Understanding Pulsed Electromagnetic Fields and Chronic Illness

Dr. Eric Gordon, M.D. interviewing **William Pawluk, M.D**

Dr. Eric Gordon:
Hello, welcome to another episode of "Mycotoxins and Chronic Illness", and today, we're gonna do a deep dive into the post-electronic medical field, but not medical magnetic fields, but in the medical world. And it's my pleasure to be speaking with Dr. William Pawluk. He is a doctor in Maryland and he's someone who has spent a long time doing a deep dive into how magnetic fields affect our bodies and how we can use them for health, and especially, I think everything electric, I have a feeling we're gonna discover that Dr. Pawluk has been involved with. So, first of all, I wanna welcome you and can you tell us a little about how you, well, got into this area of electric and magnetic fields and the human body?

Dr. William Pawluk:
Thanks Eric, for that introduction. I'm happy to be here and we had a wonderful gala of hunting discussion before we started, so that kinda set the stage for the energy that we're going to have as we go through this discussion. I'm a family physician by background. I'm conventionally trained and went through the whole process and was involved in managing several medical groups. I started the biggest family medicine group in the whole East Coast of the US, 14 family doctors. That was back in 19... I don't know, 78, 80, but that was a long time.

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
And so, and a long history in terms of the growth and development of family medicine. So while I was working in my group with all these other doctors, we had a couple of patients that ended up in the hospital with GI bleeding, gastric bleeding, and one of them almost died, but both of them had something in common.

Dr. Eric Gordon:
Sounds vital.

Dr. William Pawluk:
Ibuprofen.

Dr. Eric Gordon:
Profen, yes.

Dr. William Pawluk:
So, I said, I've been interested in peripheral things to medicine beyond this. I already had some sort of sense of the spirituality of things, and even though you don't talk about that in medicine, you don't talk about that with your patients, right? But I'd already had a sense that we were pulling punches in what we were doing in medicine. So I said, well, I've gotta do something different than giving people ibuprofen for their pain and I said, this is a form of insanity, right? You're killing people to treat their pain, they're not gonna die of their pain, but they're gonna die of what I treated them with. And so I said, I gotta do something different. So that was back in 1988, 89, I decided to start to study acupuncture through a program at UCLA for physicians, for professions like veterinarians, physicians, dentists.

Dr. Eric Gordon:
Yeah, Dr. Helms, yes.

Dr. William Pawluk:
Dr. Helms, of course. Exactly.

Dr. Eric Gordon:
Yes, yes.

Dr. William Pawluk:
At that time, there were probably 300 of us in the country and now, there's thousands, 3,000, 5,000. So it's substantially growing. But when I finished the program and I wanted to start doing acupuncture, since that was 1990, Madonna had not yet been on celluloid with needles in her back, showing most of her skin.

Dr. Eric Gordon:
Yeah .

Dr. William Pawluk:
Right? So at that point, okay, acupuncture is okay. Right now, people started getting more curious and .

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
But I found when I started doing it, people would basically stay away from me with those needles.

Dr. Eric Gordon:
Oh, yeah.

Dr. William Pawluk:
Right? "No needles, what? Nope. Why would I do that?" So I wanted to find another way to do acupuncture without using needles, and of course, in the way you do acupuncture, you discover there's all sorts of things, there's moxibustion, there's friction, there's light now, there's ultrasound. You can use all sorts of modalities to activate an acupuncture point. Well, then, so what is an acupuncture point? It turns out that an acupuncture point is an electrical vortex. It's actually a funnel shape and with the resistance going higher at the edges and then gradually decreasing towards the center. So when you put a needle into an acupuncture point, you're creating an electrical field in that acupuncture point. 'Cause the metal of the needle is different than the electrolytes, essentially, of the body, the minerals of the body, and that contact causes small amounts of charge to be produced and then that charge goes into the point, which then goes down the meridian.

So we now know that an acupuncture point is an electrical point, and now we also know that an acupuncture meridian is a current, a line of current, it's a power line, but it's not an AC power line, it's a DC power line and it's a very, very low voltage line, but that line is constantly in motion, it has a 24-hour cycle, essentially. It's a very slow motion, very low energy, so when you put a needle into an acupuncture point, you're taking a slow energy system and you're now activating it electrically, right? You're not introducing, although now many doctors use electrical connections to their needles to really power up the-

Dr. Eric Gordon:
Yeah, yeah.

Dr. William Pawluk:
So I couldn't use needles at that time, I started looking at magnets and I discovered the oriented using magnets on ears and acupuncture points and so on. So that's very interesting, so let me try them, and I actually had an EMG done with a friend of mine, with a magnet on acupuncture points, and we discovered, lo and behold,

current increases in the meridian. And so I started working with them more extensively and discovered coincidentally that magnets are doing a lot more than stimulating an acupuncture point. So I put a magnet on a cut, not on an acupuncture point, but on a cut, I put a magnet on a wrist, I put a magnet on other parts of the body, an insect bite, and all of a sudden, crazy stuff started happening.

Dr. Eric Gordon:
Well, yeah.

Dr. William Pawluk:
People would get better much faster than anything I've ever experienced. Personally, I had a spider bite on my leg, I didn't even know I got bit, and I looked down at my leg, it was itching. I looked down and I had this big bite, the size of a silver dollar and it was swollen and red and itchy, so I put a magnet on it, and I was reading on my back porch, reading a book, sunny day, gorgeous day, put the magnet on it, and three hours later I looked down, gone.

Dr. Eric Gordon:
Yup, yeah.

Dr. William Pawluk:
When was the last time you saw a spider bite go away in three hours?

Dr. Eric Gordon:
Yeah, no, no, I mean the amazing power of, yeah, of kind of adjusting inflammation. I mean, this is what, hopefully, you're gonna be talking a lot about this.

Dr. William Pawluk:
Well, we're gonna get into that, and that's an important aspect of what magnetic fields do. So this is a static magnet that I had on my foot, it's not a power magnet. It's static, it's just a fridge magnet, basically.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
So a static magnet means the magnetic field is just there, it's not doing anything. So the magnetic field in that case is static, but the body is dynamic and there's blood flowing and there's electrolytes flowing and there's lymph flowing and all sorts of things are happening, and the magnetic field is interacting with those flows, the natural flows in the body and they still work. But I discovered after a period of time that they didn't work that well, so when I started working with people coming in the door with, you name it, complaints, right? From the easiest to deal with, to the worst to deal with.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
I have news for you. You don't wanna be saying that, I have some news for you, right? And they don't necessarily wanna hear that news, but we have to deliver that message. So I started working with higher intensity magnetic fields and discovered they did a lot more. So a pulsed magnetic field that's moving, that's in motion, it's called time-varying magnetic fields are much more dynamic. So now they're interacting with the sort of slow level activity of the body, and they're now adding another dynamic to the body. And the phenomenal thing about magnetic fields, and one of the most important things about magnetic fields, magnetic fields ignore the body.

Dr. Eric Gordon:
Oh, okay.

Dr. William Pawluk:
The body does not exist to a magnetic field. If I put a magnet on my back and I have a magnetometer on my front, if I move my body in or out, the signal is exactly the same.

Dr. Eric Gordon:
Oh, okay. That is fascinating, I had no idea.

Dr. William Pawluk:
So basically, a magnetic field ignores the body, the body does not ignore the magnetic field. So as the magnetic field is passing through the body, it's like waving your hand over your palm, you start to feel that the wind or the breeze or whatever, or other energy if you're sensitive, as it does that. So as the magnetic field is moving through the body, it all sorts of stuff in the body. Another analogy is that a magnetic field is like a wind and the only way you can tell that there's a wind there is like, so for example, with a tree, is the leaves are moving.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
I'm standing at a distance and the leaves start moving, then I know there's a breeze, there's a wind moving through that tree and how much they move and whether the trees rock and roll or the branches are rocking and rolling, it depends on the intensity of the wind. So in a sense, a magnetic field to the body is like a wind blowing through the trees. It's moving all sorts of stuff, and unfortunately for us, healthy cells ignore the magnetic field. So a breeze moving through a healthy tree or a wind moving through a healthy tree is gonna wake the tree up. In fact, what it does, that motion of the branches and the leaves, they start falling and you get all kinds of piezoelectric charges moving into the trees as the tree wakes up. So the trees need wind to be more activated.

Dr. Eric Gordon:
Aha.

Dr. William Pawluk:
Our bodies need magnetic fields to be more activated. Now, our bodies produce magnetic fields naturally because we have atoms. When we have atoms, we have charge, when we have charge, we collect charges with different molecules in those tissues, and then we have the tissues forming organs, and the organs are interacting with other organs and then all the organs together are interacting with the orchestra of the body. So the magnetic fields are basically transducing and amplifying whatever happens locally. It cascades throughout the rest of the organism.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
So they're incredibly dynamic, healthy cells ignore the magnetic field. Cells that are not well use the energy. Now, you're creating energy in the body of the cell says, "Ah, I finally have more energy."

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
And then what happens with energy?

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
Healing, rebalancing, right? Dynamism, just more vitality in general. And so, essentially, that's what the magnetic fields are doing, is it's just waking everything up.

Dr. Eric Gordon:
Right, yeah, and that that's 'cause usually, sick cells are stuck cells.

Dr. William Pawluk:
They're stuck, exactly.

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
But what happens in a sick cell? Normally, a cell is like membrane channels, like there are windows and windows and doors in a house. Air is supposed to move in and out of that house constantly, water, air, you name it, and so when a cell gets stuck, the charge builds up on the outside of the cell and decreases on the inside of the cell.

Dr. Eric Gordon:
Oh, wow.

Dr. William Pawluk:
The cell can't finish it's job, so now when you open up the membrane channels, you open up the windows and doors, now, everything starts moving again and those charges are rebalanced and the cell is able to do what it's supposed to do.

Dr. Eric Gordon:
Right, right, and I think you're gonna get to, is that that'll help either go to healing or appropriate dying, either way is the right way to go.

Dr. William Pawluk:
Absolutely, in fact, actually one of the purposes of magnetic fields is to increase apoptosis, right? Apoptosis is the death of a cell, all aged cells are supposed to die and be replaced by healthy new cells. So aged cells that don't die clog up the works and they are more likely to also transform through chronic inflammation into cancer cells.

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
So when you're actively, dynamically and regularly, and routinely using magnetic fields passing through the body, you're kind of waking everything up, and you're keeping it sort of awakened. Awoke, I've never said awoke.

Dr. Eric Gordon:
Awoke, maybe not, yes, yes, let's be politically correct. But this is just such an important part of people whose bodies seem to get stuck in chronic illness, is giving them the right amount of energy to let the body move to the next level, and that's what we're always trying to do, and it's fascinating that you're able to do this with the PMFs, I mean, that's really amazing. So tell us more, just keep going. How is it... More about the mechanisms. 'Cause it's always nice when people can get pictures of how things are working.

Dr. William Pawluk:
So one of the principles of magnetic fields was discovered back in the 1700s, early 1800s through guys like Maxwell and the mathematicians named Gauss and Faraday. Faraday was one of the first people to produce current by passing a magnetic field past a wire. So if you pass a magnetic field past the conductor, and you stimulate that conductor with a magnetic field rotating, this is how we produce power lines, this is how we produce AC, that's how Tesla created Niagara Falls and AC

production. So you're using that magnetic field now to power a conductor, that conductor produces charge, and essentially, what Faraday discovered is the higher and the faster that power is, the magnetic field is, then the faster and higher the charge is.

Dr. Eric Gordon:
Okay, so the more rapidly the magnetic field is moving, the-

Dr. William Pawluk:
The more rapidly it's moving and the higher that it's moving, so you need those two components, you need , you need intensity and you need time. So what you wanna do is you wanna increase the intensity and shorten the time.

Dr. Eric Gordon:
Oh, okay. Okay. So it's moving, yeah.

Dr. William Pawluk:
When a magnetic field is going up like this, it's producing a strong charge response, energy response in the body, then when it flattens out, it does nothing across the top before it comes down, up there where it's doing nothing, there's nothing happening, there's no charge production 'cause all on the upslope.

Dr. Eric Gordon:
Oh, okay.

Dr. William Pawluk:
Of the front end of that magnetic field, the pulse of the field.

Dr. Eric Gordon:
Oh, okay.

Dr. William Pawluk:
And that's the principle behind a lot of what we vary with magnetic fields and that people talk about frequencies and so on, so the frequencies are less important than the ability of that magnetic field to actually produce charge in the body.

Dr. Eric Gordon:
Okay, well right there, as you're talking about the charge in the body, can you tell us to just make sure we can understand the difference between some of the magnetic fields we're getting from background from our electronic equipment and the EMFs that the sicker you are, that usually, the more sensitive you are to. So, what's the difference?

Dr. William Pawluk:
And that's a critical question and so we can put that question aside of what the risks are with the kinds of magnetic fields we're talking about. We're talking about extremely low frequency magnetic fields. It doesn't matter about the intensity so much, it matters about the frequency.

Dr. Eric Gordon:
Oh, okay.

Dr. William Pawluk:
The higher the frequency of the magnetic field, the more likely it's going to get absorbed by the body, that's why you use a microwave oven to cook things 'cause it gets absorbed, and because it's absorbed, what happens?

Dr. Eric Gordon:
Heat.

Dr. William Pawluk:
Exactly. So power line fields are not the same frequencies as microwaves, like WiFi and microwaves and cell phones and so on, so the EMFs of our environment are dangerous, potentially dangerous to us because the more we expose ourselves to them, especially in direct line to the microwave field and the higher the intensity of the microwave field, then the more effect there is in the tissues. And I don't know if you've noticed yourself, even if you have a cell phone away from your ear, don't touch the ear, but just away from the ear and you have it turned on, the longer you have it turned on, the redder the ear becomes.

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
Right? Because you're cooking the ear.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
Right?

Dr. Eric Gordon:
And so this has to do with the frequency?

Dr. William Pawluk:
It has to do with the frequency. So very low frequencies pass through the body as if they were air, but there's even another big difference that rarely do people talk about. A magnetic field is produced by a wire that's conducting a current and let's say, my thumb is the wire, and the direction of my thumb is the direction in which the current is flowing in the wire. The wire is producing a magnetic field that's called

the right hand rule, it's rotating perpendicular to the flow of the current, and then that magnetic field is what interacts with the environment.

What you're doing then is with pulse magnetic fields, the equipment that we use to treat people they're shielded, so the wire has no contact with the body, the electrical field has no contact with the body, you're not gonna get electrocuted. If you touch a wire for your lamp, it's not going to electrocute you because it's shielded, but it's still producing a magnetic field although the wire that's going out to the lamp then has to go break open that line, and then it creates a circuit. And then it comes back and rejoins the wire that came in, so they're now going like this, opposite each other.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
Or Lenz's law. When you do that, they'd cancel each other out, so there's no magnetic field, and when they separate out, they go out like this and separate out, then they start to feel the magnetic field, and that's how most magnetic devices are designed, and Tesla discovered this himself as well. When you take a current, and you open up the wires into a loop, now, you have a magnetic field, you have a measurable, detectable magnetic field.

And if you take a wire and then you take that wire and you loop it multiple times before it starts to come back, then you produce an even bigger magnetic field for the same amount of current flowing in that wire. so you're adding more and more loops of magnetic field into these coils that then amplifies the magnetic field even more. But this magnetic field, unlike a microwave oven, in a microwave, the magnetic field is going out like the waves in the ocean, they just go on essentially forever until they hit an obstruction. The magnetic fields in a wire are going like this.

Dr. Eric Gordon:
Oh, okay.

Dr. William Pawluk:
They're opening a collapsing, opening and collapsing. The magnetic field in a wire produced by a wire is a closed loop. It has no beginning or no end.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
It's like the Earth's magnetic field, it has no beginning or end, even though we call them north pole south pole, or whatever, but there's no end, there's no beginning or ending of it. So these loops, these never ending loops are always closed loops that basically don't have the same effects as a microwave, which basically is blasting into the atmosphere long distance.

Dr. Eric Gordon:
Okay, so basically, the closed loop is recycling.

Dr. William Pawluk:
Exactly.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
And that loop, depending on the size of the magnetic field, can be big enough to go through an entire body or be small enough to go just deep enough just into a finger, or superficially enough into the hand, into the skin, but it's always going like this.

Dr. Eric Gordon:
Okay. And the frequencies, where, I mean, just to give us-

Dr. William Pawluk:
Go like this or whether you go like that. So, every time you go up, every time I go like this, you produce current in the body, right, current in the body. As it's coming back, it's also producing a little bit of current in their body. So that action, going up like this is what most of the effects of the magnetic field are, that pulse of that magnetic field. And then magnetic fields interact with all charged conductors, that's the basic law of physics. What's the body?

Dr. Eric Gordon:
Yeah, one big electrical field, yeah.

Dr. William Pawluk:
It's a big battery.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
It's an electrolyte soup, right? It's not just sodium and calcium and so on, it's an electrolyte soup, it's full of all kinds of electrolytes. And so magnetic fields interact with those electrolytes and they produce charge and they amplify things, increase energy, and now the cells have stuff that they can use to balance themselves, repair themselves and be healthier. So that's the difference. So ELS are very, very, very extraordinarily safe. The FDA has... Now, you may have your own opinions about the FDA, but the FDA has approved machines that are used to treat treatment resistant depression.

Dr. Eric Gordon:
Right, transcranial, yeah.

Dr. William Pawluk:
Exactly. So we talked a little bit before we started about a very low intensity magnetic system that's one gauss, or gauss magnetic field. So the Earth's magnetic field is about half gauss on average.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
Okay? That magnetic system that we were discussing is one gauss, the transcranial magnetic stimulation devices and machines are 8,000 gauss.

Dr. Eric Gordon:
Wow, okay, okay.

Dr. William Pawluk:
Okay? And they're safe.

Dr. Eric Gordon:
I think that-

Dr. William Pawluk:
you have to know how to use them properly to make sure you don't draw metal out of a body and so on, but beyond that, the field itself is actually pretty safe.

Dr. Eric Gordon:
Okay. So the medical devices that you were using, where did they run?

Dr. William Pawluk:
What intensities?

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
Probably the lowest that I have worked with is probably about a half a gauss and the highest that I work with now is probably somewhere around 10,000 gauss.

Dr. Eric Gordon:
Okay. And, well, just while we're touching there, are there particular applications that one is better than the other?

Dr. William Pawluk:
The rule of thumb is, and now we get into inflammation.

Dr. Eric Gordon:
Oh, okay, well, we can skip .

Dr. William Pawluk:
Well, this is cycling back, this is why the intensity becomes important. I have a video on my website, on DrPawluk.com. It talks about why intensity is important, and it goes into two laws of physics, the first law is Faraday's law, so that, again, the charge production is greater with the higher, the faster the charge, the magnetic field.

The second is the inverse-square law, and the inverse-square law says that magnetic fields, all radiation, whether it's cold or heat or sound, light, magnetic fields, whatever, everything dropped off extremely rapidly. It's called the inverse-square law or inverse-square rule. So that for example, a magnetic field that is of 6,000 gauss, right? You're applying a magnetic field of 6,000 gauss, let's say, to your chest, so 6,000 gauss, seven inches into the body drops down to 15 gauss.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
And seven inches, 6,000 gauss drops to 15 gauss.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
That means you have to think about what you're using it for. So if you're starting off with a magnetic field that is one gauss, how deep is it gonna go?

Dr. Eric Gordon:
Yeah, not very. So you were working more like on the acupuncture level.

Dr. William Pawluk:
Exactly, exactly. That's one of the first observations that I made about magnetic fields, is that they're working on the acupuncture system.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
So the higher intensity fields now go much deeper into the body. It turns out there's research that has shown that magnetic field therapy to decrease inflammation in the body has to optimally be about 15 gauss.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
Right? 15 gauss. So for those of you who are listening and talk to other people who are selling the machines, the most important thing, there are other considerations, but I would say based on Faraday's law, the most important thing to ask is, what is the intensity of this magnetic field? And if somebody's talking to you about magnetic fields and they can't tell you what the intensity is, run. Right?

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
'Cause then they truly don't know what they're talking about. So on my website, I have a blog about adenosine, a stimulation of the adenosine receptor. So adenosine, as we know, makes ATP, which is the energy source of the molecule that is a source of energy in the body. ATP gets converted into the body by releasing one of the phosphate molecules. So ATP by itself does nothing. It's just static.

It's just there, available, like watching a cake, is not the same as eating the cake, right? ATP is just watching the cake, but the cake has to be eaten. One of those molecules, phosphate molecules, has to be stripped off and the stripping off of that phosphate molecule will create ADP, is what releases the energy. So we produce the equivalent of our body weight in ATP a day. But every ATP molecule is recycled about 200 to 500 times a day. So we're constantly making and recycling ATP. And adenosine then becomes a root molecule for ATP production, but it also turns out that the ATP, the adenosine, has a docking station in the body. It has a receptor.

Dr. Eric Gordon:
Yes.

Dr. William Pawluk:
And it activates the receptor to do the job of energy transduction in the tissues. So the adenosine receptor has been discovered to be one of the most important receptors in the body to deal with inflammation, sort of cycling back. So inflammation, you need 15 gauss to be able to stimulate the adenosine receptor optimally, which then helps the adenosine receptor to quench inflammation.

So once you have that information on the website, on that adenosine blog, there are tables that show you how the magnetic field drops off and what magnetic field intensity you need to treat deep in the body. So for example, if you're gonna treat across the skull and you're treating somebody with Parkinson's or with MS, or with brain fog or head injuries, concussions, then you gotta treat across the head. If you put a magnetic field here, it's gotta reach the other side and deliver at least 15 gauss. So-

Dr. Eric Gordon:
It's a lot.

Dr. William Pawluk:
A lot. So assuming this is six inches, from side to side, then to go six inches, you need a 4,000 gauss magnetic field to deliver across the whole skull. Now, you can treat on one side with 2,000 gauss, then you're gonna have to go back to the other side and treat the other side with 2,000 gauss to be able to get the whole brain adequately stimulated. And fortunately, if it's more energy than the body needs, healthy cells are ignored anyway.

Dr. Eric Gordon:
Yeah, which is amazing, amazing. Just an aside, if people are very interested in the adenosine and ATP as the inflammatory molecules, check out Dr. Naviaux's website. We talk about his cell danger response a lot and these purinergic, purinergic means the purines which adenosine and ATP are, that's just the name of the chemical

family, but that these receptors are involved in all kinds of inflammation, but especially maintaining chronic inflammation. So this is just fascinating how this is full circle. As always, we start with biochemistry, but we always wind up with the physics if we follow it far enough.

Dr. William Pawluk:
Well, physics starts before chemistry, anyway.

Dr. Eric Gordon:
Yeah, yeah, no, I know. I mean, these are-

Dr. William Pawluk:
Eventually, you have the back up to the physics.

Dr. Eric Gordon:
Right, right, right. It's just fascinating how it all ties together, and yeah, so we keep going. I hope we're not getting too complicated for people, but you probably have to listen to this a few times, but I think this is so important if you're gonna go out there and just talk to your doctor or shop around and try to understand how to use these devices or how to pick them. Obviously Dr. Pawluk's website and blogs is a very important place to start, but hopefully, if you keep listening, you'll keep learning.

Dr. William Pawluk:
Well, and I only have 30 years of research.Only 30 years of working with magnetic fields and I published the book that's behind me there called "Power Tools for Health", and for those of you who are very science-minded, this book is really important because I have over 500 references that support the use of magnetic fields across a whole host of health, and it talks about the mechanisms.

So not only do you reduce inflammation, but you improve circulation, you reduce swelling in the tissues, you increase ATP production in the body, you stimulate RNA and DNA, you stimulate stem cells, so if you read the book, you'll see there's over 25

different actions, so the actions of magnetic fields don't care about the label you put on the problem that you got in your body, right? We try to define the problem based on the label we put on it and say, okay, well now we've got a label, now we have to find a cure, we have to find a solution, and you read a ton of research that says, "We now know what the mechanism is, now let's go find the chemistry that will take care of this." Like what, chemistry is gonna solve all problems?

Dr. Eric Gordon:
No, I think this is one of the other issues that Dr. Naviaux talks about the difference between understanding the pathogenesis, meaning like, how did the injury happen? And in medicine, we kinda think that if we figure out how it happened, we can fix it, and that works sorta well for bullet wounds and broken legs, but it doesn't get us back to health. The direction is not the same, what got you sick, the reverse of that is it doesn't get you back to health, but adding energy into the system is a way so the body can then choose its own path, which is healing.

Dr. William Pawluk:
And a metaphor, another example that I use all the time as well to explain magnetic field therapy, in the context in which you need to think about it, it's not a panacea, it's just another method of getting the body to move in the direction you're trying to aim it to be moving. You need nutrients, you can't fix a body if it's depleted. You have to have the supply. You can't remodel a house without the bricks and the mortar. You need the supplies.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
You need a plan, so you have to have a generic system that's working, you have to have a system in general that's working and you have to have a blueprint for that. So the body has gotta have its own basic resources in place, we supply the food, we supply the substrates for the building blocks of the body, but what's missing very often is the energy. You have to power all that. So if you're building a house, you've

got the bricks and the mortar, you got the plan, you got the workers, but you need the tools, and the tools could be either hand tools or power tools, and that's why I wrote my book, "Power Tools for Health", right? We're supplying the power tools.

Now, you can do a lot more and a lot faster with tools that are essentially electrical, right, than you can with hand tools. And so the energy, the magnetic fields then supply the energy to the system to amplify the natural work that the system should be doing that's become decayed and decrepit and imbalanced and slowed down, and part of that is entropy.

Dr. Eric Gordon:
Yeah. And what's so nice is that most of the devices, I hope we'll get to them in a few minutes, are things that people can use at home. And so you can be taking... 'Cause the healing process happens day-by-day, not once a week.

Dr. William Pawluk:
Incredible. That's an incredibly potent and important point, and as a primary care doctor, and more recently, the last 15 years, a holistic physician, it's always a matter of making sure that people have all the right tools to do their own work, they have to do it, right? And in conjunction with the tools you gave them or give them. So magnetic fields are just part of a whole complex of things that you have to do on your own. If you repair a bone, if you break a bone, when does the bone heal, after you break it?

Dr. Eric Gordon:
Yeah .

Dr. William Pawluk:
Everybody says, "Well, 12 weeks." Okay, whatever, say, eight weeks, 12 weeks, 16 weeks. No, if you re-X-ray the fracture site, you'll still see the fracture site in two years. If it was healed, you wouldn't see the fracture site, right? And if you do an MRI, another two years later, you'll still see the fracture site 'cause that's how long it takes for a

bone, at least, to heal, and the brain and the nervous system, and the ligaments, they all have their own healing cycles. And so we have to respect the capability of the body naturally to heal itself, and then when you damage it, as you said, the deeper the damage, the worse the damage, the bigger the hole is you have to climb out of.

Dr. Eric Gordon:
Yeah, it's a stuck pattern. I always say the body has a tendency to neurosis. The body gets stuck in what would be a self-healing or self-protective mode that's helpful in the acute situation, and then we don't get the message that the war is over, we keep fighting, we keep the inflammation going when it should be turning down, and that's where chronic disease, in my mind, it develops, is where we don't finish the healing in an inappropriate manner and it usually needs energy 'cause it's is one of the signals that the danger is over, and that's what's so fascinating about your tools that you're talking about.

Dr. William Pawluk:
Well, yes, and you absolutely need the energy. So if you suffer from entropy, if you get older, obviously, you can't heal as well.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
And so, entropy is the lack of energy in the body to maintain a physical body that took a lot of energy to put it there in the first place, and then it needs the energy to keep it there, and as we get older, clearly, or the more damage we get to our bodies and I call aging death by a thousand cuts. The colds, the flus, the accidents, the tears, the sprains, and all of those insults to the body are just another sort of step down in the entropic process.

Dr. Eric Gordon:
Yes and there's more and more of us who are in that entropic process, but we still have enough energy and these devices, so tell me, well, let's just talk about the

various devices that are available, 'cause I've seen, I played with a lot of them, but what I've always lacked is your depth of understanding of how they work in and where to best apply them. So teach me a little bit here, I'm really excited.

Dr. William Pawluk:
Fortunately, on DrPawluk.com, we have a product comparison guide.

Dr. Eric Gordon:
Aah.

Dr. William Pawluk:
To go back to products, again, working with magnetic field therapies, I started out early on working with a very low intensity magnetic system, and I worked with it for probably about four or five years.

Dr. Eric Gordon:
Which one was this?

Dr. William Pawluk:
That one happened to be at the time called the QRS.

Dr. Eric Gordon:
Oh, the QRS, okay, gotcha.

Dr. William Pawluk:
So we have a bunch of devices that are in that ballpark called the BEMER or the QRS, the IMRs, the Medithera, the OMI, there's a bunch of machines that are very, very low intensity. They're around one gauss or less than one gauss. But as I worked with them, the more people I saw, the more people started hearing about magnetic fields and wanted a solution to their health problems. The more I discovered these low intensity magnetic fields, while they stimulate the acupuncture points and

meridians and made people feel better, they had almost no healing, as they don't go deep enough. They don't have the energy to go deep enough into the body.

They might help to heal the skin superficially, and they may stimulate the acupuncture points and meridians, which can help with some degree of healing, but they don't do enough. And so what you need then is you need a magnetic field that is much more directly acting to where you want to target it. So if you try to heal the brain, you need to treat the brain. If you try to heal the heart, you need to treat the heart with a sufficient intensity magnetic field. So over the years, I have had to acquire and test and use all kinds of equipment. Each piece of equipment basically fits a specific need. Right now, if you want to have a piece of equipment that's going to probably meet almost all your needs for the rest of your life, you're probably gonna need what I call a magnetic sandwich.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
All right, or some people call it an electric taco. So it's a magnetic sandwich. Basically, you're laying between two layers of magnetic fields. In scientific terms, it's called a Helmholtz coil. It's not exactly the same as the Helmholtz coil, but the idea is you're basically creating a Helmholtz coil-like structure, which for ease of explanation, I call it the magnetic sandwich. Now, when you're doing that, when you're laying between two magnetic fields, based on the inverse-square law, let's do it this way, it's probably easier, so the magnetic field, this is the peak, drops off like this, right? So by the time it reaches like six or eight inches away, it has gone so far down that it's not very useful, but you've got another one that's doing the same thing here. So what happens with those magnetic fields? They meet in the middle.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
They don't go down to zero, all right? So now you're creating a much more defined, a much more concentrated, much more uniform magnetic field in the center of the body. You're not leaving as much to chance.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
Human nature is, "I wanna sleep on my back. I'm gonna treat myself for 15 minutes or eight minutes or 10 minutes, and I'm done, I'm cooked." And the answer is, you ain't seen nothing yet. So high intensity magnetic fields that create the magnetic sandwich now do some really interesting work. I had a lady not too long ago who had stage 4 breast cancer, about a month and a half ago, two months ago. She had mets to her spine, mets to her ribs, mets to her liver, meds to her lung. Three weeks on the magnetic sandwich, and we're talking about a 10,000 gauss magnetic field, 10,000.

Within three weeks, the imaging studies already began to show that the mets started shrinking, even in three weeks. Now, she was also doing all the other things that you need to do. She changed her diet, she changed her attitude. She was using all kinds of supplements. She was getting IV Vitamin C and IV ozone, and doing all sorts of other things that compliment the magnetic fields. So all of these things work synergistically together.

Dr. Eric Gordon:
Yes.

Dr. William Pawluk:
She was getting the Triple Taco, the Triple Taco from Decker.

Dr. Eric Gordon:
Yeah, and that is just, as an aside, one of the difficulties in getting an acceptance of these therapies is that the world of medical acceptance is based on single variable experiments, which, again, works well with drugs that act like bullets that have an effect that the body doesn't have a choice in how it's gonna react to, but as we use devices and interventions that allow the body to dance with, you usually need a multitude of them until the body picks the right actions. And it's just a different way of thinking and it's so frustrating too because you can't get conventional doctors to even look at these possibilities because, how do we know what works?

Dr. William Pawluk:
Well, you know what? I don't know about you, but I have been triple educated since I left medical school, right?

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
You can't sort of take what you learned from medical school, finish your residency and say "I'm done, I'm completed."

Dr. Eric Gordon:
Right, you know nothing, yeah.

Dr. William Pawluk:
And you can be, but I would run away from that kind of doctor, 'cause if you're not curious, you're not always asking yourself, "How do I improve? How do I improve? What can I do better? This person didn't get better. On my watch, this person did not get better, what did I not do to help this person get better?" And that meant that we had to go out and learn and learn and learn and learn and learn. I'm constantly learning new things, and if you don't do that, you get bored and you burn out.

Dr. Eric Gordon:
You're so right. I mean, I'm thinking we should start a club of 70s, the 70-year-old doctors who are still standing and working because we don't stop.

Dr. William Pawluk:
yes.

Dr. Eric Gordon:
Yes, yes, 'cause you meet so many who are in their 40s and, "Aah, I don't wanna see another patient.", and it's like you had me kept thinking, if you don't wanna learn something new today, 'cause that's the patient that frustrated the hell out of you, because you needed to learn something they needed.

Dr. William Pawluk:
Well, we talked about this too before we started, and I have three levels of doctors, the doctor, physician and the healer. So I think the physician and the healer, they ask questions and they're not satisfied. I essentially called myself an unhappy doctor, and the reason I'm not happy is I'm not happy till I've solved your problem, and if I need to go out and get another degree, I'll do that. If I need to talk to another expert, I need to talk to etcetera, then I gotta do that. And I'm happier too, I go to bed, say I've done my best, I'm not just putting the same old stuff on the same old wound day in, day out.

Dr. Eric Gordon:
Ah, but anyway, this is another long discussion but I think it's more personality than anything. It's just some of us love learning and like to help, and it's that combination that makes it common.

Dr. William Pawluk:
And we really want to be healing.

Dr. Eric Gordon:
Yeah, yeah. But it also requires what you've done, is that digging deep, you can't stop at the surface and that's really impressive. So, but as we're going back to the devices, because I said they fascinate me, is a better idea. So, it's almost like, so like the low level devices kind of are probably really good for fairly healthy people in the sense-

Dr. William Pawluk:
Healthy people, exactly.

Dr. Eric Gordon:
Right, in the sense that they're giving a little extra energy to the whole system and the system can pick and choose what it needs, but when you have part of the system, that's really maybe semi offline because my kind of one way I think of chronic illness is the body's almost given up on that area, it's no longer putting as much information there, and so even if-

Dr. William Pawluk:
isolated.

Dr. Eric Gordon:
Yeah, exactly, and so when you're putting in low level information, it kinda just bounces off, it goes around.

Dr. William Pawluk:
Right, right.

Dr. Eric Gordon:
And so then-

Dr. William Pawluk:
A magnetic field will not allow the body to do that.

Dr. Eric Gordon:
Aah, okay. If we get-

Dr. William Pawluk:
A magnetic field is gonna go through, regardless of what the state is, unless you actually put a metal field in front of that part of the body, the magnetic field is gonna go through there.

Dr. Eric Gordon:
Well, it'll go through, but I just don't think the system has enough oomph to respond but anyway, we'll-

Dr. William Pawluk:
We don't know.

Dr. Eric Gordon:
We don't know?

Dr. William Pawluk:
We don't know until we start using it.

Dr. Eric Gordon:
But I think when you start putting in more energy, then you start-

Dr. William Pawluk:
You start seeing shift-

Dr. Eric Gordon:
And especially more direction, 'cause I always think of... The frustrating thing about good body work, a good osteopathy or chiropractic is not just the adjustment, but picking the order in which you treat and the same thing with acupuncture, I mean,

what makes the great acupuncturist is just knowing which point to start with, and so that's-

Dr. William Pawluk:
I have a question about magnetic fields.

Dr. Eric Gordon:
Yes, let me hear it.

Dr. William Pawluk:
I said that there are 25 mechanisms and there are more, but there are 25 mechanisms, I haven't decided which mechanism the body's gonna use.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
The body decides, so one of the first things you'll see, for example, is an improvement in circulation almost immediately. You'll get a decrease in symptoms almost immediately. Edema reduces dramatically, quickly. So the body will take all the actions in the magnetic fields, basically, that can be stimulated in the body, it will take and tick off the low-hanging fruit and then it'll go deeper and then it'll go deeper and then it'll go deeper, so at one point you're starting off at a sensory level where you say you feel something.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
Eventually, you get to a point where you don't notice anything anymore, but just because you don't notice it doesn't mean it's not working, so it's working deeper in the body and it's basically, the body is then de-layering itself because it's got the right tools to be used on that.

Dr. Eric Gordon:
Yes.

Dr. William Pawluk:
And they're not so precise, you don't want to be that precise.

Dr. Eric Gordon:
No, exactly, exactly, 'cause then we get back into the drug model thinking we're fixing the one thing.

Dr. William Pawluk:
Or we think that we're outsmarting the body, yeah, right.

Dr. Eric Gordon:
Yeah, yeah, that is never a good idea. Yeah, no, I always say it's, yeah, leave it to the body. So when you pick devices, I mean, but again, once you get above that low background, like, okay, you're just gonna like put a little energy in as you're going up for home use, 'cause it sounds like, I mean, your sandwich therapy, is that something you have people be doing at home as well or is that...

Dr. William Pawluk:
Absolutely, it's okay.

Dr. Eric Gordon:
How?

Dr. William Pawluk:
I think you're going in the right direction, I agree with you. If you're basically healthy, you can get a whole body magnetic system and you don't have to spend $6,000 to do that.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
And some of them are around that 5,000, $6,000, you don't have to that much. because they're low intensity anyway, so they're not gonna go very deep, they're gonna work superficially in the body. They'll help you, they're better than nothing, but they're not enough. So based on the adenosine molecule and the optimal magnetic field being 15 gauss, if you're gonna treat a tennis elbow, then all you need is 15 gauss. Maybe you need 100, so then there are portable devices that are around 200 gauss, peak intensity, and you could choose how much intensity you want to deliver, so you could use that for shoulders and for elbows and for superficial things.

You could use it for headaches, you could use it for muscle strains in the back of the head and they can actually be used at certain frequencies to begin to cause entrain within the brain. So there are devices at that level of intensity, like the FlexPulse, for example, that you can tune to specific brain frequencies so that you can wake up, you can go to sleep, you can relax and you can stay asleep. You can pick one of the programs that will do one of those things for you through entrainment. and they're strong enough, they're in the $200 gauss or $100 to be able to do some degree of entrainment, but if you wanna do really strong entrainment, you need a much higher intensity magnetic field. So I basically balance them out into local treatments versus systemic treatments or whole body treatments.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
All you're treating is a pancreas, all you're treating is your brain. You can get by with a local treatment system, but you have to get the right intensity.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
Cause the skull, you need 4,000 gauss.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
You're gonna treat the whole heart, you're gonna need about 4,000 gauss. If you're gonna treat the whole liver, that's a big organ, the liver, then you're gonna need a bigger magnetic field, wider, and also goes deep enough, again, probably at least 6,000 gauss.

So knowing that, then you decide, do I want a whole body, at what intensity, do I want local and what intensity? Or you can now with now have available this magnetic sandwich system that is about 10,000 gauss and you can do all of them, you can do whole body, you can do part of the whole body, you can do one below, one above, or you could do one below and one on another part of the body, so you have combinations of ways that you can actually treat the body for the same amount of money. Now, fortunately, we work with a manufacturer to be able to get an amazing discount and that system is on sale right now, so it's really a great price.

Dr. Eric Gordon:
Okay, and the name of this system?

Dr. William Pawluk:
It's called Parmeds, P-A-R-M-E-D-S Parmeds Ultra-FLASH.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
And that's my go-to system for osteoporosis, for arthritis in many parts of the body, most cancer patients should be on that device because, again, with cancer, and this is from my perspective and people don't like me to say this, but once you've gotten off the edge of the cliff with your treatments in the conventional model, you ain't done yet, and I hate the concept of survivorship, right?

So like I survived my victimhood, right? Because you're not, cancer is a lifetime condition. If you got it in the first place, it was there because the condition of your body allowed it to happen, and that means if you don't remove that condition, it's gonna come back or something else is gonna come back. So in this sense, you do a whole body magnetic therapy, then you're stimulating the whole body to maintain its health for the rest of your life, whether you know that it needs help or not.

Dr. Eric Gordon:
Right, right, right, I like that. And as far as local things like significant inflammation, rheumatoid arthritis or any kind of those joint auto-immune inflammations.

Dr. William Pawluk:
By my definition, auto-immune is a systemic problem.

Dr. Eric Gordon:
Yeah, it is. Totally, it's inflammation, yeah. I guess that's what it is.

Dr. William Pawluk:
So you need a whole body system.

Dr. Eric Gordon:
Yeah, yeah.

Dr. William Pawluk:
Right?

Dr. Eric Gordon:
Yeah.

Dr. William Pawluk:
I mean, people with rheumatoid arthritis, their hands are a mess.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
But actually, many of their joints are involved, it's not just their hands, their hands are the worst, are the most obvious.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
And besides that, if you have inflammation in your buttocks or your toe or your foot, that 's taking energy away for your body being able to help you with your hands. So if you help the whole body to be healthy, a rising tide lifts all boats, that everything gets lifted up and rheumatoid arthritis is going to be dealt with better by the extra tools the body now has available.

Dr. Eric Gordon:
Right. And as far as patients, we have a lot of people with very hair-triggered immune systems, and mast cell activation and issues of that flavor, I mean, have you seen... How does the body respond when you have that pulse to the PMFs?

Dr. William Pawluk:
There's some debate in the magnetics world, and usually, the debate is triggered by the people who are selling one thing versus another, right? Everybody's got their camp based on what they sell.

Dr. Eric Gordon:
Yeah

Dr. William Pawluk:
So the debate is whether frequencies are better or high intensity is better. So a frequency magnetic device, like the low intensity ones that we discussed are like a song, That's a low frequency device.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
A low intensity frequency. So here's a high intensity impulse device.

Dr. Eric Gordon:
Oh, okay.

Dr. William Pawluk:
So that pulse is going through the body.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
The more information you present to these inflamed nervous systems, the harder it is for them to deal with it. It's too much information too fast.

Dr. Eric Gordon:
Right.

Dr. William Pawluk:
So a lower intensity pulse system tends to be less reactive for people.

Dr. Eric Gordon:
Okay, okay, that's fascinating. Right, 'cause this is why I'm very interested 'cause the only, I said, when I was just talking before, about 10 years ago, we used some of the low intensity, high-frequency systems and we found in our sensitive patients, they were too much, they did trigger them and they did great for the healthier people.

Dr. William Pawluk:
There's two reasons for that, and one is because of the frequencies, but the other reason is you're just stimulating too much of the body at the same time.

Dr. Eric Gordon:
Aha, okay, okay.

Dr. William Pawluk:
Right?So that's why you have to decide, do you want local or systemic? And if you do local, then you basically are going to gradually increase the intensity and the treatment time to adjust to the body. The body's gonna tell you how fast you can go. Now, clearly, certain areas of the body are much more susceptible than others. The brain, the cardiac plexus, the solar plexus, the sacral plexus, all these plexi or plexuses are much more sensitive 'cause there's much more information due to the traffic going through them. So if I treat it by three to foot or an ankle or a knee, I'm gonna get a lot less activation of the whole body, than I will, again, those body cavities. So extremely sensitive people, I would go to a very local area.

Dr. Eric Gordon:
Right, okay, yeah.

Dr. William Pawluk:
And with that, increase the time and intensity then increase the area, increase the time and intensity and then increase the area, time and intensity, 'cause you've already then started a process, a cascading process in the body, that the body is now learning how to deal with this information and begins to rebalance itself. So that balancing process could be exquisitely, excruciatingly slow.

Dr. Eric Gordon:
Yes, yes.

Dr. William Pawluk:
Exquisitely excruciatingly fast.

Dr. Eric Gordon:
Yeah, right. But as long as we have a way of modulating the speed and the response-

Dr. William Pawluk:
And the intensity and the response.

Dr. Eric Gordon:
And the intensity, then, I mean, that was my problem with the whole body systems, is that there wasn't a low enough level that allowed us to be gentle enough with a really sensitive patient. And so this is great.

Dr. William Pawluk:
Sometimes in these patients, 'cause I've actually treated the water and had them drink the water for a while.

Dr. Eric Gordon:
Yeah, yeah, no, absolutely.

Dr. William Pawluk:
The water is more absorbable to the body, and so therefore you're already conditioned hydrating at least, the body, and I have, in my new book... And when people buy some of these devices, they will get what's called a low and slow protocol.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
Deal with this. I don't want people jumping in the deep end of the pool. Even though they have a low intensity system, you need to find out what your body is gonna do. The metaphor that I use is you don't get off the couch and run a marathon tomorrow. You can try, I don't wanna see you a day later, I don't wanna be there to hear the screaming and yelling and crying and gnashing of teeth and so on.

So athletic training is like that. You gradually increase the amount of training and you may increase and you may have to have to back off, increase and you back off. It's like interval training, you increase and you back off. Finally, you achieve the goal you're going after. Well, dealing with overwhelmingly ill people is no different, right? You apply a stimulus, you apply a treatment, you see the results and you may have to back off some, you may not necessarily stop it. Sometimes what happens, unfortunately, people are so sensitive to these things that anything that's even positive can be perceived as a threat.

Dr. Eric Gordon:
Yes, yes, that's what we see all the time, right, that self-preservation thing takes over. The reflex, yes.

Dr. William Pawluk:
Yeah

Dr. Eric Gordon:
the reflex. I mean, that's why..

Dr. William Pawluk:
you can't distinguish the difference.

Dr. Eric Gordon:
Yeah, well, that's where those retraining things, like the DNRS and the and the amygdala path system, Gupta and Annie Hopper, I mean, these are where sometimes we have to go with people so they can quiet the fear response, 'cause it's also a protection, it's not bad, it just doesn't know friend from foe.

Dr. William Pawluk:
Become over exaggerated.

Dr. Eric Gordon:
Yeah, yeah, yeah, and that's a hard-

Dr. William Pawluk:
Self-training, self-entraining.

Dr. Eric Gordon:
Yeah, yeah. Now, it is so difficult, yeah, to learn how to control that response, especially when unfortunately, many of the chronically ill people have been told that they're just crazy, and so the idea that you have to do something mentally can press a button, but we have to remember, is that, wait a minute, brain does control everything and we sometimes have to go there. But so just for, and this is a point, really, it's funny, today, we didn't really talk about mycotoxins, well, I've done this several times, 'cause I want people to see is that there's lots of ways in to relax the

system, to help the system heal 'cause remember, is that everyone's exposed to different levels of toxins in the environment and it's our body's response that is often the issue.

We gotta have less of these toxins in the system, and that would be good, our patients are the canaries, they're letting us know we're creating a very unsafe world for everyone, but still, if we can get your body to respond with a little less noise, you'll have a much happier life.

Dr. William Pawluk:
And that's the key, and I can't tell you, there's a section in my book on infectious agents, fungi, parasites, viruses, bacteria and so on, and magnetic field therapy has been found to actually help the body to heal itself 'cause the body does the work. If you can use a magnetic field or you can use a frequency-based field to kill a bug, there's a really good chance you're gonna kill a lot of good things along the way.

Dr. Eric Gordon:
Oh, okay.

Dr. William Pawluk:
Right? If it's strong enough to disrupt an organism, pull it apart, like radiation, what's gonna happen along the way?

Dr. Eric Gordon:
Well, that's a good question. So that, that, that is a good concern, that's something that is something that you're worried about when people are using these frequency devices.

Dr. William Pawluk:
Well, no, not really, I don't think they could do that 'cause they're not at that level of intensity and the frequencies are not that short that you can burst open a cell.

Dr. Eric Gordon:
Okay.

Dr. William Pawluk:
And there's something called electroporation where you do exactly that.

Dr. Eric Gordon:
Yeah, yes, yes.

Dr. William Pawluk:
Now, what we're doing with magnetic field therapy is we're helping the body to deal with the infection. We're helping bodies to respond better. Leukocytes track much better with magnetic field stimulation. They do a better job of hunting down the infectious organisms, and if their organisms are encysted, C-Y-S-T encysted , then they're more likely to break down the barrier that allows the body then to get in at the organism. But if you do nothing else, if you do nothing else, if all you're doing is just keeping the rest of the body healthier, the body-

Dr. Eric Gordon:
Yeah, yeah, this is, I think... Just maybe one last little thought that might not be real, but that biofilm formation, we really started learning about biofilms from basically, petroleum engineers, people who were dealing with flows in pipes, because that's where they have a lot of problems with biofilms and electrical charges will help disrupt the-

Dr. William Pawluk:
magnetic field.

Dr. Eric Gordon:
Yup, yup, yup, so this could be very interesting.

Dr. William Pawluk:
But why would magnetic fields disrupt the biofilm? Because it's inducing an electrical charge, it's not electrocuting biofilm.

Dr. Eric Gordon:
Right, no, not at all, right?

Dr. William Pawluk:
It's actually causing the charges to be built up around the biofilm that it begins to disrupt. And magnetic fields found in clean water.

Dr. Eric Gordon:
Yeah, yeah, no, no this is why I said, we have to... We're gonna wrap up now, but I'm realizing you're another one I wanna get together with. I've got a few people that I've been talking to during this summit, and I wanna put us all together with Dr. Pawluk, the fourth phase of water . Yeah, I really think that would be a fascinating discussion and just help let the world see how this is affecting every aspect of life at the very basic level, which is water and flow and energy and-

Dr. William Pawluk:
Magnetic fields, obviously, when they go through the body and they're affecting water.

Dr. Eric Gordon:
Yep, yep, this is it. But anyways, Dr. Pawluk, thank you so much. I just wanted to remind people like really, your website is the place to look, especially for your books and your products. I mean, 'cause the thing that I'm interested in is that you're someone who's used everybody's and it looks like has put together the one that you feel is the most effective.

Dr. William Pawluk:
Right now, and there may be better down the road, but right now, for most people, especially people with really significant chronic problems, that sandwich effect is probably gonna be the most powerful, but sensitivity has to be considered.

Dr. Eric Gordon:
Yes, so make sure you read that section before you turn the machine on. Yes.

Dr. William Pawluk:
Yeah, low and slow protocols and that-

Dr. Eric Gordon:
Going slow, and more importantly, bring it to your doctor and teach them, 'cause that's how we learn. There's so much information out there, and really, and if your doctor doesn't wanna hear information from you, you probably should think about finding another one.

Dr. William Pawluk:
Well, and I do recommend if you're gonna go visit your doctor, you should bring the book with you.

Dr. Eric Gordon:
Yes, yes, yes.

Dr. William Pawluk:
There are over 500 references in the book, and if a doctor's not willing to look at it, then as you said, I think, they're not .

Dr. Eric Gordon:
Yeah, you need a little different help. Anyway, on that note, really, again, thank you, it's been a pleasure.

Dr. William Pawluk:
Thank you Dr. Gordon, likewise.