

Welcome to the Perfect Workout podcast where fitness meets simplicity. I'm Kyle Recchia, CEO of The Perfect Workout. I'm joined by Jim Keen director of training. We hope you enjoyed today's episode.

Welcome back everybody. Today we're going to pick up the conversation where we sort of left it off. We were talking about asanas and some of these questions we get from members on other things. They can do around biohacking. From our perspective, like that's probably the in the 8020. That's right. At the top of the 20 start there.

Some other stuff that comes up a lot. And I'm just going to name a few real quick. Are things like, getting zapped is what they call it on the p EMF mats? There are I get this question the other day about these vibration plates that continue to I thought they were popular ten years ago, but apparently they're coming back around people asking questions on that stuff again.

So we've got that stuff. And then there's other, you know, you know, a lot more gym about this stuff. Like the some of the meditation headbands or the brain tab, which is really cool. So let's talk a little bit more about the techie gadgets that are probably if there's 100 of them out there, maybe these 4 or 5, that might be worth paying attention to.

Sure. So, the kind of most low tech but reasonable one is the whole body vibration plates. And there is a wide variety and a bunch of different brands, but the basic idea is you stand on a plate, the plate vibrates, and in response to vibration, your body starts having what they call micro contractions, basically to keep you from falling over.

So your legs, your abs, everything you're kind of balancing and it's vibrating your whole body. Now, this does a few things. One is that if you did no strength training, this would help with your bone density, because it would. The vibrations inside the bones would produce mechanical loading beyond just standing there. And so it turns out they were testing you with like, astronauts and stuff.

And then someone said, well, why don't we just have them do strength training? So that didn't go well. But, it turns out it also increases, lymphatic flow. So, that your immune system, when it neutralizes something that it needs to get rid of, it like, throws it in the garbage bin. And that's your lymphatic system.

Now, your blood vessels have a pump. It's the heart. And it pumps the blood. The blood has a motive force through the body, the lymph system, which is your body's garbage exhaust clearance. It doesn't have a pump, so it works by gravity, and it works through time, and it works through, people jump on trampolines for this person.

You know, when you get sick in your lymph nodes. What this is, it's backed up. Right? So we need to keep that moving. And this probably I would say the best use of the whole body vibration is that you stand on it even just five, six minutes in the morning, helps drain out your lymphatic system. Oh, cool.

And so it's this whole system goes through the body, just like your circulatory system that transports the blood, but it doesn't have a pump, so you need to help it along. Normally, through an active daily life, you're fine. But if you're having an issue with that, does a great use of it. And then the next thing is, I've mentioned in a previous episode, The Electric Effect, we were talking about bone density and about how mechanically loading the bone causes an electric current to be produced.

And it turns out when you vibrate yourself, your mitochondria, they bump into each other and the organelles in the cells all rub together very, very rapidly and create a voltage from this. And so it increases that fourth phase water that we were just talking about in the previous episode, increasing your cellular energy. So we have a little bit of a bone density.

Not as much as like the machines of strength training, but a little bit if you did nothing else. And then the lymphatic drainage for your immune system to clear out waste and then adding to your cellular energy through a piezo electric effect of the physical jumbling up of the. And so if you're doing one of these and I want to ask you about a fourth thing I think I heard about recently, and I don't know if this is a study or if it's a theory, I think it was a study, but it was this idea that, if you have a pretty good quality version of one of these plates, they're starting to

realize that it helps with your gut. And I think it's because it sort of can, shake some things up, so to speak, when it comes to dysbiosis and what's going on with the bacteria. You heard anything around that? Yeah. And the maybe the ones, like power plates, I have to say, is the most well known, probably the highest quality.

Okay. Times the plates, and all the gut microbiome understands is violent. So if you shake them up when you see stop it, you stop it, you dysbiosis and you sibo and you and you and. No, I'm just kidding. I actually haven't heard of it. Okay. I got I don't know about that. The how it relate to the gut.

But for whatever reason it could be a constellation of factors. But yeah, that's awesome. That's really cool. I have to listen to that. So if you buy one of these things, name that one again. Power play. Tarpley. Because I like most of this stuff, not all things are created equal. You know, marketing will be like, hey, this is \$200, this one's 1500.

They're the same. They're not the same. But what would be the protocol? Like what's the most effective? Sort of like, what do you need? How often do you need this? How long? I suppose it depends on the purpose. If you're using it for general health and immune system type function, I would do, you know, five minutes in the morning and, five minutes as you turn in, like kind of after dinner and in the evening, if you're doing it, you can do it as a warmup or as a cooldown, before or after a workout, if you like.

So this can enhance blood flow and get your body. It's kind of like a warmup because it's many muscles doing many small, tiny things. These micro contractions. So you're, flexing small bits of muscle fiber all over the body and can get you more mentally prepared to exert, you know, force. And then on the back end, you can clear out waste product out of your large skeletal muscles through this process.

It's like a, imagine milking a cow, but it's that a bunch of times per second for. Okay, so all the lactic acid, all the pyruvate, all the all the buildup, the exhaust, the metabolic byproducts of fatigue that are pulled up in the muscle cell, those can all be, gotten rid of. Okay, through that. So those BS is free to.

So you don't need to be on it for 20 minutes. There's. I'm just five. Sounds miserable. Yeah, five. Maybe ten. It's when you come off, you're you're a little bit dizzy and you know, so five minutes is totally fine. It's more about the consistency okay. Of the practice I recall. So now tell me a bit about this, PMF technology.

So PMF stands for Pulsed Electromagnetic field and the post electromagnetic field technology is a technology that applies a voltage to your body, for the purpose of enhancing your cellular energy. And the pitch goes that, used to be we were connected to the Earth most of the time. And we are in the sun powered, wired wirelessly from the sun, hardwired into the ground, like so.

It's Ethernet, your feet on the ground, and then it's Wi-Fi from the sun. Created a circuit. And this is how we are. Power. We also had the magnetic field from the earth powering all of our cells. Every cell that you have must divide, and the division of the cell must be accurate. And if it is not, there's a malfunction that happens, it gets malformed and a bunch of stuff can go bad.

At that point, I could turn cancerous. It could seek immortality by multiplying itself and, and, kind of dominating and growing into a tumor and things like that. So the division, the mitosis is really, really important. Now it takes a certain amount of millivolts that they can measure the millivolts on a cell membrane. And there's some threshold, I don't remember the exact number, but there's some threshold below which mistakes are more likely to be made and above which you're good.

You have cellular energy. So these days we don't have our bare feet on the ground. We're not in the sun nearly as much as we were before because they told us it was bad. And, and then, yes, the thing that provides life for the whole planet don't don't do that. Not good. Anyway. So, they told the sun bad and, you know, stay indoors and put this goop on you, your largest organ.

Just put that goop on there. It's funny to look at graphs to have, like, skin cancer and sunscreen rates like that because we didn't have any skin cancer for, like, is a couple hundred, thousands of generations, in the sun. And we didn't have a lot. And then as soon as in the 20th century, humans means like, could be the problem.

I just don't understand how this is for at least. Yeah. Yeah. So crazy. Anyway, so. So now we also lose energy to our environment through our technology. So through the Wi-Fi signals,

through the phones in our pockets, we have energy leaking out of the system. So instead of coming into the system, we're losing it. So we're not getting it from the natural sources that we normally have, and we're losing it out to our environment.

So how do we restore this cellular energy? And the pulsed electromagnetic field technology is designed to do that. And, there are different ways to test your, you could it hurts, but you could put a filament in and and in vivo figure out, that millivolts on some cell membrane very difficult to do. Takes a lot, a lot of, a lot of money.

Yeah. The in-body scan has something called phase angle, which is kind of a proxy for this, and it's pretty reliable. In fact, the guy who invented the, pulse centers, BMF beds and mats and, with the coils, he got his test. It's like one of the highest they've ever seen of the phase angles. So anecdotally, at least for him, it is working.

But regardless, you, the application is many. There's mats you can buy. There's. I spoke of pulse centers. They have these circular coils wrapped in a material, and you lay on the bed or it's just in a chair. And they also have just a handheld. So there's different levels. But basically it just it looks like you're in shock, but it's not painful.

It's almost like a massage, but it's being done with voltage instead of someone's hands. And over a 30 minute session, let's say, over time, you end up improving every cell's ability to do its job. So it's like, what does it help with? Well, I don't know. Whatever, everything, whatever your cells need to do, they need the energy to do it, and they need the energy to properly divide and then on so forth.

So, it's huge in Equestrian Circle. That's where they really got big was because horses don't complain. This is weird. It feels like a shock to me. They they apparently they have no problem with it. They haven't said a thing. But anyway, you put these big PMF mats over the top of a horse and they end up loving it like they think it's weird at first, but then they end up loving it.

They feel good when the PMF guy shows up. They could see his van and they get all excited. And so it's really, at the base level of, cellular energy production. And so that's, that's the principle of it, and it's, highly effective. The sicker you are, the more effective it is. If everything just basically fine, you might not even feel much, but, from my experience with it, if someone's, like, fit and healthy and they get on it, they go, yeah, everything's fine, except my right shoulder.

Really? It's really hurting my right shoulder. And then the technician goes, well, did you ever have any injuries in your right shoulder? Yeah. When I was in high school, I, I was, I was a pitcher and I threw out my in. I really messed up my shoulder. So it kind of goes where it's needed. So any kink in the chain, your body should flow electricity smoothly everywhere when it does it because of an old injury.

And your body stays in trauma even after the danger is gone. And you need to loosen it back up. There's a kink in the hose. The voltage won't flow. And so now you're flooding the system with voltage in that it all goes to the bottleneck. And then, and then slowly, over time, it gets worked out. You get the kink out of the hose and it's cool.

Right? So it's a it's a real cool technology and probably going to be a lot of advances where it becomes higher quality and more affordable over time. Yeah. I was going to say I mean, I know some of the the really, really good ones are very, very it's pretty penny 40, 50, 60, I don't know, thousands of dollars.

And you can go and you know, for not too much money, you can, just pay someone in one of their studios to do this. There's also less expensive mats that you can either purchase and just keep it in your house. Yeah, or I know I've seen on Facebook, people be like, hey, let me show you.

And they'll show up to your house and pull out all the junk and do the thing right. You, yeah, because they've invested in it. But I agree, it seems like some of the technology since I've been following it, it seems like the technology that's going to get higher quality, less expensive over time. But, you know, in the spirit of this episode, one that's worth paying attention, attention to.

So we've got the sauna. We've done cold therapy before. We'll talk in a second about actually, right now, what's the difference between that, if there is any or the benefit to cryotherapy in cryotherapy centers or things you see pop up everywhere? And then I think any other you could just tie right into any other because there's a million devices, but any other ones you found to be pretty great, pretty profound for the price.

Right? I'd say cold exposure or cold thermogenesis. So creating heat, cold thermogenesis is a genre of a salutary thing you could administer, you know, treatment, and it's exposing the body to cold for the purpose of provoking a response. And the differences are cryotherapy mostly refers to. You guys have seen those, cylinders that you climb into.

You put the the gloves in the robe, and you climb in as liquid nitrogen. And it looks like you're Mr. Freeze from Batman in the 90s and, chill out. And then. And then it's only two, 2.5 minutes, tops, and it gets really, really cold. And it's it's very quick, but it's really, really cold. And then you're done.

Then there's cold tubs. And cold tubs are like the Miracle Forge. It's a great company. There's chili pod, there's a bunch of companies now, and you just get into cold water and that ranges from, I mean, 50, 60 degrees is not all that cold, but you get to children at ten minutes or so. And anything colder than 98.7 degrees is technically cold thermogenesis because it's colder than you are.

Right. So it's making you heat up. Then there's you keep it at 33 degrees. It's like back in the day when I had a meat freezer and I plugged all the drains, and I kept it out of my back patio, and I had a timed outlet where I would only have it on between the hours of 12 and three overnight, and that was enough to keep that.

I filled it with water, and I kept it at 33 degrees instead of fill it with me and, get out there and, at solar noon. And I would get it because UV light soaks into the skin much more readily than the colder skin temperature. And there's a threshold, it might be 55 degrees, something like that. And I bought a little the gun so we could see what the surface temperature of something is.

Yeah. And I would kind of lift my leg out. I hit it with the gun. And as soon as it was 55, I'd reached the threshold. And then I go lay out in the lawn without drying myself up and just shiver in. That said, it was awesome. It felt like a million bucks. But it's longer duration, but less.

It's more for long term benefit, whereas the cryotherapy is like, my knee hurts. Now I have like, I'm an athlete and I need to play tomorrow. I need to heal this right now. And this is it's like a laser target inside the joints. It sinks deep into the body. It's like for acute issues. Whereas the cold tub and repeated habitual cold exposure, that's more for long term long standing issues, long term health.

And we talked about it in that other episode, but all those benefits that you get from cold exposure, and it's honestly, it's easier to just get in the cold longer so that if you're a professional athlete, that's why they're all doing the two and a half, three minutes in the, cryotherapy with the liquid nitrogen. And also a lot of the business owners are finding it's kind of a pain to fill up a giant vats full of liquid nitrogen.

And then the truck comes every couple of weeks and refills it. If you don't use it, it's too bad you still got to pay for it. So there's a lot of if you're trying to start a business like that, there's some hiccups. But if you have the cold debris, then people have to dry off and change. You need room for that.

Yeah, but as far as the effect of it, probably it's just for for small boats, different strokes for different folks. Yeah. Do I need a greater effect right now? And miss out on some of the long term benefits, or do I just want the long term benefits to the immune system into your energy production and, and, insulin sensitivity and all those types of things?

Yeah. I tell you what. Let's do two more. I'll get specific on them. So one, I would be remiss if we didn't do hyperbaric chambers. And then I think you should talk about the brain tab. And then honestly, all those you've talked about this before, we will do a quick section at the end of this episode on how you can get the effect of all of these things we're talking about at \$1,000 for free, and we'll go through those really quickly.

But yeah, what can you say about hyperbaric? And then we can go in the brain tab. So hyperbaric therapy is where you change, the, the barometric pressure that your body thinks it is in. You've heard of blood doping? Blood doping is where you train at high altitude. Because at high altitude, lower barometric pressure, every hemoglobin molecule, every red blood cell can hold on to more oxygen and then deliver more oxygen to the tissues.

So you become. That's like training in high altitude is a thing because you get trained to hold more oxygen per one red blood. So now you train that way, then you take as much blood as you can out of yourself, and you freeze it, and then you send it to France for a bike race. It's anyway, it's,

Yeah. So what? Seems oddly specific. Yeah. No, no, just any country could be, let's say France. And it's whatever event could be, I don't know, strongman, basketball, hiking, biking, bicycles. And so you're riding bicycles in France, and then you take your stuff out of the cooler, you

thought. And you put it back into yourself as so now more of your blood, which now can't carry as much oxygen because you're back sea level, but now you're full of the super blood, right?

The reason the blood became super was because in the presence of low barometric pressure, the red blood cells gain the ability to hold more and more oxygen for the purpose of delivering it to the working muscles and all the tissues that need it. So it turns out you can do this. You don't have to bicycle up in the Alps or something.

You could actually just get in one of the the hyperbaric chambers, and there's not just athletic benefit to being able to hold more oxygen. Hypoxia, a state of low oxygen, is present in a lot of diseases and a lot of, conditions of, malformation or, a detriment to your health of many different kinds. So the idea is a hypoxic condition is bad, not good.

Yeah. And so by doing these sessions in the hyperbaric, and you could have your computer in there and do work and just hang out, read a book. But just getting that, stimulus to your red blood cells allows them to upregulate the amount of oxygen they can hold, and it persists because a red blood cell lives for about 12 weeks.

So the more of your red blood cells you can turn over to, to express phenotypically like this, the more oxygen you will be able to take in, you breathe like normal, but all of a sudden, more of it's getting through the lungs, through the bronchioles, into the red blood cells. And that gas transfer, becomes more and more efficient because every red blood cell can carry a heavier load of more oxygen.

So, yeah, it's excellent for healing injuries. It's excellent for athletic performance. Mental clarity lifts brain fog. It's it's really there's places, that are specifically hard to heal to because they don't get enough oxygen. Your blood, like the, capillaries and tendons and joints. Yeah. My wife was a E.R. nurse for years. And the number one thing they do for burn victims is put them right into hyperbaric chamber because it starts to flood the healing piece.

So that's one that a lot of people don't talk about. But I've had quite a few situations, where people come to me with this or that and I'm like, you know, the one thing I think you could do even above sauna, etc., which is be go do some sessions and I better chamber. Yeah. And it's so accessible these days.

Right. Oh, you want to wrap it up with, the brain tap? I know you're a fan. A lot of us are. Yeah. I've been using the brain tap since 2021, and I found it at a, a conference. A biohacking conference, where I was. And I'd been hearing about it and tried it, and I've been meditating a long, long time back in my teen years and forward.

And, you might relate to this. You guys might relate to this, too, if you've been meditating. There's a point in the meditation, usually for me, it's 30, 35 minutes in where I finally like, sink really Deep and your eyes sort of my eyelids are closed, but it's as if I'm looking upwards and it kind of gets locked in there.

And that's how I know I've sunk really deep. But I'm so distracted before that my mind is going a mile a minute and it takes a while. But once I get to, okay, now whatever it is that I'm doing, mindfulness or visualizing or whatever the meditation is about, I know I'm really in there in a sweet spot when that happens.

So I book a spot at the trade show. All right. I'll be back at 330 and they pick me up one of those gravity chairs with the blanket, and they put the thing on. And real quick, the brain tap is a it's headphones with a fold down visor. And so it's sound and there's also red lights in the earpieces so it's sound and light.

And then they also use light in front of you. You close your eyes, but the light travels through your eyelids and the right eye gets what the left ear gets, and the left eye gets what the right ear gets. So you have left brain, right brain coherence across the entire brain. And the idea is it functions on a bunch of different things.

There's there's isotropic tones, which is just like metronome type beats. There's binaural beats, which you're probably familiar with, where if you play something at 440Hz and something at, 450Hz, it's like a 440 and then a four 50Hz, your brain will reconcile that and will begin to emanate, a vibration that you can measure in an EEG, an electroencephalogram.

That'll be four 45Hz. So it'll just reconcile those two. So if you want to entrain the brain and because it's trying to match its environment. So if you put two tones that are equidistant, it'll find the middle. And so you can train it into different brainwave states. You have beta brainwaves like we're using right now. If you were to close your eyes and take a breath, you'd be done to the alpha brainwaves if you started to fall asleep.

Because we've been in the studio for a while and I could use a little nap. Theta brainwaves would be right on the border between waking and sleeping, and then delta brainwaves would be the slowest. That's deep sleep where you're paralyzed and you hallucinate. And so, that's what we all do every night. So, the idea is it can and train those different brainwave states and using these lights and these sounds and all this brain and train it, it can, and there's words that are spoken as well.

So Patrick Porter, the guy who runs Doctor Patrick Porter, he leads on guided meditations. There's other people he has guests on there as well in the app. And, anyway, so it takes you through, like sleep cycles, but quick. So in 20 minutes, you can dip down into deep sleep and then back up, and you can train all these brainwave states.

And there's a few ways it can be used. One, it could be like a digital coffee. They have a little ten minute programs where it's, bringing you up out of, sleep and it drops you off in, like, high functioning alpha. You're orderly for the day, you're coherent, you're ready to rock, you're focused. And then my favorite one is probably the afternoon nap.

So I'll take whatever the 20 minute thing is. And instead of taking a power nap or something, I'll just do a brain tap and it takes me to sleep cycles, and it organizes all my brain patterns so that

I'm not, distracted and chaotic up here so that I can focus. And then off and on. I've used it right before sleep, and then you kind of set it to the side and roll over and then go to bed.

And, that's speaking of the wearables mirroring. Show me that I did it did enhance my sleep. Sleep over time, using that. So that's probably the best of the meditation type bands. I know the muse headband is a cool idea. But it does. It does broadcasts, like, kind of into your brain a little bit, to sense and I don't.

So much like that, but it's a great idea. That's where it's a sensing had been. It doesn't give you I think it plays sounds of birds and storms and the birds. It's like a nice day at the beach when you are focused and you want to get the birds. Yeah, but when you start to get distracted, they can sense your brainwaves and you start to hear the storm.

So you get the biofeedback and your brain starts to know what it feels like to meditate properly. Right. And it gets better at it over again. And that's very useful. That's cool. Yeah. And then there's neuro optimal. There's another one. It's a little less engaging and kind of happens automatically with same idea. But, I'd say brain tap is kind of the 80/20.

Just, use it once, twice or three times per day. It's quick, it's easy to use. And the team is really cool. I met the guys at a bunch of conferences and. Yeah, can't speak highly enough about them. That's cool. Yeah. I'll, and we'll wrap this up. I'll channel my, my good friend, Dan Miller and say, and you talked about this earlier, Jim, these devices are awesome.

Sadly, we live in a world where we've had to come up with lots of cool technology to hack our way back towards what was just natural. The best way you could experience, a lot of the stuff we talked about today would be just to go camp in, like, the Front Range of Colorado and jump in the lake and get cold at night and get hot during the day.

And have some hypoxia and put your feet on the ground and practice breathing. And so. Right. All these things are hacks and it's all free come natural if you're living out in nature. And so you can experience that. But we don't. And people are busy and they're doing things in life. And so these are some cool ways, to get access to these things.

And they do work. Yeah, it's second best, but it very much beats the alternative of not doing it. That's right. Yeah, man. I learned a lot today, which is new. Yeah. Nice. I'm really glad I could have an impact finally as they're 80,000. That's absolutely AI cool, man. Well, okay. Justin. Yeah. Next time, see you.

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