How To Shield Yourself From Everyday EMF Exposure! l R Blank l Ep #435 Transcript

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Introduction and episode overview

Welcome back. I'm Natalie Nidam, your host. Today's episode is with a repeat guest who grew up with the scientist father warning about EMFs long before the rest of us were glued to gadgets with Wi-Fi and Bluetooth.

Our blank joins me to explain why the conversation around electromagnetic exposure has gone mainstream, what the science says about DNA damage, oxidative stress and sleep disruption, and how small behavior changes can dramatically lower your exposure.

It turns out that the healthiest thing in your bedroom might be less technology. Now, if you decide that you want to try any of the MS safety devices you hear about today, you can go to shieldyourbody.com and use code NAT for 20% off your first purchase of Shield Your Body products.

Now, RBlank also has a new book out called Empowered. So make sure that check that out as well. There's lots of great information in there. Now this episode is brought to you by Qualia Creatine, Maszymes by Bioptimizers, and Vita Zero Age Exosomes by Vitali Skincare, all with special offers just for you.

Check out the show notes below for details and enjoy the Welcome back to the show, it is an absolute pleasure to have you back. It's great to see you again, Nat.

I really appreciate the opportunity to come on the Show again and chat with you. it was an important topic the first time we talked about it. And I think four or five years later now, its gained amplitude.

You know, I remember when my son was very young in elementary school and meeting this woman. Who was, and this is long before I even changed careers and got into this, talking to me about, you know, the electrical wires.

And I think she was talking about non-native EMFs and how terrible it was in schools. I remember looking at her going, I, think you're a little bit crazy.

Like, what are you talking? And she, was very strident. She was like very passionate about the topic. And I feel like she maybe was maybe one of these people that was very electro sense like sensitive to MS.

We can talk about that a little bit how some people feel this stuff more than others. And remember at the time thinking, man, I think she's a Little Nutty, right?

And sure enough, you know, here we are. Okay, he was in grade three. So we're about 16 years later and she was anything but nutty. She was the canary in the coal mine.

Like this woman was, you know, probably reading your dad's book and realizing that there was really something to this, which speaking of your Dad, so you grew up as the son of Dr.

Martin blank, one of the earliest scientists warning about electromagnetic radiation. So what was moment you realized this wasn't just your dads niche research, but this is something that would define your life's work.

Oh, well, so that was when he asked me to help him write the book Overpowered, which we wrote together in 2012 and it came out in 2014. But it was The goal was because he'd been a researcher and professor at Columbia University Medical School for decades, and he focused a lot of effort starting in the 1980s on the biological effects of human-made electromagnetic fields.

And he'd done a lot of writing and a for lack of a better word, activism, but it was all for scientific and regulatory audiences. And so he was effectively retired in 2012. He was still doing stuff, pretty well retired.

And he got a contract to actually write a book for regular people about everything he'd learned in the prior 30 odd years. So that's what Overpowered is, is a survey, just a normal accessible survey of what the science shows about the health effects of electromagnetic fields.

And it was in the course of writing this book, so we were writing it in 2012. That's when I came up with the idea for Shield Your Body, what became Shield your Body.

How EMF awareness became a mission

And then I released my first product in 2013 and then the book came out in 2014. So it's all interleaved. Yeah. I really realized, I mean, always knew what my dad did and I always had a lot of respect for his intellect, incredibly intelligent man.

I've always believed him, but I never just really thought about it very much. And it was in the course of writing the book where I was learning all of this science and all the work my father had done and was like, wow, this is real, like really real.

it's not going away. And so I realized there had to be safer ways for people to use and relate to the technology in their lives. That's again where this all my path started.

Yeah. It's so interesting because they always tell you don't present a problem without a solution. This is like not so much in the world of necessarily, I mean, yeah, obviously it is a business and it allows you to pay your bills or whatever the case may be.

But that book on its own could really stress people out. And to your point, and what I love that you talk about so much in the book is, look, this stuff is here.

It's here to stay. It's not going away. So we're going to have to figure out ways to live with it. And that is a very powerful message because, and it's the title of the book, I was about to say, it empowers people.

Brilliant title. It empows the individual to, okay, how much do I think this is affecting me and what are the things that I feel I'm willing to do to mitigate my reality.

I think you'd be hard pressed to go anywhere and not be exposed to non-native VMFs right now. It's pretty hard, especially with the growth in satellite technology.

But there's places that have very, very low environmental ambient levels of this type of VMf. Yeah, but then you have to worry about the grizzly bears.

And also, you'd be hard pressed to get a job there. Also. Yeah. And you can't use Zoom. Right. Well, yeah. I mean, like Green Bank, West Virginia, You can have internet, but you just can not have Wi-Fi.

So that's what's called a radio quiet zone. Oh, nice. Okay. Have you heard? I'm sorry. I just said Green Bank. Like I expected you to know what that was.

Well, no, but actually no. But I remember driving through a neighborhood in Maui. And they had big signs up where they were really fighting very hard to either not allow or take down, I don't remember if it was cell phone towers or five, definitely 5g.

Um, But that community was quite a small community, very actively trying to limit what was scalable. That's great. And that happens increasingly. Certainly, people are trying prevent cell towers in their backyard or, God forbid, on their children's school.

But Green Bank, West Virginia, is actually the location of an incredibly powerful telescope, a radio telescope. And because it uses radio waves and it's so powerful, it is very sensitive to even very, very low levels of this type of radio radiation.

You aren't allowed to use a cell phone. You are not allowed use cordless phone, there are no cell towers, you can't have Wi-Fi, a microwave oven and so on and they actually have a guy who goes around to check on this stuff.

So I was going to say, so people must just move there to live there just to get away from the noise. Yeah. It's a refuge for the electrically sensitive.

Okay. Well, we'll get back to it in a bit. Let's go back your dad very briefly. What do you think was the thing that he understood decades ago that the mainstream health conversation is literally now just starting to catch up to?

What was it? Like, what do think that you went? Well, I can tell you. He started with human life, but then learned it was broader, that human biology responds to these forces that for centuries had been considered benign.

The whole field of EMF, it depends how far back you go, but around the 1700s, and that's when humanity started to learn what EMT really was and how to harness it.

And then from all that time up until certainly the 20th century and you can argue when in the twentieth century this knowledge of merged But it was just thought that at at these ambient levels.

It was entirely ineffectual That is it had no effect on human biology And what changed for him was a colleague of his at the time. He didn't know her but dr Reba Goodman who was also at Columbia and he read a paper of hers that said there are effects at the cellular level.

And he's like, that doesn't make sense. But let me go talk to her. So he went and talked to, he was like well, this is what the data she's finding says.

They ended up collaborating over decades on a series of studies. What he did Um, was follow the science that he witnessed. He saw science. That contradicted everything.

Had been taught to that point and everything he'd been teaching, uh, future doctors in medical school for decades at that. And he, but he. saw that this is different from what I thought before.

Let me study it more. And again, he focused at the cellular level. That's where the vast majority of the work he's known for is based. What he found, a lot of his work was focused on cellular stress response.

In study after study, after he noted that these very, very low levels of these forces triggered the stress response. And what that means, so he wasn't finding cancer, right?

He wasn' finding Alzheimer's. What he was finding was that at the basic level of life in the body, the human body interprets this stuff as a stressful force it has to respond to.

And that's the story that got him motivated to focus for decades on this work and this research. If you're using a sauna and you are not following a specific protocol around it, you ARE sweating, but you may not actually be supporting detoxification properly.

And that's a problem, because the difference between a session that just makes you hot and one that genuinely moves the needle on your health comes down to a few key steps that most people are NOT putting into practice.

So I put together my complete sauna protocol, the exact pre, during and post-session routine I follow myself, and I'm giving it away completely free. Now, this is not a generic guide.

This is what I actually do. So, of course, you always want to do what's best for your body. But if you want see what i

do and to download it now for free, just head on over to natnidam.com forward slash sauna.

That's n-a-t-n-i-d-e-m dot com forward-slash sauna and check it out for yourself. Let's go back to EMFs because You know, the earth gives off EMFs, like EMS are part of, electromagnetic frequency is a part nature, but what we're talking about here are specifically non-native EMs.

What non-native EMFs are and where they come from

And so I'd love to explain to the audience, people who are like obsessively optimizing their mitochondria, they're tracking their HRV, their cold plunging at sunrise, They're doing all this crazy stuff.

Let's talk about like, what are non-native EMFs to someone who's a little bit new to this field or who has heard it and goes, and my son said this to me once, like pretty soon you'll have us running around in tinfoil hats.

And I said, well, as a matter of fact, I have this beanie. Yeah. I mean, it would be the worst thing in the world. Uh, maybe for their social lives. But so electromagnetic, EMF stands for electromagnetic field.

It's a form of radiation created by a combination of electricity and magnetism. And it was the discovery that electricity influences magnetisim and magneticism influences electricity that gave birth, in my opinion, gave berth to the modern era.

But that's where the studies of EMF came from, was this realization that these two key forces are fundamentally intertwined. And it exists on a spectrum, right?

So there's a whole bunch of different types of emf, and they're different based on their frequency, how quickly they vibrate. Not exactly in the center, but kind of in middle of the electromagnetic spectrum is visible light.

So all of everything we see from the sun, that is a form of EMF. And that, combined with the Earth's own magnetic field, is essentially, not entirely, but essentially the only form, of emf that all biological life was exposed to until the mid 19th century.

Okay. Yeah. Okay, so we would have evolved with it, like all forms of nature would. Exactly. In that, in that environment. Yes. And so there, there are forms.

Of EMF with a lot more energy than visible light. We call those ionizing. because they have so much energy, they knock electrons out of your cells in your body.

And that is very, very harmful, even very quickly in very low doses. So we're talking about things like x-rays and gamma rays here. Right. Everyone knows you got to minimize that stuff.

That's why the dental technician covers you in lead and leaves the room before they take the x ray. And so then you have a whole bunch of EMFs with less energy than visible light.

And because they have less than light, they can't ionize the cells in your body. So that's why they're called non-ionizing. I think nonnative is a little more consumer friendly, but technically they are called And these are the forms that for centuries, scientists, doctors, engineers believed were biologically inert, that is they were safe.

And they include things like radio waves and microwaves. So everything that runs on power, And everything that communicates wirelessly is a source of these non-ionizing EMFs or these none native EMS.

And they're called non native because all of them are human made. Um, so they all come from modern technology. When do you think we really started being exposed to, like was it with Edison's light bulb?

The telephone, the invention of radio, those are the things that really just started to bring these non-ionizing or not- Yeah, exactly. Into our space.

Yeah. So it literally did start with the lightbulb, except most people didn't have light bulbs when they invented the bulb. For sure. Very, very few exposures.

But there was the light bulb and then you needed a power grid so people could turn on lights in their own houses and so then You get the powergrid and once there's a Power grid in place you can start doing all this other nifty stuff to run off that same power.

And so that's when you get electrical appliances and power tools and eventually They realize that you can communicate wirelessly with this stuff. And so that's when you get radio and then television.

Of course, militarily, you got radar. Then you later on get cordless phones and Wi-Fi and Bluetooth and near field communication for Apple Pay and Google Pay.

So it did all start in the middle of the 19th century, but The rate of growth has been massive and increasing. Yeah. And to, to underscore this point, Oh, sorry.

So what rapid and increasingly means is you and I have been exposed to orders of magnitude more EMF than our parents were, and our children will be exposed orders magnitude, more than we have and will have.

So these non-ionizing EMFs fundamentally affect our biology at a cellular level. And this is what your dad, and sorry, I forget her name, the researcher.

Reba Goodman. Yeah. Really dove into. So mechanistically, again, let's highlight for the audience how EMS interact with the body. Let's talk about things like oxidative stress, calcium channel disruption, mitochondrial dysfunction.

And what's the strongest evidence we have right now? Because people are constantly- So yeah, everyone likes, well, not likes. I understand that oxidative stress is a popular topic these days in the wellness community.

And I, understand why, and there is strong science on that point. But before we get to that, I want to talk about a set of studies that I personally find most compelling when trying to explain this to people.

This is set studies performed by doctors Henry Lai and Narendra Singh. starting, I believe it was in the early 90s, although maybe it wasn't the late 80s.

And they were using cordless phones because cell phones weren't really a thing back then. What they found is that even low levels of cord-less phone radiation, even for short-term exposure, so we're talking about 15 minutes, led to significant increase in strand breaks of your DNA.

And so strand breaks, that's when the two strands that form your DNA break. And you can either have a single strand break or a double strand. If both strands of the DNA.

Break, the cell will kill itself, which is which. Is actually a good outcome in this case, because if only one strand brakes, The cell. Will try to recreate the broken strand, it won't repair the.

Broken strand it'll recreate. The broken. Strand. And that is the, you know, a lot of times that works fine, but sometimes the cell messes up, especially the older that you get.

And so that the process by which mutations occur and mutations, everyone knows is a core mechanism behind the formation of disease. Right. One of the reasons I like to say, oh, and I should, I'm sorry, underscore, they performed a series of studies uh, all on this same cause and effect.

Um, and this research has been replicated many, many times by other researchers in other laboratories around the world. And I'm sorry, I forgot one more point about this work shows.

So I said, we're talking about short-term exposures, 15 minutes. They found that the increased rate of strand breaks persisted for hours following the exposure.

So you had increased rates of Strand breaks for that 15 minutes, but that increased. Rate of Strand break continued for Hours after the initial exposure, and this was when again, this wasn't the, it started their initial work is in the early nineties.

Wow. So, I mean, so this is back in the day when you could make a decision not to use a cordless phone, you know? Yes. You could actually say I can limit my exposure at this stage of the game.

Even if I turn off the wifi in my house, i can see 10 other networks easily. Like easy, probably more because I'm downtown Toronto. Well, not downtown, but I am in an urban center.

So let's bring it back to these more concrete physiological impacts. So you're talking about DNA damage right now, which is one of the hallmarks of aging, frankly.

Oh, right. And also, if I may, it's not just a hallmark of ageing. It's a mechanism by which disease forms. I said it before, but I just want to underscore that.

That's the universally accepted mechanism for disease formation. But the other reason I really like using this set of science as an example is because not only does everyone understand implicitly what DNA is and how important it is, everyone also understands that DNA exists in almost every single cell of almost ever single living thing on planet Earth.

And so if there's a mechanism that impacts DNA in this way, you can understand why we are finding the health effects manifesting in every form of life in which we look.

Yeah, and that is a big point, right? Because it's not just humans that are being affected, it is birds and frogs. No, every form of life. It's trees, grass, microbes and algae.

We're seeing these effects everywhere that you look. So do you want to take it down right now, and we don't have to right at this minute, but when we're talking, like people talk about calcium, the impact of EMS on calcium channels.

Like what are they, why are the important and what does that mean? Or, you know, when that's going to affect the function of your mitochondria. And we, we've talked about mitochondrial optimization and protecting mitochondrion on this podcast a lot, But how does impact the mitochondry, which are critical.

So I think you're probably… I can say how the EMF affects the voltage gated calcium channels. By the way, I am infamously bad at saying that. So sometimes I just say…

You did a great job. To me, it's one of those mental tongue twisters. We can call them CCDs, calcium channel disruption. Okay. So, that I can speak about.

Now, the importance of mitochondria, I know what the telomere length matters, and I the power, right? The powerhouse of the cell. Yeah. Well, we can talk about mitochondria later.

It's okay.

DNA damage, oxidative stress, and calcium channel disruption

Let's focus on the oxidative stress. But let's go back to EMFs and how they might be impacting these concrete elements. So your cell is constantly bringing in and sending out calcium.

It is part of its biological function. And what a series of studies from multiple scientists have demonstrated, oh, and

sorry, the way it goes to do that is through these voltage-gated calcium channels.

That's where the calcium enters and exits the cells. And what the studies have found is that exposure to these levels of EMF, that is well within safety standards, disrupts the performance of the voltage-gated calcium channels.

You see how deliberately… Beautifully done. So basically, it either keeps them open or closed. But what we know about the body in a case like this is the body is obsessive about balance and maintaining certain ratios of different things in and out of the cell because that's how it works.

So once we have something like a non-native VMF that affects the function of those channels, of we've inherently created an imbalance that the body now has.

Yes, and apparently, again, this part of it is not my area of expertise, but apparently the disruption to the calcium levels, the illustrated it, is a direct contributor to oxidative stress.

And oxidate of stress is another one of these mechanisms by which it is widely accepted that harm is created in biological systems. Yeah. And it's through the whole stealing of electrons from cells that need it, from cell that want it.

You kind of have gangs floating around stealing stuff from other cells, that they shouldn't be, just to put it in layman's terms. So fundamentally, it has been shown and proven in studies over and over again that these non-native EMFs effect at a cellular level, the cell's ability basically to regulate itself and the stress it's exposed to, as well as damaging DNA.

So if someone asked you, is non-native EMF exposure shortening our health span? What would you honestly answer to that? Yeah. So I would say there's not an easy answer.

And the not easy. I mean, yes, biologically, this stuff is harming us, but it is. You're getting that exposure from the cell phone that you can use to call 911 when there is a health emergency.

You are getting exposure on your computer which allows you to work and make money and provide food and participate in the most vibrant economy the world has ever known.

The issue isn't whether overall we're living shorter, the issue is we could be living better within the context that we have here. I mean, I think most people wouldn't want to go back to a life without cell phones and Wi-Fi.

It would be safer, but it's also a little bit misleading because we don't need as much wireless exposure as we do because of decisions that have been made far above our pay grade at the infrastructure level.

But given all of that, yes, these exposures are harmful. There are ways of significantly reducing them. Reducing those exposers will improve your health in the long run.

But to just use a blanket statement, I mean, how could it just be shortening our lives just as a blank statement if we have much, much longer lifespans than when people had much lower exposures?

Right. I think, I mean, and there's I've even spoken to people on occasion who said that they, they feel that over time, we might just adapt to some of these non native VMS like that there are, there a form of hermetic stressor that maybe affects different people differently now?

Yeah, I don't know how long that kind of… It could take generations, right? That's what we don' know. You're not going to adapt to it in your lifetime.

And the problem is for the people for whom this is not just, oh, in the long run, how healthy am I going The problem, the real problem is how is society going to treat the people who are massively reactive to these forces?

You brought up earlier the electrically sensitive, electro hypersensitivity. There's a lot of different words. Electromagnetic syndrome. I'm sorry, electromagnetic radiation syndrome, which is one of the more recent names for this condition.

But a lot of people who've never heard of it before tend to understand it very effectively when I say Wi-Fi allergy. And then they kind of get what this is.

But there are a growing number of people who just can't live. Let me ask you this. Where does the science feel solid on this? I mean, I know that on the whole, on the harms of non-NATF EMF.

Is there a place where it's still evolving or do you think it is pretty much settled now and it just a question of the establishment as it were coming around?

More science is always welcome because while we have a much better understanding of mechanisms than even when I wrote Overpowered with my father. So even than 14 years ago, there's still a lot we don't know.

And so more science is always welcome. Um, and if you ask somebody who works for the wireless industry, they are going to give you a different answer to this question than I am about to.

But to me, the science is settled that EMF has negative biological outcomes. It is not settled on things like. Well, given this set of exposures, what kind of health effect are you most likely to experience and in what timeframe?

And just to be entirely clear and upfront with people, there is plenty of science out there that shows this stuff is harmless. When you dig into those studies, they are overwhelmingly subject to funding bias.

That is studies funded, and this is well documented. This is not a controversial or unsubstantiated thing to say. When when you look at the studies that find no effect, They are overwhelming and disproportionately funded either by the wireless industry or the power industry.

And when you look at the studies that find that there are biological effects, they obviously are not funded by those sources. There are no commercial forces that are interested in proving that EMF is harmful.

So these are university, these were grants, and these things like that. Okay, so a lot of longevity enthusiasts obsess over cortisol and inflammation.

Where do EMFs fit into that? Well, my understanding is we already talked about the oxidation, oxidative stress mechanism. There was also science showing just EMf leads to increased oxidated stress.

It was later that the voltage gated calcium channel mechanism came about. So separate from the VGCC science, there's science showing increased, significantly increased levels of oxidative stress resulting from exposure to these types of forces.

And that is the key mechanism that I am aware of that leads to inflammation that has linked to electromagnetic exposure. Would we call non-native EMF exposure as an acute stressor, a chronic low-grade stresser, or something different?

That's a very good question. I would say for most people, it is both. Yeah. Because just walking down the street these days, you are exposed to at least billions, by some estimates quadrillions of times more, right?

Because earlier you asked a question, which is why are non-native EMFs different from what we were exposed to naturally? And that naturally led to me explaining the frequency difference, the energy level difference.

But then there's also the power level differences, because So, let's say that sunlight and radio waves weren't apples to oranges, they were apples. We are still being exposed to many, many more orders of magnitude of power.

So these exposures are just much, much more powerful. When I'm inside, I am barely getting any sunlight, but I could still be getting a tremendous amount of radio wave.

When I'm outside and I am exposed to sunlight, I still getting many, many more times exposure in radio waves. And so just the ambient levels that most of us are exposed too are very, very high just by historical biological standards.

Sorry, go ahead. No, I was just going to say, but then you answer your cell phone and suddenly you have an acute exposure on top of the chronic exposure.

On top, on the top the mega, you know, and it's interesting because we talk about grounding, right? We talk. Barefoot on. The soil getting those positive electrons like this is, this.

Is tapping into. a source of energy, if you will, from the earth that is what we talked about earlier. This is the energy that we evolved with. Arguably, this is energy our bodies have evolved to tap into and benefit from.

Um, but what we're talking about here is this whole other soup of much more of, much greater forces that is now disrupting compounding the fact that most of us don't walk around barefoot on the ground anymore.

Right? So we'll get, I mean, got a grounding sheet. Well, it's not just, yeah. I'm just to be clear. It's bare foot on, on conductive. Yeah. So it could be grass, that could sand, But it can't be like your driveway.

We lose something there. Okay, so what do we know? I mean, we probably don't know everything, but what we do know about EMF's sleep architecture, melatonin?

So, EMT disrupts basically every part of your endocrine system. But one of the more clearly documented, and to be frank, one the ones that people are most interested in is the melotonin suppression.

because melatonin structures your sleeping patterns, your circadian rhythm. And EMF is clearly shown to disrupt your melotonin production. This goes, by the way, and this is one of those ones where it's not just EM F, it is blue light, except it isn't fair to separate them because bluelight is EM And so, because all visible light is EMF.

And, so this is one of those things where someone can be skeptical about the health effects of EMf, but completely accept that blue light disrupts their sleep and put on blue-light.

But they don't put two and two together. That bluelight is the EM f. So you already have made the leap that EM F can disrupt your sleep. Right. When you work with customers who are having issues, have you seen patterns in terms of what are the symptoms that consistently improve when they develop strategies to manage or reduce their exposure to certain sources of EMFs?

Oh, the big one is sleep. The second big one which for so a lot of people come to this knowing that sleep might improve But a of them don't realize that their anxiety levels are going that's interesting can can't not are Going to but can certainly Improve anxiety being an effect that science links to emf exposure.

This is one of those though just to be clear, that I think is very difficult to parse out, right? What's causing the anxiety? Facebook or the EMF you're getting exposed to while using Facebook, or, the, anxiety of knowing a notification might go off at any moment.

In my opinion, it's a little bit challenging to tease those apart, but both of them are linked. You could also argue that if you're successful in really reducing exposure and it physiologically has a positive impact on reducing oxidative stress, reducing cortisol levels, and producing inflammation, you could argue even those factors might help a person be in less of a sympathetic state.

Yeah. Which would, which would reduce their anxiety. Some people may not even realize that they have a low level anxiety going on. You know, they may identify as an anxious person, but all of a sudden they're sleeping better and they realize, wow, you know I feel so much more relaxed.

It's a bit like you don't realize you're walking around with your shoulders up around your ears until you put your shoulder down. Yeah. Sorry, it's the armrests.

No, but I mean, I know for me, like, you know, You walk around with this tension. Yeah, don't realize it. And all of a sudden you remind yourself, however you Remind yourself.

Okay, take a breath, shoulders down. You're like Oh, crap. I didn't even realize my shoulders were up kind of thing. One of the big ones that surprises me that I hear from multiple customers, because I saw a lot of products that make it safer to carry your phone.

Sleep, anxiety, and everyday exposure reduction

Yeah, we'll talk about my experience with one of those in a minute. And several, many customers write in to me saying they had leg pain disappear after starting to use my phone pouch.

That one took me completely by surprise because I don't look at the science and see a whole bunch of studies saying cell phones cause leg pain. I didn't even know that that was a thing.

And I have people emailing in saying my leg went away. That makes sense. Yeah. That doesn't mean I mean, I was successful with my son and getting him to have his phone on airplane mode when it was in his pocket.

I think till about high school, middle of highschool, maybe the end of High School. And now I Think the battle is lost. What are the most powerful free behavioral changes that somebody can make today without spending a dime?

Yeah, so the first one is not carrying your phone in your pocket or putting it into airplane mode if you do. It's exactly what you just told me you tried.

Let's talk about a couple of the most powerful free changes. Yeah. So not carry your phones in the pocket. And before we continue on that, I just want to explain one thing about EMF.

A characteristic of EM F is that the power of it diminishes exponentially with distance. Um, it follows, and this is all EMF radiation. It follows the inverse square law.

And so what that means is if you have a cell phone and you're one inch away from it, And you then move it two inches away. The power of your own exposure.

has dropped by 75%. And if you then go to four inches away, it's another 75% and so when I say things like, don't carry it in your pocket, that's why, because when it is right on your body, you are getting the maximum possible dose of this stuff and moving it even a little bit away makes a massive difference in how much of these you're exposed to.

And so that's why distance matters. And for the same reason you shouldn't carry your phone in your pocket, you should certainly not hold it up to your head.

So use speakerphone or wired headsets instead. What about things like in the bedroom, right? Like how neurotic do people need to be about? Well, neurosis isn't going to help anybody.

No, no, not neurotics. How diligent? Let's use a different word. Let us use the word diligent. There are people who literally have breakers installed that cut the power to their bedrooms at night.

And I would imagine in hypersensitive world, that is a strategy they use. Yeah, because you can do that yourself. with your own breaker panel, but if you're doing it and it's highly record, if have high levels of electrical or magnetic fields in your bedroom, it is highly recommended to just turn off the breaker at night rather than trying to buy all this EMF protection.

Yeah. Because it's in the walls, man. It's coming at you from all these different directions and mitigation is very challenging, not only expensive, but actually challenging.

So the solution is just to turn off to de-energize your bedroom. But the breakers you have in your breaker panel, by default, aren't really designed to be flipped on and off every day.

And so that's why people buy special breakers that are more resilient for this type of behavior. And that is an incredibly effective technique. It turns out, because I had an assessment done at my house, it turns I have shockingly low levels of EMF in my I'm sorry, in my bedroom.

Well, actually in, my whole house, but certainly in. My bedroom, um, But one thing I did, uh, after the assessment is I had these, Um, pink Himalayan salt lamps because I just loved them.

But they work, they, They plug into the wall. Yeah. And, and again, I didn't have really concerning levels of EMF, but she's told me like, you shouldn't Have a plugin wall lamp right next to your head.

And I was like oh yeah, You're right. Why didn' I think so I ended up getting a I have a low blue light lamp in my store. that's rechargeable, and so I can charge it in the kitchen and then just bring it to bed.

And it also looks really cool. I really like it. It's kind of like Star Trek-y. So I got rid of the lamps, the plug-in lamps in my bedroom and swapped them out for battery-operated rechargeables.

But for most people, Uh, not having a TV in your bedroom, yeah. Not bringing your cell phone to bed. Those are going to be huge differences right off the bat.

Most, most people aren't going want to, if you're not willing, you know, to not bring your phone. To bed, You're probably not. Willing to turn off. The power to your.

Every night. Let's talk about the poor person listening to this in an apartment building, sitting like bathing in, they could turn off their wifi till the cows come home.

It doesn't make a difference to them because there's every apartment above below and beside them that's shooting white. I mean, even me in a house, but definitely in apartment buildings, it's a lost cause.

So, you know, is there anything they can do to affect their surroundings or now are we getting into the more hardcore know, I guess it's hard in an apartment building.

The one thing I mean, first off, even given very high exposures coming from sources outside of your control, it still does make a difference what you do in your own apartment, right?

Because you don't want to be adding- Well, because it's distance. Right. Yeah. So the exposers you're getting from your apartment are going to more powerful than the ones you are getting other sources.

Now that's not to say the one from other source are safe, what I'm trying to underscore is it is still matters what your doing in you own appartment. and not carrying your phone in your pocket.

And not using the laptop in. All this same stuff matters, even if you see 38 Wi-Fi networks when you turn on your computer. Then beyond that, when it comes to these sources that are outside of your control, there's really, effectively, two sets of options.

So one is apparel. Nat, you and I were talking earlier before the show about a lamb's t-shirt that you have. They're now called Haven. Yeah, they have a new name.

But they're tshirts. And they they a whole line of apparel that we sell in my store. This is true in your apartment. It's true when you're driving your Tesla.

EMF apparel works and it will reduce your exposure to all of these sources that are outside of your control. Then when it comes back to your actual apartment, I make a canopy Um, so it's a, it' a bed canopy that you can install in your bedroom and it is a full, um, cube, right?

So it comes, yes, because it, comes with formats. And so you, can create the full enclosure and get really, really high levels of reduction attenuation of all of, like all, of the wifi networks.

that are coming in, and all the cell towers that you can see, in all of this stuff, you get really high levels of attenuation. So it doesn't make your whole apartment safer, but it certainly makes your actual bed safer.

And that's where you're spending eight hours. That's when you want as good a sleep as you could get. make your whole apartment safer. But it is a real solution that does provide actual help.

Also, you can't doom scroll when you're in it because your phone won't work. Yeah. You should not be using any wireless tech inside a canopy. Because it'll be because all of these devices like that, they're designed to constantly increase the power.

So if there's a signal interference, Oh, it increases the power. It increases its power output to compensate for the signal interference. So if you were to try using, I'm sorry.

Will it work? In a canopy? Yeah. Sometimes it'll eventually get to that point. because even if you're blocking 99% of the radiation, some of it will get through it because it's going higher and higher to do it.

That's why also in general, not in generally, actually just outside of a bedroom in real life, the fewer bars you have on your phone, more EMF it is emitting.

The worse the reception, the more EMF your phone emits in order to establish the connection. Sorry, one other thing, just so people know, it's the same when using your own phone if you're driving or in a bus or a train.

Because when you are in motion, you continually switching between towers and it has to go and search and find all of these new towers. When you in place, if finds a connection it sticks with it.

Hmm, interesting. All right, well, that's all very interesting, so now let's go to the dark side of the industry a little bit for a while, and then we'll go the light.

The scam-filled marketplace. Things go wrong. So the EMF protection market has a bit of a reputation problem. Yes. What percentage of products, in your opinion, or have you found, are ineffective or just outright scams?

Oh, the vast majority. Yeah. So what are the red flags people should look at when they're evaluating these? Thank you for this question. Well, I mean, you know, it's important, right?

Because I could say go to our store and just shop till you drop because everything there is amazing. But I think that realistically, people are going to say, OK, but I have this or that, or I read this.

And helping them to understand, like, what do the questions they should be asking? What are things they shouldn't be looking for? Yeah. And this is actually, I agree with you.

I was being sincere in my thanks. This is something that's so important to me. Allocate an entire chapter of Empowered to this specific question. First off, See what it's actually claiming to do.

Right. I know that sounds obvious, but what are the words we're looking for here? Like this block CMF. Well, yeah. If it, if it just says, This prevents damage from EMF.

That's not actually a claim, right? Because what is it doing to prevent that damage? Is it just good vibes? A lot of these products will claim to harmonize and neutralize EMf.

And there isn't any science that would explain what those functions are. I'm trying to figure out how to say this diplomatically. So harmonizers, neutralizers.

There's no real science that shows that… It's not even that those products work. It is that a thing called neutralizing exists. That's what I am trying get across.

But in general, you want to find a company that makes a distinct, tangible claim and has science to explain it and independent testing to verify it. Those three things are really important.

those alone will not guarantee that the product you're buying is a valid product. And I actually give a couple of examples in empowered on this point.

But those are the things you should be looking for. as a starting point. And so that's why I focus my work and my store's catalog. Last time we spoke, I only sold my own products.

But I've since then built out relationships with 15 other companies. I have a massive catalog, so I'm not just going around saying Shield Your Body is the only legitimate company, but I do really feel that shielding technology, which is the type of product that I make and also the product I put in my store from other brands.

Shielding technology is really where people should go. because there are other things out there that maybe work, right? Pendants and charms, for example.

I don't believe they work but I have customers tell me that they've bought PendantX and it worked for them. Yeah, I get those reports too. Yeah, and I don't dismiss those.

If it's working for you, whether it is real or placebo effect, it doesn't matter. It is working. So keep doing it. But if you are coming into the market and it a market polluted by bad actors, then you should be looking for things on which you can base Uh, more object objective decisions and judgments.

And so shielding technology offers a distinctly measurable set of claims, right? And, so in that, I believe it's in the same chapter, um, uh, on on product claims, I explain how you can, and you don't need to buy my book to do this too.

I have a free ebook on my website. How you Can Verify My Product Claims Yourself at Home. And when I say verify, how does it make you feel? I mean literally with a meter, you could take measurements and say how much reduction of EMF does product X give me versus not using the product.

And so in a marketplace that is polluted by bad actors, I'm not saying everybody is a bad actor, clearly not, but the risk is very high. And then if there's no way that you can know that the product is legit or not legit, then it's really just a leap of faith.

Whereas when you invest in shielding products, that is something you can actually figure out for yourself if it is working. Because you could buy the meter.

I can tell my story now. If you have a car where the key only needs to be on your person for you to unlock and get into your car, you start your If I happen to have one of your phone pouches and, you know, that meme of the woman coming out of house with the coffee and the bag and this and that, too many things in my hands, and I think my phone might have been in the my bag, so I put my key in a pouch because I had the pouch with me.

Bedroom, apartment, and product-based mitigation

And I get to the car, of course I'm juggling a million different things, I go to open the door, but I can't get the I'm like, what the hell? I have my key.

I know I took the key and I got open and literally couldn't get the door open. It's because the keys was in the pouch.

The pouch was completely blocking the ability to communicate with my car.

That was the day that I called my friend and said, guess what? That thing actually works. my key and then I got in the car and I'm like, you know, and Then I kind of figured it out and i get in The car, just for fun.

I put the key back in. The card and tried to start the card that wasn't happening. So anyway, it was so No, that's that a great story. You should write a review on my website.

But while there is a lot of bad and fake EMF protection products on the market, there is an increasing number and variety of legit EMP protection product on market.

And I realized this when assembling my new catalog. Like, wow, this is a lot of products. I know how to browse my site and pick what I should get. But I realize if you're just new to EMT, which a of people coming to my store are, I would have no idea where to begin.

And so that is really the inspiration behind the book, Empowered, which is like, you know, I'm a big fan of Overpowered. It had a bigger impact on my life.

A lot of people have said really nice things about it, the content and the writing. But it is also, and I think it's unique, in its quality and scope, but it's also about the science.

There's a whole bunch of books about science, and that's great in terms of building awareness. It's not so great for what people should do in response.

When I say people, I mean humans, consumers. People who also have lives to live and families to run and can't just go out and lobby their city council for a cell tower change.

Which is not going to happen. Right. Or it'll take years if it did. Yeah. And so there's a whole bunch of these books, which are important, but they're just problem oriented.

Then there are a bunch books that are more conspiracy oriented, that I don't find to be useful. And I realized after thinking about it, there isn't actually a book out there that just explains what you, the average consumer, should do about.

And so again, that's where this came from. How can you explain my catalog and where it fits into a person's actual decision making and lifestyle? And how does it relate to behavioral changes and how important those are?

And then also there's a couple of chapters on the science because if this is the only book you pick up on this subject, I want you to see there is scientific backing behind all of this.

But it's really only two or three chapters of the Science and the whole rest of book is about how this impacts you and your life. So are there specific testing standards people should be looking for, like before they buy?

There's no real standards in the industry. No, there are. There are engineering standards. So none of these standards… So by saying their engineering standards, that's not to diminish them.

No, no. It is to say that they don't care about biology because they're engineering standard. What you want is to understand what was tested. Was the actual product tested?

One of my competitors tested one of their products, and I just know this because I dive into the information, they tested they then use that same test report claim on their entire website.

And I know they don't make their other products out of the same material because you just can't, right? Certain products are made out a certain types of shielding material.

Other products made of other types shielded material and I now they're not using the shield material in all of these products but they are using same tests report for all these product.

So they clearly not actually testing the product that they're marketing, at least not all of them. So making sure that it was tested, that the actual product was testing, and then how it is used.

That is one thing that The Engineering Standard can tell you, is how the test was set up. Because this does matter, right? So where was the What was the source of radiation?

Where was it positioned relative to the sensor? Whereas the shielding material placed in relation to all of this, this all matters. But at the end of the day, most consumers, what they want to make sure is that there is a test report.

It's valid. it's from an independent laboratory. And that you could contact the laboratory and see, did you actually do this test? Okay. And you know that because most people aren't going to really be able to know for sure that the test report wasn't forged.

But that's basically if a company's gone to the point of putting independent laboratory test reports on their website, they're probably valid. Yeah, it's a big step for sure.

Yeah. Okay. I want to, I wanna touch quickly on PEMF pulse electromagnetic frequency. So this is, this a therapeutic device, right? So it a paradox, so on the one hand, non-native VMFs are very harmful, but PMF's are marketed as therapeutic.

Just for people who might be wondering, like I have an idea because I've dug into this stuff a little bit, just for very quickly for for the audience who might be sitting there going, okay, EMF isn't PMF.

How do we resolve that conflict, if you will? To answer that question, I would say not all PEMF is healthy, right? Because there's a lot of the modern wireless frequencies use pulses.

And I have seen a lot of people, like knowledgeable people concerned that this adds another dimension of harm to those signal exposures. But there is a technology called PEMF that is used therapeutically.

And there's a whole set of these technologies that are used therapeutically. Another one that I talk about is TENS in the book. Both PEMF and TENs are widely used, therapeutical.

For things like muscle relaxation, nerve relief. I think I have an anecdote in the book about how I had severe nerve pain until I was able to address the cause, which actually took a long time to diagnose.

The only thing that helped me was TENS. That was the only that would relieve my pain. And this is used by elite pro athletes. This is use by Olympic teams.

They use electromagnetic radiation to help with healing bone and stimulate bone growth. And so what it comes down to though, that's important, this is vital, is the dose.

All of these things are designed to give you precise doses of these frequencies that have been found to be helpful or at least helpful in a significant number of scenarios.

Not all EMF is bad, but for it to not be bad it needs to be a very finely tuned dose that science has found is actually helpful in certain scenarios. If somebody said, okay, I got the book.

It's too much for me. I don't know, three things out of the book to do, and maybe they're things you've already talked about, or maybe there's three other things that you haven't talked yet, right?

So aside from what you already discussed, what do you think would move the needle most for most people? Well, the things I said already are the thing that would move the needle most.

The free intervention. That is always the first line of defense. And these are terms I use in the book. Behavioral changes are first lines of defence.

Legitimate EMF protection products are the second line of defense or when behavioral changes are not possible or insufficient. But you always start with the behavioral change.

Those are going to have the biggest impact on your exposure. Being intentional in your relationship with technology and being mindful of how you're using it, how it makes you feel.

This will have a lot of, and so this isn't like the immediate quick win, that not carrying your phone in your pocket is the media quick when the turning off your wifi is immediate, quick, when.

The thing I'm talking about here is deeper. and also potentially more impactful in the medium and long run, because we are increasingly surrounded by this technology.

This technology is being built in almost entirely unregulated ways. Obviously, we've spent this entire conversation talking about EMF, but that is hardly the only aspect of technology that The supposed guardrails around AI that never existed, the regulation of social media networks, The pollution that it is creating and across the board.

I am not anti-tech. We talked about this also earlier, but I also am naive about the technology. It brings a tremendous amount of value and it creates a Tremendous amount EMF being one of the dimensions of harm.

And so being intentional with your relationship with technology, it is too easy in this world to just kind of be a passive consumer of technology. I don't mean just watching Netflix.

As technology is permeating every aspect of our lives, you said, did you really need a high-tech fridge? No, just give me a fridge. Do I really need a kitty litter box that tells me the quality of my feline's fecal matter?

You know, probably not. They even literally make smart tampons now. Is that really a value add, honestly? I mean, maybe there's a person that's prone to certain things that might be.

Yeah, exactly. Right. Exactly. It's useful scenario, even like a CGM. which emits Bluetooth, which is because it's communicating with my phone. It's a useful input.

I would like it to use data for a period of time. But do I need to have one on 365 days a year? Heck no. That's supposed to be learning from this thing, not addicted to it.

What would you change tomorrow if you had influence over telecom policy? Anything? Oh my God. Not no, you can't do 10 because we're at an hour and a half.

Yeah. Well, I mean, I mean, there's so much I would change because again, I was just talking about how tech is unregulated and we're talking decades of regulation that we need to catch up on.

But the number one thing from an EMF perspective are safety standards, what the FTC considers safe exposure levels.

Scams, testing standards, and PEMF therapy

And so revisiting those in light of all the science that we've gained in the last 30 years since they were established and applying them to more things, right?

Because most people are shocked to realize there are literally no regulations about how much your EMF, your car can expose you to. There are no regulations about the EMf you can be exposed to from the power line and power transformer right outside your house.

So EM f matters from a cell phone, but it doesn't from your card. It makes no sense. We need stricter safety standards and it needs to apply in more scenarios.

Has there ever been a moment when you doubted the path that you're on? Oh yeah. Really? Yeah. So tell me, what's the cost of someone who publicly challenges?

Oh, that doesn't bother me. That kind of fuels you, right? No, because I'm on an entrepreneurial path and entrepreneurship Man, especially the older you get, it's like, why didn't I just go get a job?

That's actually one of the gifts my father gave me, because I was introduced to this whole world through him. And I, like everyone who knew him directly, knew how serious and conservative a scientist he was.

So first of all, he is brilliant. You know, multiple like multiple doctorates. One from Cambridge, one from Columbia, was taught at Columbia University for decades, did the crossword puzzle every day.

Just brilliant, like he was just brilliant and everyone knew it. But he was also very, very conservative. He would not rock the boat. Interesting. And he would be opposed to boat rocking if given the choice.

So for him to believe this and invest so much effort in his career into this, I knew that a very serious legitimate scientist really believed it, and he believed so he much he is willing to advocate for a boat-rocking idea.

And so I came to this just certain that this is true. Whereas other people come to it through the avenues of, no, there's two sides. There's doubt. And from that side of things, I have never doubted the path I've been on.

Love it. All right. Double question. What scares you most about our technological future and what gives you hope? Everything and everything. I know that's a cop out, but it's everything and everything.

I mean, the way I deal with this is I keep my distance and I create boundaries. So I gave up social media 11 years ago and haven't looked back on that.

My company does social But I don't have personal social media accounts. So I created that boundary. I was telling you about email. You know, I create these boundaries to keep tech at a safer distance for me, both physically and psychologically.

And so that's how I deal with it. But when it comes to the potential risk and the the, the Yeah. Yeah, no, I think, it's going to be in how we interact with it, the choices we make and the intention, as you've said over and over again.

All right, so if last two questions, just to close up, if someone believes EMF concerns are purely conspiracy or hype, what is the single piece of evidence you would point them to?

Oh, well, There is a document called the Bioinitiative Report. It was published first in 2008, then updated in 2012 by an international team of independent researchers and scientists.

My father was one of the authors, and they reviewed over 3,100 studies from around the world, some of which found biological effects. others that did not.

But we're talking about a huge body of peer-reviewed science that has been expert reviewed by a group of international expert scientists. And if you want to understand that this isn't just a conspiracy, that these biological effects are being found by thousands of scientists operating independently around the world who produce results that are of the quality to be peer reviewed and published.

I would point you to the bio initiative report, which I've actually We've created an app on my website that allows you to browse it. You can put in different individual radiation levels and see what studies come back.

What's a really low level? Then you can see all of the studies that show effects at or below that level. It's organized

by health effect, it's organize by source, meaning cell phone, Wi-Fi.

Yeah. And it includes interpretation of each of the 3,100 plus studies. So that's it. That and you can put this link in the show notes, but it's shieldyourbody.com slash research.

I will put that in show show, notes for sure. Your body. That's pretty powerful right there. Okay, and then last question, in 10 years, do you think we'll look back at our current exposure levels the way we look at indoor smoking in the 1970s?

And that's being generous, because that is assuming in ten years we've woken up. So whether it's 10, 15, or 20 years. Do you do think that we will lookback?

Well, there will be similarities, but there'll be differences, right? Because once we learned about indoor smoke, not immediately when we learn about it, at some point after we learnt about outdoor smoking, We got rid of indoor smoking.

It took a long time though. Yeah. But it's not going to play out the same.

Policy, future outlook, and closing recommendations

So the tobacco analogy is useful to a point. But tobacco actually brings no benefit. Whereas EMF has a ton of benefit, it's a by-product of things. And so you're not going to be able to just regulate it out of existence the way that tobacco has largely been regulated out-of-existence.

Unless you really want to just smoke at home, in most cities, you just can't find a place to smoke anymore. I know. It's a beautiful thing. Okay, I think we're going to have to stop this right here because we could keep talking for a really long time.

So why don't we just Thank you so much for your work, for you time, and I have to tell you guys, when you go to the website, one way to think about it is to thing about what are the things that maybe we discussed here, or if you end up buying the book, what the are things in the books that you think is the low-hanging fruit for working on your computer for hours on end with your in your lap?

Or are you the person that can't be separated from their phone and then start looking for the products that might make the most impact to you given your personal habits?

Would that be a good guideline? That's a fantastic suggestion. Yeah. I just, cause otherwise like you can go to, I mean, and I haven't been on their site for a little while, but even before I was like bouncing around going, Ooh, Oh I need that.

Oh, well I want one of those. Ooh that's really cool. So, so it can get overwhelming fast. Yeah, we have hundreds of products now. Think of it in buckets and categories.

If you have a new baby in the house, I really recommend going to the baby section because I think that can be very powerful. We have one gift for you guys and then we an invitation.

To get a free chapter of the book, you can go to shieldyourbody.com forward slash empowered and that'll give people access. Is there a particular chapter?

Is it the introductory chapter or It is not the introductory chapter. I changed it recently, but I believe it's the Wi-Fi chapter currently. But I change it every so often, so if you come back in a few months, it could be a different chapter, right now I think it is the Wifi chapter Okay.

And then if you do decide to go shopping, you can go to shieldyourbody.com and use code NAT for 20% off your purchase. Yes? Yes. Up to 20 percent off.

Oh yeah, up to twenty percent because it depends on the product. Our blank. Thank you. Always a pleasure. This was super fun. Yeah, no, I really appreciate it, Nat.

I, really, appreciate you in this conversation and helping me to get the word out about Empowered. For a lot of consumers, it's a big, valuable, missing piece of information.

Yeah. Well, and I think it'll help to inform their decisions a little bit more. So thank you. Thank you