

Why PEMF Intensity Matters for Better Health

Pulsed electromagnetic field (PEMF) therapy output has two measurable qualities that are commonly misrepresented, misunderstood, and even mixed up: frequency (cycles per second, measured in hertz), and intensity (magnetic flux density per centimetre squared, measured in gauss). For personal therapy, the frequency is comparable to that of the geomagnetic field of Earth, called the Schumann Resonances, which rarely surpass 50 hertz. Frequency is not synonymous with intensity thus warrants clarification.

With intensity being the strength of magnetic flux density, it can be a more difficult concept to understand, but essentially, it's the output power (or strength) of the magnetic field, and a main factor in the possible depth achievable in therapeutic application.

Low-Intensity versus High-Intensity

Low-intensity means PEMF machines capable of an output of up to a maximum of 1000 gauss, and high-intensity is anything above that. For perspective, Earth generates a gauss of approximately 0.5, whereas an MRI produces a magnetic field of 15,000 gauss (but remember: gauss is only one factor – there are many that determine function and application).

Therapeutic PEMF machines come in many varieties. These range from cushions you can lay on, hoops you can place over a pet, and even to apparatuses you can place on your head! Most of these devices are low-intensity machines.

We reached out to the manufacturers of many wearable blankets for horses and noticed that almost all of the most popular brands, even at their maximum intensity, were only capable of up to 50 or 100 gauss. At that level, it simply means there is less depth of field. A blanket with 100 gauss has a penetrable depth of no more than 2 to 3 inches. While that will still feel nice and deliver a beneficial energy to tissues, it will require daily use for longer periods to achieve comparable results to a high-intensity machine.

High-intensity machines have as much variation as their low-intensity counterparts, but the key distinction is their depth of penetration. The machine we use is capable of penetrating up to 18 inches of tissue with an electromagnetic field, meaning that we can access and deliver the therapeutic benefits to the deep tissues on horses and large livestock, directly reaching the deep muscles, organs, and gastrointestinal tract. Because that much more tissue is accessed, it also reduces session times and achieves results faster, accomplishing much more with fewer sessions needed.

With that kind of scope, it's no wonder it raises concerns, but these machines have been tested, proven safe and effective, and are highly adjustable to be comfortably applied to even the most sensitive horses. Coupled with the extremely low frequency, it feels more like a gentle massage.

PEMF for Health

We are electromagnetic beings living on an electromagnetic planet. Because our own bodies generate an electromagnetic field, some skeptics are concerned that PEMF, particularly high-intensity PEMF, disrupts this process. The simple fact is we actually need a low-frequency EMF acting on our tissues for good health. NASA discovered this when astronauts would get inexplicably sick while in space, and realized that the Schumann Resonances, an earthly phenomenon we have evolved in harmony with, is a necessary component for our healthy bodily functions. The external stimulation helps keep our cells charged for better health.

The frequency in therapeutic PEMF is so low that it's essentially just replicating that of the Schumann Resonances, and we are simply intensifying it for therapeutic purposes. Using various therapeutic intensities, we can better stimulate our bodies from the cellular level to optimize and promote improved overall wellness.