Introduction to PMF and EMF

Because they're designed for communication. They don't care about what happens to what's in the way i.e bodies. Right. So basically microwaves, most of our communication with Wi-Fi and cell phones and so on is broadcast into the environment, just like radio signals, just like television signals are broadcast into the environment.

And as a result, they're broadcast. They're designed to deliver a messaging in very short wavelength bands. And so basically the wavelengths that are broadcast in the environment are extremely short.

This is doctor talks. Welcome back to the summit. And today I'm very excited to welcome Doctor William Pawluk. And he's going to be teaching us a lot about PMF and EMF and how this can also help with hypertension.

It's a really nice way to look outside the box at traditional care. How are you today, Doctor Pawluk? Perfect. Thank you. How are you today? I'm very good.

Thank you so much for joining us. And we're going to we're going to elevate you to perfect. Yes. That's fantastic I love that. But yeah I'm I'm excited to learn about your topic.

You know, topic experts like this because there's something about this that I think is so intriguing. And again, I'm I'm excited to learn too. So can we start with just the basics?

Can you explain the difference between what a PMF and an EMF are? Exactly. Sure. And that's a critical difference. And that's the elephant in the room because everybody's worried about EMF like 5G, AG, TNG, all of that G stuff that's around us.

And basically Emfs. So EMF stands for electromagnetic fields, but I call EMF environmental magnetic fields because the fields around us, and they're in a sense more dangerous in some ways than the fields that are generated by an electric stovetop or a hairdryer or, you know, the electronics that basically is around us all the time.

So that's not EMF in a sense. It is. It's environmental, but it's not in the same way and probably not quite as in a sense, as dangerous. So emfs are basically designed to be broadcast.

They're designed for communication because they're designed for communication. They don't care about what happens to what's in the way. I see bodies. Right.

So basically, microwaves, which is, you know, basically most of our communication with Wi-Fi and cell phones and so on is broadcast into the environment, just like radio signals, just like television signals are broadcast into the environment.

And as a result, they're broadcast. They're designed to deliver a messaging in very short wavelength bands. And so basically the wavelengths that are broadcast in the environment are extremely short.

As a result, they are absorbed by the body.

How Magnetic Fields Work in the Body

Just. And that's sort of the premise behind a microwave oven because they absorb, then they heat and they damage. So they could damage living tissue, but they can also damage, you know, dead tissue or water or, you know, fruit or vegetables or whatever.

So they basically work on the principle of heating because of the absorption. Pmfs, however, are designed by, a machine producing a current that's passed through a wire.

So imagine that my thumb is the wire that's conducting a current in that direction. So every time there's a pulse of current in that direction, there's a magnetic field automatically generated by it.

Basic principle of physics. It's called the right hand rule. And so every time there's a pulse there's a magnetic field. And that magnetic field goes out.

And as soon as that pulse dies down, it comes back and collapses on itself. So that's called a closed loop. Emfs are open loop. They're broadcast out into the environment.

They don't come back. They'll collapse on themselves, you know, essentially. So pmfs are designed for healing purposes or they're designed for other applications, including in engineering and electronics and so on.

But the maps that we're talking about are designed for healing purposes. And you control the current and you control the intensity or the strength of that current, which then produces the changes in the magnetic field.

So a weak current is going to produce a very little, very small current. A very strong, current is going to produce a pretty large magnetic field. And basically what we want is that we want a magnetic field is going to pass into the body and then do the work it does and then pass back out of the body.

So magnetic fields and the body, are compatible basically. And magnetic field is the body is basically, well, it's transparent to a magnetic field. So if you take a body here and you have a magnetic field here, and you have a magnetic field tester here or on the other side of the body, whether the body's there or not.

Makes no difference to that magnetic field. Okay. So the way to think about a magnetic field is like the wind. It's the wind blowing in the trees. You can't see it.

And the only way you know that it's there is the leaves are moving unless you feel it up against yourself personally. Right. But that's the what you find out is you can feel it by its actions, not by by virtue of the fact you can see it because you can't see it.

Right. So the magnetic fields, you can't see them either. And they pass into the body, go right on through and come right back out again. And every time it does that, every time it waves into the body like a tree, like branches, like leaves, it creates all kinds of activity in the body.

And that activity is based on something called Faraday's law. So Michael Faraday was a scientist back in the 1800s, late 17, 1800s. And he just he discovered that magnetic fields, as they pass through charge carriers, they pass through anything that has electrolytes in it, anything that has ions in it, and it has a charge.

And virtually all molecules in the body have charge, right? So therefore the magnetic field is interacting with anything in its path. And that means everything is in its path.

Right, right, right. And that activation then is again, Faraday's law says the stronger that magnetic field is the heart, the faster it ascends, faster it goes to its peak.

Then the more dynamic action there is in the body. So the intensity of the magnetic field drives the actions in the body. Now, magnetic field therapy was discovered originally and approved originally.

Well actually approved. It was not discovered is discovered a way before that Michael Faraday. But it was approved by the FDA to heal fractures that didn't heal.

Now we call them nonunion fracture. So after six months, a fracture hasn't heals. Called the nonunion. And so the the options to take care of a nonunion fracture, a nonunion fracture is a disaster.

It's a it's a big problem, especially if it's a long bone. Often they're in the hands or in the feet, but they're disabling. And so the surgery doesn't work very well for those because the conditions that caused the the fracture to be a nonunion in the first place are still there.

All right. So then you're operating again, I tell people that you can't grow garden in a swamp, right? It's hard to fix something. And like we know with surgery if if you have wet tissue paper, you can't put a needle through it, you can't put a suture through it.

So magnetic fields have been discovered to actually heal those tissues. So even though the fracture hadn't been actively, healing or even seven years or more, all of a sudden you put magnetic fields into that tissue, just wakes everything up.

You start to introduce energy into that tissue, and all of a sudden the fracture starts healing and the nonunion fracture can heal in three months with the right magnetic field treatment.

Something that's been there for 6 or 7 years already. Now all of a sudden activates. It starts to heal. But you have to have the right intensity magnetic field, you have to have the right treatment time and so on.

So that's all part of our discussion today. Okay. Well I think that's a good segue to the next question is basically what are the basic physiologic actions.

Right. So what you're saying it's exciting. So what exactly is occurring. Is this a cellular level.

Healing, Pain Relief, and Chronic Conditions

What hormonal like what exactly is going on. And then what can actually be this be used for besides, you know fractures and stuff. Sure. So because it's physiologically activating essentially it's increasing charge, it's increasing energy in the tissue.

And the body now has more energy to do the work. It should have done in the first place. Okay. So for example, if you cut yourself, the body has to marshal its resources to be able to heal that wound.

That's to defend itself from the intrusion that it had from the injury that it had. And then it has to initiate repair processes. And we rely on the body to do that on its own.

But the body is not efficient in doing that. So a lot of the, fuel, the energy that we use to create healing in the body is inefficient. But what? So that means the body's wasting a lot of the energy.

It's not. Not as efficient as it should be, but you can increase that efficiency by almost double with magnetic field therapy. So the wound starts to heal faster because now you decrease the swelling in the wound.

Number one you increase circulation to the wound. Number two, you decrease inflammation in the wound. Number three stimulate stem cells. Number four and nitric oxide is produced all sorts of activity.

So basically in my first book, Power Tools for health, I outlined 25 different mechanisms of action of magnetic fields, 25 different actions of magnetic fields in the body supported by science.

So that book has like 500 references that show you that science, there's good science there to tell you why magnetic fields work and how they work in the body.

So I can't diet. I can't make your body dial up any particular mechanism. The magnetic field is a nonspecific stimulus to the body to start to activate processes.

Because it's not specific. The body decides what it's going to do first. So what are the first things the body will do with a wound or an injury is to heal itself, reduce the swelling because you can't get circulation into a I can't grow

garden in the swamp.

You can't get circulation into that tissue until you reduce the swelling. So anti-inflammatory action first, then the second lead becomes a circulation action.

Then the stem stem cells come in. Because circulation is improved, stem cells come in. Magnetic fields also have a natural, automatically natural painkilling effect.

It's called an anti nociceptive effect. So that's been found even in snails. So snails are treated with magnetic fields. We put a snail on a hot plate. What snail want to do.

Get off the hot plate silly. Right right right. Get off the hot plate silly. So what happens if you give magnetic field therapy to a snail? A snail? Say, Lady Di, I'm going to take my time getting off this hot.

Really? Even with that, are there tissue damage and such? Well it depends. Well, hopefully you don't have a hot plate too hot, right? Because otherwise they'll get cooked, right?

Right. It's curious. Okay. And then acupuncture. So what are the things I the first things that I did when I started working with magnetic Fields, I started using it to do acupuncture because I was trained in acupuncture.

Yeah. And that was in 1990 when people didn't know what acupuncture was, right and said, don't come at me with those needle, stay away from me with those needles.

Right. And so I said, well how can I do acupuncture. I had had two years of training in acupuncture. So how can I use acupuncture if I can't do needles.

So I discovered in the Orient they were using magnets. So I started working with magnets, started working with them extensively and discovered they were doing all sorts of things of the body that I couldn't understand.

I didn't understand the mechanism. So finally I met with an MD PhD from the Czech Republic who got his PhD in electromagnetic therapies for rehab purposes, and he had translated a lot of the Eastern European science.

So that manuscript I, I, we published, that manuscript is called Magnetic Therapy in Eastern Europe, our review of 30 years of research. So at that time, in 1985 or so, 30 years of research, they had already been doing it for 30 years. Wow.

Okay. Right. And he identified the mechanisms of all the different mechanisms of action of magnetic fields. And that just blew the doors wide open in terms of what magnetic fields could potentially do.

Okay. So that is really fascinating as far as when you think about things such as a systemic illness, like what I do think of hypertension, right. It's affecting all parts of the body and different things.

A variety of different mechanisms could be at play. How have you seen that type of therapy be helpful for these type of situations? Well, two ways, two things.

So number one any any they toe bone is connected to the head bone. Right. Exactly. Right. So we sometimes forget that but we stub your toe. You'll find out very quickly how, how connected it is to the head bone.

So anything in the body and any treatment anywhere in the body is going to have a systemic effect. There was a study done in people with chronic wounds where they did magnetic therapy to the arm or to the chest, the theory being that the bigger the volume of blood that you're stimulating with the magnetic field, the more action there's going to be in the body.

And so the they use the arm as a control versus the chest. And what they found is that the magnetic field therapy either place, either place healed these chronic leg wounds, even though they were not being treated directly, bring

it.

Heal the leg wounds in the same amount of time it would took to use standard medical therapies to heal them. Okay, just by stimulating someplace else.

However, we do know they didn't actually experiment to see whether magnetic therapy directly would have healed it much faster. We know that it would, because the indirect actions are weaker than their direct action.

Okay, so there's a systemic effect. So even if you stimulate your hand, we know there's a systemic effect. I used fact I did this experiment. I put a magnet on somebody's hand and the hand would turn red because the circulation circulation starts to increase in just the opposite hand.

It got redder to not as red, but it got redder. I even looked at the foot and the foot got redder. Okay, so that action caused the systemic reaction, systemic vascular reaction by increasing circulation to those tissues okay.

All right. So they're all connected. But the strongest effects are going to be local. Now if you're doing hypertension that the causes then the question becomes what's the cause of the hypertension.

Right. The variety of things. That's the problem. That's the question. Right. So hypertension is not just hypertension. It's what's the cause of the hypertension. Right.

And I think probably the most common cause of hypertension is stress. Yeah. Yeah. Oh I think that's a very big price. We see this kind of grade one hypertension.

That's just not controlled. And yeah I get it. And some of you people are doing some other things too. And so resistance is an issue. But yeah absolutely.

So how would you approach someone with hypertension. Do you is this are they or do you just do it. Yeah. What would you do if someone is coming to you and say, can you help me?

I have maybe they have hypertension or diabetes and a few other chronic illnesses. Where where does that therapy come into play? For, for the majority of many Americans.

Well, as a holistic physician, yes. As opposed to a toe doctor or right arm doctor. Right. I tend to think of these things more as, you know, holistically, the toe bone is connected to the head bone. Right?

So it's the whole body now, if you do have, clearly vascular changes, say, with diabetes, you still have to treat the whole person, because it's a whole person problem.

So it's basically, that hypertension is a whole person problem to me. Yes. You have to really treat the whole person. Now if the cause is primarily systolic hypertension and you can reduce their and you reduce their anxiety, their blood pressure's come down and you do that continuously and their blood pressure stays down, well, then you know that that's probably where you got to be treating more than anything with chronic illnesses.

As you said, the problem then becomes again much more systemic. And with diabetes, diabetes is a whole body vascular problem. It's not just a kidney problem.

It's not just an eye problem. It's not just a leg ulcer problem. You know, it's a whole body problem. So therefore you need to do a whole body treatment so you can design your therapeutic approach based on the etiology, the probable cause in any given person.

Now there are consequences to elevated, systolic hypertension. Right. Chronic elevated system, systolic hypertension.

Choosing the Right PMF Therapy Approach

So even though it's systolic and diastolic, right, then you still have to treat the consequences too, because that can cause cardiomyopathy. Right, right.

It can cause peripheral peripheral changes Reynolds of your blood vessels are constantly constricted. And then you add smoking on top of that. Right then then you need to deal with those consequences too.

But at the very least, at one point you just get just lower the blood pressure. And you could do that with magnetic field therapy too. You know, another one that might be partly responsible is like maybe chronic pain, because you had mentioned early bone health and, different things.

So let's say someone has chronic pain, maybe even it could be related to vascular health. Right. Because you can get basically someone's walking, right?

They have arterial, you know, their the blood is not flowing to the lower extremities very well. Or maybe even with diabetes, you know, there's diabetes and hypertension at play here that are destroying the vasculature of like, you know, the farthest points of the body, like the feet.

And you worry about things like that. How does that can play? Because, you know, obviously pain can also cause stress in elevate blood pressure in general as well.

So as I mentioned, I think magnetic field therapy has a natural anti painkilling effect. But I can just give you Tylenol if that's all I wanted to. Right, right. And that'd be that's enough.

But again that's a holistic doctor. That's not what I would want to do. I would want to figure out why the pain is there. Right. So what if you might if I manage the pain, I manage the cause of the pain that I'm more likely to take it away permanently.

I see, so it becomes a cure and not a symptomatic treatment. Right. So that's the goal ultimately is to do healing and not just control the pain. So the pain itself and part of the process then is to help to heal the tissue that's causing the problem, the pain problem if you can and if you can't, if you have a chronic pain problem that you can't fix, you can't cure, right.

Then you may have to treat the brain. So we have I call it chronic pain brain. Okay. So anybody with chronic pain as you said is going to have vascular effects.

It's going to have systemic autonomic effects because of that chronic pain problem. But they're also going to have brain effects from it. Right. So the brain registers that the chronic pain then begins to change itself around that pain signals that chronic pain signal.

And what you have to do is you have to quiet down the brain's, hyper reactivity to, to the pain syndrome. And so a lot of people develop Alo denia, which is chronic pain that's not actually caused by the problem, the original problem.

Now you have a pain problem that's caused by the body's reaction to the chronic pain. So again, PMF therapy can deal with that as well. Okay. Okay. Yeah.

That's similar to I know some readers, they do like self-help hypnosis. And it's really been very helpful for chronic pain in that kind of disengagement what you're describing.

So let's say someone has like, I don't know, maybe they are fairly healthy, but then suddenly they get an injury and now they, they see the blood pressure rising.

So there's not necessarily, you know, poor diet or maybe they're exercising and they had some injury. Like what does the actual therapy entail. Like are these pads or something like how does what is the physical nature of the actual intervention?

Okay. So doctor Polycom. So Dr. Outlook.com, I have a number of blogs and a number of educational pieces on that website, and one in particular, when you go to the home page on Doctor Podcast, you scroll down the page, you can find product comparison.

Okay. And that product comparison then gives you a list of all the different devices that can be used for different purposes. Okay. First, for hypertension, typically I'm going to most often recommend, especially in the setting of comorbidity in the setting of multiple conditions that are, present at the same time.

Something like what percentage of the population over age 65 has 3 or 4 chronic conditions? It's like 70%, right? Yeah. So it's it's there. It's a constant in the background for most of us most of the time.

So you in your whole body magnetic system typically to do that to do the best job with that. Well again if all you have is an elbow problem or a shoulder, probably have quite a shoulder, pain or chronic carpal tunnel problem.

Well, you can certainly treat locally and hopefully that takes care of the problem. But again, if you do have any comorbidity, any other conditions at the same time, then usually you're going to need systemic whole body treatment.

And besides, everything between the toe on the head is aging as well, right? Right. So we're constantly aging after I say that after about 25, we start aging, we don't really notice it that much until after about age 40.

Then we can we identify with the creaks in the rattles. Now, if you happen to be a professional athlete or a biohacker and just do crazy things to your body, well, you need to start earlier probably.

But so all of us could use whole body therapy just for health maintenance anyway. Okay. If you have an additional condition on top of that then again whole body therapy is going to help you in more ways than just a single therapy.

Single therapies tend to be cheaper okay. All right. So if you got an elbow problem then you just use a magnet. It's going to be able to help you with your local problem.

Again if I, if I do a history on somebody, if somebody talks to me and they tell me, well I came in with my elbow or with my shoulder pain but I had a history of cancer.

Okay. Wait a minute. Now that changes, that changes the dynamic. Because my job then again as a clinician is to look at the whole person and look at all the risks.

And if you're going to make the investment in a PMF system, make the right investment. Right. Because now you now you have an investment that's going to work for you, the whole of you.

Right? And, so does someone come to you in person to be evaluated this way, or is this something that can be done, telemedicine wise, and you send them whatever they need?

Like, how does that actually work? All right. So that's a that's a very important question. And it's an important part of the process of getting the right equipment.

Yeah. So on my, my books, my two books, Power Tools for health and Supercharge Your Health, walk you through the thought process of what kinds of magnetic systems you should get and then how you could use them.

So the Supercharge Your Health book I have, advice for about 80 different health conditions. Okay. Which which are the right magnetic systems for you?

What's the right way to use it? Or if people with more, complex problems like COPD, heart disease, vascular disease, or you probably need a consultation, okay.

Because the investment you need to make is going to be bigger. So a bigger investment, you're typically talking

somewhere around six, seven, $8,000. Oh okay. Right.

Because you need a strong enough magnetic system that's going to take care of the whole body, right. Not just a particular problem. So, so for that purpose then we do have consultation.

Acupuncture, Nitric Oxide, and Closing Remarks

So a doctor Polycom, there's an option then to get a consultation. So I have a team. There's three of us that do consultations okay. And we spend about a half an hour.

It's free spend about half an hour for people to get them into the right equipment and then give them advice on how to get the best value from that equipment.

Gotcha. Okay. That's fantastic. So this has been really fascinating because you also mentioned just one final question I think just came to mind is the nitric oxide production.

So which obviously has, you know, that causes dilation of the blood vessels in the industrial cells. So I'm I'm assuming that's causing some type of the body to respond in that manner.

Oh yeah. Yeah. So Enos and the theory of nitric oxide is one of the key aspects of magnetic field therapy okay. So it causes the dilatation of the blood vessels locally but it also causes it systemically.

So again if I do my hand I'm going to get some systemic benefit even from a local treatment. Gotcha. But ideally you would do a whole body treatment because then nitric oxide, some of it circulates.

But like a large a large aspect of nitric oxide is local production. Right. So especially what you want to do is to stimulate nitric oxide production in the tissue, the whole vascular system.

Gotcha. You don't know where the plaques are. You don't know where the inflammation is in that endothelium. Right. So basically you really want to be doing the whole system, right.

Gotcha. Wow. Okay. This is very intriguing. I think I will dive deeper into the rabbit hole. So thank you so much, Doctor Pollock for sharing your expertise and knowledge.

And thanks for stepping outside of normal. Like we were talking before we started. Just, you know, we get stuck in a silo as physicians and we may be missing out dramatically.

And I've had some really interesting I don't do acupuncture, but I have seen it do some pretty cool things. And I did notice them using the little, magnets, when they did that.

And some of them do. Yeah, it was pretty amazing actually. The question becomes, why did I quit acupuncture? Yes. Why did you quit acupuncture? Because magnetic therapy does a lot more.

Really? Okay, so acupuncture is working and I do a six hour workshop for acupuncturists on how to use magnetic therapy. Oh, wow. Okay. So you can combine it.

The acupuncture system, the home, acupuncture meridian system, the points and the meridian system are a DC current system. Okay. The electrical current is very low grade, very slow moving, but it's electrical current and you can stimulate it.

You can augment that flow with needles or magnetic therapy or even light or in some cases, sound. So many ways to physically stimulate that DC current system.

But magnetic therapy, because of the principle of electro and magnetic, they always go hand in hand. So if you have an electrical system and you pass a magnetic field through it, what are you doing? You're zooming it or

increasing amplifying it, increasing it tremendously.

Okay. And so magnetic therapy does healing. Acupuncture does less healing than it does physiologic management. So you put a needle in here and it affects the system electrically right.

That affects the brain and so on. But it doesn't do direct healing. So no it's not going to heal an elbow right. Can make the elbow feel better. Right.

But it's not going to heal the tissue. So magnetic field therapy heals the tissue and stimulates the acupuncture system okay. Gotcha. Let's double duty.

Yeah. No, it's it's it's really fast. So. Well thank you again, Doctor Pawluk, for your time. And we will have everything obviously listed here for everyone to look at your resources and your website drpawluk.com.

And I would encourage everyone to definitely check it out. So thank you again for spending time with us today. My pleasure. Welcome to the world of PMF.

Excellent. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health. Each day is a new opportunity to make choices but empower your wellbeing.

For more insights and strategies, subscribe to our podcast and visit our website. WW dot doctor talks.com. Stay connected, stay healthy and join us next time on Doctor Talks.

Real talks from real doctors on the issues that matter to you most.