Introduction to PEMF and the Guest

PMF serotherapy stimulates ATP production. Correct. PMF therapy constantly recycles the ATP. Okay. You can increase ATP by up to 400% with PMF therapy.

Wow. Imagine reaching into the brain, stimulating the brain, poof, was an ATP increases. What does that do to a brain? It starts to come alive again. Brain fog.

Uh-huh. Right? Waking things up. Yeah. And then you add the oscillation aspect of that. Then you're getting this direct stimulation of the tissues, and then you're oscillating the brain wave functions of the brain.

So you're waking the brain up. So we know about alpha, beta, theta, gamma, delta, right? All those frequencies, right? What you're doing then, you can get the frequency of the magnetic field to be oscillating at a rate that wakes the brain up.

So not only is he doing all the physical things, but it's now oscillating rapidly enough to wake up the brain. Welcome to Take Back My Brain with Lori Hammer, where real healing starts in the brain.

I'm Lori, a functional nutritionist and mom who's walked the path from anxiety and burnout to clarity and calm. Each week, we're going to dive into brain-based tools like amino acid therapy, gut health, fasting and faith to help you reclaim your energy, emotions and sense of self.

Hello, everyone. Welcome back to the show. I'm your host, Laurie Hammer, and I am super excited today to talk about PEMF. If you have no idea what that is, make sure you stick around because we're going to dive into that with Dr.

William Pollack, and he is a holistic doctor near Baltimore, Maryland, and his biography is so long that he's done so many amazing things that I'm going to let him kind of give you a synopsis of everything.

But I want you to pay attention because this man is on a mission to eradicate chronic disease and to help so many people in the world. So I love his mission.

So Dr. Pollack, thank you so much for being on the show today. You're very, very welcome, Lori. And I have to qualify what you just said. What's that?

I'm on a mission, but to eradicate Well, I know we can't totally eradicate, but you know. To truly eradicate, we have to eradicate humanity. Well, we don't want to do that.

And we don't want to do that. We don't want to do that, but we would like to, you know, minimize. We may fall short, but we're going to try, right? Yep.

Yes. Meaning that we give it our all is the best that we can. All we can do. All we can do. Well, tell the audience a little bit about yourself and how you kind of got to where you are right now.

Sure. Well, as a holistic doctor, as you mentioned, I'm a family physician by background, and then I eventually went into holistic medicine.

From Pain Management to Magnetic Therapy

Along in my journey of holistic medicine, I used to deal with a lot of pain patients and a very short period of time, and we had a group of medical doctors, family physicians in the New Jersey area.

So we had 14 family doctors and we surround together, we work at the hospital together as a group. And in a very short period of time, I had two or three patients who almost died from gastric bleeding.

Oh, wow. And the commonality for all of them was ibuprofen, was non-steroidal anti-inflammatories. And so now we know since then, basically that about 30,000 people a year die from a non-steroidal anti-inflammatory complications.

That's a lot, 30,000, right? So as I was looking at that, I said to myself, what am I going to do to manage pain if I can't use ibuprofen? Because back then, in those days, that was basically back in the late 80s.

We did not use codeine. We didn't use narcotics. It was taboo. You're not supposed to do narcotics. And then the government got involved and said, nobody should be paying.

Nobody should have pain. So therefore we started loading people with narcotics. the great wisdom of the government, right? So I said, okay, what am I going to do if I can't use these medications for pain management?

So I started studying acupuncture, learned acupuncture, and then went back into the community to do acupuncture. I was very enthused to do acupuncture.

Shove that needle in. Shove that needle in. I would do 23 needles at a time. Right? And it worked. But people said, you can't do that. I won't let you do that.

Put needles in me. So I said, well, how do I do that? How do I do acupuncture without using needles? And discovered that magnets worked on acupuncture points.

Started using magnets on acupuncture points and discovered that magnetic field therapy was actually doing more than acupuncture was doing. So acupuncture helped with the pain, but it didn't heal the cause.

Right. Right. And so I discovered, I said, whoa, this is interesting. Magnetic field therapy is doing a lot more. And so I began to move away from acupuncture to do just magnetic field therapy.

Okay. And I did some research with a local physiatrist, physical medicine specialist, and we did some EMG testing with magnets on acupuncture points and on the nerve conduction pathways.

Yeah. Lo and behold, wow, it worked. It worked. Amazing. So then it just basically extended from there. Along the way, I also met a doctor from the Czech Republic, an MD PhD from the Czech Republic who had done a lot of research in the Czech Republic.

And he had translated a lot of the science that was in Eastern Europe. So that was all in foreign languages, in Cyrillic languages. And I didn't have any science back then.

It was basically whatever I was learning as I was working. But then all of a sudden he said, I have a manuscript. He translated a lot of that science into very rough English.

Okay. All right. So then he gave me the manuscript says, here, let's, let's publish this. So we published the book together and it was called Magnetic Therapy in Eastern Europe, a review of 30 years of research.

Okay. That was published in the eighties. Okay. Right? 30 years of research up to that point. Up to that point, yeah. Right? And it's really kind of, in many ways, exploded since then.

So now I had the science, I had my experience, and I was, you know, skiing down that hill. That slope was wide open and clear. Right? That's great. So then basically that just led to my experience.

And then eventually published my own book called power tools for health, which has 500 references in other science of PMF therapies. And then published another book called supercharge your health on how to use PMF

therapies.

I love it, I love it. So that was a science. So this is not woo-woo, it's not my guess, it's not a theory, right? Right, right. Thousands and thousands of studies now on PMF therapy.

And as a result, I've basically put aside almost most other therapies because magnetic field therapy does so much. I'll give you an example. Okay. This blew my socks.

And after 50 years of practicing medicine, it's hard to blow socks. It's hard to blow your socks after that long, yeah. You know, sewing ears back, replacing scallops and things like that.

So this little girl, I got a call from a father, this little girl cut off the end of her thumb. Cut it off in a door jam. Torn off. So father calls me before the doctors had it, before the surgeons had it, because what the surgeon would have done would have been clean up the wound and grafted it.

Right. She would have had a deformed thumb for the rest of her life. I said, there's no harm in putting the piece that was torn off back, sew it back on.

And then we'll start magnetic field therapy. So they did, they sewed it back on. I have pictures in my Power Tools for Health book showing you the progression.

Literally 12 weeks later, 12 weeks, she was regrowing her nail. Wow, that's amazing. Yes. Yeah. That's what I said. Okay, there's no turning back now.

Right? That's just, it's like the sci-fi stuff you see, like, oh, you know, here you're putting, you're putting this med bed and then all of a sudden you're made well again.

Yeah. So three-year-old, she did an hour and a half, an hour to an hour and a half a day. I want her to do four or five hours a day, but no, an hour and an hour and a half a day, 12 weeks.

It's amazing. Truly amazing. So these are stories that you hear about magnetic field therapy on a regular basis. Magnetic field therapy in medicine, we have things called non-unions.

Okay. Right, so a non-union is a fracture that won't heal. It won't unite, that's called a non-union. So after three months, I mean, actually after six months, if a fracture hasn't healed, it's considered a non-union.

How PEMF Works and Why Intensity Matters

Well, they discovered at NYU that when you do magnetic field therapy to a non-union, all of a sudden non-unions that have been non-unions for six or seven years start regenerating.

Wow. Okay, and in three months, you've got a union. Without doing surgery, without doing anything aggressive, without doing anything dangerous or risky.

Right. So another great example of some of the magic of PMF therapy. So that basically has led to our current sort of state of things and my state of things as well rather to PMF therapy.

So magnetic field therapy is real. It's very significant. And the beauty of magnetic field therapy is it's like the wind in the trees. Meaning? The body is like the trees.

Okay. The magnetic field is like the wind. Oh, okay. Nothing stops the magnetic field. Okay. Right? It goes right through the tree. It goes right through the body.

Nothing in the body stops a magnetic field. That's great. It doesn't use it up. It doesn't lessen it. It doesn't decrease it. It doesn't cause any reactions that are, again, serious with it because it just keeps passing through.

As it's passing through, that's the key. So what happens when a leaf or a branch or all the aspects of a tree begin to move? They create piezoelectricity.

Oh, okay. Right. They create current. They do. Right. Right. So the leaves and the branches moving create activity in the tree. They create life in the tree.

Okay. We are like a tree to a magnetic field. Okay. The magnetic field does not pause in the body, does not stay in the body, it passes through. As it's passing through, it jiggles things, it starts to activate things and the body wakes up.

Processes that were stuck in healing, like a non-union fracture, all of a sudden restarted. So the body is not very efficient in healing. So let me ask a question.

How efficient is the body? relative to converting fuel into work. Not super efficient, takes a bit. Well, let's say 20, 25%. Okay. So the body's only about 25% efficient.

Okay. In the work it does. That's why a fracture takes so long to heal. That's why changes in the body, a wound takes so long to heal. That's why decreasing inflammation takes so long.

The body's got to do the work. The magnetic field is not doing the work. The magnetic field is giving the body an opportunity. to work, to work better, to work more efficiently, to be more consistent, to be more persistent in the work that it does.

As long as it's got the magnetic fields going through it, it's activating all kinds of things in the body. And in my first book, I discovered there were like 27, 25 different actions of magnetic fields in the body.

And that's not all. So it's not about the fact that it's healing arthritis. It's not about the fact that it's healing a wound. It's not about the fact that it's healing non-unions.

It doesn't matter what the problem is. The body's trying to restore its balance. It's trying to get back to normal, what it considers, what the body defines as normal.

So the magnetic field is basically stimulating the body, giving the body the chance, the opportunity to restore its balance. Wow. So where are these PEMFs coming from?

Where are these magnetic currents coming from? So they're made by devices. So maybe we should talk about the difference between EMF and PEMF. Okay. A lot of people that are listening are going to be saying, well, EMFs are bad for you.

Right. Right? Right. So what's the difference with the P in front of it? Yeah. Okay. So EMF is what we call open loop. Okay. It goes out into the environment.

It's broadcast. Yep. Right. And it just keeps on going. It doesn't come back. That's an open loop. Now that is EMF and that's microwaves that are broadcast into the environment.

Okay. Right? They just keep on going. Right. The microwaves by their very nature are absorbed by the body. Mm-hmm. Because the wavelengths are so short.

Right. That's the whole purpose or the whole functionality of a microwave oven. Mm-hmm. You're heating whatever's in the oven. Right. Because it's being absorbed by whatever's in the oven.

Mm-hmm. So that's EMF. PEMFs are designed and produced by a current flowing through a wire. Okay. So we have a wire here, right? Current flowing through the wire.

Now this wire happens to be shielded. Right? And inside this wire is a loop. So basically it goes out to the

microphone and it comes back to the source of electricity.

Right. Right? So that's a closed loop. Okay. Now, because it's shielded and because the, the wires in that loop cross each other like this. So this wire produces a magnetic field perpendicular to it.

And this wire produces a magnetic field perpendicular to it, but they're opposing. Okay. Now they're going in opposite directions. So in a sense, the magnetic fields cancel.

Tesla, one of the early promoters and discoverers of magnetic fields, found out that if you take the wires and you separate them and you create a loop, my hands are the wires, but they're in the wrong directions.

And then I have the wire and I loop at the very end. Since I separated the wires, the fields are no longer opposing. I see. So now they produce a magnetic field around them.

And every pulse of the current flowing through that wire produces a magnetic field perpendicular proportional to the current. Okay. So as the current is increasing, the magnetic field is increasing.

So the magnetic field is perpendicular to the current. Interesting. Okay. So that's a closed loop. It's contained within the wire with the open wire loop.

So that's a closed loop. And that means it's not, it's only penetrating. It goes in and comes out, goes in and comes out. It pulses. That's why they call it pulsed electromagnetic fields.

Got it. All right. So that's the big difference is it's pulse. It's contained within the wire. It's a very simple frequency. It's a very simple pattern and it's not absorbed by the body.

Okay. Right? If I took that pattern and I oscillated that pattern extremely very, very, very rapidly, like in a megahertz frequency, cell phone frequencies, then I would get some heating effects.

Oh, okay. Because it's going to be very close to the wire. Right? You have to have a very powerful magnetic field to create a microwave oven that's going to pulse way out here.

So you just don't see this with magnetic field therapy. Okay. It just doesn't happen. So pulse magnetic fields are extraordinarily safe. They just go in and out and in and out.

So that pulsing action, and that's called Faraday's law. So Faraday's law says that a magnetic field that's pulsing has an intensity from zero to its peak, right?

And it doesn't go straight up. It can't go straight up. It takes time. Now that time could be extremely short, nanoseconds or milliseconds. There's not seconds typically, it's very rapid, but that rise time of the magnetic field coupled with the fact that it's very short.

wavelength, very short pulse width, causes the production of charge in the body. Okay. And that's Faraday's law. It produces charge in the body, produces energy in the body, and then the body uses that energy for whatever it wants.

Whatever it needs for healing. So PMFs are extraordinarily safe. We do hundreds of thousands of pulses into brains on a regular basis with no significant ill effects at all.

And so there are some contraindications or there are some cautions that you have to do with PMF therapy, but beyond that, they're amazingly safe. Good to know.

Yeah. So, okay. So they're going in and they're going out of the body and they're not necessarily, they're not doing the healing. They're stimulating the body's own healing.

Correct. Correct. So what a magnetic field is doing, electromagnetism, right? That's why they call it electromagnetism. It's the electrical field component and the magnetic field component.

You can't separate them. Got it. One is completely related to the other, but electrical fields interact with electrical molecules. So ions, right, any charged molecules in the body are going to interact with that magnetic field passing in and out of it, right, to produce charge, to produce energy.

It produces micro or milli voltages in the tissues. Got it. Those voltages are then used by the body to do the work the body needs to do. Gotcha. So is there a specific strength of that needs to be in the body for it to stimulate it or can it vary?

How does that work? That's a critical question. Actually, that is really the key question. If you understand DBDT, Faraday's law and so on, I understand the functionality of that.

So is there a critical? So the answer to your question is it depends. Okay. Right? So we're looking, for example, at inflammation, anti-inflammatory action.

Research has shown that the optimal magnetic field intensity to stimulate charge production in the body to reduce inflammation by stimulating the adenosine receptor in the cells and tissues is a 15 Gauss.

So Gauss is a measure of magnetic field intensity. An MRI machine is Tesla, that's 10,000 Gauss. So we're talking typically much lower magnetic field intensities than that.

So 15 Gauss is the optimal magnetic field intensity. But we have another problem. And that is that magnetic fields like light and sound and heat and cold, change with distance away from the source.

Okay. Magnetic fields operate on the same principles of physics. Magnetic fields are radiation. But they're non-ionizing radiation. In other words, they don't do harm.

They don't burn the tissue. They don't kill the tissue. Right. So because it's radiation, that means again, there's a drop-off, rapid drop-off, a logarithmic drop-off.

So a thousand gauss magnetic field, one centimeter away will drop down to 250 gauss. Okay. Wow. Yeah. Wow. That's a big difference. That's huge. Yeah.

It's huge. So you have to account for this. So if you want to deliver 15 gauss, four inches into the body, you're going to have to have produce a magnetic field that's going to be about 4,000 gauss.

Oh, okay. Makes sense. Right? We do the same thing in medicine with radiation therapy. The radiation therapist has to calculate the dose that you need to start with to be able to radiate deep into the body.

If you're trying to destroy a tumor in the thyroid gland and you're going to do radiation to the thyroid gland, it will limit the radiation field, but you have to calculate the dose, right?

And if you're treating a brain, tumors in the brain, or if you're treating tumors in a lung or a kidney, then you have to calculate the dose that you need to do to start with to deliver the right dose deeper into the body.

So in that sense, magnetic field therapy is the same. You have to calculate that dose. Okay. So how does it work in the brain then? I'm so curious as to how we can help people with anxiety, depression, dementia, Alzheimer's.

Like how does this type of therapy affect brain function? So what is the brain? It's an organ. What is the organ? What's it made of? Fats, proteins. Fat.

Fat. Primarily fat. Primarily, yes. Yeah. And that fat is permeable to a magnetic field. Okay. So a magnetic field will pass us through the fat as if it wasn't even there.

Oh, interesting. Okay. So if you're doing a calculation based on anti-inflammatory action, then you have to calculate the dose. So if you try to treat across a brain, let's say you only have one applicator, which we see in MRIs and we see in what's called TMS, you put one applicator against that side of the brain, then you have to do the calculation.

If you tried to deliver 15 dose across the brain, On the other side of the brain you need, in order to deliver 15 gauss to the other side of the brain, you need about 4,000 gauss.

Okay. Makes sense. Right. So a magnetic field is one gauss, 15 gauss, a very common PMF devices that are being sold to people, primarily through multi-level marketing, are one gauss.

Oh, wow. Okay. So it's not getting very far. It's not going, almost nothing. Nothing. You need to deliver 15 this far away. Right. So you need 4,000 cows.

So it's one cow. What's it going to do? Not much. Not much. Not much at all. Not much at all. That's right. Oh, that is so good to know, because I've never purchased a PMF machine, because I was like, I don't even know what to look for in this.

And I feel like the ones I have looked at, I'm like, I don't know that they're going to work very well. That's the problem. So I started my career early on using a device called the QRS.

OK, I've heard of that, yeah. Because it was made in Germany, and we became basically the primary North American distributor for magnetic field therapy devices, QRS.

We had, over time, we had issues with a company from Germany that was making the devices and shipping and repairing and replacing and all that. So we stopped that.

Brain Benefits: ATP, Circulation, and Brain Waves

But also after five years or eight years of working with the QRS, it just wasn't doing certain things. Right? I couldn't heal a wound. Oh, that's a big deal.

As well. Arthritis would get better. So what I discovered is that these low-intensity PMF devices work but what are they doing? If you ask the question, what are they doing given how low the intensity is?

Once you understand the Faraday's law, once you understand the 15 Gauss need for inflammation, you realize that they're not doing very much at all. So what they're doing is they're stimulating the acupuncture points in meridians.

And that's what I discovered early on in my career, that magnetic field therapy was doing acupuncture. But it did a lot more than acupuncture, it healed.

So again, Microcurrent was basically, in a sense, acupuncture. So microcurrent, acupuncture, electrical acupuncture is essentially microcurrent. So it works superficially in the meridians of the body, but it doesn't have enough power typically to heal.

It's symptomatic management. That works, that helps, but doesn't heal. Yeah. I used to have a microcurrent machine and I could only get so far with it.

Like it just, it was good. I did all the training. I spent $6,000 or $8,000 on microcurrent equipment. I said, this is not working. This is not going to work.

I predicted that it wouldn't work and certainly it wasn't. Okay. So what does work? Like when you're looking for something, what actually works? Okay, so you have to, what I often say in my lectures, you have to ask what the magnetic field intensity is of the equipment that you're looking at.

The low intensity systems that people won't tell you what it is. There are very high intensity magnetic systems as

well. They won't tell you what the magnetic field intensity is either, because they don't want to get into arguments with people about it.

They just say, it works. Take my word for it. It works. Right. I don't like that. So on my website and most of our, most of our information, most of our education, we talk about the intensity and how the intensity is important.

Cause if you have to have Faraday's law and you have to have 15 gals at the target tissue, then you better know what you're, what you're using. Right.

Right. And how deep is it going to go? How efficient is it going to be? Hey friend, just a quick break to remind you if calming your brain is the missing piece in your practice or in your home, my Mind Thrive certification course teaches you exactly how to do that with targeted amino acid therapy.

So it's real science, real results, no band-aids. Enrollment is now open. Link is in the show notes. So back to the show. Yeah, that would make a whole lot of difference.

It makes a huge difference. Yeah. So curious, going back to brain conditions, what have you seen, when you have the right intensity, frequency, everything is lined up correctly, what type of brain conditions are healing from this type of therapy?

All right. So the basic mechanisms in the brain of how PMFs work, number one, they improve circulation. Okay. All right, 75 year old, 80 year old, how much circulation do they have in their brains?

It's a little bit lower than the average. A little bit lower? A little bit lower than the average. You're so kind. You're so kind. No, it can be a lot lower.

Right. Right? And because of that, you're not nourishing the brain as much. And then if you have inflammation, what does inflammation do to tissue? Well, it breaks it down.

It decreases circulation. Cause the swelling that's associated with inflammation crowds out the blood vessels. Right. Crowds out the flow of the blood.

So that's what that's key. And that's one of the key aspects of PF therapy and cancer is a magnetic field therapy doesn't matter what the tissue is. It doesn't matter whether there's bone in the way or not.

Right. It's going to go right on through and it's going to stimulate the anti-inflammatory action, which then automatically increases the circulation.

That's awesome. But. ATP. PMF serotherapy stimulates ATP production. Correct. PMF therapy constantly recycles the ATP. Okay. You can increase ATP by up to 400% with PMF therapy.

Wow. Imagine reaching into the brain, stimulating the brain, poof, all of a sudden ATP increases. What does that do to a brain? It starts to come alive again.

Brain fog. Right? Waking things up. Yeah. And then you add the oscillation aspect of that. Then you're getting this direct stimulation of the tissues, and then you're oscillating the brain wave functions of the brain.

So you're waking the brain up. So we know about alpha, beta, theta, gamma, delta, right? All those frequencies, right? What you're doing then, you can get the frequency of the magnetic field to be oscillating at a rate that wakes the brain up.

So not only is he doing all the physical things, but it's now oscillating rapidly enough to wake up the brain. I actually have a little anecdote about that.

There's a device I use called the Flex Pulse. And the Flex Pulse has 10 programs in it. And one of those programs

is 23 Hertz. So 23 Hertz and 40 Hertz wake up the brain.

Right? They're beta. They're beta or higher. So basically they're oscillating at a higher frequency and they wake the brain up. You want to put the brain to sleep?

You throw a Delta Hertz. You know, Delta brainwave frequency, three Hertz, one Hertz, three Hertz. You'll put the brain to sleep. Okay. Right. So I had my daughter, I picked up my daughter at the airport at eight 30 at night, but she, the flight got delayed.

She didn't get in until two o'clock in the morning. And I have to go to work the next morning and go to the office. I said, so what am I going to do? So I did the flex pulse and I put it on 23 Hertz.

So I put the flex pulse coil on the back of my neck. I was alert, but it's only stimulating the brain at the time that it's there stimulating. So I used it on constantly on my brain until I got back home from the airport, took it off, went to sleep.

Nice. Cause the brain was already was in that place. It wanted to be asleep. Right? Right. Right. So we changed it temporarily. allowed me to do what I needed to do.

So brain fog then is affected by it. So oscillations, the biochemistry of the brain is affected by PMF therapy. It helps with decreasing the inflammation and it stimulates brain function, ATP.

So there's a whole lot of things that PMFs are doing at the same time. A lot of the problems that we're dealing with with the brain have to do with circulation.

What's one of the most common, probably the most common cause of brain problems? Head injuries? Inflammation. Oh, you're going, okay. Got it. Right? Yeah.

Well, and head injuries cause inflammation. Right. I was looking for an event. All right. Viruses cause inflammation. Yes. Right. Toxicities cause inflammation.

Yup. Right. And inflammation causes inflammation. Inflammation causes inflammation. Yes. So all of these things are working together. So whatever the cause is, there are specific downstream physiologic reactions that happen to it that are common to a whole host of problems.

So I, in a sense, don't care what the cause is of the inflammation. I do in the sense that I want to remove that cause if I can. Slapping yourself on the side of the head on a regular basis.

Well, you know, don't do that. Don't do that, yes. Right? So we, we decrease all these other aspects of the reactions of the causes, right? But we deal with the, with the reactions.

We deal with the reactions and the brain can function better. Now, if the reaction, if the problem or the cause is constant, you got mercury poisoning.

Right. Right. Then you have to get rid of the mercury. Can you get rid of all the mercury that's in your brain? Probably not. No. No, I would say no. All of my years of practice, I would say, no, as much as you try, it can help, but you're not going to get rid of it.

So that means that you've got a lifetime problem. You're going to have to do this for the rest of your life. Now, same thing with insecticides and pesticides.

What are they attached to? The lipids in the brain. So are you going to get rid of that? You probably can't. Right. You may be able to. So I use zeolite.

Yeah. That's what I use too with my clients. I use zeolite a lot because zeolite is safe and it's the nano zeolite. So

that means it's circulating continuously.

It's getting into the brain easily because as the blood goes into the brain, zeolite goes into the brain too. Yes. And since the zeolite is a cage, it's an electrochemical cage and the molecules go on onto that cage and that cage never lets it go.

Right. So if it goes through the circulation, it gets into the brain, gets into some of the tissues in the brain, then maybe you can get some of it out.

And because it's nano-sized, it filters through the kidneys, filters through the liver, filters through the sweat, perspiration, and so on, and out of the body.

So you could decrease the burden, but you can't eliminate it. Right. So therefore, you're basically doing treatment for the rest of your life. Yeah. So would you say like anxiety, depression, that's all inflammatory driven?

No, no, not necessarily. It can't certainly, certainly it can be a major cause, right? But if you have a postpartum depression, what causes postpartum depression?

We have hormone imbalances. Hormones.

Clinical Uses, Safety, and Contraindications

Right. What can the team do to balance your hormones? It can. Okay. How? So PMF therapy by itself can increase enkephalins and endorphins. It can increase serotonin production in the cell itself.

So it increases serotonin production in the belly. So that's the primary source of serotonin in our bodies is the belly, right? Right. But every cell produces its own serotonin.

So PMF therapy stimulates the brain, produces serotonin, but also increases GABA. It also stimulates the pituitary to release all the hormones that the pituitary can produce.

So the benefits in the brain are amazing. They're extremely widespread. It's a wide range of actions in the tissues. And because it's such a safe technology, it's such a safe modality.

Should everybody be doing magnetic field therapy? I think after about age 50 or 60, we probably should all be doing it to our brains too. Yeah, no kidding.

Do you have like an anecdotal story that you could share with us on this for like brain recovery? Well, maybe more than anecdotal, um, I don't know if people have heard about TMS.

Yes. Yes. So those people who are listening, who have never heard about TMS, TMS stands for transcranial, that was across the skull, across the brain, across the head, transcranial magnetic stimulation.

So TMS is FDA approved to treat treatment resistant depression. There are electromagnetic therapies now that are approved to treat glioblastoma. Right.

That won't heal on its own. I actually wrote a review article in the journal of science and medicine that was published on the use of PMFs for TBI. Okay.

For concussions. And I actually did a study on concussion with PMF therapy. And it's amazingly effective. The problem is that trying to heal the tissue.

Right. Right? So, PMF therapy can restore balance and sometimes the tissue can't be healed because it's too damaged. And if you lost your leg, you lost your leg.

Right. Right? PMF therapy is not going to restore that. And one of the things I do tell people is that magnetic field therapy does not raise the dead.

Although we'd like it to, it does not. Well, it raises, it, it, it, ink survives, costs survival of the dead, but more likely the peri-dead. the tissues that are around the dead tissue.

You can't resurrect the dead tissue, but you could help the tissues around it that are struggling to survive because of the damage caused by whatever the cause is, right?

So you can actually activate those cells and tissues to be able to function better. So TMS, as it goes into the skull, into the brain, it increases charge.

And TMS was designed to replace ECT, right? Electroconvulsive therapy, which is barbaric. Yes, very much so. I used to do EKGs on people who were getting ECT.

Oh my. That was fun. Yeah. Well, sort of condo. So PMF therapy then basically replaces ECT and it's much safer, it's more effective. And now we can see this huge numbers of studies on the use of TMS with things like Parkinson's and MS and ALS and head injuries, as I mentioned, the list is on and on and on and on.

So if you want to wake up the brain, you can do TMS, but TMS is expensive and it's not covered by insurance for all purposes. Right. So when you have your own PMF system at home, you could treat your Parkinson's, you could treat your MS, you could treat your TBI, you could treat your stroke.

And if you treat your stroke early enough, you'll recover faster, much faster. I talk about an anecdote. I just had a former patient of mine who was on a boat in the Chesapeake River.

And she hit a wave. There's a boat went by, powerful boat went by, raised the wave and her little boat went up on the wave and slept back down. And she got dizzy.

She then began to have numbness on one side of her body. So she had a spinal cord contusion. Started doing magnetic field therapy on her. And now she's essentially fully functional.

All gone. But she's doing an hour or twice a day of magnetic field therapy. So the tissue is recovered because in that kind of contusion, what do you get?

Swelling. Inflammation. And inflammation. So you get both of those happening at the same time. So the magnetic field therapy then is reducing the swelling, which then allows the tissues to function.

But then you not only want to reduce the swelling, you also want to repair and recover what was damaged. Right? Right. She had a phenomenal result. She's like, she's not happy with me.

Why? She's very happy with me. That's great. So like if you're using this PMF for, I'll give you an example. My husband is going to have a knee replacement.

in a month or so. Time out? No. No? No, no. Across. Okay. Right. That means like with evil. Yes, I know. I know. I haven't been able to talk him out of it.

So. So why would you do surgery? So this is an important question. Why would you do surgery? Whether it's back surgery or gallbladder or whatever else.

You do surgery because you can't function and you can't stand the pain. In the case of back pain, when you have pain going down your leg and the nerve is dying, then you probably better do surgery.

Because you need something quick. You need a quick result. If you have chronic knee pain or chronic back pain and you need to do a surgery, it's because it's chronic.

It's been there for a long time. It's going to continue to be there no matter what you do. Right. Right. So you remove the pressure off the nerve by doing the surgery, removing the lesion, and then the nerve can recover itself to whatever extent it can recover.

So there's only two reasons to do a surgery for a back problem or a knee problem. You can't stand the pain and you can't function. So you're better because the problem with surgery is you can't predict the results.

That is very true. Right. And you can't, and you cannot always recover from the complications. Right. It could be left with deficits permanently after the surgery.

The surgery causes its own damage, right? So if you can heal the pain, because the reason that we do this is we can't function or we can't stand the pain.

Right. And whatever you've tried, the pain is still there, and it may not be decreased significantly. So you say, I have to do something more dramatic, which means surgery.

Now, if you go to a surgeon, what is the tool they use? Surgery. Yeah. What else do they do? They take out the joint. To cut is to cure. To cut is to cure.

I know. All right. So what happens when you do a joint replacement? You create swelling and inflammation. You do, but that isn't something else that happens.

Well, you ruin, you disrupt the entire body. You do that too. There's something else that happens. Okay. Tell me. You have a foreign body in your body now for the rest of your life.

Exactly. You have a rod in that bone, right? It's relatively inert, but it's still a foreign body. The body says you don't belong here. Right. What does the body start doing to something that doesn't belong there?

It creates an autoimmune reaction. It fights it. Yeah. Right. It wants to get rid of it. So it creates an autoimmune reaction. It creates an inflammatory reaction.

MRIs have actually shown that when you do an MRI of a prosthetic area in a bone, you can already see what we call osteolysis. Yeah. the breakdown of the bone.

Even six months after you put it in, you can see the breakdown already beginning. So these joint replacements eventually have to be revised or re-replaced.

So you're causing a new problem. You solved one problem, now you're causing a new problem. And the doctors don't tell you that you better do something to try to prevent this osteolysis from happening.

So anybody with a joint replacement should be doing magnetic field therapy. I agree. Well, then we're done. Okay. Well, I don't want him to have the joint replacement, so.

So you can tell him our discussion. If you can, as much as possible, especially in a younger person. So if you're 85 already, you're going to outlive your joint replacement.

Yeah, he's only 65, so. And the surgeons today are doing it earlier and earlier and earlier. You know why? Because then they can do two? No. Well, we won't talk about that.

Okay. The reason they think they can get away with it is because surgery is changing and they're hoping that within, within four or five years before the prosthesis becomes a problem, they'll be able to do a simpler revision.

That's the hope. It's not proven yet, but that's what the hope is. Right. Interesting. Yeah. I'll have him listen to this. We'll see what happens. So I have, I learned an expression over the years.

You can lead a horse to water. And then you start an IV. And then you start an IV. You know what I'm talking about, right? I do. Yeah. Yeah. Yeah. You can't get them to drink.

So I know. I know. Well, this has been a fascinating talk. What else would you like the listeners to know about PMF? All right. So the two big mistakes that people make with PMF therapy.

Number one is you have to help the body along the way. The body's gotta do the work. People are looking for a pill. Pop a pill and you're done. Right.

Right? Ain't gonna happen. You're trying to get the body to do what it wasn't able to do successfully up to that point. So therefore you have to help the body.

And that means that you have to help it as long as you need to help it. Right. For the problem you're dealing with. But you know what? Who doesn't need help?

a dead person. True that. Although, if you could raise the dead, that would be… Well, that would be good. I mean, there's no stories of that, but yes.

Well, there are some. I tell people I'm an MD, not a GOD. Right. And even a GOD doesn't always give you what you want. Right. Right. So basically, you need to do what you need to do to help the body.

Okay. And you have to take the time. The other thing, so people often do not do enough treatment. Understandably, they're not doctors, they're not nurses, they're not nurse practitioners, naturopaths, or anything else.

They don't understand physiology. They don't understand pathology. They don't understand healing and regeneration and recovery. If you don't understand these things, then you're basically at the whim of whatever you're getting and doing and whoever's advising you.

So under treatment is a chronic problem with chemotherapy. Under therapy, you can't overdo it. There are people who tell you that overdoing it is dangerous for you.

Yes, they're right to a great extent in Petri dishes. Right? They're right to a great extent in tissues that are not normal, they're not our body. Because the body's constantly regenerating, rejiggering itself to maintain balance, right?

Right. So bodies will take care of all this. Healthy fields, healthy bodies more or less ignore the magnetic field. Okay. So it's very, very hard to hurt the body with a PEMF, not microwaves, a PEMF, right?

So undertreatment is a critical chronic problem. Part of undertreatment is having the wrong piece of equipment. That makes sense. Right. It's not having equipment that's strong enough to deal with the problem that you're trying to get it to work for.

Right. So that is important. Back to the point I was making before, always ask about the intensity. So a metaphor or an image that I use for that, if you go to a car dealership, And the salesperson refuses to tell you what the horsepower is in your car.

That's a problem. That is a big problem. Because you don't know what that car can do if you don't know the horsepower. Right. Well, magnetic field therapy, if you don't know the horsepower of your magnetic field, then you don't know what it can do or what it can't do.

Right. Right? So those are two things. And if they won't tell you what it can't do, what it can do, or what the intensity is, my expression is run. Right.

Find somebody who will give you the information you need to make an informed decision about what you need to

do, how much you need to do it, and how long you need to do it for, et cetera.

All the things that we as clinicians have to deal with all the time. Right. Well, and I think people just get, they get so tired. They get all of a sudden, you're 90 days in, you're like, I haven't noticed a difference here.

People just get tired of working on things. And I think as a practitioner, trying to keep people motivated and encouraged and all those things in it should just constantly remind them sometimes it just takes a while for the body to heal.

And you can't stop doing it now because if you stop now, The healing stops or slows down? The healing stops. It slows down or it goes backwards. Or it goes backwards, right?

Yeah. Because you got no pressure on the process to be able to recover itself, right? Right. So if you give the body what it needs, as long as it needs it, then your body can, you know…

As long as it needs it. That's the key. As long as it needs it, right? Yeah. I love it. So where can people find reliable devices that they don't have to worry about?

Well, this becomes a little self-serving. I don't care. Tell us. Right? DrPollack.com. Okay. That'll be in the show notes too. There are, there are doctors who will tell you, there are doctors who, there are equipment manufacturers who will tell you what the intensity is.

A lot of them have been trained by me already. Of course. So basically if they won't tell you, again, what are you dealing with? You would, would you buy a car that you don't know what the horsepower is?

No. Duh. Duh. Yeah. All right, so that's the key, getting the right equipment, and you can find the intensities on all the devices that we carry on DrPaulak.com.

I have a whole lot of pieces of equipment. So why do I have so many different devices? It's not because they don't work, because the higher intensity devices will work on almost anything, but they also cost a lot more.

So if all you've got is a tennis elbow, and you're otherwise completely healthy, what do they find? Then just treat locally. Right? And that's all you need.

You need a small little machine that's not going to be that expensive. And besides, once you have a machine, I tell people, you don't own it. The house owns it.

The house owns it, yes.

Choosing the Right Device and Final Takeaways

Okay. Including the dog, the cat, and the plants. Right. So PIVA therapy can be used for all sorts of things. Right. It's not just one, not one particular use or one, not one particular mechanism.

So you can use it for headaches. You could use it for wounds, for cuts and bruises. You can use it for TBIs, but you have to have the right piece of equipment for the problem that you're dealing with.

Right. And if you have a TBI, then that's going to drive what you're going to be needing, which means that that drive, that particular device is going to work well enough on a lot of other problems at the same time.

And one of the points I was trying to make to you, who doesn't need PMF therapy? Everybody needs it. Children. Oh, they don't really. Well, unless they have a problem.

Oh, okay. Cause children are growing. I don't like to mess with growth, natural growth, right? I want them to grow. Cause you can actually take a bone and you can stimulate a bone with PMF therapy and that bone will grow.

Oh wow. But if you're not doing the other side, then you have a mismatch. Right, right. Right? So you don't want that. So you have to be careful that way.

But other than that, there's so much that it's safe for. Let's see what I'm looking for. Organ transplants. Yeah. No. Why? I don't know. Why? Immunity.

Oh, okay. Because anybody with an organ transplant is on immunosuppression. Right. You don't want to mess with immunity. Very good. Because you don't know how the magnetic fields are going to affect that particular body or that particular process.

So that's a contraindication. And that's about the only absolute contraindication. We talk about pregnancy being a contraindication. It's not. We do the same thing with medications in pregnancy.

Unless it's been proven safe in pregnancy, we recommend that you stay away from it. Well, the same thing with PMF therapy, but there are women who are pregnant who are working in MRI environments in an MRI machine for years.

And they get pregnant and they work in that MRI environment. No problems. Right. Right. I've had many, many people who've been on PMF therapy before for other reasons, got pregnant, used the magnetic field therapy during their pregnancies and a breeze through their pregnancy.

Nice. Right. In fact, you're probably much less likely to suffer from preeclampsia and other kinds of problems like that in pregnancy if you're using PMF therapy.

Really? That's amazing to know. Right? But we still have to give people the warning. You have to say, you know, this is the standard warning. You should know it.

And if you do it, you know, at your own risk, essentially. So they're amazingly safe, regardless. Now, pacemakers can be a problem. Implanted electronics.

Okay. So nowadays the pacemakers are what we call MR conditional. So I always ask people, have you been told you can't do an MRI? So if you've got implanted electronics or you've got an implanted metal or you have something implanted in the body, I always ask, were you told you can't do an MRI?

If you were told you can't do an MRI, then wait a minute, wait a minute, time out, time out. Let's figure this out. So there are pacemakers that are MR conditional, which means that they're safe enough to do in an MRI machine, but they have to be turned off by a technician.

Oh. when you're doing the MRI. And then you could turn it back on again after done with the MRI. You don't want the MRI to fry your machine. Right. Right?

So if it's not MR conditional, so you have to find out then if it's temporarily MR conditional or if it's completely MR conditional. So there are pacemakers that are totally MR conditional.

You can do an MRI without a problem. Amazing. So they're, again, very, very safe. Very well. This has been amazing. Thank you so much for this conversation.

My pleasure. I've learned so much and I can't wait to get my own PEMF machine. And the brain needs PEMF therapy. Yes. So you can get a PEMF machine. There's a machine that we have called the FlexPulse.

I mentioned that already. Uh-huh. So this is a picture of a FlexPulse. Okay. And there's a separate website, FlexPulse.com. Okay. It's also a DrPaul.com.

So it's a small portable battery operated machine. And that's what I use for brain treatments. Okay. I designed this machine with German engineering, primarily to do brain neuro rehab or neuro stimulation.

Wow. So it's based on neuroscience. So it's got the frequencies to stimulate the brain, but at the same time, those magnetic fields can stimulate, heal a wound.

Like that kind of machine. cause that little girl to regrow her thumb. So it can be used for all sorts of other things as well at the same time. So once you have a PMF device, you can use it for all the value that a PMF system can have for you.

So everybody could use a PMF therapy device. What's aging? Inflammation? That's exactly what I was going to say. It's inflammation. Inflammation, yes.

Inflammation. So who can't use it? Everybody should be using it. Yeah. So when does the inflammation begin? The moment you're born? No. No? Okay. I don't know.

No, I don't think so. Okay. It could potentially if you're toxic, if you're exposed to stuff that you shouldn't be exposed to. Certainly any infection you have is going to make you inflamed.

Yeah. And then the question is whether you recover. But the issue is that everybody could use it after age 25. Okay. Because we stopped growing at about age 25. Right.

Right? If we stop growing, then what happens? Then I guess we degenerate. Entropy. Entropy. So what's entropy? Entropy is that you don't have enough energy to do the work that your body, that you need to be doing.

Right. Right. And we always want to work against entropy. So entropy, you could be insufficient compared to your entropy. So if you're doing treatment and you're not quite above the level of threshold of entropy, that you're going to be aging.

So you want to be above the level of entropy. And magnetic field therapy increases the energy in the body, ATP. So you're becoming anti-entropic with chemotherapy.

But as we get older, that curve of entropy increases. Those function decreases. At age 25, you're basically net zero. Okay. Typically, unless you're playing for a professional sports team.

Sure. Makes sense. Right. Or you're mountain biking and jumping off cliffs and things like that. Right. So basically from age 25 to 40, we're more or less stable in terms of breakdown and repair.

Okay. Right. In other words, we're positively entropical. Right. So then what happens is that you want to be able to keep up with entropy loss. So if you have entropy, then you want to keep up with entropy.

Ideally, you want to be above entropy. Okay. Because every day you live, you're losing energy. You know, as you're becoming more entropic. Okay. So when can we not use magnetic field therapy?

Almost never. So everybody over age 40. So if you own a machine and you bought it because your foot hurts or you have neuropathy or you have knee pain, well, that's okay.

That's a reason to have bought it. But now you have a piece of equipment that's going to be anti-entropic for all the other things that cause you to age.

Right? Right? So if you bought it for one thing, you're going to get all the other benefits of PMF therapy as well. Amazing. Awesome. Well, thank you, Dr.

Pollock. I appreciate all of your wisdom and sharing this with my audience. So, and thank you everyone for listening. I appreciate each and every one of you.

Make sure you like, subscribe and follow and make sure you check out Dr. Pollock's information down in the show notes and I will see you in the next episode.

God bless. And we'll be happy to answer any questions people have so you can send them to me too. Perfect. Thanks for listening to Take Back My Brain.

If today's episode helped you connect with hope or direction, I want you to follow the show, leave us a review and share it with someone who needs it.

And if you're ready to start your own healing journey, explore our courses and our coaching programs at lorihammer.com backslash store. So until next time, remember you cannot medicate away a nutrient deficiency and healing your brain isn't just possible, it's powerful.