Introduction to the Longevity Summit and Dr. Pollak

Welcome back, everybody, to another episode of the Exponential Longevity Summit. I'm your host, Doctor Jeffrey Gladden, and here we are discussing how we leverage AI to outlive or how.

And here we're discussing how to leverage AI to outlive disease and live young for a lifetime. And today, it's my privilege and honor to welcome Doctor William Pollak, author of the book Supercharge Your Health with PMF therapy.

Doctor Pollack is an MD by Training and Family Medicine and transitioned about 20 years ago into functional and integrative medicine. He lives in the Baltimore, Maryland, area and has previously had academic positions at Johns Hopkins and the University of Maryland.

Doctor Pollack, it's a pleasure to welcome you to the show. Thank you very much, doctor, and pleasure to be here. I look forward to, an interesting discussion.

Yeah, absolutely. So tell us just a little bit about your transition from traditional medicine into the integrative space. I mean, you went out and got homeopathic, training and acupuncture training and you become an expert in PMF.

What? So what sort of flipped a switch for you? Well, as a family physician, probably that's almost any kind of primary care physician when you're treating any that walks in the door.

Sure. You are always looking for tools. I call myself an unhappy doctor. Okay. Well, that's an interesting phrase. Unhappy. And what's. So. I'm happy that you couldn't help people as much as you wanted to.

That's what I'm hearing. And then I kept looking for solutions all the time.

From Conventional Medicine to Integrative Practice

So everybody needs something different along the way. We had our group, our family practice group. I had about three people admitted to the hospital in a very short period of time with GI bleeding.

One of them almost died. And I, you know, that's that was my wake up call. I said this is it. We're, we're this again the definition of insanity. And the opposite direction. Right.

Do the same thing over and over again hoping for better for no bad results. Right. Right, right. Yeah, yeah. Ibuprofen. We're killing people with that.

Or nearly killing people with ibuprofen. Right? That your pain? So at that point, I said I got to do something different. I went out and studied acupuncture.

There's a course at UCLA for for clinicians, for physicians. Or did that for about a year or two years and went to practice, tried to do my acupuncture.

That was 1990 and 1990. Acupuncture. What's that. Yeah. That was, you know, you were from another world where if you're talking about acupuncture in the US in 1990. I do not know.

300 doctors trained in acupuncture in the US at that time. So I said, well, how can I do acupuncture if I can't use needles. I said, what are needles. Stay away from me with those needles.

No no no no no. So I learned, I discovered that in the Orient they've been using magnets on acupuncture points.

And of course, we know that you can do all kinds of ways of stimulating an acupuncture points, including pressure and heat and friction and just and light lasers and so on.

Right. It's where one of the tools that was used in the Orient, and they use them on ears, they use them on hands. So here's an extensively so I started using magnets and I discovered they worked on acupuncture points.

Actually I did a little study with with using nerve conduction, with a physiologist friend of mine. And lo and behold, we discovered that affected nerve conduction.

Okay. I said, okay, I got you got my interest. Right. So you're improving nerve conduction by placing magnets on certain meridia, right. Or certain acupuncture points.

That are your points are basically a DC current system. I do a whole workshop on training acupuncturists on how to use magnets or magnetic therapies with acupuncture.

Go along with. So because it's a DC current system it's an applied the laws of physics apply the electromagnetic go together. They're in some. Yeah I want you stimulate an acupuncture meridian which is flowing with current and you do a magnet on it.

Then you get changes to that current. In some cases you get decreases in current if you've got your irritated nerves.

Magnet Therapy, Acupuncture, and Faraday's Law

In other cases, you wrap up the current, part of the, part of the aspect of that is called Faraday's law. So that's a law of physics, right? And when you pass a magnetic field through a current conductor, it, all of a sudden the current starts flowing in that current, that conductor.

So you didn't experiment with light bulbs? We passed a, magnetic field through a through a circuit of copper wire that had a light bulb linked in it. And when he did that, the light bulb lit up.

Right? With no current. Yeah. Well, that was correct. It was current. The magnet was inducing the current. That produced the current. Exactly. Correct.

Right. That's called Faraday's law of induction. Yeah. That's exactly what happens in the body. No, this. Is the body. Copper ions. Well, not necessarily, but it's all kinds of charges.

That's right. It's full of charge and it's full of nerves that are conducting and connective tissue that's conducting. And, you know, the list goes on and on.

And the body is basically an electromagnetic apparatus. Obviously. Obviously the acupuncture meridians. And just so the audience understands, all of your cells are charged as well.

And the degree to which they're charged is a function of their health on some level. So I remark in the body is charged. Yes. That's correct. It also. Yeah.

And the cell membranes actually sort of function like the lining of a battery, where you can have a capacitor where things can actually hold charge if you will not just float charge.

And so that's a really, really important, important part of health. And longevity. Because as people age, they start to lose that charge in their cells.

And and cancer cells have a very low charge, quite honestly, from what I understand, compared to a normal cell. So this idea of how do you optimize the charge kind of kick.

Simply a way to think of it. How do we keep the batteries charged right inside our bodies? That's one way to think about it. Well, another way that I describe it is that the body is a is is, not is electrolytes.

It's a bag of electrolytes. Yeah. Our skin contains us. Yeah. And inside this, inside that skin bag, we have all this flowing, all this flowing activity of ions and electrical charges and so on.

So the body is extraordinarily conductive. And therefore, when you pass a magnetic field through it, like Faraday's law, then you basically are activating all kinds of charge.

And the other interesting thing is that, our charges exceed the physical boundaries of our body. So when the heart is pumping, we have a magnetic field that extends out beyond the body. Right.

We talk about people's auras or feel energy fields or, you know, things that people would consider sort of woo, woo woo on one hand. But in actual fact, all this is measurable.

You can actually measure the magnetic field outside the body, the electric field outside the body. And in fact, actually neurosurgery uses Meg's right Magneto and several exams to pinpoint seizure foci.

Right. So then you can you know exactly where you go to. Do I delete that seizure focus or you do an implant? So the energy measuring the electromagnetic pulse of the brain.

But we also have KG now which is doing the same thing to the heart. Yes. That's right. We do. And you can we talk about EEGs where we're measuring electrical activity.

Now we're talking about measuring the magnetic field. Field of the heart. Right. And this is. Electrical against magnetic. Pardon me whether there's electrical there's magnetic.

Electromagnetic. The second force in the universe, it's inseparable. That's right. That's right. Yeah. And that's sometimes hard for people to wrap their heads around, but to to go hand in hand and they're.

I think they're perpendicular to each other. I'm not mistaken. They are perpendicular. Correct. Right. So it's now a wide. So there's no there's no flat plane.

Right. So the magnetic field basically is interacting with cells and tissues at all the different planes. That's right. And all you're producing the magnetic field.

So then to optimize health one of the, one of the key underlying principles of physics would be how do we actually optimize the energy field, that electrical field, electrical current and the magnetic field.

So now we're getting down to starting to think about health beyond sort of biochemistry, which is a little bit of a mechanistic approach. A molecule pops into a receptor and stimulates an action.

Now we're starting to think about it in terms of energetics and fields of energy. And that leads us down many other rabbit holes like, you know, structured water and, easy water and things like this, too.

But the point is not to not to obfuscate the conversation, but just as you're listening to this, think about the fact that, optimizing the electrical and magnetic fields in your body becomes really, really critical in your own journey towards health and longevity.

Well, I have a concept based on all my education and training and on my different, you know, from different ways of looking at. And the acupuncture system is one mechanistic approach to thinking about how the body operates.

Right. And you got spirituality. And I've been trained in hands on therapies, energy therapies, hypnosis, you name it. So I the concept I have is that we think of ourselves as being tissue.

We pull up the skin. That's tissue. Yeah. But what's tissue formed of molecules. That's right. What governs molecules? Physics? Yeah. Physics governs everything and can't see it.

Can't feel it, can't touch it. But it governs everything. But what governs physics?

The Body as an Electromagnetic System

Consciousness. But I've done physics. Yeah. Quite well. Quantum physics. And what governs quantum physics. And physics exactly. Consciousness. Yeah. Right.

So it cascades down from these more etheric structures to more physical structures. So the process of control. So the way I look at magnetic field therapy then is that's a controlling mechanism for the molecular levels of the body.

And so most of the research has been done on pet therapy and has been done looking at molecular functions energetic pathways energetic processes. You know, I tell people how many I ask people how many cells we have in our bodies.

Well okay, let's, let's assume it's about 100, 100 trillion. Yeah. The next question is how many biochemical processes do we have per second in every single cell.

Oh, yeah. Trillions, right. I mean. That's personal per second. Right? Exactly. And of course, with a whole body is more than the number of cells. It's it's amazing. Right.

But the body is inefficient. How efficient is a car engine. Yeah. So the body is inefficient. So tell me about that. It's inefficient. I can get that.

It's generating heat. It's you know, go ahead. No, that's exactly the point. So most of the biochemical processes in the body are, are not very efficient at converting the fuel into work.

Okay. Right. So the body is about as efficient as a car engine. About 25%. So when you talk about projecting energy fields, when we look at crude in photography, we can see that there are pathways in the body that energy fields are depressed.

And you can amplify them by injecting them with EMF therapies fields. So you're amplifying the amount of energy produced to increase the energy. So we can get about 20% increase in energy in the body.

Just with magnetic field therapy. So that's so this is fascinating right. So everybody's heard of PMF. I'll tell you what. Let's just define PMF right.

Most of light on a pulsed electromagnetic frequency. Right. So this is like a matte. Or it could be a wand or it could be there are different devices glasses and some other things.

All of these will put this energy into your body. Do you want to talk to us a little bit about, how that happens, how it goes in there and where it goes and what it does.

Talk us through that. So the first thing we should discuss, because everybody gets more people know about Emfs. Yes. That's right. And he emfs because we've all heard about the risk factors.

Right? Right. Emfs are basically electromagnetic fields, but they're basically broadcast in the environment. The what I call open loop, the broadcast.

They just keep on going and they have wavelengths. And they're broadcast for one reason mostly, which is. Communication. Yeah. For communication. Right, right.

So they the body just gets in the way. But most of those emfs in the environment are low frequency. I'm sorry. High

frequency. Right. Like so for our cell phones in particular, we worry about cell phones and 5G and all that. Well, that's high frequency.

High frequency wavelengths are extraordinarily short. They do not pass all the way through the body. They pass into the body and they cause heating. Right.

That's the that's the construct of the microwave oven. You put right inside the microwave oven, you turn it off and you heat. Yep. So their purpose is to communicate, but they secondarily cause heating problems.

So they're broadcasting the environment open loop A pass magnetic field is caused by our current flow through a wire. We have a machine that produces current and you attach a wire to that machine which Tesla discovered.

Pass a wire through that machine and then the current flows through that wire. And it does as you said it perpendicularly produces a magnetic field. Every part of the current produces a magnetic field that passes out and down, out and down.

So basically closes on itself. It's a closed loop system. Our open loop. So it has no wavelength. Okay. So therefore it's not heating up. It has no wavelength. Not heating.

That's it. Now there are enough devices that are designed for heating. They're high frequency like microwaves. They're designed tissue right. We use them on purpose for that purpose that way.

But P and X are designed for healing. They're not designed for heating. And so when you put this pulsed magnetic field into the body, how is it healing anything.

What's actually happening? Exactly. Right. So pulse magnetic fields then basically our magnetic fields go through the body as if the body was air to a body does not matter to a magnetic field.

It's completely permeable to a magnetic field. Nothing in the body stops, uses up, right or otherwise alters the magnetic field unless you have metal.

Unless you got an artificial knee. Right. So yeah, there you go. Finds the field and all it does has been the field doesn't stop it. Right. So pmfs by passing through the body.

Faraday's law. By passing through the body, they induce charge and induced charge. They increase the energy level in the tissues, and then the body tries with that charge, whatever it wants.

Right. So this is interesting. So you're basically think of it like this.

How PEMF Works and Why It Differs from EMFs

You're plugging something into the wall which is sending a current down a wire which then perpendicular to the wire is creating a magnetic field which then permeates the body and sets up another current inside the body, because that's what the magnetic field will get occurrences.

So that's. Right. It sets up the charge inside the body. The electric charge inside the body. So essentially it's almost like sticking your finger in the socket.

But you kind of put the magnet in between safely. That's right. That's right. Very cool. So then so then once that energy is in the body, then the body, knows what to do with it.

So what is the body doing with it? Well, I have a I wrote a chapter in a book and I have a model called the clinical the symmetry model. So as the magnetic field enters the body, produces the charge, then that charge then gets amplified and transduced in the tissues.

So just like we touch our finger, that signal is very tiny. They should not have enough power to go to our brains. So it does. So it's amplified a peanut therapy basically does the same thing eventually.

Then what it does is it transducers changes that go into at a molecular level which then cascade up and amplify up into a tissue level a cellular level essentially a cascade up into a tissue level and then into an organ level and then into the body level.

Right. So as we're working at the cellular level, there's lots of conversation and data around, PMF basically helping to improve mitochondrial function, for example, which.

Is that's one aspect. Right? And I assume if it can do that, it can probably do other things like improve the, charge gradient across the cell membrane or improve other organelle functions or improve, right, DNA, maybe even DNA folding or transcription or things like that.

I assume all these benefits, all these processes, the benefit. That RNA and DNA, it increases RNA production, increases DNA production. It increases the by increasing ATP.

So PMF therapy increases ATP by between 100 to 400%. Okay. At the field top. Right at the field. So what if you have it on your knee? Nothing's happening for your brain, right?

So you have to. Not a hole because the magnetic field has to interact with those mitochondria. Right. In fact the citric acid cycle, the Krebs cycle and so on.

So to produce the ATP, right. Anything about magnetic field therapy in ATP? ATP by itself does nothing. Well, by itself, of course, it's just a molecule of ATP and heat.

But go ahead. Produce energy. You have a. Whole spinach form of energy. It's a storage form of energy. And you have to have something that is able to use that storage form.

As the capacity, because then what? You just strip off one of the phosphates and that releases energy. That's right. Magnetic field therapy increases the production of ATP from ADP using, enzymes across the cell membrane and through the mitochondrial membrane to increase the production of ATP.

Then it also hydrolyze the ATP to produce the ADP. And then you release recycles it. Okay. So it's basically actually, functioning ATP production and also augments that utilization, right.

Yeah. So you're releasing more energy into the cell. Exactly. Yeah. Like injury or a cell damage? Cell injury. Then this cell injury creates a tremendous need for ATP.

Yes. Right. All the healing that needs to take place on. Quite a lot of ATP in cells. Yeah. Got it. So magnetic field therapy. That's why it's amazing for injury.

Inflammation. I mean the list goes on and on. So and this is why it's important for longevity because longevity the lack of longevity is largely an inflammation aging process.

That's right. Yeah. Lots of inflammation and lots of, diminution of ATP production, quite honestly. You know, we we end up with mitochondrial dysfunction, which leads to, a lack of energy in the system.

And so then the cell doesn't have enough energy to repair itself to keep the membranes intact, to repair the DNA as it's damaged, you know, so you basically it's a house that doesn't have enough power to keep the heat on, and the thing starts to collapse on itself. Right?

So that's entropy. Yeah. That's right. That's entropy. Yeah. So just so you know, entropy is basically the second law of thermodynamics that talks about everything, wants to move to a state of more disorder.

Right. So exactly. Unless consciousness is brought to bear in which case things are created. And consciousness has no disorder. Yeah. That's right. So okay. So fascinating.

So tell us a little bit about situations where you've used PMF, to improve people's situations. Maybe give us a couple examples that the audience can relate to.

Sure. Well, I don't know if they could relate to this or not, but one of the examples in one of my early experiences with peanut therapy, which was like, to me, staggering is like, like amazing.

A three year old girl who cut off the end of her thumb in a doorjamb. Okay, actually, the father calls. Maybe for the plastics. People got to it. I would have just cleaned up the wound and put a graft on it.

Right. Right.

Cellular Energy, ATP, and Longevity Benefits

She would have been fabulous. Or the end of her thumb basically for the rest of her life with the deformed. So the father called and I said I heard that in, in Europe they often and children, they often reattached the digit and low and behold, they said, well, we got nothing.

We got nothing to lose. You can always do that anyway down the road. So I said reattach it because it serves as a bandage anyway. Right. So they reattached it.

She did an hour and a half to three hours a day of therapy. Local just to the thumb and I pictures. And then 12 weeks completely regrown and the nails growing back.

Nice. Yeah. That's amazing. See this before, you know, 50 years of practicing medicine. Never seen that happen. Yeah. And it's true. Just so the audience understands that, an embryo has a lot more regenerative capacity than a fully formed baby.

And a baby has more regenerative capacity than a 12 year old. And a 12 year old has more than a 22 year old, and on and on. Right. So being able to take advantage of the inherent regenerative capacity of a three year old, plus augmenting it with the PMF.

You got a pretty spectacular result. So that's awesome. It is. It's amazing. Yeah. Another example is a much more common one. My wife broker, told on furniture in the middle of the day.

So the RTO was like. She wasn't three years old. And she wasn't three years old. She was a lot more than three years old. Okay. So bruised, swollen, pain, you know, you name it.

Yeah. I did the classic things. I put her on a platform shoe, buddy, take the towel. And I started magnetic field therapy. Again with the same device that we were easy for, for the girl.

Because this is a local problem. So we could do that. Look like what did that device look like. It's a small little circular coil for this, this bit. And the actual device looks a bit like a derringer.

It's a small, small little square thing. So you put your you put your foot into it, kind of like go. On top of the. Toe on top. Okay. Right on top. Yeah. Keeps it in place.

Shoes flaps. Protects the toe from bending. 24 hours. She did it from noon time. The magnetic therapy from noon to the following morning. Following morning all the bruising is gone.

All the swelling is gone. All the pain is gone. Wow. Wow. Wow. Take a bulk and towel to heal. Oh, well. Usually six weeks. Right. But. Exactly. And I, as a family physician, I've seen this many, many, many times.

So I know the picture. Next morning. Perfect. And you know, she did it for another 24 hours continuously for another 24 hours. Walked a mile in tennis shoes.

Oh. That's unbelievable. That's. Yeah. Wait, wait. Are the 24 hours walked five miles in tennis shoes? That was a good day. I thought you're going to say she ended up with a pedicure at.

No. That's awesome. That's amazing. I mean. Yeah. Well, it just goes to show you that that healing and actually maintaining youthfulness are actually related.

In other words, the ability to repair, the ability not to go down the path of destruction, which then leads to inflammation, which begets more destruction.

Right? So if you're able to supercharge the system, when it needs it, like when something's been damaged or if you can supercharge a system and, and, an aging person, you can actually, you know, do pretty miraculous things.

So we've had a, we've had to do some pretty miraculous things to not quite like the stories you have, but in terms of, you know, helping people to feel better or heal better or, you know, it's part of a long haul protocol for helping people get over long haul symptoms, in addition to other things that we might do right to boost mitochondrial function, like ozone or supplements or things like this.

Right? So, yeah, very, very cool. Very, very cool. I also have about in my supercharge book. So I've written another book called Our Power Tools for health and the Power Tools for health has the references.

There's 500 citations or 500 references in that book talking about mechanism. So what I want to do is provide evidence for how therapy has different actions, physiologic actions.

So one being simulating stem cells, again nitric oxide decreasing inflammation, increasing circulation. You know, the list is long. The 25 different actions in that book.

Now I discovered that magnetic field therapy also, helps the and the cannabinoid receptors. Nice.

Clinical Examples of Rapid Healing

And also conduct helps to conduct current through connective tissue. So let's talk about the endocannabinoid receptors. Because when people hear that the first thing they think about is THC in marijuana.

Right. But but the endocannabinoid system is really quite fascinating. It's a real, what shall I say, homeostatic mechanism in the body. It keeps us in balance, both.

Right. Go ahead. Nervous system. Yes. That's right. It balances the nervous system, particularly emotions and feeling good and relieving anxiety. Actually.

Interesting things the CB1 receptor has been associated with actually, when you stimulate it, can decrease, your memory for painful, things that happen to you.

So you have less PTSD or less, anxiety in the future around something. Yeah. Which is fascinating. So tell us about PMF in. The nervous system and stimulates and the cannabinoid receptors.

That's why people usually feel very calm after magnetic therapy. Right. Okay, okay. You know, I just came across a molecule, you know, in, in the Indian traditions of bliss, there's a word that's called Ananda.

Ananda. Right? Ananda. Right. Ananda. And, and there's a molecule called Ananda main, which is basically a molecule that stimulates the CB1 receptor, which puts people into this state of kind of calm, almost blissful kind of place.

Right. And THC will also stimulate that receptor. So does chocolate and exercise and some other things. But it sounds like, PMS may also be a stimulant for this.

Is that correct? So absolutely. And in the Supercharged Health book, I talk about that a little bit. I don't give citations of the references, but and there's much research relating PMF therapy or relating magnetic fields to those receptors.

But there's 1 or 2 articles that talk about how they do affect each other. A peanut therapy, as I said, has all these actions, but at least 27 I. Identify what happens is that you and I don't choose the action.

I can't dial it, I can't does it just. Right. After. That's right. You know, you just I mean, that's right. When you when you lay on a PMF mat, you just lay on it.

I mean, there's no dial to say. Well, we're going to treat your bone or your eyeball or, you know, something else, right? You just you just put it in. Yeah.

But there is a dial that you can control. Okay. What is that. Part is law. Okay. So Faraday's law is DT. So DV means the intensity the change, the intensity the magnetic field.

So with each pass you go from zero to the peak okay. That happens with time. So a DB divided by the change in time dy dt okay. So really we're talking about the magnitude of change over the duration of time that it takes to to go through that magnitude of change okay.

Yeah. Exactly. Correct. All right TB d t becomes important. So now what's what's missing most of the time. And most people talk about magnetic therapy is the intensity the magnetic field and how it matters okay.

So you need a more intense field. Is that what you're trying to say. Now that depends on the charge. So the little girl with the with a finger didn't need a high intensity magnetic field, but she got to the gauss.

So Gauss is a measure of magnetic field intensity. It's got 200 gauss. The local problem local tissue. You all you need is a local amount of energy. When you cross a brain I try to treat deep into a heart or into a lung.

Long haulers are it into a belly. Then you have kidneys etc. you need the right intensity of magnetic field.

Endocannabinoid Effects and Treatment Parameters

Research has shown that the optimal intensity for magnetic field therapy to decrease inflammation is 15 gauss. Okay, so here's another law of physics.

So how do we actually figure out how many Gauss we're getting if we lay down on a mat. I have that in my book. Okay. So you have to know the intensity of the magnetic the peak intensity of the magnetic field.

Right? Right after far away you have to treat. So this is basically what we do in medicine. We do the same principle with physics with radiation therapy.

Yeah. So you're basically now you're going to talk about the intensity drops off as a square of the distance. Exactly. Or the route or you know, there are a number of different rules around that, like the inverse square law, which is the law that we use for radiation therapy. Just to make it simple. Right.

What are you saying by this? Just to make this obscure is that, you know, if you move, twice as far away, the field drops down by the square of that. Well, so it'd be four times I move away.

Three times I was nine times weaker, you know, that kind of thing. So. Right. Yeah. But yeah, I like the field. You have to know the intensity that you're dealing with.

You have to know how deep you're going into the body. And I have tables in my book, that show you that a chart that shows you the intensity you need at different distances.

Okay. You have to combine Faraday's law along with the inverse square law to get the right treatment. Delta. Okay. Got it. Yeah. Interesting. And I assume that that would make a difference depending on the size of the individual also. Right?

Yes. Yeah, but it doesn't matter. The magnetic field is going right through the body. Yes. I mean how far you want to treat. And if you have right here and you have the body here, then you have to, you know, again, Quantitate that.

It's not because the body is absorbing the energy, it's because it's just the energy decays as a function of how far it is from the source. Just like sound does.

Yes. Yeah. That's right. That's just like. Yeah. He does called and so on. That's right. Yeah. Beautiful. Well, Bill, this has been a fascinating conversation.

I as an audience, I hope you found this really enlightening. And I hope you see that, utilizing PMF in a, in an intelligent, sort of structured way can have a massive impact on your ability to rejuvenate, to heal.

It can also be an adjunct to other rejuvenating technology like peptide stem cells, exosomes, other things that could be done right works together beautifully.

And then it also has an impact on keeping us useful. Right? If we're going to live beyond for a lifetime, we need to maintain youth. It's not just about treating things as they go bad.

And so this could be a critical thing. Do you have a recommendation for how often people should use this on a regular, let's call it maintenance approach.

So that's the problem. So the problem again goes back to how many cells we have in the body and how many processes per second there are in every cell.

Yeah. So actually we could be doing magnetic therapy all day. Okay. I'm going to get a new suit of clothes made okay. So at the very least people are going to do that.

So practically as a practical family physician. Yeah. How often are you going to treat. Well, you have to treat according to the problem that you're dealing with.

Practical Usage and Device Selection Tips

But basically if you do a half an hour twice a day, most of the time you're going to get enough energy to be able to do the job. And don't forget why you may have bought the machine to treat your oh that's broken.

Yeah. Oh, your headache or your brain concussion or your heart disease. You will still get all these other actions and magnetic fields. It's not just for that one problem.

That's right, that's right. Everything's benefiting from it. At the same time. Yeah. Beautiful. All right. Well, good. Well, such a great conversation.

I really appreciate you taking the time to chat with us. So I hope I do have one thing to say. People do have to get the right piece of equipment, and a lot of people who have devices will not tell you the intensity of the magnetic field.

Okay. So if you're going to buy one, look at that. The intensity of the magnetic field, that's what I'm what you're hearing. Out of Doctor Polycom. And you'll have all kinds of, devices.

And the different intensities will reveal all those. Okay. So that's spelled Luke, right. Doctor. Polycom. Dr. Newcomb. And the book is Supercharge Your Health.

Yeah. Beautiful. And you had another book, too, besides Supercharge Your Health. That's the. That's the book with the reference. It's called, Power Tools for health.

Power tools for health. Exactly. Okay. Well, again, thank you so much. It's a pleasure.