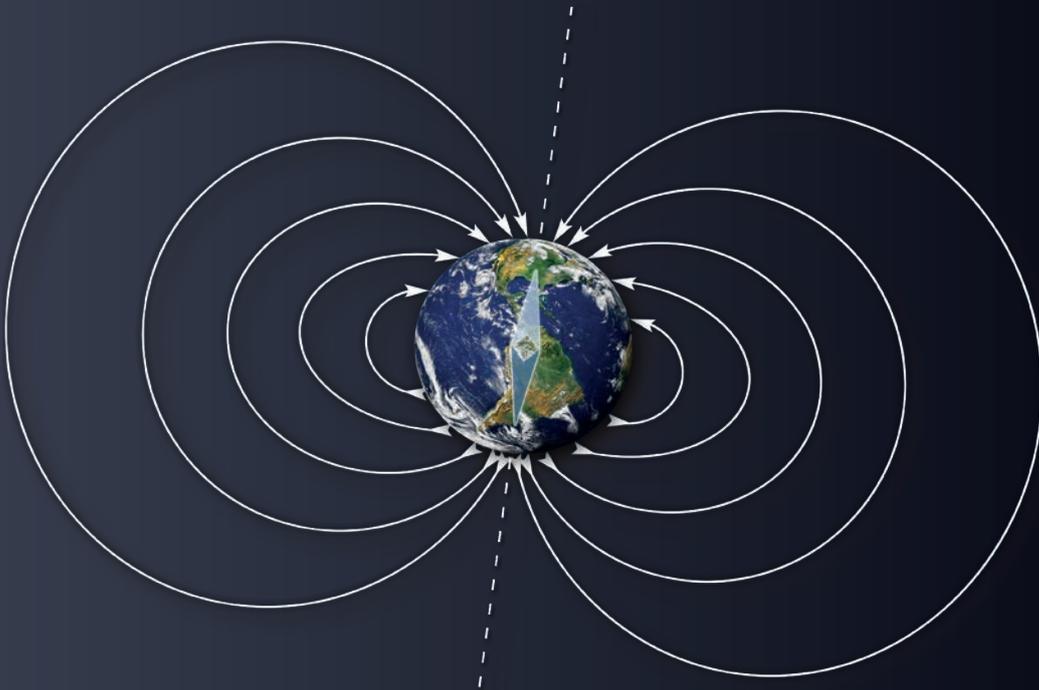
### Summary:

Transmitting an electromagnetic field to a living organism via applicators is without doubt THE most deciding efficiency-factor. Cheap, insulated mesh-wire solutions lack purity and inductive force. Applicators with built-in solid, uninsulated copper coils deliver a pure magnetic field and the highest induction rate.

# 6

## What does it mean, if a PEMF system switches the polarity of the applied electromagnetic field?

Switching the signal polarity consecutively from South to North and vice versa, is a very important feature of any state-of-the-art PEMF system for wellness use. Our organism tends to acclimate or habituate to external, simplistic information and gets literally “used to it” or “tiresome” (i.e. static magnets or simple PEMF sine wave forms). As a result, over time, PEMF benefits may diminish and the application becomes less sustainable. Polarity changes in a PEMF product differ slightly from the South and North polarity of a static magnet. You will NOT find magnets in PEMF applicators, rather an ideally pure copper current loop, generating pulsed electromagnetic fields with a high variation in frequency. Therefore, switching polarity occurs once the current in the loop is changing direction. This added signal variety prevents the body’s fatigue to the same wave form.



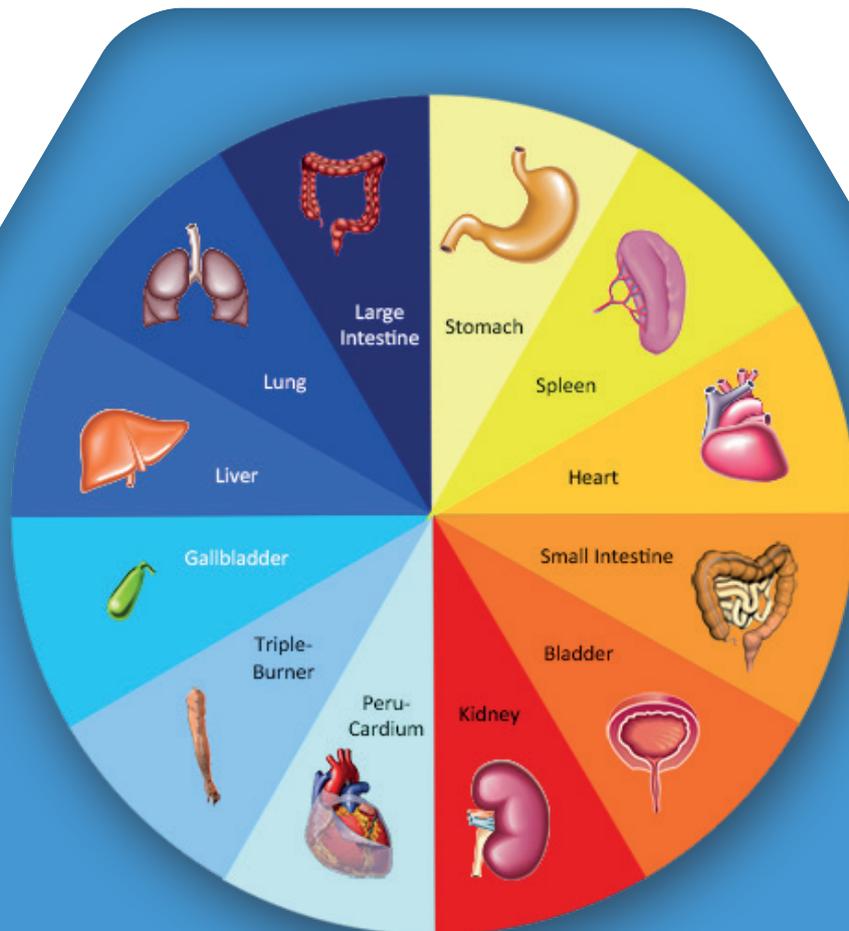
### Summary:

The higher the complexity and variation of a PEMF signal, the lower the chance of undesired habituation. Only PEMF systems for wellness use offering sophisticated waveforms and polarity change can achieve this important effect.

# 7

## What is the benefit of PEMF systems integrating a biorhythm clock?

Our bodies and brains as well as planetary systems are changing frequencies at different times of the day. This has a profound impact on our wake/sleep cycles and our energetic/tiredness phases throughout 24 hours. While working and being active during the day, we “operate” on higher frequencies, whereas on lower frequencies during evening and night. Sophisticated PEMF systems for wellness use take this important fact into account and automatically deliver the appropriate frequency ranges according to the time the application is performed. This feature is only available in a very few PEMF systems for wellness use, even though it represents an essential requirement in achieving the highest wellness effect.



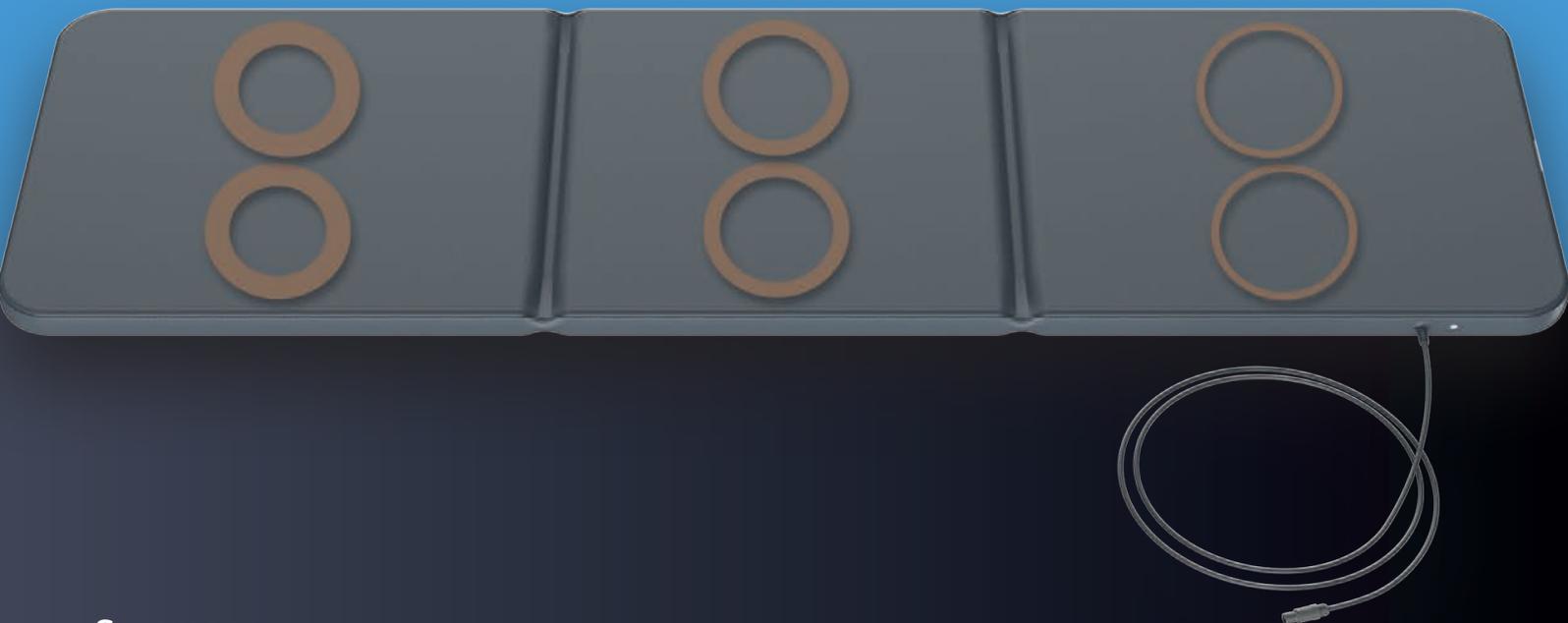
### Summary:

Changing frequencies according to the time of day a PEMF application is performed, represents a very important and rewarding feature. In order to benefit from the organ-clock function, look for a wellness product offering this valuable property.

# 8

## Why is the coil layout of a PEMF whole-body mat very important?

Exposing an entire human organism (ideally all 75 trillion body cells) to an electromagnetic field through a whole-body mat application guarantees the best holistic effect. For this reason, a whole-body mat offering pairs of conducting coils, capable of gradually increasing the magnetic field intensity from head towards feet, is the best choice for achieving wellness effects. This means that the wellness product needs to have 3 pairs of coils mimicking the flow of the earth's magnetic field, ideally covering head/neck, hips/torso, legs/feet and each side of the body. To be even more detailed, the coils covering the upper body need to expose a lower intensity (achieved by fewer windings in the coils), while the coils toward the feet should have greater intensity (more windings in the coils). This is of utmost importance because in comparison to our head and neck, our most sensitive body parts towards electromagnetic fields, our legs and feet can tolerate much higher intensity levels. Lower intensity levels in the upper portion of a whole-body applicator are crucial for people who are sensitive. BE AWARE: Manufacturers with mesh wire mats claim to offer a more uniform field (and they do) but at the expense of exposing both feet and head to the same intensity. This in turn may lead to unpleasant sensations, especially with people, who are hypersensitive to electromagnetic exposure!



### Summary:

Whole body applicators are key components of modern PEMF systems for wellness use as they provide the desired electromagnetic exposure to the entire body (= holistic effect). Premium PEMF systems for wellness use are equipped with 6 uninsulated, solid copper coils, divided in three pairs, whereas each pair has a different number of windings. The applied intensity levels are therefore lower around the head/neck area and slightly increase towards legs and feet. This natural approach allows gentle and safe applications for sensitive people.

# 9

## What are the most important properties of local applicators?

Local PEMF applicators for wellness use are designed to treat specific body parts. Applicator designs come in different shapes and sizes. In general, the intensity levels (magnetic flux) of local applicators are higher than whole body applicators. **Area applicators** (pillows or pads) are designed to stimulate larger surfaces and come in two different variants: A) one-coil design (usually insulated mesh wire), delivering uniform field exposure. B) two-coil design (usually uninsulated, solid copper coils), delivering field exposure with two separate magnetic field hot spots. This design increases the probability to pinpoint the target area. **Spot applicators** (spots or intensive applicators) are designed to address very specific body areas. They usually emit the highest intensity levels and come in two different variants: A) one-coil design (mesh wire or solid copper coils), delivering a uniform field exposure or B) two-coil design (solid copper coils), utilizing a very specific physical effect, called the “Helmholtz Coil” effect. This particular spot applicator consists of two conductive coils, connected with an elastic band. The applicator can be wrapped around the area and as both coils are now facing each other in the same axis, the magnetic field becomes uniform, cancelling out possible disturbing magnetic fields within that particular region.



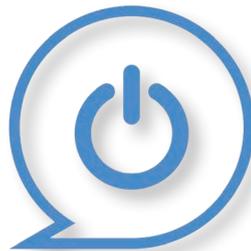
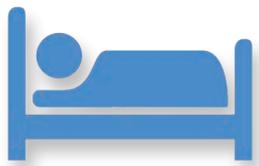
### Summary:

Local applicators are additional accessories that enhance the application spectrum of modern PEMF systems for wellness use. A basic PEMF system for wellness use should at least come with one area applicator (ideally two built-in solid copper coils). Leading brands also offer two-coil spot applicators, which greatly extends the application spectrum and increases success.

# 10

## Do I have to be an expert to properly operate a PEMF system for wellness use?

During the development process, reliable and well-known manufacturers of modern PEMF systems for wellness use invest a lot of time, thoughts and knowledge into usability and user-friendly operation. Although several, crucial parameters have to be pre-adjusted prior to an application, the most modern wellness products are meanwhile equipped with so-called “Fast Start Programs”. Desired effects such as sleep improvement, activation, relaxation, balance, performance etc. can be selected by pressing one single button and the system delivers all preprogrammed parameters for all applicators accordingly. In addition, these wellness products include a database of PEMF applications collected from user feedback. It provides a customized protocol for specific effects. This not only enhances efficiency but also ensures a high level of application safety.



### Summary:

Fast Start Programs in PEMF systems not only ensure easy operation and safety for wellness users, they also improve results while utilizing preselected, proven protocols. In case of individual support, leading PEMF wellness brands offer first-class customer service and an assigned contact person.

# 11

## Are there PEMF systems for wellness use on the market, capable of providing updates, upgrades and further developments?

Basically, the market for PEMF wellness systems can be divided in two groups:

**A)** Systems with a final product design and fixed operation structure. These systems are designed and programmed for a particular use. They cannot be updated or upgraded nor can they offer additional accessory development and expandability.

**B)** Systems with an integrated, processor-based hardware structure, a development operating system, offering tools for future additions (hard and software). These systems are designed to provide the user with periodic improvement-based updates and upgrades, even additional application possibilities.

Consequently, investing in newer updated systems is no longer needed. Statistically, the operational life span of a certified PEMF wellness system can easily exceed 10 years. Based on the design, good care should eliminate any additional maintenance. It is therefore crucial to carefully investigate, which systems provide the greatest benefit for the user, not only in efficiency and usability, but also in their capability to sustain the newest, most advanced version.



### Summary:

Digital, operating system-based PEMF products for wellness use, capable of updates, upgrades and additional accessories represent the new industry standard. Considering the long operational lifespan of a PEMF system for wellness use, it seems much more cost-effective and future-oriented to favor a system, which can be updated and upgraded; furthermore, extended in functionality and application advancements.

# 12

## Do PEMF systems also provide combining stimulation modalities?

With the rapid development of digital technology, leading PEMF wellness companies have already started to implement complementary and meaningful applications in their systems to provide a multimodality, therapeutic approach. State-of-the-art, processor-controlled PEMF systems for wellness use with a comprehensive operating system are meanwhile capable of controlling and applying additional methods within and outside of the electromagnetic spectrum, such as light-, sound- and color-stimulation as well as far infrared technology. A regular PEMF session is usually performed while lying comfortably on a whole-body mat. Innovative inventions make it now possible to include far infrared therapy as well as brainwave entrainment in one single application. This approach not only saves valuable time for the user but enhances and optimizes the desired processes. The described modalities are usually available as options and can be easily plugged into the system, controlled by the operating surface of the control unit. Ultimately, it saves a lot of money in comparison to obtaining similar wellness products separately.



### Summary:

Always consider investigating the newest generation of digital PEMF systems “for wellness use, offering the benefit of adding other affordable applications in combination with electromagnetic field effect. This approach will enhance the effect in the most reasonable financial outcome.

# 13

## What kind of service/support can I expect from a trustworthy PEMF wellness company?

**There are basically two existing distribution channels for wellness use PEMF systems on the global market:**

**A)** online-shopping platforms (either exclusive supplier websites or through existing online shopping platforms, such as Amazon, eBay etc.)

**B)** direct selling through independent and certified company distributors of the respective manufacturer. Buying a PEMF system for wellness use online might be a simple and modern choice. Doing so, please be aware that a fancy website, attracting with all kinds of claims and promises does not necessarily guarantee a competitive product, nor a reliable customer-oriented professional service and support. The decision to buy a comprehensive PEMF system for wellness use comes with a considerable investment, requiring expert advice. However, in no case should price be the most important criteria in acquiring a wellness product, rather the assurance of an established, well-known manufacturer. Another important criterion is the availability of personal assistance, a service which is offered only by companies that are aware of the responsibility which associates their product. You should be able to receive answers through first-class customer service and/or a contact person to assist. Obtaining a PEMF system for wellness use through an independent certified manufacturer representative in your region can give you this confidence. Your assigned representative is also your “first responder” in case of product issues or service requirements which pertains to the manufacturer. Trusted companies also provide you with real contact people, faces and phone numbers, not just email addresses and/or contact forms!

### Summary:

Purchasing a PEMF system for wellness use is a considerable investment, which requires personal consultation as well as proper support - before, during and after the sales process. Don't get impressed by tricky, promising websites without seeking professional advice from a competent specialist who represents a well-known manufacturer, operating in many countries. Every buyer deserves personal contact with a company, willing to provide real names, faces, and phone numbers of the responsible operating executive as well as its customer service staff.



# 14

## Is it possible to monitor and evaluate the immediate effect of a PEMF application for wellness use?

Only very few modern PEMF systems for wellness use are equipped with sophisticated monitoring and analyzing technology, capable of measuring physiological functions during an external stimulus. Specific sensors detect and mirror the body's own response, providing pertinent information. One of the easiest, effective forms of measurement is Heart Rate Variability (HRV), which can be easily measured through a pulse rate (finger or ear sensors). HRV analysis provides a "picture" of the bodily response which is constantly changing depending on activity, thoughts or external stimulus (PEMF). Depending on the HRV response during an application, the PEMF wellness product is capable of adjusting the field intensity accordingly, thus providing a custom tailored session. In addition, the recorded HRV data can be downloaded for further analysis, a software feature only provided by digital PEMF systems for wellness use.



### Summary:

Heart Rate Variability analysis serves as a perfect monitoring concept to evaluate the body's reaction during a PEMF wellness application, adjusting magnetic field intensities appropriately.

# 15

## How can I find out, if a PEMF for wellness use system is certified for distribution?

A company and product background check needs to become an inevitable task prior to any purchase decision, especially in the wellness industry. PEMF manufacturers/supplier need to be in compliance with the respective norms and regulations of the country the system is being offered to the public. Whether any electronic wellness product is considered legitimate, can easily be researched by demanding the following proof of concept:

Product Certificate “Electrical Safety and Electromagnetic Compatibility” (depending on country: CE/CB/UL/CSA...).

### **Summary:**

Proof of compliance and legality of PEMF systems for wellness use should not be considered factoids. Once you demand the necessary documentation, you will indeed find the facts. Don't get deceived by false, misleading promises or alluring advertising. You are entitled to claim this evidence!

# Comparison of Swissbionic Solutions PEMF Systems for wellness use

(You may compare yourself with competitive PEMF systems for wellness use by filling in the respective data from your personal research)

Features	<b>iMRS</b> PRIME	?	?	?
Intensity range whole body mat	0.27-45 microTesla			
Intensity range area applicator (pad)	0.35-120 microTesla			
Intensity range area applicator (spot)	0.43-300 microTesla			
Frequency spectrum	0.5-25 Hz + odd and even harmonics			
Waveform whole body mat	Triple Sawtooth			
Waveform pad applicator	Square Wave			
Waveform spot applicator	Square Wave			
Coil Concept (all available applicators)	Solid, uninsulated copper coils			
Polarity switch	yes, every two minutes			
Built-In Organ Clock	yes			
Helmholtz-Coil effect (spot)	yes			
Fast Start Programs	Yes, 7 incl. Brain-wave			
Brainwave Entrainment (sound, light, color)	yes, Exagon Brain			
Far Infrared/PEMF combined application	yes, Exagon FIR			
Response sensing technolog	yes, Exagon Sense			

# Comparison of Swissbionic Solutions PEMF Systems for wellness use

(You may compare yourself with competitive PEMF systems for wellness use by filling in the respective data from your personal research)

Features	<b>iMRS</b> PRIME	?	?	?
Frequency generator	Yes, sinewave, square wave, triple-sawtooth, triangle, trapezoid			
Programmable users	yes, up to 100			
Split Mode (using two applicators with one control unit independently)	yes			
Data recording	yes			
Music upload	yes			
Rechargeable battery operation	Not available			
Power plug	100-240V			
Firmware and Software Updates/Upgrades	yes			
Operating System	Windows IOT			
Sales and Service	Personal, through certified representatives			
Product Safety	Certified CE/CB			
Engineering/ Manufacturing	Switzerland/ Germany			

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