Introduction to PEMF Therapy

Because there are 25 different actions, I can't dial them. I say, here, i'm going to give you a nonspecific stimulus, a magnetic field stimulus into the tissues.

The body increases the energy, increases charge in those tissues, wakes up the cell membranes, gets the charge equilibrating across the cellular membrane as it becomes more normalized.

And so then the body does whatever it wants with that energy. circulation, decreasing edema, um decreasing inflammation, increasing stem cells, uh increasing DNA, RNA production, growth factor stimulation, all of these things are happening sort of at once.

But the body will decide of all the different mechanisms the, body decide which mechanisms it's going to use first. What does it need first? Welcome to the PEMF Effect, where breakthrough science helps take control of your health.

I'm Dr. William Pollack, and I am here to guide you in tapping into the power of PMS therapy for recovery, vitality and total body wellness. From overcoming chronic pain, optimizing brain health, boosting energy and aging with strength, this podcast is your path to cutting edge solutions for lifelong well-being.

If you're ready to move beyond symptom management and tap into your body's natural healing ability, you are in the right place. Let's dive in. Today's episode is a previously recorded session from a summit where I was a guest speaker.

Welcome to another episode of the Reversing Inflammaging Summit, Body and Mind Longevity Medicine. And I'm your host, Dr. Robert Lufkin. Much of modern medicine is focused on the pharmaceuticals and the biochemical basis for our diseases and aging.

Today, we look at something that doesn't get nearly enough attention, the role that electromagnetism plays in our health and in particular, how pulsed electromagnetic fields can affect aging.

William Pollock, MD, is a leading authority on the use of this technology. He's a holistic physician who has had previous academic positions at Johns Hopkins University and the University of Maryland.

Dr. Pollack's Path to Magnetic Therapy

And he has two books on this subject and is also the co-host of a two-hour holistic radio program. Bill, welcome to the show. Thank you very much, Rob.

How are you doing today? Great. I'm so excited to talk about this fascinating area. But before we really dive into it, maybe you could just take a couple of moments and tell us how you came to be so interested in this fascinating area?

Basically, as a conventional doctor, way back when, I don't want to say how long ago that was, but way I was a medical director for a group of medical practice of about 14 family physicians, and we shared patients at the hospital.

So over the space of three or four days, we had two admissions to the hospitals with people with GI bleeding. One of them almost died. And the common factor for both of then was nostrils, was ibuprofen.

That was the cause of their GI bleating. So after that happened, I mean, obviously, had prescribed it considerably

myself in that day. That was back. OK, OK.

I'm going to reveal it now. Back in the 80s. So so I said, this is this insanity. This is the definition of insanity in a slightly different way. It's doing the same thing over and over again, not expecting bad results, Not expecting side effects or complications.

And so this crazy medicine, potentially killing people. to solve their pain problem. Their pain problems are not going to kill them, but with our treatments, we could potentially have somebody die on our watch.

So I said, what can I do that's different than what we've been doing all along? All my consultants are the same. They offer the solutions. The hospital offers the solution.

My peers offer solutions, so I have to go outside the box. I can't do this anymore. Or at least I had to find some other solutions as well. And I finished my acupuncture training and I wanted to do acupunture in my practice.

And all of a sudden people said, no, stay away from me. Stay away for me with those needles, right? And besides, they didn't know about acu-puncture. Madonna hadn't appeared in a movie yet with acun-ture needles all up and down her back.

It got known then, so I said I gotta do something that could do Acupunctur without using needles. So I learned about magnets in the Orient and that they were using magnets on Acupuncture points.

So I started using magnets on acupuncture points and discovered while I was doing that, that the magnets did other things other than acupunture. I'll give an example, I had a, um, was going to be reading on my back patio and I looked down at my leg, as I felt an itch and there was a quarter size lesion on lower, lower leg.

It looked like to me, having seen many of these in the past looked, like a spider bite. So, put a magnet on the spiderbite. And then I, then, started reading.

So about three hours later, I looked down, gone. Gone. And you know, you and I know that a spider bite, the lesion can, once it gets going, can last a couple of weeks before it's fully healed.

So it was gone in three hour. Now light bulbs start to go off, alarms go office. What's going on here with this therapy? So I started doing a lot of research and investigation about what magnets were doing in the body.

And most of that literature was buried in the Eastern European culture. And Eastern Europe journals in Cyrillic alphabet, and also very obscure journals that you wouldn't see in light of day in West.

Or if they're on PubMed, they have a bracketed abstract saying it's foreign language. So along the way, I met an MP PhD from the Czech Republic. And he had for his PhD program, he translated a lot of that literature in Eastern Europe.

And so he offered me his manuscript. So I went through the manuscript, revised it and published a book called Magnetic Therapy in eastern Europe, a review of 30 years of research.

And this was 20 years ago. So already it was 50 years old. The science in Eastern Europe was already established. And that book, that manuscript showed all the clinical studies that we don't have access to in the West.

Bang. I mean, it just lit up now. Now we have mechanisms, we had actions, clinical results from studies in Eastern Europe. A lot of them were controlled.

They weren't all placebo controlled, but they were often controlled so like this was wide open. It just opened the door, just flew the doors wide opened.

So I started working extensively with magnetic fields and I've been working with the magnetic field now for about 30

years, adding it to everything else.

And that's one of the key things about PMF therapies is it can be a standalone therapy, but you don't build a house without bricks and mortar. You can have all the tools, you can all have the plans, everything else, but if you do not have bricks or mortar, then you cannot build the house.

How PEMF Interacts with Acupuncture and Meridians

So, PMF therapy is the power tools that you use for the home. That is why my first book is called Power Tools for Health. They use the Power tools but they need the bricks in the mortar so you could build your house a lot faster with power tool than you have by letting nature take its course.

If you want to build bone, the nutrients are needed to do that. If you want to repair tissue, you need the proteins and all the other nutrients that you build the tissue to rebuild tissue.

So that's the sort of the genesis behind my going with PMF therapies. That's fascinating. It's interesting that you started with acupuncture and then went in there.

And I remember with the acupuncture, the theory of energy meridians and whatnot. Does the, as we get into this, but does the PEMF work through similar mechanisms with energy meridians as acupuncture?

Yes and no. I think that's one of the key elements underlying PemF therapy is that it's stimulating all the acupunture points and meridian and we tested this.

And now there's a pretty robust science showing how the meridian system is an electrical system. It's an DC current system, and because it's DC-current, it is subject to all the laws of physics relative to electromagnetics.

So if you apply a magnet to a current, a flowing current you can induce or to wire, you could actually produce energy, produce charge in that wire. Faraday's law.

So those experiments were done in the 1800s. So that science is pretty well established. PMF therapy interacts with the acupuncture system, but it does a lot more than that.

In my first book, my second book actually, the Power Tools book I outline about 25 different actions of magnetic fields and provide scientific references to support those actions.

There is a little more going on than acupunture system. But if you have an acu-puncture process going underneath anything else you're doing with it, hey, that's a bonus.

Yeah. Oh, absolutely. Well, before we dive into this area and get into these these interesting details, maybe you could just take a moment and tell us for our audience who may not be familiar with this.

What is an electromagnetic field and how does it work? So maybe one way to talk about that is an elephant that's in the room and that EMFs and everybody's worried about EMS and aren't electromagnetic fields the same, all of them the the answer is no.

So the magnetic fields that we're using for therapy are very different than EMs, which actually I call environmental magnetic field, but they're electromagnetic field that are essentially environmentally based.

There's two ways of producing a magnetic feel. Well, three ways. One is a static magnet, the fridge magnets. That's not a time-varying, that's a field that is in motion.

So fields in a motion are much more dynamic than a feel that it's static. It's just sitting there. The two types of PMS or EMFs that are in-motion are the microwave EMS.

Radar, television, radio, they're broadcast into the environment. They just keep going. they don't stop. That is called open loop.

What PEMF Is and How It Differs from Harmful EMFs

And then when you pass a current through a wire, Automatically, through laws of physics, Maxwell's equations, you generate a perpendicular magnetic field around that wire, the flow of current in the wire.

And that's called the right-hand rule. So my thumb is the current flowing through the wires, and so the magnetic fields around is my fingers. They're perpendicular in a clockwise fashion.

What happens then, every time the currents pulses, is you produce a magnetic So this magnetic field goes out and comes back in again, goes, out, comes, back, in, again.

With every pulse, it goes up and it comes in. So it's a closed loop. It's magnetic fields that's in the coil. it doesn't go out into space and into the environment.

Therefore, doesn t really have a wavelength. The magnetic feels that go into environment have wavelengths, like ripples in a pond. And those wavelengths are based on the frequency of the wavelength.

So microwaves basically are high frequency. They're broadcast in the environment, they're very high-frequency, and as a result they get absorbed by the body.

That's the principle behind a microwave oven. You heat things because you're projecting microwavs in a closed space, but it causes heating. Heating causes damage.

And then the electrical microwave itself can cause genetic instability, can caused genetic damage in addition to the heating. So that's open source, open loop magnetic fields that can be harmful to body.

It depends on the degree of exposure, it depends the nature of the microwave, etc. Pulse magnetic field are extraordinarily safe and we have Huge examples of PEMFs in medicine that are FDA approved.

Who doesn't know about MRI? That's magnetic. So that's used for diagnostic purposes. And now we also have devices that approved by the FDA for treatment-resistant depression called TMS, transcranial magnetic stimulation, where you put a magnet up against the brain or the head to create currents in the body, in brain that then resets the brains for depression.

So that's extraordinarily safe. So we know about those kinds of fields. There are lots of FDA approved fields as well for bone healing. Bone healing magnetic therapy has been out in the environment now, approved by the FDA for about 25 to 30 years.

If you take a fracture that won't heal after six months, it's called a non-union. You take that non union fracture, even though it has being there for, say, six or seven years, all of a sudden you start stimulating that tissue with all the mechanisms of action we described.

and bingo, in three to six months you've healed that non-union. Otherwise you subject it to surgery, you do all kinds of invasive procedures which don't always work, they often fail on their own, but magnetic field therapy very routinely, I would say probably it's about 80 to 90 percent successful, will heal that Non-Union Fracture.

So we have lots of examples of safety and effectiveness of use of pulse magnetic fields versus the EMFs. Are you tired of living with chronic pain? Medication only masks the symptoms, but real healing starts at the cellular level.

I'm Dr. William Pollack, the leading expert on PMF therapy. Paul's Electromagnetic Field Therapy is a science-back, drug-free solution that helps reduce pain, speed up recovery, and improve overall health, right from the comfort of your home.

Take advantage of an exclusive 10% discount on DrPaul's.com PEMF systems. visit drpawuk.com, that's D-R-P-A-W-L-U-K dot com, to register and claim your savings.

This limited time offer is available only to registered listeners. Don't miss your chance to experience the benefits. Terms and conditions do apply, don't just manage pain, transform your health.

Visit drpaulk. com today and let's get started on your healing journey together. Yeah, there's so many interesting possibilities there. I have to wonder why is it that medicine is so focused on biochemistry and drug development?

And in medical school, I can think of only a couple of things you mentioned that even that use electromagnetism or like EEG, electroencephalogram or electrocardiogram.

or those applications you mentioned, why is the bias towards biochemical drug development instead of why aren't there more applications for EMF or have we exhausted, are they, they're just those few and that's it?

A lot of that has to do with legacy. So at the turn of the 20th century, electrical therapies, electromagnetic therapies are extraordinarily common. There's something called the Pellegrino Report and the Miller's Commission and so on, where the medical schools in this country essentially came down like a ton of bricks on the community that was doing all this therapy.

And the Medical Schools at that time were, in quotes, scientifically based. But what was most of the science in Medical School at the time? Pharmacy, pharmacology, and biochemistry was well established.

There was lots of money in it. And because there was lots of money in it, there were endowed chairs at universities, et cetera. So they built up the capacity to do a significant amount of research.

And all of that research was essentially pharmaceutical, pharmacologic. Essentially, they completely suppressed that other aspect that was already growing significantly in the community.

In medical schools, all they could teach was electromagnetic therapy or electrical therapies in physical therapy part of the curriculum.

FDA Uses, TMS, and Bone Healing Applications

The only people who could do it and you could teach about or talk about it was the physical therapist. And that was one course. That was probably one hour in a course in our curriculum of, you know, four thousand hours of teaching.

I see. So how do you how you think magnetic therapy got basically sidelined? But fortunately, we have the science now. We have a lot more science than we ever did back then.

A lot of it was hearsay. You know, it equals sham. It was fraudulent, et cetera. Now, some of them was fragile, and some it wasn't. But we lost that legacy of that history.

Just completely sidelined it because of the economic interests and the authoritarian interests of medical schools. I see. You mentioned before TMS is Transcranial Magnetic Stimulation.

It's an approved treatment for depression, as you mentioned. I wasn't clear. Is that an application of PEMF or is that the same as a P EMF just applied to the head then?

Yes, it's two coils basically that are applied to the side of the head and those two coil that stimulate, again, the magnetic field and they interact with the neurons which are flowing current themselves, right?

And you have all the ions and everything else inside the brain. So that generates charge and energy. That was actually a transition from something called ECT, convulsive therapies.

Convulsive therapy, if you've ever been in a convusive therapy session, this is pretty barbaric. It's electrocuting somebody. And try to save them from having a heart attack or breaking bones.

So ECT, then this is to replace E C T much safer and about as effective. as that. So it's really taking off now significantly. Is there a common underlying mechanism for the effects of the pulsed electromagnetic fields on the body?

In other words, for TMS, how do the electromagnetic field reduce depression? So basically, again, as a reset, electrical reset for taking off from ECT.

But that doesn't matter, even though that's the mechanism, and that is what everybody focuses on. So people who do E. C. T. basically just follow the book, read the manual.

And they don't think about why and how and whether it can be used for other things. Clearly there are people using it for a lot of other thing besides depression.

The same thing applies to a lots of things we do in medicine, including the bone healing devices. The doctors who prescribe those just say, this is what the FDA said I could do.

This is when it's going to do, and that's all I'm going think about. But they don't understand the mechanism. And they do understand all the other sort of aspects of electromagnetic therapies and how you can extend it off label way beyond the FD approved indications.

So every pulse of a magnetic field into the body is creating charge in the bottom. There's essentially two sets of mechanisms going on with magnetic fields, basic actions.

One is the frequency aspect of it and the other is electrical aspect. As a magnetic field passes into the tissues of the body, based on Faraday's law, it generates a current.

It generates charge because every tissue in the cell in body is all electrolytes. I say the bodies basically a bag of electrolyte. Its not even saline, its electrolytes.

So we are an electrolyted soup. And because its an electrolytes, those charges are constantly moving. So we have 100,000 biochemical processes per second in our cells and our bodies.

So that's a lot of dynamic movement. A lot that is electrolytically, electrochemically and electromagnetically driven. When you increase the energy of the tissues, now the tissue have more energy to do healing work.

How does a non-union happen in the first place? It happens because there's not enough healing energy, to finish the job of healing that fracture. So normally they'll heal in a certain period of time.

We know this, we see this all the time, 12 weeks or so you're basically taking the cast off a night and go on about your business. But it takes up to two years for a bone to be fully healed.

If you keep repeating x-rays and we keep doing CT scans or MRIs, you'll see that that fracture site is still there. It takes a long time. And you need all the nutrients.

You need the energy and the tissues to be able to finish the job of healing. That's what magnetic field therapy for the fracture does. All of a sudden, it's causing the tissue to produce more energy.

Having more, all sorts of biochemical processes begin cascading. So the theme is that this pulse electromagnetic fields add energy to the tissue and that can help bone healing or in the case of depression, somehow that added energy helps.

Is there a downside to that? Like if I have a malignancy, a cancer, I don't wanna add to energy that tissue, is a

danger there or what are the potential things we need to worry about?

I do deal with cancer a lot with PMF therapies, and there's a reasonable literature growing about how PMFS can be used in the setting of cancer. We know that there are studies that show that PMFT therapy can increase the value and utility of chemo.

So chemal, the effects or benefits of chemotherapy can actually be doubled.

Mechanisms of Action and Safety Considerations

And the side effects for the chemore are actually lessened as well. So with cancers, you may be able to temporarily increase the blood supply of the cancer with magnetic field therapy, because it increases circulation.

All circulation, hands, feet, brain, et cetera, all of that increases with PMF stimulation because of its actions on nitric oxide in the body. But so at one point, the cancel tumor may like the circulation may increase in volume because the circulations, but you're now flooding it with oxidative stress.

I just don't like that. So, so a common mechanism, one common is increased nitric oxide and all the benefits that it has throughout the body for, for inflammation and immune reaction, circulation, improving circulation.

Et cetera. So yeah, nitrous oxide is a. One of the first things you see with magnetic field therapy is, is increase circulation and clearly see that right away.

But it also does inflammation, but it does information through other mechanisms. So if you read Power Tools for Health or the new book Supercharger Health, I described the different actions.

Because there are 25 different action, s I can't dial them. I say, here, i'm going to give you a nonspecific stimulus, a magnetic field stimulus into the tissues.

The body increases the energy, increases charge in those tissues, wakes up the cell membranes, gets the charge equilibrating across the membrane as it becomes more normalized.

And so then the body does whatever it wants with that energy. Circulation, decreasing edema, um decreasing inflammation, increasing stem cells, uh increasing DNA, RNA production, growth factor stimulation, all of these things are happening sort of at once.

But the Body will decide of all the different mechanisms, the BODY decide which mechanisms it's going to use first. What does it need first? What Does it react with the best fastest?

And the body decides that. Fortunately, again, because it's so safe, I would rather leave it to the bottom than to try to figure out being as smart as I am, end quotes.

I'd rather not try and figure it out myself. Give it the to body, let the the do with it, right? Yeah, well, before we dive into more of the specific applications, just as a general point, are there any contraindications for it or any patients that should avoid this?

So there used to be a legacy of contraindications having to do with pacemakers or implanted electronics. Pregnancy is a ubiquitous contra indication because we don't have the proof that it's safe in pregnancy.

However, I have plenty of experience of women who've been using magnetic field therapies, get pregnant, and then keep using the magnetic therapy through their pregnancies, breeze through the pregnacies.

Women working in MRI units get pregnancy and they keep working those units and there's no significant history of any major problems or complications even in pregnancy.

Implanted electronics. So 20 years ago, implanted electronics were a problem. But now, most of the companies who are making implanted electronics make them MR conditional.

In other words, you can use, go into an MRI machine, even with those pacemakers and defibrillate. So, what you have to do is verify that it is MR-conditional.

If it, is you're safe. Implanted metal is another concern that people have, and that's a contraindication with MRIs. But we're not at that level of intensity.

as an MRI machine. An MRI gets up to 10,000 Gauss or 20,00 Gaus, one Tesla, two Tesla. Most of the PNF systems we use are under a Tesla so you don't really have that issue.

You just have to be careful like any other therapy, you got to know your patient, got know the process you're dealing with. you have know you technology and then you just be be carefully how you introduce it and I call that going low and slow.

So if you go low and slow, you maintain those contraindications. The only absolute contra-indication I have left basically out of the legions of ones that people used to say 10 years ago, 20 years, ago is transplant.

And there's no evidence that PMFs are safe in transplants because what you're doing with transplant is you are doing immunosuppression and magnetic field therapy stimulates the immune system.

It can increase it or it can decrease it. You can do both depending on the circumstances. So you don't want to mess with something that if you trick the immune system, tip it a bit too much in the wrong direction, you have a problem with the transplant.

So I basically say no transplants, even corneal transplant, OK, so any transplant and then you mentioned before that it is FDA approved for trans cranial TMS for for depression and also for bone healing.

You mentioned bone, healing, pain relief and edema reduction. These are FDA-approved indications. Also, and then once once a device is shown to be safe by the FDA and approved for one application as as we've talked about before, then it's possible to use what's called off label for other other applications throughout the body, depending on on what they are.

Let's take a moment here and talk about longevity and because there's some fascinating applications of this technology to longevity. Before we dive in, could you take moment and just tell us kind of your working definition of longevity?

What is longevity, why do we age? Because everybody seems to look at it from a slightly different perspective. It's interesting, even all our experts all look it a little differently.

Again, bricks and mortar. If you don't have the bricks or mortar, you can't keep the house going because there's entropy. No matter what we do, we're losing energy over time.

I was invited to do a poster presentation at a SENS conference in Cambridge, England, UK. And most of the people there were dealing with it from the genetics perspective or dealing it with environmental aspects and so on.

As a family physician, I know, And you can see aging a lot in people who are under a lotta stress. Physical stress, emotional stress illness stress look at the president, four years or eight years in the presidency, look what happens to their aging.

And they may well have access to resources that we don't even know that they have to, but they still age. So one of the key tenants that I had at that conference, a sense strategically engineered negligible senescence conference was that a huge part of aging, and the people there are completely ignoring this, more or less completely, ignoring it, is death by a thousand cups.

Aging is Death by A Thousand Cups. It's all the nicks and scratches and stresses and so on that we accumulate over time But we're we have entropy no matter what.

So I jokingly tell people that between, say, 25 and well, up to age 25 approximately, we are growing as we were doing more repair than we doing breakdown.

Right. so typically what we want, like this pen, We want it to be a flat line. Oh, that doesn't happen. Maybe maybe occasional characters in history that could have happened.

Maybe some yogis, but they're very special people yet, right? Yogis. So what happens between 25 and 40, you want it to be that flat. Unless you're playing professional sports or you are a really aggressive athlete.

Contraindications and Clinical Use Cases

You're doing, top-end stuff. Well, a top end stuff, I don't know a single athlete who doesn't have injuries. They're all oriented to performance, But they are not talking about recovery.

they don' like to talk about recover. And yet those of us who work in the clinical world and we try to help improve performance. We see the problems with recovery, So recovery causes the curve to be like this.

So the more recovery you have to do, the steeper that slope is going to beat. And for most of us, we're basically relatively flat between 25 and 40. At 40, We start to notice the curves starting to slip.

Then again, depending on the lifestyle that you and the risk factors you, have the genetics you your ability to repair, inflammation, autoimmune diseases, you name it.

Now that curve starts to tip significantly. So, PMF therapy applied on a daily basis, going back to the idea that we have five thousand, a hundred thousand biochemical processes per second in every cell of our bodies.

What do our body's need to maintain a 100,000 bio chemical processes? Per second, it needs help. It needs energy. And what we're doing is when you have surgery, when have an appendectomy, what does a surgeon do to help you to heal from it?

Cross your fingers. I cut you up, I've cut it out, sewed you back together again, go home and see you in a couple of weeks. Cross your fingers. So what we're doing in medicine typically and generally in health, we are taking things for granted.

What does that do? It leaves things to chance. is to remove chance. And if you're giving the body extra energy every single day, you are reversing some of the things that are breaking down before they get to be irreversible.

So I use a concept called the cell injury model. It doesn't matter what the source of injury is for the cells. There's a process that cells go through during the injury course.

Essentially, and every cell eventually crosses a line of no return. A line irreversibility. And in medicine, what do we use to figure out whether you've got an irreverable injury in cells or tissues?

While we look at it, we can see it. or we can feel it, or you can see that you're not moving your arm right, right? Or you do biochemical testing or do microscopic evaluations.

You do biopsies. These are how you find out that there are processes going on in the cell that are going to cause that body to be stressed, another stress on that party, which then increases the process of aging, accelerates.

So PMF therapy removes a lot of that 25 mechanism, very easily done. All right, safe. Another example is I had a little child, three-year-old child that cut off the end of her thumb in a door jam.

Fortunately, the father called me before the surgeons had at it. And I heard about the fact that, like Bob Beck's salamander studies, you have the ability to regenerate to a point.

So a three year old has a strong ability regenerates. We had them reattach it before they did anything else. Basically the re-attached part becomes a bandage.

to the damaged tissue. An hour and a half to three hours a day of PMF therapy, portal battery operating machine. 12 weeks later, she's regrowing her thumb, is re-growling her nail, completely regenerated.

And that's a low-level, low intensity PMS system, an hour to an half a date. Now maybe a 50-year-old or a 70- year-old is going to have to take seven or eight hours a day or longer to be able to achieve similar results, if possible.

Your body was designed to heal, but illness, chronic disease, stress, injury and time can slow that process down. What if you could restore your body's natural ability to recover, recharge and feel its best?

The key to healing is giving your PEMF therapy does exactly that. Recharging your cells, improving circulation, reducing inflammation and helping you function at your best.

For decades, I've studied this technology, worked with hundreds of medical professionals and helped thousands of people reduce pain, regain energy and take control of their health.

However, not all PemF devices are created equal. No one size fits all. We offer personalized consultations so you can find the right device for your needs, backed by real science and trusted results.

If you're ready for a real solution, let's talk. Schedule a consultation at drpauluk.com. That's P-R-P-A-W-L-U-K dot com, because real healing starts at the cellular level.

To summarize then about longevity, the PEMFs add energy to the system which limits entropic repairs and senescence and this sort of thing in some fashion then.

So do you have patients that are using this for longevity now? Are there clinical regimens developed for this or is this still experimental at this point?

PEMF, Longevity, and Aging

No, it's not really experimental. So what drives most people to PMF therapy, why they're willing to put out the money for it, because it is an end investment.

Most of the most effective PME devices are not inexpensive. You're not going to spend $25. There are PMM devices that are throwaways that $ 25, but they are very weak and they aren't going do much for you.

There are lots of whole body systems being sold in the community that are cost upwards of six thousand dollars, but they're very low intensity. And so the research doesn't shows that they don't work that well.

I just read a paper, actually a study done in, I think it was Brazil, where they use a very long intensity system for and they were doing half an hour to an our a day of treatment.

and found virtually no benefit. And yet we have studies with devices like the TMS devices, higher intensity machines, and there are studies on MS with Tms devices that show significant benefits.

So the intensity of the magnetic field is important because you have to generate enough charge in the body and then you to account for like dosing, like radiation dosings.

When we're doing radiation, we have dose the radiation based on the depth of tissue that you're dealing with. Magnetic field therapy has to be dosed like that as well.

So we know that we can produce a lot of changes in our body, and you just have do it regularly. So the big problem that most people have is they don't do it regularly.

They go in for a treatment and they think they're done. But you gotta be doing probably the dosing I recommend and ultimately going to be dependent on the person and their starting point.

If you're 75 and you've got three organs failing, well, you got a different starting then you are 45 and very healthy and exercising reasonably and not being an over the top athlete.

Then you have a better starting place and may not need as much therapy. But if you have a health condition, you're going to have to treat that health conditions.

But, if your treating that condition you got a piece of equipment already and you've got piece equipment. Now what's it going do for the rest of you? Never mind the problem that you rode the horse in on, right?

So magnetic field therapy is ideally should be thought of as not only a problem solver, but also health maintenance. in terms of anti-aging, anti inflammation and so on.

It seems like there are many values there. Have there been studies where it's been used for longevity, either in animals or humans, specifically for a longevity and what are those shown?

Most of those studies have not been done for Longevity. Most studies that have exposed animals for hours a day, 24 hours even. Animal studies like rats and mice and where they've exposed it for long periods of time.

And those studies were done primarily to look for risk, for harm. They were not funded for value, they were funded to assess for harmful. What they found essentially is that there was almost no harm, so long-term studies, as you can imagine, it costs a lot of money to do these.

Especially when you're looking at an intervention and then you do measurements on a regular basis or a period of time. So most PMF studies rarely go beyond 4, 8, 12 weeks.

Yeah. If you can do measures of anti-aging, you could do anti aging testing, and you see changes in that testing. What does it do in the long run? Compliance is going to be a big issue for a lotta people.

They just don't do it enough. And they don't do it over a long enough period of time because they're more people are more motivated by pain. They're motivated, by health problems than they are motivated.

By prevention. So we know we could take it to the bank that if you're doing PMF therapy on a regular basis, you are taking care of problems before they happen using the solid injury model.

And what anti-aging markers do they look at? Do they they've seen good results with anything yet with those? I think probably the biggest ones I would say, if you want to consider this an anti-aging molecular marker, would be just inflammatory cytokines, inflammatory changes in the body.

So, you can show reductions in CRP. For example, If you got a 50-year-old person who comes into the office, they got CRPs of three. their cholesterol may or may not be elevated, but their CRP is slightly elevated.

Well, you can, with PMF therapies, along with the nutrition, and along other things that you should be doing anyway, You start to see the CRPs coming down.

And that's routine. Oh, okay. And so let's say for our audience out there, if we had a, let say a 60 year old or 70 or 75 year-old patient with no medical conditions and money was not an object, what would be the optimal or the ideal longevity protocol they should use with PEMFs?

What would that look like? That's a really critical question because one of the most important aspects of aging, of

course, is inflammation. There is no health condition that I really know of that doesn't have some kind of inflammation attached to it.

And of, course just being alive, you have inflammation, so you need a magnetic system that's going to be able to deal with that inflammation and again, dosing becomes important.

So if you, the ideal dose has been found for increasing fighting inflammation is using the adenosine receptor. To stimulate the identity in the receptor optimally, you need 15 Gauss at the receptors site.

And if you're doing 15 gauss that the reception site, like dosing and radiation, You have to calculate the dose that you'll need for that receptor for reducing inflammation.

So therefore you are going to need a magnetic therapy device, typically around 4,000 gaus and even higher, because there's almost no risk with the magnetic fields.

They pass through. If your body doesn't need it, it ignores it essentially. You've got to get the right piece of equipment, and you've gotta use the correct amount of time.

I recommend typically a half hour twice a day with the right piece of equipment and not having to deal with other health issues that you try to cope with at the same time.

So, half an hour day of a device that's going to be at least 4,000 gouts. The biggest problem that people make buying PMF equipment, including clinicians, is they don't know what the gouse of their equipment is.

They don t know the intensity level of that equipment. The multi-level marketing companies never tell you. There are companies that sell a lot of machines to a lotta doctors for $35,000, and they won't tell ya what the intensity is.

So if you don't know the intensive of your equipment, you dunno what you bought. Well, they say, well, we get muscle contractions. Okay, that's good, then it's probably gonna be a fairly strong machine.

But then you can't do that dose calculation that I mentioned. to determine that you got the right dose.

Dosing, Devices, and Personal Longevity Routine

So fortunately, you're not going to waste. You're, not wasting your money for the most part, but most people tend to under buy. They tend, to buy it based on cost.

they don't tend. To buy based, on effect. We always like to ask our, our experts, what they choose for themselves for longevity. Do you use, do you, use that on yourself every day?

So yes, I have a whole body anti-aging system on my bed, But it's not strong enough, it, It's one component. And then I do magnetic therapy under my pillow for sleep, keeps me asleep all night long.

And as we get older, we don't, sleep quite as well. Um, and also I have a history of belly issues, diverticulitis, divertediculosis at an elective partial colectomy, cekectomy.

So I'm treating magnetic field therapy every day to prevent any issues that may come up as a result of that. And those devices are between 200 to 1,000 Gauss each.

I see. In addition to the electromagnetic therapy, would you share any choices you've made as far as lifestyle that you do for, or supplements, are you taking rapamycin or metformin, I walk three hours a day with my wife every morning and I call that marital therapy.

So that's good for her and for me. And then I have a bunch of supplements. I eat more or less a Mediterranean style diet. Um, I do a little bit of fasting, but not that often I should be doing more clearly, uh, maintain a very

positive attitude.

And those are extraordinarily important because obviously the more weight you got on your emotionally and psychologically, that's another sort of stressor on the immune system, not to mention your spirit and so on.

So you have to do a combination of things. You can't build a house without bricks and mortar, you need supplements and I do boatload of supplements. And what different types, any just in general?

One of the two that I've added recently that really helps with aches and pains is pectisol and i'm doing about two grams a day of pextisol. I'm also doing high dose melatonin and was introduced to that by somebody who was talking about the latest knowledge about melotonin, how important it is in every cell of your body.

It's probably the oldest antioxidants in biology. Even salamanders and lizards make a lot of melatonin. and every cell needs it because it's a free radical scavenger as well as an antioxidant and if every sell has enough of that then you know again you maintain you help to fight against entropy but you got to do it every single day and then I do vitamin D3, I again vitamin C, broad spectrum vitamins, microbiome management becomes important as Yeah, there's so many things happening now in the longevity space.

I have to ask what, other than what you're directly involved with electromagnetic fields, is what are you most excited about that you've read about in longevity spaces that are familiar with?

Well, what I'm digging into right now, the latest sort of piece of work that I am working with relative to magnetic fields. But it's not just magnetic field.

is the concept of ischemia and reperfusion. And so what happens is that with a lot of chronic illnesses, including chronic fatigue syndrome, ischemia, hypoxia is variable throughout the body.

We tend to think of hypoxia as being being choked to death and you don't deliver enough oxygen. But tissues with inflammation and with swelling, with edema, are hyboxic.

That could be the brain. It could be the thyroid, it could the pituitary, could it be adrenals, or it can be a gut. So if you have chronic inflammation in your gut, there's a good chance you'll have some hypoxia going on in the gut as well that's layered into all that other problem.

If you can't improve the hypoxia, But ischemia reperfusion is a problem, because if you flood the tissue all of a sudden that's ischaemic or hypoxic with circulation, then you increase oxidative stress.

So that is the consequence of doing that. But you have to do that, you need to climb the mountain to get to the other side. You are going to huff and puff, right?

You're just going have deal with that to some extent. That's the latest information that I'm getting is reper fusion. Yeah, you have a wonderful website with a depth of information and a lot of videos and access that people can access to, and also the podcast that you've done over the last two years.

Perhaps you could share with our listeners the best way for them to get in touch with you on social media or through your website and, also, the podcasts.

Well, obviously, watching the broadcast becomes important. As you said, Dr. Pollock.com has a huge amount of I'm not interested in people who are curiosity seekers.

If you haven't read my books, if you have read through my website, If You Have Curiosity, then email us, info at drpawlik.com.

Lifestyle, Supplements, and Closing Thoughts

But don't email for something that you hadn't done your own work with. I don' want to be teaching something you could do on your time. You should be using me as an expert resource for a problem that, you can't solve yourself.

So I do consultations with people. I have a team of clinicians as well who are also doing consultation. So if you want a consultation about what's the best piece of equipment for you, I don't want to give you vitamin advice. I don t want give supplement advice, I do that, but that's not what I'm here for.

That's why we're talking, not because I know about supplements or Pectosol. There are other people who're more expert at Pctosal and Melatonin. So if want consultatio, then you're serious about your health.

You're seriously, you re willing to make an investment. And I'm not talking about a thousand dollar machine. The best machines like the four thousand ghost machines that we're talking, but we are going to cost you six, seven thousand dollars.

That's an investment in your health and you're going get the best results. I sort of jokingly tell people at the end of my consultations is that now the biggest problem with magnetic field therapy, the big side effect at risk with Magnetic Field Therapy is the urge to put on a cape.

You can wear as many cases you want, you can have as much urge as you just don't try to jump over anything tall. So one of the side effects of magnetic field therapy is the urge to put on a cape.

That's beautiful. Well, thank you so much, Bill, for spending an hour with us today and helping us understand electromagnetic therapy and some of fascinating possibilities for longevity.

Thanks again, and thanks so for the work that you're doing. You're very welcome. It's very enjoyable. Thanks for joining me on the PEMF Effect. I hope today's conversation gave you new tools, insights and inspiration to take control of your health.

If you enjoyed this episode, don't forget to subscribe, leave a review and share it with someone who could benefit from PemF therapy and holistic healing.

Your body has the power to repair, recover and thrive. Sometimes it just needs the right charge. Until next time, stay curious, be proactive and keep powering up to better health!

you