## Opening Healing Story and Podcast Intro

I had a little girl who cut the end of her thumb off. It's in my Power Tools for Health book. She cut the end of her thumb off with a magnet, an hour and a half to three hours a day.

Put a magnet on it, a pulse magnetic field, not a static magnet. This was a magnet that also was plugged in and was sending an electrical current in there.

By doing that, what it did is it stimulated the body's capacity to heal. A three-year-old has a much stronger capacity to heal. So literally, there's bone in there, there's nail, there's skin, there's connective tissue, there's circulation, there's nerves, all that stuff that's in a thumb or a digit.

Literally, within 12 weeks, she was regrowing her nail. The first picture, after she put it on, the finger was black. The end of the finger was black.

You'd expect that, but reattaching it, the body basically began to grow into the remaining tissue. and she eventually sloughed off the dead tissue. She basically regenerated her thumb.

Welcome to the PEMF Effect, where breakthrough science helps take control of your health. I'm Dr. William Pollack, and I'm here to guide you in tapping into the power of PEMF 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're 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 back to the Conquering Chronic Inflammation Summit. I'm your host, Dr. David Jockers, and today I've got the honor of interviewing Dr. William Pollack, and he is the foremost expert when it comes to pulse electromagnetic field therapy.

And we're going to talk all about these pulse electromagnetic fields, these PMFs, how they're a breakthrough solution for inflammation.

## What PEMFs Are and How They Differ from EMFs

And of course, we're going to go through the difference between PMFs and what you may have already heard of EMFs or electromagnetic fields and why electromagnetic fields can be very hazardous for our health, but PMFs can be extremely beneficial for overall health.

A little bit about Dr. Pollack. He has worked with magnetic field therapies for 30 years and he's established an authoritative website, drpauluk.com. He's authored two comprehensive books on healing with magnetic fields called Power Tools for Health and Supercharger Health with PEMF Therapy.

The Supercharger Health book describes how PEMFs can be used for over 80 different health conditions, how to select the PEMF system to help and how to use it properly to get the best benefits, This work is supported by over 500 scientific references and is the most authoritative yet readable and unbiased book on the topic available today.

And so great topic. If you know anybody interested in natural strategies for reduce inflammation, turn them on to

this summit, turn them on to this presentation right here.

And without further ado, let's go into the interview. Well bill always great to connect and of course you know this topic of pulse electromagnetic frequencies.

It's a it's a little bit of an esoteric topic because it's not something you can like your that that the average individuals visibly seeing but it has an incredible impact on our overall health or overall cellular health.

and in particular our inflammatory levels. And so I want to go into this. What are PEMFs? And of course, you know, the elephant in the room is pretty much all our listeners have heard of EMFs, electromagnetic frequencies, and we've heard of those for negative reasons.

And so let's talk about PEMFs, what they are, and the difference between them and EMFs. All right, so a point of education is that people often do what you did, which is to say frequencies.

But it's not just about frequencies. So an MRI, for example, has two components. And one of the components is a radio frequency field. In other words, magnetic fields that are vibrating at a very high frequency.

And there's another field in an MRI that is a static magnetic field. So in other words, the magnetic field is just there. And the same thing with magnets, like fridge magnets or horseshoe magnets or whatever.

Those are static magnetic fields. So magnetic fields may have frequencies, but they may not have frequencies. So people, for some reason, they've been educated to think in terms of frequencies.

Unfortunately, they've been educated to think in terms of frequencies, primarily by people who don't have anything else to sell. Sure. Yeah. Right? Now, I understand frequencies, the concept of frequencies, because everything's resonant.

But you know, what's resonant? It's the electromagnetic field that's resonant. When you say everything's resonant, what does that mean to the average individual?

I don't understand what that means. OK, so magnesium has a resonance. The molecules of magnesium have electrons and protons and so on circulating around them.

And they're vibrating, they're moving at a certain frequency. That's resonance. And so what happens if you have that resonance of magnesium and you have the resonance of, say, calcium, they're close in terms of resonance, so they're going to be able to dance together.

And if they're close enough and the electromagnetic forces allow it, they can dock with each other. Yeah. Right. So calcium and chloride will be calcium chloride, sodium and chloride will be salt, sodium chloride.

That happens because of the resonance and that happens because of the magnetic attractions between them. Yeah. So everything, there ain't nothing in the universe that's not electromagnetic.

It's actually the second force of the universe. The strongest force is the strong force. Then there's the weak force. Then the second force of the universe is electromagnetic.

And the fourth force of the universe is gravity. The biggest force of the universe, the biggest that encompasses the entire universe is electromagnetic.

It's more common than gravity. Wow, yeah. Actually. And so nothing works in our bodies without an electromagnetic exchange. And that's an electromagnetic field, which may or, as I said, may or may not be frequency, may or may not be resonance.

So that's really that aspect of it. Now, EMFs, electromagnetic fields, so that's what EMF stands for. I actually call

them environmental magnetic fields.

Hmm. EMFs are basically anything that's electromagnetic, but most of the EMFs that we have concerns about are broadcast. They're what I call open loop.

They're broadcast in the environment. They just keep on going. They go on forever, essentially to infinity. at very, very, very weak levels. Magnetic fields, pulsed electromagnetic fields, are magnetic fields that are produced by current flowing through a wire.

There's a box, a control unit, that produces the current and it sends that current out into a wire. And that current is pulsing in that wire. One of the laws of physics is that where you have electrical currents, you have magnetic fields at the same time.

So the electrical field pulses at the same time it's producing a magnetic field. It pulses out. out in the way, but it's wrapped into the wire. So it's controlled by the electrical current, which means it's not open loop.

It doesn't get broadcast into the environment. It's basically going back and forth as the current flows through that wire. So it's a contained magnetic field, and they're very, very low frequencies usually.

So in other words, they're pulsating at a very low rate, whereas the environmental magnetic fields typically are high frequency. They're microwaves. So cell phone towers, cell phone signals, Wi-Fi, all of this stuff tends to be high frequency.

FM radio, AM radio, right? They're high frequency most of the time. So that's a different sort of animal, if you will, relative to the body than PEMFs.

So PEMFs obtained and EMFs are not contained. Yeah, that's a good, good explanation. And also, how about the EMFs in nature? Like, for example, if you go out in the forest, there's EMFs coming from the trees.

Is that high frequency, low frequency? They tend to be low frequencies. Yeah, very high frequencies. They have high frequencies as well. Our human body produces high frequencies.

And those high frequencies are related to color very often and light. Right. We broadcast, our bodies broadcast infrared. Our bodies broadcast far infrared, but most of the very high frequencies that our bodies are broadcasting are not actually broadcast by the body.

They're going through the body. Gotcha. So when we're measuring what's coming out of the body, we're actually measuring a huge amount of the time. We're actually measuring what's gone through the body.

Wow. So we actually, we release infrared and far infrared as well. We transmit it because it's passing through us.

## Environmental EMFs, Grounding, and Exposure Risk

Gamma rays pass through us. X-rays pass through us. All these other frequencies in the universe basically just pass right on through us. Okay. Now, microwaves, unfortunately, the faster the frequency, the shorter the wavelength.

And the shorter the wavelength, the more absorbed by the body. So that's why x-rays, or radiation therapy, is very high frequency, but it's absorbed by the body, but it's ionizing, that means it can destroy tissue.

And it does heating, and we use frequencies that are absorbed by the body, that do heating in the body, and we use them for therapeutic purposes, but to a limited extent, because they can burn the tissue.

And actually in medicine, we use radio frequency to burn tissues. So if you have a nerve that's being pressed on by a disc or by a growth of some kind, and that nerve is causing you pain, but you can't get rid of the growth that's

causing the pressure on the nerve, what do you do?

You kill the nerve. So you can't solve the problem, but you can at least treat the pain. And that's radio frequency. So that's a burning technique. And that's used that way on purpose.

But most of the time, we don't want those high frequency fields because they do heat the body. So if you take a cell phone and you put it to your ear and you hold it to your ear while you're having a discussion with somebody, then we take the cell phone away from your ear, you'll see typically very, very common.

You'll see that the ear is bright red. But what you've been doing is you've been cooking your ear. Yeah, those microwave frequencies heating it up. It's heating it up.

Yeah, superficial. It's not going to necessarily damage you. Now, if you have that cell phone to your ear 24 hours a day, then there's a risk that you're going to do some damage in the body.

So most of our exposures are not that high or that long. So most of the time that we don't have a big problem. But ideally, you want to decrease those kinds of exposures.

Yeah. What are your thoughts on using cell phones up to the ear and perhaps, you know, a link with brain tumors? You have to have a very high dose over a very long period of time.

One exposure is not going to cause a brain tumor. Sure. Yeah, sure. Right. You have to damage the genetics of the tissues of the cells in the brain and the body's got to try to repair that.

And while it's trying to repair it, of course, you aren't doing the damage that's caused. So the key with Wi-Fi and the key with that kind of EMF exposure is the dose.

Right. And then dose includes the amount of EMF, the intensity of the EMF, and how much of that you accumulate over time. Yeah. Well, and I had this discussion yesterday on another call that I did.

Most of the time for most people, it's not that big a deal. I say it's not that big a deal. Now, if you happen to have hypersensitivity, if you happen to have a really, really hot autoimmune problem going on, your white counts are very high, your sedimentation rates are high, your C-reactive proteins are high, you're hot.

And when your body's hot, that may be… very irritating. Already the cells are very sensitized. And so as a result, adding another burden on top of that sensitized body then makes it much worse.

Yeah. That's the only time that I really think that we really, really have to worry. Now, if you happen to be a lineman working around microwaves, well, you're going to get a lot more exposure, right?

Most of our exposures for most of us are passing. Yeah. Right. Right. If you, unless you have a, a router and you're working near a router eight hours a day or 12 hours a day, then you get a lot of exposure.

If you have a meter, a smart meter next to your office that's transmitting all day long, well then you're getting a lot of exposure. It may not be a high exposure, but it's continuous and it's over a long period of time.

What's a good distance people should, you know, there's probably a lot of people listening that have a router perhaps in their home office that they're using or, you know, somewhere that's close by.

What's a good distance that they should keep, stay from their router on a typical basis? I don't have a good answer for that because if you're in a library and it's a big building, let's say you're in a dormitory at university, and you're 500 feet, 1,000 feet away, and you're still getting a good Wi-Fi signal.

Then you're getting exposed. Then you're getting exposed. Yeah. Well, again, that's going to vary from person to person and problem to problem. The good thing about pulse magnetic fields is they offset the irritation effects from

EMFs.

Well, if you're doing PEMF therapies for yourself, for any other reasons, you're getting a benefit in terms of offsetting the irritation in the body. Now you're not neutralizing it.

What you're doing is you're decreasing the body's reactivity to it. Unless you totally block the EMF. If it's hitting your body, you're getting that exposure and your body's going to react.

Again, that reactivity may not be a big deal. But cumulatively over time, and especially, again, the more toxic you are, the more inflamed you are, that may be more of an issue.

Cumulatively. Yeah, absolutely. Yeah, so PEMFs can be a helpful antidote because they're going to help stabilize the cell structure and help improve overall cellular communication, cellular health.

That's key. Now, our ancestors, obviously, before this sort of technology was around, You know, they obviously were being exposed to as much of the hazardous EMFs on a regular basis that we have in our society today, but also they were getting, you know, the beneficial EMFs from nature, going out barefoot, grass, dirt, sand, being around trees, things like that.

A lot of things that most humans in today's society, in first world countries, are not doing very much of. Oh, yeah. Yeah. Now, obviously we've got this great technology of cell phones and wifi and 5G and all this stuff that allows us to grab information so quickly, but we also need to harness these EMFs and use them therapeutically to help improve our health because these technologies can be hazardous to our overall health.

Well, that's a very important point. And I have had discussions with other people about grounding, for example. Yeah. The planet has currents in it that are flowing in the planet, on the Earth itself.

They're called telluric currents. And they're all over the planet. We can't stop them. They're there, naturally. In addition to that, we are exposed to the Earth's magnetic field.

And the Earth's magnetic field is about half a Gauss, 0.5 Gauss, G-A-U-S-S, Gauss. And that's important. So in the past, before modern technology, we were basically living on the planet.

We were living on the ground. We were sleeping on the ground. Or as you said, we were walking barefoot or walking in sandals. And maybe we even hugged trees, but if you didn't hug the trees, you at least were around trees and plants all the time that were emitting their own magnetic fields.

So they were balancing to the body to a great extent. However, if you got shot in the chest with an arrow, the value of the benefits from the grounding is not going to be that good, right?

Not going to be that helpful. So in general, they help you to balance. But what do people die from before, let's say, the last 100 years? Infections. Infections and trauma.

Yeah, exactly. Right? So we were still dying with all that grounding. Totally. But if you're very sick, grounding is not strong enough. Yeah. So magnetic field therapy, doing magnetic field therapy is magnitudes, magnitudes of times stronger than the natural magnetic field.

Yeah. So if you're relying on grounding to be the big deal for you in terms of your health, well, it's going to help, but is that enough? Yeah. And considering what happens in our environments, it's not enough, I don't think.

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.

## How PEMFs Affect Cells and Reduce Inflammation

Pulsed electromagnetic field therapy is a science-backed, 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 DrPaulik.com PEMF Systems. Visit DrPaulik.com, that's D-R-P-A-W-L-U-K.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 DrPauloth.com today and let's get started on your healing journey together. So let's talk about these PEMFs and how we can harness them to help improve the overall cell health.

And I know, you know, so let's talk about, yeah, like the basic physiological actions of these PEMFs. All right, so PEMFs, as I said, are generated by current flow through a wire.

So the magnetic field is bouncing out of the body and the body is completely transparent to a magnetic field. Nothing in the body stops or uses up a magnetic field.

All right, it just passes right on through. The key then is not the magnetic field passing through. It's not the magnetic field that's important. What's important is how the body reacts to it.

And what the magnetic field is doing essentially as the magnetic field is passing through the ions in the body. So our bodies are electrolyte soup. We say that the water, it's not water, and it's not even saline.

It's electrolyte soup. And because it's so loaded with electrolytes and ions, that magnetic field is interacting with all the ion structures of the body and the charges on the cell membranes.

So that interaction then amps up the body. It creates charge or energy in the body. And then the body basically says, okay, I have more energy now. What do I do with it?

It could do a lot. So you could heal wounds in half the time. You could heal fractures in half the time. You could rebalance your body's bio, your meridian system, your acupuncture system almost immediately.

Every time you're doing magnetic field therapy on the body, you're doing acupuncture without needles, right? I discovered that very early on in my career working with magnetic field therapy.

That's one of the reasons I started doing magnetic therapy is to replicate acupuncture. So basically the acupuncture system is a DC current system. So because it's DC current, what's that current doing in the body?

It's flowing and what is it doing when it's flowing? It's beginning to balance out the strengths and the weaknesses within the body. And with acupuncture, that's what you're doing.

You're trying to balance out whatever deficits there are, whatever excesses there are, whatever insufficiencies there are, tries to balance them. A balanced body that is functioning harmoniously and harmonically to do the best work that it can.

But magnetic field therapy amps that up by a significant factor. I actually did a study with people, with healthy people, and exposed them to a magnetic field.

Then we did something called GDV, which is curly in photography. And we looked at the field, the electrical field of a person before magnetic therapy and after.

There's almost a 20% increase in the energy of the body after magnetic field therapy, whole body magnetic therapy. 20% increase. So the mitochondria just become a lot more efficient with their energy production.

Everything. Yeah. Everything. Oxygenation, stem cells, circulation, ATP production. So there's a list of about 25 different actions of magnetic fields in the body as a reaction to the magnetic field.

Now, how was that? How was that? That was pulsed electromagnetic frequency. Was that like the whole body was exposed? So was was it like they laid on it?

They laid on a pad on a pad. Yeah. OK. A whole body magnetic pad. Yeah. Yeah. Exactly. If you expose part of the body, but not the whole body, that part of the body is going to get a significant amount of benefit from the magnetic field exposure.

And some of that benefit is going to accrue to the rest of the body. Cause the meridians are flowing through that, that section of the body and they keep circulating as they keep on going.

The circulation in that hand or arm that's exposed to the magnetic field is also going to keep going through the body and it will then help to condition the rest of the body.

And it's never going to be as strong as the magnetic field applied locally. Right right because I knew you have devices that are very localized right where you're really applying it localized I know there's other other devices like mats like I have a mat here at home that I use before I go to bed I have an office chair so there's a lot of different devices that can be used you know and so it's it's always interesting I'm curious on your pros and cons of each and you know how to best use it but we'll come back to that first let's talk about the cell injury theory and how PEMs play a role in that.

So every cell tries to maintain itself, right? It grew and developed and it's its own entity, if you will. It's got its own intelligence. How many biochemical processes per second happen in a cell?

Enormous amount. I use the number a million or maybe less, but think about it that way. It's about a million biochemical processes per second in every cell.

So that means that that cell is working very hard to do its job, whatever it was designed for, whatever the DNA says it's supposed to be doing. whatever part of the body it's in, it has this job.

And when it's injured, so what's a cell injury? It's not dropping a brick on it. A cell injury is burning it. A cell injury is toxins, is infections, is senility, it gets older, right?

All these things are what we call cell injury. And then what the body does is it tries to do whatever it can to bring itself back into balance. Unfortunately, what happens is it gets to a certain point where it just can't do that anymore.

So that's the point of no return. In other words, the cell injury is done and there's nothing else you can do. That cell then gets recycled, right? It's apoptosis.

It could undergo apoptosis or, I guess, autopsy. It's two options. Okay, yeah, yeah. It's beyond autophagy at this point. Beyond, yeah. And so it can't repair itself, so it needs to either be killed off or it's just going to die.

or just breaks apart and the cell components are then recycled and used by other cells of the body. So cell injury, then magnetic field therapy, the components of cell injury include mitochondrial damage, decreased ATP production, increased oxidative stress, changes in the movement of calcium and magnesium and other minerals out of the membranes of the cell, in and out of the cell.

and repair, genetics, all of that is part of the cell injury process. And what happens then was magnetic field therapy actually, interestingly enough, affects every part of that cell injury process.

So if you apply magnetic fields before irreversible damage happens, you can repair this cell. And that's the key, but then how do you time it? How do you know how much treatment you should have, should use?

We can't figure that out and you can't be doing magnetic field therapy continuously. Well, you are in a sense by living on the planet. And the more you move on the planet, the more electromagnetic stimulation you have in your body.

As you're crossing the field lines of the earth, and you're interacting with the telluric fields in the earth itself, all of that creates dynamic action in the body, which then is used by the body to then help to balance and repair.

But as I said, often it's just not strong enough. So if you apply a stronger magnetic field, then you begin to rebalance as much as you possibly can. And even if you can't, the cells that are gonna die, how many cells in an organ?

How many cells in the organ? Uh, good question. I'm not sure. Billions. Yeah, right. Right. When you think about the body has about a hundred trillion cells in it.

So there are billions of cells in an organ and an ear. Uh, an example that I use is the left toe. Let's say your left little toe decided to get a hangnail.

How many cells have to be damaged before you notice that you have a hangnail? Probably like 50 million or something. Millions, literally millions, because our nervous system, our sensory system is pretty blunt, right?

You have to have enough damage that the body then says, okay, now I have some damage. If you're doing therapy on a regular basis, you're helping those cells to rebalance and repair before the damage is permanent.

Uh-huh. And once you have damage, then you do biochemistry testing to see whether you have an imbalance in biochemistry. You could do microscopes. You could do ultramicroscopes.

You could, you could see it. I mean, if you have a big red lesion on your hand, the back of your hand, well, you know, you got cellular damage, right?

You don't want to wait until you got, until you can see it. Ideally, you don't want to wait till you can feel it. You can sense it yourself. You want to be able to try to repair as much as you can as early as you can.

That's what keeps you young and healthy. So routine use of this technology then helps you to maintain yourself better, longer, and stronger. 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 body the energy to repair itself.

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 PMF 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.com because real healing starts at the cellular level.

Going back to the question of what's the right dosage for somebody, is there downsides if you're using it all the time?

## Dosage, Intensity, and Whole-Body vs Local Treatment

For example, I have an office chair. um, that has PMFs, right? That I'm sitting on when I'm working and I just keep

turning it on, right? Basically, you know, every time I remember, just so I can get more positive, you know, PEMFs in, you overdo it or Is it beneficial i feel good right so i feel good using it i definitely can tell that it's improved my energy my stamina while i'm working.

You know when i was sitting for a long time even though i have a setup stand up desk i would get more lower back pain i don't have that anymore and this this office chair is both infrared and.

So I'm able to kind of couple both of those with it. And I feel like it's made a huge difference for me. But my question is, you know, like the recommendations are like use it like twice a day or something like that, right?

And so can you overdo it? What's the benefits of different types of PEMFs, different wavelengths, right? Like there's a lot of science that goes into this.

I know obviously you're a world expert in it. So can you help break it down for myself and then also for the average individual? All right, so there are certain things that we want to do with PMFs almost no matter what.

One of the most important things is to decrease inflammation. Right. Everything is inflammation. Aging is inflammation. Injury is inflammation, typically.

So what happens then is you want to decrease inflammation, and research is now showing that you need about 15 gauss, optimally. This is through the adenosine receptor.

Adenosine is one of the molecules for ATP, but adenosine is also used by the body to deal with inflammation. And what research is showing is that the optimal magnetic field for decreasing inflammation through the adenosine receptor is 15 gauss.

So if you have less than 15 gauss and you put a magnetic field on the skin, it's going to help the skin within one or two millimeters, but that's it. It's not going to go deeper.

Now, if you have 15 gouts, it's only going to work 15 gouts there. But if you need to go across a brain or across a lung or a heart or through a back, then you're going to have to kind of calculate the dose.

I have a blog on my website about adenosine. So it's adenosine and inflammation. That blog gives you the tables that shows you the intensity of the magnetic field you need, depending on where, how deep into the body you want to treat.

So for example, if you want to treat across the skull, let's say you want to treat the brain for head injury, for brain fog, for concussions, toxicities, inflammation, whatever, you want to treat the brain.

To deliver 15 gulfs across a skull, because magnetic fields go right through the skull, go right through the brain as if it wasn't even there, right? To deliver 15 gulfs across a skull to the other side, you need about 4,000 gulfs of magnetic field.

Okay. About 4,000. Fortunately, magnetic field therapy is safe to the body, generally speaking, unless you use a very powerful magnetic therapy machine.

And here you're talking about MRI level equipment. You're talking about equipment that's 10,000, 20,000, 30,000 Gauss. But most of the time, you're not going to be using those for long periods of time.

They're too expensive. They're too big. They're too bulky. They're hard to use anyway. So they're used periodically. There are devices that are available that you could run on all night.

They can run for eight hours a day. They tend to be lower intensity. And they're going to be safer. So what happens is the body tends to ignore the magnetic field that it doesn't want or need.

It will react to it. So a study done at University of Virginia where they measured the brachial artery, they exposed the brachial artery to a magnetic field.

and then looked at the dilatation and contraction of that brachial artery. And what they found was within milliseconds, the brachial artery expanded and just as quickly contracted.

It went from expansion to contraction and then just as quickly, it went back to neutral. So a healthy cell will react, but the normal balancing mechanisms of the body will take that reaction and balance it back out again.

So getting back to homeostasis. It gets back to homeostasis and balance. So where it becomes important is where it's out of balance already. So what you're trying to do when you're out of balance, you're trying to find the best balance you can in your imbalance.

Right. Our bodies are doing that all the time. And we age, why? Because we're not completely balanced. Yeah. Seriously, the PMFs act kind of like an adaptogen.

Like if we take an adaptogen, it's almost like a thermostat. Absolutely. If you want your home to be 70 degrees and it's 80 degrees outside, you turn it on 70, the air conditioning comes on, brings it down to 70. If it's 60 degrees outside, the heat comes on, brings it up to 70. Exactly.

That's sort of the fact. and it may bring it down below 70 to 65. Right. And then the rheostat says turn off, turn yourself off, and then it goes back up again.

So it's going back and forth like this. And the body's doing that all the time. Yeah. In very subtle ways, but that's constantly regulating. So it's a regulatory system in the body.

It's a rebalancing regulation system. So the magnetic field therapy, then basically, if it's not needed by the body, the body ignores it. If you have a fracture, Let's do a cut.

You cut yourself. Yeah. Right? That's an injury. That's cell injury. That's actually tissue injury. It's not just cell injury. It's tissue injury. And what does the body do?

The body's job is to repair that injury. So what does it do? It increases inflammation. It increases circulation. It decreases oxidative stress. It does a whole host of physiologic actions.

to try to deal with that injury. And eventually it produces new cells, produces fibroblasts, and produces collagen, produces all kinds of cells to close that wound and to make it as normal as possible.

Normally when you cut yourself, if you have a deep enough cut, you'll always have a scar because the body can never repair itself back to complete normality, but it does the best it can.

So what happens is magnetic field therapy has been found to take that wound by giving the body more energy, it will heal that wound in half the time. Right.

That makes sense. Yeah. Right. How about how about things like like perhaps like a sinus infection or, you know, if somebody had, let's say, respiratory infection, would you isolate EMFs?

Yeah. Let's deal with sinus infections. Very common problem, right? So a sinus infection, an infection is some kind of a, let's say viral process or bacterial process that's now affecting the body.

The body reacts to it with a typical, what we call, triple response of Lewis. You get swelling, you get dilatation of blood vessels, and so on. So that's an injury.

So those cells are now injured due to the infection. So the body is going to try to flood that injury, that injured tissue, with circulation and oxygenation and nutrients.

and DNA, it gets activated so that you can begin to repair process of the dead cells. So magnetic field therapy then decreases inflammation, improves circulation, increases stem cells, increases ATP production that has all of these actions as a result of that magnetic field.

Now the body's already doing it, but it's not efficient. How efficient is the body in taking energy and converting it to work? I mean, in general, the body's incredibly efficient, or it's constantly working to be as efficient as possible.

Exactly, but how efficient is it? It depends on the individual's metabolic health, right? That's true. The more healthy they are, the more efficient, the less…

Absolutely true. But if everything's optimal, how efficient is the body? I don't know, you tell me. About 20%. Really? OK. Twenty to twenty five percent.

It's about as efficient as a car engine and converting fuel into work. So we lose a lot of efficiency. So we use that inefficiency to keep our body temperature up.

Right. Right. But in terms of work, it's not as efficient as we want it to be for work, which is why when you apply magnetic fields to an injury or an infection, the body will heal it much faster.

because now it has more energy and can become more efficient than it would normally be. Yeah. So if somebody had something like, let's say, a respiratory infection or a sinus infection, it would benefit them to perhaps lay on like a whole body mat, but it would be even better if they had something localized, very intensive.

Exactly. And at the level where it's going to significantly impact the inflammation. So if you have a local magnetic field that's only maybe about five gauss or 10 gauss, you're not going to get much benefit from that.

You would have to apply it for a very long period of time, hours perhaps, The lower the Gauss, the more time is needed. The less the Gauss, the more time is gonna be needed.

So it's still gonna need X amount of time at the right intensity for the tissue. But then if you have the right intensity, then you could do it much better and much faster.

Because you can heal in half the time. I'll give you an example. I had a spider bite. I was going to go read on my patio and I looked down on my leg and I didn't even know that I got bitten.

I had a quarter size lesion on my leg and I'd seen enough spider bites. I knew what it was. So what did I do? I put a magnet on it. I happened to have a fridge magnet that was a pretty thick little magnet.

So I taped it onto my leg and I laid on the patio and was reading a book. Three hours later, I looked down, gone. Hmm. This is just a refrigerator magnet.

It was a thick, it was a thick magnet. Yeah. It was not, it's not that one of those flat magnets, right? It was a pretty substantial magnet. I caught it early enough that not enough damage had happened from the infection.

The body was still acutely dealing with it and the magnetic field basically just Bang, just went at it with the body. The body got help from the magnetic field and it healed.

Basically within three hours it was gone. I had a little girl who cut the end of her thumb off. It's in my power tools for health book. I have pictures.

She cut the end of her thumb off. Now, fortunately she was three years old. And I was able to, with a magnet, now and a half to three hours a day, put a magnet on it, pulse magnetic field, not a static magnet.

So this was a magnet that also was plugged in and was sending an electrical current in there. Exactly, pulsing into the body. And so by doing that, what it did is it stimulated the body's capacity to heal.

Now, the three-year-old has a much stronger capacity to heal, right? So literally, there's bone in there, there's nail, there's skin, right? There's connective tissue, the circulation, there's nerves, all that stuff that's in a thumb or a digit.

Literally within 12 weeks, she was regrowing her nail. Wow. The first picture, after she put it on, the finger was black. The end of the finger was black.

You'd expect that because there's no circulation. She cut it off, right? But reattaching it, the body basically began to grow into the remaining tissue and she eventually sloughed off the dead tissue.

But she basically regenerated her thumb. Wow. That's an amazing story. And on top of that being amazing, I actually have a three-year-old daughter as well.

What's amazing as well is that she was compliant with But she only did an hour and a half, an hour and a half a day.

## Injury Recovery Case Studies and Device Selection

I wanted her to be doing the three, four hours a day. Well, my wife, another story related to healing like that, my wife broke her little toe. So basically the toes bent out, she broke it.

Your audio cut out there. So she, yeah, I had tapped it and it turned it off. So she broke her toe. black and blue, swollen and painful. I put a magnet on it, same magnet that I used on that little girl.

She wrapped it around. Okay, I didn't, I'm dynamic and I'm touching my microphone. You're good right now. All right, so she, so I put, buddy taped her toe, put her in a platform so she didn't move it, right?

Had her do that magnet that she was compliant. She did that magnet for 24 hours, basically did it continuously till the next morning. Next morning she woke up, no swelling, no bruising, no pain.

Then I had her continue to do it for another 24 hours. So continuously, 24 hours, woke up the next morning, walked a mile in tennis shoes. Wow. Did it for another 24 hours, walked three miles in tennis shoes, and that was it.

She was finished. Wow, that's amazing. Now, in order to do it, it needs to be plugged in, right? So she just kind of… Oh, that was battery-operated.

And the little girl also had a battery-operated device. Oh, okay. Yeah, yeah, yeah. It was not as high in intensity, but it was high enough for the local need.

Yeah, yeah, yeah. So you can get battery-operated, but you can also get models that plug in. Plug in, yes. When you're plugged in, it's harder to run these models over extended periods of time because they're usually time-limited in how long they will run for.

Right. When it's battery-operated, it runs until the battery dies. OK. Or you turn it off. Yeah. That's really good to know. I mean, wow, some amazing case studies right there, amazing results with it.

And so what should people be looking for when it comes to getting these type of devices? All right, so one of the key lessons that I've learned in the last three years or so evaluating all the research is the whole adenosine argument.

Adenosine is also what caffeine acts on, right? Caffeine tends to counteract adenosine. Yeah, right. Adenosine is kind of almost like breaks. Well, obviously it can have multiple things.

You were talking about it has an impact on pain. Right. But it's also kind of like it slows down brain activity. And so caffeine makes you sleepy. Yeah.

Right. Right. Which is why people use coffee in the morning. Yeah. Yeah. Turn off the adenosine. Right. Yeah. Right. So the adenosine makes you sleepy.

So as our day goes on, we tend to produce more and more adenosine to make us so finally be smart enough to go to bed or sleep. and recover and regenerate.

So the identity becomes key then for inflammation, but it has not only this effect on sleep and the brain and other neurophysiologic structures, but it has this inflammation effect.

When we injure anything. Acute injury causes a flood of demand for ATP, huge demand for ATP. And part of the problem with ATP is we can only generate so much.

Because your tissues locally, you don't get circulating ATP that much. Most ATP is very local in the way it works. When it's circulating, it actually signals cell danger response in the body.

That's correct. It's a signal that there's an event happening. So the ATP was released because of the damage or the injury or the inflammation. So the body then needs help making ATP.

So with acute injuries, PMF therapy helps the body to make ATP, but it also tends to concentrate the ATP where you need it. With the magnetic field exposure then locally, you're increasing the ATP production dramatically.

But the optimal magnetic field intensity to increase ATP is 15 goes. Now the ATP that we're talking about here for decreasing inflammation is on the neutrophil.

It's the adenosine receptors on neutrophils. White blood cells. Where are neutrophils? Well, they're a white blood cell that's, I know it's key for attacking bacteria.

They also help drive up certain inflammatory responses in the body. Where are they in the body? All throughout the blood. No, everywhere. Yeah. Even in the cells.

Yeah. Yeah. Even the cells have ATP. So basically everywhere, because you have neutrophils in the tissues. They migrate out of the bloodstream. Migrate into the tissues.

Right? Right. Basically, they're everywhere in the body. Wherever they're needed, you're going to have them. So essentially, you can fight inflammation, you can increase the availability of ATP in the tissues that need that help.

ATP, we basically develop or produce our body weight in ATP every day. Every molecule of ATP in the body is recycled about 500 times a day. And magnetic fields actually increase the production of ATP, but ATP by itself does nothing.

ATP to be used for fuel or for energy has to strip off one of the phosphates and then it becomes ADP, right? Yeah. So that's called hydrolysis. So magnetic field therapy makes the ATP and then hydrolyzes the ATP and then makes more ATP.

So it's a constant cycle of regeneration and use and breakdown. So that happens anywhere in the body. Anywhere you put PEMF at the appropriate frequency at the 15 gals like you were talking about in particular You're gonna improve the overall Energy efficiency right so that in that in that tissue in that particular tissue that you're stimulating Where is the whole body or whether it's lying on like a mat or something like that, right?

It's gonna up regulate things throughout the body, but not quite not as much, right? Yes small increase in efficiency there's a problem and the problem is how long does that ATP last yeah so again ATP without being hydrolyzed without releasing phosphate to produce the energy then that energy is used and then you have to regenerate right away so you're only making enough ATP for the moment.

Our heart generates enough ATP for every heartbeat. It doesn't have much in the way of reserves. Right. Making it

constantly for every heartbeat, we're regenerating the ATP.

So that's available for the next beat. So that's how much ATP our bodies are producing. So some tissues, obviously like a ligament or a tendon or a muscle that's not working.

They don't, it doesn't need much ATP, but the heart, the brain, other parts of the body that are working all the time, they need a lot of ATP. Sure, yeah.

So we can help those tissues to make more ATP, but the benefit to the ATP production is short-lived. Fortunately, the benefit of the ATP production creates other downstream actions for repair, regeneration, and energy, and vitality, and so on.

So even though you're generating for a short period of time, you're getting a benefit outlasts the time of the magnetic stimulation. And we rely on that, because otherwise we'd have to be doing a magnetic field therapy 24 seven.

Yeah, right. Yeah. So for example, you mentioned the hearts of somebody, let's say they had, you know, heart disease, they could isolate PMF over their cardiovascular area, hit it at 15 gals, right?

And it'll, it'll penetrate through, you know, the chest. That's the right amount of intensity. So for a heart, you're going to need not 15 gals, you're going to need enough to get to the back of the heart.

You're going to probably need about 3000, 4000 gals over the heart itself. And you have all that information for specific organ types, stuff like that, on your website.

Typically, yes. And in the books, in my Super Tractor Health Book and the Power Tools for Health Book, yes. Yeah, and so that will penetrate in there, right?

And that person could, you know, wear that for, let's say, eight hours a day, 10 hours a day, and start up-regulating ATP in all those tissues so they can basically heal themselves and strengthen their efficiency.

Within the depth of that field, correct. Right. Wow, really powerful stuff. I mean, this is something that really all my listeners need to know about and be utilizing.

And obviously, people can find out a lot more at drpaulic.com. And, you know, we were talking about, like, basically how to know because there are a lot of devices out there.

And so people just need to know that the proper frequencies that they need. Is that correct? Like that's one of the big elements of it. The proper intensity.

You have to, anytime you buy a piece of equipment, magnetic device, you have to always ask, what is the intensity of the magnetic field produced by this equipment?

And I can tell you right now, most of the companies that sell don't tell you that. Yeah. The multi-level marketing companies won't tell you that. They don't want to talk about it.

So what they do is they talk about frequencies, but they won't talk about intensity because they don't have enough intensity. Many of these devices are one or two Gauss at the most.

One or two is not going to get you very far. Now, if you have something important to deal with, like cancer or heart disease or Alzheimer's or brain injuries, et cetera, then you need to have the right magnetic field to do the job.

You won't be able to ever get enough out of these weak magnetic field systems and these Distributors often tell you what all you need is eight minutes a day, right?

Right. Well, that's that's absolutely not true What you what you need is what the tissues need and the tissues are gonna tell you what you need Not eight minutes a day.

There's no one size fits all for everybody for every situation Yeah, which is good to know because if you do get one of these lower, you know uh, lower intensity ones.

Like I would imagine, you know, I've got this, the higher dose office chair and also Matt, I would imagine it's not putting out like a, you know, a strong, intense signal.

You know what the magnetic field is for the higher dose? What is it? Four Gauss. Right, four Gauss, so not anywhere near 15. From a magnetic therapy perspective, it's not very useful.

It does the infrared and it has the crystal stuff as well. That will give you some levels of benefit, but it's not going to… Actually, I feel good using it.

But yeah, the PEMs, I'm not getting a whole lot of benefit from that. Yeah. Yeah. Okay. And so, and then the ones that you have, now you have ones that are localized, you have MATs as well.

So a big part of my journey, I've been working with magnetic fields for 30 years. So I'm either a slow learner or it's actually a pretty complicated topic.

So maybe it's a combination. You're a pretty sharp guy, but I mean, any sort of topic that's this intense can take a while to really learn. takes a long time.

So in my learning process, I used to work with these very low intensity systems and I discovered that they were not doing as much as I wanted them to do.

So as a medical doctor, I basically tried to treat anything that walks in the door, whether somebody who lost a leg or somebody who's got a brain tumor.

Or somebody who's got a cold or a sinusitis. You'll be able to deal with all of this. So I discovered over time, again, the intensity of the magnetic field.

So what then I had to do is I had to go out and find the magnetic devices that were going to do the job. And that's why on drpawlik.com, I have a list of devices.

In fact, I have a product comparison guide on drpawlik.com. goes through all the different machines and what they do, the different intensities and what they do.

That's very important for people to understand. I also have comparison charts in my books as well. When you see that, then you'll know what you have to deal with.

If you're dealing with, say, cancer, let's say let's deal with something simple, osteoporosis or osteopenia. So osteoporosis or osteopenia are a bone density problem.

## Choosing the Right PEMF System and Final Takeaways

But which bones are involved in osteopenia and osteoporosis? All of them, it's systemic. Exactly, it's a whole body problem. So what you need to do is you need to get somebody that's whole body and strong enough to go through the entire cell skeleton at a sufficient level of magnetic field intensity.

So you need a higher intensity, whole body PMF device to do that. If you're just treating a tennis elbow, but you know, if you're just treating a tennis elbow, what's wrong with the rest of you?

Nothing specifically, but the inflammation, even if it's localized, is going to have some level of effect on the rest of

the body. All right. But we could argue about this.

What's wrong with the rest of you? Whatever is wrong with the rest of you for a person your age. Right. Right. Exactly. Right. And you're aging. So everybody's aging.

Sure. Right. So do you really need just local therapy? So basically everybody benefit from whole body. You really should have your body, regardless. But it has to be strong enough to be able to deal with most of the common problems that people have.

Typically, you're going to need some between 2,000, maybe in about 6,000 or 8,000 gauss. So how do you get that? DrPollack.com. There you go. I mean, there are people who obviously sell devices regularly out there.

I started my journey by just offering education. Right. And then people started asking me, well, which machine should I get? Well, then, because I offered the advice, then they come back to you and say, well, how do I use it?

Yeah, exactly. I said, well, wait a minute, wait a minute. Our deal was that I give you information. Everything else is up to you. So I said, okay, well, I can't do this.

I can't offer and then not offer support and advice. So then we started accumulating, started evaluating and developing recommendations for devices that I thought were credible.

And I have a blog on my website about a buyer's guide. So that's where I'm going to send my reader, my listeners here. Check out drpaulic.com. He's got the buyer's guide there.

So you can learn more about this. I know there's a lot of terminology here that, you know, if you don't understand electromagnetics and physics and things like that, it can be confusing frequencies and intensities and all that kind of stuff.

But his website does a really great job of breaking this down. I know for me, I'm more of a visual learner than a audio learner. And so it's good to get this vocabulary and then actually read up about it so that way it'll start to sink in.

You can really understand this. But the other case studies you talked about, absolutely amazing stuff. And the science is solid on this. And this is something we all really need to be aware of.

With our 21st century health issues and the kind of challenges we're dealing with now in the 21st century, this sort of technology is something we all need to be able to access and have access to and be utilizing.

Dr. Pollock, I want to thank you for your time and your expertise and all the great work that you're doing. Guys, again, you can check him out, drpollock.com, and his last name is spelled P-A-W-L-U-K.com, drpollock.com.

We'll have a course in the show notes and everything. Any last words of inspiration, anything we didn't cover that you want to just share right here at the end?

Yeah, I think this is a whole new technology, and we take things for granted until we can't. Human beings are that way. We tend to react to problems. We don't tend to do things for ourselves to keep ourselves healthy, typically, until we have to.

But magnetic field therapy keeps you going longer, better, faster. So it's called entropy. But we age because we don't have enough energy to be able to fight the aging process.

That means that there is no person on the planet who doesn't need magnetic therapy. And you can spend a lot of money doing all these different treatments, whether it's infrared or hyperbaric or ozone therapies or light therapies, et cetera, et cetera, et cetera.

I started my journey with acupuncture. And I couldn't do acupuncture in 1990 because people didn't know what it was. So I started working with magnets to stimulate acupuncture points and meridians.

And then eventually I discovered very quickly, in fact, I discovered that magnetic therapy healed the tissue. Acupuncture doesn't heal the tissue. And so I stopped doing acupuncture, basically focused on magnetic therapy because I knew I could do a lot more for people.

So I discovered over time that the best value of a therapeutic system that you can get is magnetic field therapy. So you can spend money on all these other technologies and they all work synergistically.

But if you can only afford one modality for maybe even the rest of your life, magnetic field therapy is going to probably do a much better job for you generally than most other therapies.

And you can do it at home. Right. You can't go somewhere to get therapy. You can. You can help you temporarily. But what happens when you leave the office?

You still need it. Yeah. A short-term blast of therapy is going to give you some benefits, but it's not the same as doing it every single day. And that helps you with come what may.

Yeah, absolutely. Well, thank you so much for your expertise and your time, Dr. Pollack. Guys, again, check him out, drpollack.com. And we'll see you all in a future interview.

Be blessed, everybody. 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, stay proactive, and keep powering up to better health.

you