Speaker 1: Bulletproof Radio, a state of high performance.

Dave Asprey: You're listening to Bulletproof Radio. Today's cool fact of the day is that when you smile, you use a minimum of 36 muscles. Before we get into the show, there are a couple of things that are worth knowing about. First one is my new book, "Head Strong". It is not available yet except you can pre-order it on Amazon. If you are a listener of Bulletproof Radio and you like these kinds of conversations where I interview maverick scientists, inventors, people who are doing things that really no one knew was possible. Today is a great example of that.

This book talks about how you can take control of the mitochondria, these tiny little power plants in your cells to give them more energy. When you have more energy, exercise is easier, thinking is easier, resisting the cookie is easier, everything is easier. This is a follow-on work and an upgrade to what's in the Bulletproof diet. It's called "Head Strong". It's on Amazon. I got to tell you, two years of work, I don't know the exact number of studies in there but I can tell you that in the back of the book that it's going from, basically, page 296 up to, whatever that is, up to 321, so about 30 pages of references here, all about mitochondria with specific needs you can do.

You'll find that even just a fraction of what's in here, including some of the crazy bio hacks that we'll discuss today, that it's actually not nearly as hard to have more energy as you might think. When you have more energy, everything else gets easier. Really, that's what this [inaudible 00:01:47] is all about, making everything easier.

Recently, I discovered one of nature's miracle foods walking around at the Bulletproof conference in Pasadena. That's where I met Walid, the owner of Desert Farms, a company that sells organic camel milk across the United States. We talked about camel milk and I learned some things about camel that I'd read about but haven't really focused on. It has a bunch of immunoactive molecules that you don't get from normal milk. It has a bunch of beneficial bacteria different than you would get from cow milk. It's full of lactoferrin, which is a natural substance. It has anti-bacterial, anti-viral, anti-parasitic and anti-cancer properties even. It contains bio-identical IGF-1 which is insulin-like growth factor, which is the only natural hormone that promotes muscle growth and uses fat stores instead of glucose. It's compatible with things like ketose and brain octane. It doesn't have lactoglobulin which is something that messes with you if you're lactose intolerant.

Camel milk from Desert Farms is organic and paleo-approved. It works for keto, it's GMO-free, pasture raised, basically meets all the requirements for a Bulletproof diet without all the inflammation that can come from cow milk protein. Head on over desertfarms.com and get 20% off, anything on the

website using promo code "Bulletproof20" at checkout. Again, that's desertfarms.com, promo code "Bulletproof20". Totally worth your time to give this a shot.

Now, let's get into the show. This is Peter Wasowski. Peter is an inventor. He created a company called Vasper. He's been working on this stuff for 18 years. Peter is here on Vancouver Island at the Bulletproof labs alpha here. We just installed the Vasper machine and there's a Facebook live recording of that earlier where we broadcast my first workout on this thing. Peter, I'm going to describe my experience with the exercise and then we're going to go into your background, how you got to where you are. I just want people to understand how impactful this thing is.

You get on it, I did essentially the equivalent of a high intensity interval training session on a, feels like an exercise bike but one where you're also moving your arms. You've got these compression things on your arms and your legs and you're sitting on a chilled pad. You're getting cooled down, you're getting chilled and a very specific amount pressure, the specific temperature. You don't really sweat but you feel after just 30 seconds like you've done a horrible number of squats. It feels burn in your muscles. It's an incredible hack of the signalling system in your body, and that's why I wanted to have one of these added to the lab and why I think you should go to your local gym and say, "You guys have to have one of these because it's a workout like no other." It's super cool.

I did sleep really well last night, as well, which is a side effect of this thing. Peter, welcome to the show and how the heck did you come up with this idea?

Peter Wasowski: Thank you. Thank you very much having me today. I came up with this idea after I sold my previous company and moved to Hawaii. I had two major issues. I had arthritic ankles because both ankles were broken whenever you have a joint break, it develops into arthritis often. I was also pre-diabetic. My grandfather died of diabetes. Once you live in the tropics, the symptoms of arthritis and the symptoms of high blood sugar become much more acute.

I had two choices, wither to rely on different types of medications which obviously have side effects and would have decreased the quality of my life tremendously or do something different that has not been done before. This technology basically came to being in order to save my own skin. I had some experience with cooling technology because the company that I was part before, I was a co-founder of it, it was called Cool Systems. The product they currently have is called Game Ready. It's used by professional athletes and so forth. We sold that company in the year 2000.

Dave Asprey: What did that do? That was like the cooling glove? What was it?

Peter Wasowski: No, no. This was basically a piece of equipment that cools the joints after exercise. But the most important of it was that it could cool the joints in flights.

Half of the games that professional athletes have are done away from home. Imagine they get injured in a game and then they climb on an airplane, once the plane gets up to 30,000 feet, the cabin is at 8,000 feet. That injury actually gets worse because the tissues expand at altitude. This was a piece of equipment that applied what we call a RICE effect. RICE stands for Rest Ice Compression in Elevation. It actually treated that injury in flight.

For an athlete that makes $10, $20 million dollars a year, that was a huge thing. We sold that company to Lee Steinberg. If you've seen the movie Jerry Maguire, that was modeled after his life. They're doing quite well. The product is called Game Ready. They're selling, I guess, I even saw it on Ebay for sale.

We sold that company, moved to the big island. When I noticed a tremendous increase in the arthritic pain that I had as well as my blood sugar was going up so I have to go to insulin injections pretty soon. I wanted to design something that actually address the cause rather than the symptom. I didn't have anything else to do at that point. This was my focus.

The very, very first piece of equipment that I built was very crude. It had, basically, it was a old piece of air-conditioning device that I [replumped 00:08:01] to cool water rather than air and built a very crude prototype. But within a couple of weeks of using it, I actually saw the difference for the pain would go away, I would flush the pain pills down the toilet. For the first time in 30 years, my blood sugar came back to normal, which was a major shock.

I realized that I had something that was working and started using it extensibly on myself, then friends and neighbors. I was part of ... I still belong to a Kennel club over there and members of the Kennel club would come and, Outrigger Kennel club. They reported great results.

Dave Asprey: How long have you lived in Hawaii?

Peter Wasowski: Eighteen years.

Dave Asprey: You're watching this on Facebook live right now, by the way, if you're listening to show on iTunes, I've started broadcasting some of these live on Facebook. If you follow my Dave Asprey profile on Facebook, you'll actually get these ahead of time. If you're watching the YouTube channel, which is bulletproof.com/youtube, you can find the subscription link there. What Peter hasn't told you is that he is 68 years old and he has lived in a sun-drenched part of the world for 18 years. You look, maybe 50s, in terms of your skin. Your skin is tanned but not overtanned. You don't have wrinkles. Is your skin better since you started doing this? Have you just always been naturally really youthful? What happened? You don't look your age.

Peter Wasowski: Thank you. Actually, in February, I'll be 69 on February 11th.

Dave Asprey: Unbelievable.

Peter Wasowski: I think this has helped a lot. I've been doing it for a long time, of course. I think that and a healthy food and lifestyle definitely makes a huge difference. Everything that I've done is geared towards probably-active health. What happens normally, when we get sick, we go to a doctor and we hope that the doctor will find a pathway to health for us and sometimes it happens, sometimes it doesn't.

An interesting thing about ancient civilizations like ancient Hawaiians or some of the ancient indigenous cultures, the doctor was paid full salary when everyone in the village was healthy. Of course, he was being paid with wood, fish, food, whatever they were paying him. The minute somebody would get sick they would pay him less. What I wanted to design is a piece of technology that actually provide you with pro-active health rather than reactive health when you actually become a CEO of your own health. It seems like we found that technology and the people that use these, we have over a hundred of these right now throughout United States and we're installing the first two in Europe in about a week and a half. All those people report pretty amazing results which is absolutely the most encouraging and rewarding experience for me.

I have a unique, maybe not so unique, but my own idea of what a definition of happiness is. It goes like this. If you want to be happy for five minutes, take a nap. If you want to be happy for two weeks, take a vacation. If you want to be happy from time to time, have a drink, Bulletproof water which is absolutely awesome, I love it. This is going to be part of the Vasper hydration system from now on. It has all the good stuff and none of the stuff that you don't want to drink.

If you want to be happy continuously, keep creating positive difference in the lives of others. That's really where the happiness comes from. You're basically on the same tribe.

Dave Asprey: That's why we're doing what we're doing, right?

Peter Wasowski: Exactly.

Dave Asprey: I did a lot of research on Vasper before i even had a chance to meet you through Denzel, then strategic coach, and Joe Polish, who's another friend also. We've run into each other there as well. I get to know you and I'd looked at your system even a couple of years ago going, "This is interesting but it seems a little expensive, it's not a consumer grade. This is something that is meant to be at professional gyms facilities, physical therapists and maybe even a Pilates studio or something, where you'd come in, you do two or three sessions a week. You're getting the equivalent of a couple of hours.

I know this sounds hard to believe but it's equivalent to a couple of hours of intense cardio in about 20 minutes. The reason is the equivalent of that is that you get a lactic acid signal. Tell me if I'm translating some of this wrong but you get a lactic acid signal in the muscles that comes from a long endurance workout like that that then triggers cellular repair but because of the compression and the temperature changes, you're amplifying the signal dramatically. A smaller amount of exercise equals a big signal so you'd get this incredible, rejuvenating thing happening systemically as a result of exercise.

Did I nail that?

Peter Wasowski: Close, yeah. Basically, what we're doing I bio-mimicking the physiology that naturally occurs in children. Whenever you see kids your age, whenever you see four, five, six, seven, eight year olds, you don't see them walking. They're always going full speed ahead. If you were to look inside their quad muscles, you'd see very highly concentrated lactic acid. The reason the concentration is high is because the body is short, the muscles are short. They, of course, use those muscles tremendously. They concentrate huge amounts of lactic acid.

The keyword here is concentration, not the amount. The concentration is what drives a very powerful signal to the pituitary gland, to the brain, requesting growth hormone to rebuild those muscles back to pre-exercise conditions. Children just do that naturally. Of course, they have a high level of growth hormones because they're growing. They boost those hormone levels.

This is one of the reasons why a child is such a resilient being. If you bring a child to doctor with a meniscus tear or ligament tear, most of the time there's really no medical intervention necessary. The child recovers very quickly on his own. We are actually bulletproof until we hit puberty. Once you hit puberty, of course, your body is taller, there's more real estate here. You can no longer concentrate lactic acid to those levels because those muscles are longer. You also don't have time to run around all day. You're closer to your adult height so your natural hormone secretions are slowing down. Because of those three things, every 10 years, we lose 14% of our, what's called, anabolic hormones, the hormones that rebuild our body, 14% every 10 years.

If you go to a medical professional and they check your hormone levels, they'll say, "Well, guess what, you're getting older." The truth is that our hormones don't decline because we age. We age because our hormones decline. The idea here was to see how we can increase the hormonal production without having to do Crossfit Insanity P90X or some of those very, very intense type of exercise that less than one percent of the people are doing. It, of course, has some injuries tied to it. It's absolutely very, very tough to do. At my age, I would not be ... even if I could do it, I would not be comfortable doing it.

Dave Asprey: There aren't a lot of 69 year old crossfitters, that's very true, or endurance runners. Any of the things that you can do until you're 35 get progressively

more difficult. I know a few people 50+ who do that. There are amazing people like, Mark [inaudible 00:15:56] been on the show and he still does a ton of exercise. Even he has switched his long, drawn out runs to a slower pace because he finally got better results.

I think the argument is, if you're like me, my goal is to live to at least 180 years old. That's not a joke, it's not PR. I actually think it's possible, actually, every damn thing I can to do it. One of the things is not destroying my knees. I've had three knee surgeries. I had them before I was 23. I have a screw in my right knee. I had arthritis on my knees since I was 14. It's gone. I don't have those problems. I've trekked the Himalayas and the Andes. I still though if I was to go play basketball for awhile. I'd probably have an unstable knee. I know how much it sucks to be limited in mobility like that.

How does the cooling and how does this affect from the Vasper work with bad joints or sore joints or thing like that? What's the stress load that it's putting on the body?

Peter Wasowski: Excellent question and we'll get into cooling. One thing I wanted to just briefly point out about intense exercise is that, I've done a lot of work with professional and amateur athletes. Of course, we all want to look awesome. A lot of these people that I come across, they, from the outside, their bodies look amazing, chiseled, beautiful bodies. But then, if you check their hormone panels, it's like looking at a car that has 20 layers of paint and it's rusting on the inside.

Many people don't realize the physiological price you pay for running on pavement for two hours or doing very, very intense exercise that actually breaks down your body.

Dave Asprey: Without recovery.

Peter Wasowski: Without recovery. Vasper is an antidote to that. Let's get to cooling. Cooling is very, very important because what happens when we exercise is we normally sweat. In order for your body to sweat, there's a tremendous amount of blood that has to be brought to the surface of the skin. Of course, the skin is the biggest organ in your body, it has six and a half million pores. Each one of us has a finite amount of blood on board which happens to be eight percent of your body weight. If you're looking at a hundred pound person, you're looking at eight pounds of blood inside that person, a little more than a gallon. If you exercise with intensity, you can actually shunt as much as almost 40% of that blood or close to it to the surface of the skin-

Dave Asprey: Just for cooling?

Peter Wasowski: Just for cooling, just to push the sweat through the pores, which means you have less blood flow at the muscle level, and this is precisely why you have sore muscles for a day or two, because there is not enough blood there to remove

the lactic acid. But also, what happens, which is even more important, is that as your core body temperature goes up and your blood temperature goes up, you're releasing blood oxygen from the blood. Blood is mostly water.

What happens when we heat water, you can actually see the steam coming off of it. That's the oxygen leaving the water. If you cool water, the opposite happens and the oxygen is absorbed in the water then, of course, you can freeze it then it turns to ice. When you exercise on a different scale, a similar thing happens with the blood stream. As the blood temperature goes up, it starts releasing blood oxygen. Blood oxygen is what the muscles live on. This is the fuel for the muscle tissue.

The less blood oxygen you have on board, the quicker you'll reach a condition called, where you reach the VO2 max, your ability to metabolize oxygen. Once that happens, you can no longer perform. That's hitting the wall in the athletic terms. When you're before cooled doing a Vasper session, the idea there is not to lower core body temperature but to prevent your core body temperature from going up and preventing sweating.

When you prevent sweating, all of the blood flow that you want in the muscle tissue is there because you're not sweating. It's not at the surface of the skin. At the same time, the blood temperature itself is slightly cooler, much closer to your normal range. That means that all the blood oxygen that you need for the muscle tissue is inside the blood stream. That's the reason for cooling.

Dave Asprey: When you cool cells as well, there is a distance electrons have to move inside the cell, the electron transport system, we used to call the chain but it's really a diffused system more like a chain link fence than a chain. When you shrink the size of one of these, now I'm talking like a network engineer because it's actually my background. In training, I used to run the webinar and internet engineering program at the University of California, and believe it or not, back in the early days with the internet. If you need to send something from here to there, it's not a big deal if it takes one second to get there if you only send one thing. If you need to send something back and forth a billion times, that one second is now a billion seconds.

If you can shrink that one second to half a second, you saved an enormous amount of time because it's amplified by a billion. When you shrink a cell by making it cooler, even just a little bit, the billions of electrons that flow through it actually flow through it more effectively and more efficiently. I think you'd get a cellular improvement there which is shown in better oxygen consumption. Your utilization of the air you breathe, you can measure in the gas that's breathed out from your body.

Have you seen any other research or done any other research on effects of the cooling or just the entire Vasper system on mitochondrial size or density or performance or anything else on that neighborhood?

Peter Wasowski: Yes, yes, absolutely. There's a lot of work that's been done in that area especially with people that suffer from heat sensitive disease like, for example, multiple sclerosis or Parkinson's. What you described is fascinating because that's exactly what happens. Each one of the neurons has a small gap in between. That gap in called node of Ranvier. Ranvier was the French anatomist that discovered this. What happens is that a normal core body temperature that pulses only two milliseconds is very small. If you lower the core body temperature by very slight, about one and a half degrees Fahrenheit, you actually increase the amplitude by 400% to eight milliseconds.

What happens is you end up with what's called a salutatory conduction. That drives, you can actually jump over the damaged neuron or you can amplify a much, much stronger signal to the fast switch muscle fibers and perform much much better. The results we've seen with heat sensitive disease people like [inaudible 00:22:46] are absolutely off the charts. People that have fibromyalgia and so forth. This is precisely what you have described. That's what happens. We increase the amplitude of the electrical impulse and our body is an electrochemical device.

Dave Asprey: It is interesting that you talk about fibromyalgia. If you've been listening for a while, you might have heard me alk about this. I've been diagnosed with chronic lyme disease, fibromyalgia, chronic fatigue syndrome, and toxic mold poisoning. I believe that all of those symptoms can be and usually are tied to environmental toxic mold exposure. I filmed a documentary about that called "Moldy". Interviewed some of the top experts in the field as well as people like me who had been infected by it, sleeping in a bedroom that had slime behind one of the walls, just things that are non-obvious but have a huge impact.

All of those conditions, and also MS, ALS, Parkinson's have at their core a mitochondrial weakness. Your mitochondria stopped working. The batteries or the power plants in your body, they don't work. "Head Strong", the book where i've spent the last two years researching this is how do you make sure that the weak mitochondria die and the strong ones either get bigger, more efficient or replicate themselves? You can have more power, literally more power. Like you're saying, you can train the body to have more power. Even at the 40 years, I was then, neurofeedback institute that I've opened up in Seattle, one of the four different things that we do for your brain is we increase the voltage potential in your brain, literally teach the cells in your brain to make more power so that you can use that for thinking. That's a local effect.

Are we teaching our muscle cells to make more power when we're using the Vasper? What's the effect where the cooling is versus everywhere else? What are we doing to the mitochondria there?

Peter Wasowski: We're definitely increasing the profusion. There's a tremendous amount of blood that is channeled through the entire body including the compressed muscles. There's a huge detox that happens. The reason Crossfit Insanity P90X,

those very, very intense anaerobic exercise, actually produces benefits. It's because it forces this massive flow of blood through the body that can only happen during very intense exercise. We're basically biomimic and exactly the same physiology on Vasper, except you're sitting on a chair. The oldest person using Vasper is 97 years old. The youngest is 10 years old.

Then, we have Navy Seals, astronauts, professional athletes in the middle, so we can adjust the software to each one of these people to give them a benefit of very, very strong anaerobic exercise. They're safe and they're doing a low impact type of workout.

Dave Asprey: I've had a couple of people ask what's the difference between this and Kaatsu, which is another compression technology. Can you talk about Kaatsu and Vasper in similarities and differences?

Peter Wasowski: Kaatsu is a very innovative type of exercise. This is something that actually got this whole what's called BFR. BFR stands for blood flow restriction exercise movement going. The gentleman, Yoshiaki was a brilliant man who was a body builder at one point. What he discovered is that in Japan, when you sit, you don't sit on a chair like we're sitting. You're sitting, you're basically on the floor and your feet are under you. He discovered at one point that if you sit there for about half an hour or so, you touch your quads, that the hardness and firmness of those quads is very similar to what it feels like when you do, you pump iron for a while.

That's how Kaatsu came to being. The Kaatsu uses a very small part of what Vasper is all about. They're basically the compression at a very high pressure level. They go about, I think outputs of 250 millimeters of mercury, which is intense pressure, it's basically [turnika 00:27:12] type exercise. It does produce results but it takes a strong willed, determined person to do it on a regular basis simply because it's quite intense. I wanted to design something that could be used by a 97 year old. You would never see a 97 year old, perhaps using Kaatsu, on a regular basis. It's great for athletes who compete and some of the athletes use it.

Dave Asprey: It's a more intense thing. The Kaatsu guys were at the Bulletproof Conference which is cool. You were there as well.

Peter Wasowski: I met Yoshiaki Sato, a very, very nice man. He's the same age as me and looks like incredible hulk.

Dave Asprey: He's doing something right. You're using chilled water pressure and the Kaatsu system uses an air pressure?

Peter Wasowski: They use air, correct.

Dave Asprey: Is it also cooled?

Peter Wasowski: No.

Dave Asprey: No, okay. It's basically, it's blood flow restriction but without the temperature changes.

Peter Wasowski: That's right.

Dave Asprey: I haven't done Kaatsu yet although it's been on my list for a long time. I can tell you that the chilling has a huge effect just from the exercise that we did yesterday. It's very different than what I was expecting. As long time listeners know, I have an ice bath with a digital temperature control. There's a cryotherapy chamber right underneath where we're sitting, that uses liquid nitrogen. I'm comfortable with using cold as one of the main biological signals that come into us.

If you look at biohacking itself, the definition of biohacking is changing the environment around you and inside of you so that you have full control of your own biology so you can do whatever you want to do. The big variables in your environment are temperature, light, food intake, the time of day matters like there's circadian biology. Then, there's emotional stress and physiological stress. What you're doing is you're tweaking physiological stress, and I forgot air, air pressure and air composition is important, like how much hydrogen, how much nitrogen and what pressure and things because you can vary those. EMFs I guess would be the other ones, electromagnetic frequencies, as well as light.

That's the set of things we can manipulate. By doing intensity, physiological pressure, as well as temperature at the same time and controlling them precisely, I think you've created a unique workaround for this problem of how do I get enough intensity without overworking the system so that you'd get the healing signal without all of the joint stress and all the other time that it takes to do this.

Peter Wasowski: Correct. It's amazing that you've mentioned all of these things because all of these things including EMFs is addressed at Vasper.

Dave Asprey: Talk about EMFs in Vasper, that's interesting.

Peter Wasowski: The EMFs, when you're in Vasper, you're barefoot. You're barefoot and you are on your feet on brass plates that are being cooled.

Dave Asprey: Very cold brass plates.

Peter Wasowski: Yeah. From EMFs point of view, there was a very amazing scientist back in middle to late 60s into the 70s, his name was Robert Becker.

Dave Asprey: Yeah, this is one of the primary books on biohacking that got me into this years ago, okay.

Peter Wasowski: There you go.

Dave Asprey: "Electromagentism in Life", I believe it was called.

Peter Wasowski: He wrote two books. One is called, "Body Electric".

Dave Asprey: That's right.

Peter Wasowski: The second is called "Cross Currents". My understanding is he was twice nominated for a Nobel prize of medicine.

Dave Asprey: Should have gotten one.

Peter Wasowski: He should have got one. He actually did a lot of research on EMFs. He was trying to find cure for arthritis, which to this day we don't have a cure.

Dave Asprey: Other than don't eat night shades, for 20% of arthritis anyway.

Peter Wasowski: What he realized is that the arthritis took off on a very steep curve in early 60s when polymers were invented. When people invented synthetic clothing like nylon shorts, plastic, nylon carpets, then we would walk around and pick up this massive amounts of static electricity which is [oxilant 00:31:19] inflammatory energy. Then you go outside in rubber-soled shoes and you don't have a way to discharge the static electricity to the ground. Different types of other immune disease like arthritis, fibromyalgia, lupus and so forth, that went on a very steep curve in the Western world.

At that point apparently, in those times, he traveled around and he went to India where people who were ... you have 800-plus million people, many of them working barefoot with cotton clothing, they didn't have these issues. He realized that when you actually download the static electricity to the ground, you can equalize this electromagnetic load in your body. This goes way back thousands of years into the oldest form of medicine known as ayurveda. Ayurvedic medicine became, originated in India over ... it's close between 8,000 or 9,000, 10,000 years old.

Back then, when you had a patient come to an ayurvedic doctor complaining of joint pains, the doctor would dig a hole in the ground and bury him up to here. After some time, half an hour or whatever, he would take him out and the pain is gone. What happened? The static electricity got discharged into the ground. Negative electrons were absorbed from the ground and your electromagnetic load was absolutely optimized.

Dave Asprey: All of that is mitochondrial, by the way. This is in the book.

Peter Wasowski: It's 100% mitochondrial. You're totally right. This is what was designed at the Vasper. The reason you are on brass plates-

Dave Asprey: They're grounded.

Peter Wasowski: They're grounded.

Dave Asprey: I didn't even know that. That's brilliant.

Peter Wasowski: Yes. You have water going underneath it. Of course, water will pick up, and all of that is going to the tank which is grounded to the electrical system. You are actually discharging the electrical load. Most people that I see right now wear synthetic clothing when they exercise, spandex, all of that stuff. It looks great but when you exercise in it, it creates massive amounts of static electricity.

When you're on Vasper, you're downloading that during that period. The reason we cool your feet is because what happens when you're under a hot blanket? What do you do? You stick your foot out, right? You want to ... Your feet are your thermostats and radiators at the same time. We found the right temperature gradient to cool your feet. You also have a lot vascular beds, a lot of vascularity in your feet, so that you actually, your thermostat is at the right setting so you can perform better.

Dave Asprey: You've been down to the Bulletproof Coffee Shop in Sta. Monica, right?

Peter Wasowski: I have.

Dave Asprey: We have a custom-made table. I went to great lengths to get this thing made. When you sit at this table, you might not even know if you get a chance to be there. On the top of it, there's this big ... it looks like a circuit board with hexagons on embedded metal in the table. It actually wraps around underneath the edge of the wood, goes down to the metal frame of the table, and it's sitting on a giant piece of steel that we had installed, and it's all electrically grounded. When people are sitting, working at the table or just eating the grass fed sliders or whatever they order, they are actually touching the table and they're electrically grounded. They're dumping their extra static charge not even knowing it a lot of them. The idea is to build stuff like that in the environment. I have no clue that you built that into your device. That is so neat, I love that.

Peter Wasowski: Thank you.

Dave Asprey: Now, people are getting electrically grounded which helps inflammation, they're getting the cooling and the motion. The program that I ran last night, we did a seven-minute warm-up. Then we did some 15 and 30-seconds pretty intense intervals, some sprints with a minute or two of very low activity between them. I probably could have done more but I was winded and feeling a little bit ... It feel like a runner's high when I was done with it, like I would feel coming out of the cryotherapy chamber, which is only three minutes but has no exercise, where you just get an opiate response from endorphins.

How do people feel when they're done with Vasper and how long does the feeling last?

Peter Wasowski: When you're done with Vasper, you basically feel rejuvenated because ... for several reasons. There was a tremendous amount of blood that you pushed through the body. Of course, each one of the cells in the body works on osmosis. All of the nutrients go into a cell via osmosis. All of the waste goes out of the cell via osmosis. There has to be a certain intra-cellular osmotic pressure to make that exchange happen easily. To do that, your profusion has to be very high.

This is why people who could do intense anaerobic exercise are relatively healthy unless they get hurt doing it. You're getting a similar feeling here without paying the physiological price, without sweating, without being tired. Normally, when you exercise intensely for an hour, it takes you the same amount of time to recover for your core body temperature to come back to normal for your profusion, everything comes back to normal. Most of us don't like the side effects of exercise. I happen to be one of those people.

What I care very much about as far as living into over a hundred years old, is you cannot afford to destroy your body inside. This is the stuff you don't see from outside. This is your joints, your kidneys, your liver, your lungs. You have to keep that in relatively decent shape. The only way you can do that is without, basically, overtraining. Vasper is anti-overtraining device. The idea is to provide you with this benefit of intense exercise without actually paying the physiological price.

Dave Asprey: I've seen this a lot because I've done ... I still do some coaching with CEO types, but very little because I'm spending a lot of time as a CEO. But in the earlier days of Bulletproof, I would maintain 10 or 12 one-on-one coaching clients. I see this a lot. You get these type A entrepreneurs, very successful people growing companies. If you kick ass at one thing, you want to kick association at everything.

I'm going to do a couple of Ironman triathlons, I'll run a marathon, I'm going to fly to Japan the day after, you give a speech, this super intense thing. I was the same way. I made $6 million when I was 26, lost it when I was 28, and had that Silicon Valley thing. You end up driving and driving and it turns out that if you're going to perform really well, you have to recover in an equal amount. Being good at recovery was never something that I've been taught in my life. I had to learn how to recover.

Can someone who's probably overtraining, because they're overtraining in their business life or in their family life, because they have unhealthy relationships or essentially, the total physiological and emotional stress load is way too high because they're overtraining on top of overemotional training, is Vasper a

recovery technology that you can use on top of too much physical training so that you recover faster? Should you replace some training with Vasper?

Peter Wasowski: You can do both. You could definitely use it as a recovery mode. We work with hockey players for example. When they finish a hockey game, they're basically, they feel like almost at the edge of death. We want to recover them, especially at night, they cannot sleep after that. There's hundreds and hundreds of different protocol setting that are either for recovery or for training. If you use it for training, it should be the first thing you do in the morning. You could do both.

Dave Asprey: Okay, you could do both. That's cool. Someone could literally finish crossfit workout and then hop on a Vasper and it would help them recover better from a crossfit workout?

Peter Wasowski: That's right. They can also ... what they should do is the Vasper before the crossfit workout and their crossfit workout would be much more efficient.

Dave Asprey: No kidding. That's cool. Because they're cool?

Peter Wasowski: Because they're hormonally-optimized. One important thing to realize is what happens hormonally. Again, if we go back to a young child, when you're dealing with four, five, six seven, eight year-olds, the reason we love being with those people is because they don't have depression, they don't require energy drink when they get up, they are just wonderful people to be with. They are hormonally-balanced.

If you look at anyone who is not healthy, the one thing that is ... the perfect measuring device is their hormones. If you look at their hormone levels, the growth hormone, testosterone, DHEA, IGF-1, the hormones that actually rebuild your body, you can actually see huge differences. For athletes, for example, if you look at athletes who do synthetic hormones which is not legal, many of them don't realize the physiological price that they pay for it. This is something we have seen with baseball a lot. Baseball is pretty intense sport that requires two things, very quick recovery especially for the joints, but also increased visual acuity. The growth hormone actually helps them in both levels.

This is why you've heard about Barry Bonds, they wear out, all those people because they actually use ... a lot of them use growth hormone to recover and also to increase their visual acuity so they can see the ball better. Once you start using synthetic hormone, it basically turns of your own pituitary gland from making your own hormone because it's flooded by synthetic hormone. It doesn't need to produce anymore of your own hormone. The pituitary gland is the master gland in your body. It actually controls that hormone production downstream. It actually triggers testosterone, THEA, IGF-1. The other hormones that rebuild your body are triggered by the pituitary.

Once you stop using ... once the pituitary goes on strike because you're using synthetic hormone, then of course, you're not making testosterone so you have to go to steroids. It's not a choice. You have to start using steroids to have testosterone. You'd lose what's called a hormonal balance. This is when you see athletes doing crazy things. They become ... they have what's called the Roid rage, which is ... once your hormonal balance is out of [kilt 00:42:07] then your emotional balance follows it.

Dave Asprey: That's totally true. The Roid rage was mostly from the synthetic hormones, not from bio-identical testosterone.

Peter Wasowski: Yeah. I don't have huge experience with different types of hormone replacement therapy. I just simply know that if you can stimulate your own hormonal increase, then you're not dealing with the side effects. What we're doing is we're stimulating your own growth hormone which means what we call a downstream anabolic effect, not only doesn't turn off, it's actually intensified.

When we measure those hormone levels on people, we're seeing their testosterone levels go up the IGF, the other hormones that actually would build the body go up at the same time. It's like finding a backdoor to the endocrine system. That's the beautiful thing about not relying on something from the outside.

Dave Asprey: You're better off to tweak the environment so your body makes hormones at the level of a 30-year old when you're 200. I think you want to be able to do that. So far, that's been challenging for most anti-ageing professionals. You've got some results, a mutual friend who's, I think, 72, who is now, basically has 30-year-old testosterone levels. Tons of energy, sharp mind and all that. You're cool doing something right. In my case, the hypothalamus sends signals to the pituitary, the pituitary sends signals to the adrenals, and then there's a whole feedback system between all three of those.

When I was 26, I was 300 pounds or maybe, I was only 280 then but I was fat. I was really tired and just dragging all these weird symptoms and was financially successful that coats the pain on the outside but just falling apart in the inside. I went to the doctor and I had tons of estrogen almost no testosterone at all. I was aromatising because I'd been obese and my thyroid levels were very, very low and my adrenals were shot. Essentially, every hormone made by the pituitary wasn't working before I did any bioidentical replacement. Taking thyroid and taking testosterone really it just improves it. It got me parts of my brain back. A lot of the bio-hacking I have done have replaced that. I actually take less thyroid now than I used to.

I went off testosterone for about three years and could keep my levels reasonably okay but I went them to be like late 20s not mid-30s even though I'm in mid-40s now. I do bio-identical testosterone. I do it under a physician's guide so I keep my levels at about 750 which is where I want them to be without

[inaudible 00:44:58], I'm really careful they'll drop to 600, maybe even 500. I think that's not quite where I want to be for a long term growth. We'll see what happens with Vasper. Maybe I can go off the testosterone, we'll see.

Peter Wasowski: I think you can possibly reduce it or go off. Vasper is not perhaps a total replacement for any hormone replacement therapy, but actually, it's a great complement. You can then optimize it especially if you have a physician working with you.

Dave Asprey: I want to switch gears a little bit. You've done some unusual things in your life, and you mentioned that you moved to Hawaii after you sold your first company. You moved to Hawaii and you lived on an organic farm, similar to me. I'm not in Hawaii but I'm on a island and I use all the, it's snowed in right now but we have a garden that feeds the whole family and had a little farm stand and all. Why did you ... you could have gone anywhere you wanted, why did you move to Hawaii? Why did you get an organic farm? What made you make those decisions?

Peter Wasowski: The initial decisions was driven by the school for our children. We found this pretty incredible school on the big island, it's called Hawaii Preparatory Academy. We always loved Hawaii. We always love going there. I love the culture. I had the type of work, I had a business at that point that was in Europe that didn't require me to be there, and I just sold the company. It was a good time to do this. We wanted our kids to live in a natural environment and learn about food and all of these things. It actually happened, and our daughter loves it so much that she's still there and doesn't want to move, doesn't want to leave.

There is a certain draw from this indigenous culture type spirit that you have in a place like Hawaii. This whole spirit of aloha that people talk about is actually there. We connect. I have friends that are ... I don't see as often as I did when I was there all the time but whenever we connect again, it's just like we saw each other yesterday. In fact, the daughter of my next door neighbor finished business school and the first thing she did is to call me to, she's in California asking for a job. She's now working for us. We maintain those very close relationships. It's easy to do over there. Some people come to Hawaii and they leave after some months or a year or two. For me, it was just like coming home again.

Dave Asprey: You just felt a draw to that?

Peter Wasowski: Yeah.

Dave Asprey: You mentioned California. I forgot to say this but, behind Singularity University on the NASA aims property there, I guess it's officially [inaudible 00:48:09] Park or is it [inaudible 00:48:10]?

Peter Wasowski: No, it's Mountain View.

Dave Asprey: It's Mountain View, okay. I used to live about five minutes from one of Vasper's headquarters. It's right near Google right there on Highway 101, ground zero, Silicon Valley. There's this giant hangar and you're right next to the big hangar, right behind Singularity University which Peter Diamandis runs. Peter's a friend. I really respect and admire, wrote abundance in bold and basically got the x price off the ground. Did that x price off the ground, that was a good ... Hopefully they're laughing on Facebook.

Peter Wasowski: That was literally exactly what happened.

Dave Asprey: You're there but you've got astronauts coming by and you've got a Vasper ... was it Vasper Central, Vasper labs? What do you call it there?

Peter Wasowski: That's where the headquarters is. This is a dick device. We have headquarters at the NASA Research Park. It's about 400 feet South of one of the biggest hangars in the world. That hangar has amazing history, used to be used for blimps, dirigibles that they use in World War I. The hangar is so big that when it was covered it created its own weather. It actually was sunny outside but it rained, there were clouds and raining inside the hangar. They found after a while that they found asbestos in the ground water because the water was running down the side of the skin so the skin had to be taken off and that was going to be replaced.

That where all of the ... a lot of creative things, amazing creative things are happening. We were right at the heart of Silicon Valley. We do work with astronauts. We have a system at the astronaut gym at the Johnson Space Center in Houston, used by astronauts. Currently, we have a Space Act agreement, which is a research agreement with NASA, to develop exercise technology for astronauts in the International Space Station and for deep space travel.

The human body is basically the weakest link in space exploration. We have equipment. We've sent probes to Mars and deep into space without any problem but without a human being inside. Once you put an astronaut inside a space craft, after three or four or five weeks there, a 40-year-old astronaut has a strength of an 80-year-old man. They're losing bone tissue, muscle tissue. There has to be ... they exercise two or three hours or longer everyday to slow down the decay of their body. We turn into a different species when we go into microgravity.

There's a tremendous amount of research going into that space to make sure that our body can withstand extended flight. Our goal is to reduce the requirement of exercise to perhaps 20 minutes instead of three hours plus.

Dave Asprey: That frees up a lot of astronaut time to do other things.

Peter Wasowski: It does. The amazing is that other people like Space X and private individuals who are definitely very results-oriented are looking at this as well.

Dave Asprey: I've chatted with Peter and some of the other leaders in private space flight, I'm very fortunate to get time with these people, talked with [inaudible 00:51:42] Jane about this. I believe that for us to make it to Mars, there are some human upgrades that are required. I'd ask questions like, "Okay we can get a spaceship there but how do you protect people from mitochondrial damage that happens in these environments?"

Peter Wasowski: Precisely.

Dave Asprey: Bottom line is we've got to hack our mitochondria. I referenced a few of those kinds of things in "Head Strong". The other thing that's happening in space travel right now is that they're finding out that when you spend time without gravity that your cerebral spinal fluid doesn't get signals it needs so it actually gets stronger and stronger inside the head and actually shrinks the brain. They're seeing permanent changes, negative changes in visual acuity after just six months in flight.

If you take someone for two years on the way to Mars, halfway there, their brain is going to be strung. It's going to get cognitive dysfunction and they'll go blind. Do you think that the kind of things that you're doing would affect cerebral spinal fluid as well as blood flow? Do you have any data on that at all? For people listening, your cerebral spinal fluid washes your brain at night. This is one of those things that if you can do anything to make it work better, you'll change your performance on Earth but it might be the difference between seeing and not seeing in space. Do you think your system can do that?

Peter Wasowski: It'll be presumptuous for me to say yes the system could do it. I think it can make a big difference in the entire physiology which could include and would include, obviously, the CSF or cerebral spinal fluid, as well as blood and everything else. There's more research that needs to go there. I have designed, actually, a very specific piece of equipment to 100% address exactly what you're talking about.

Dave Asprey: Of course, you have.

Peter Wasowski: That design has not yet been put into a prototype. This is my hope that we can do that with Vasper. Basically, what we're talking about is if you are an astronaut going up, we would weigh you with your body mass and your weight on the ground and actually check exactly how much body mass you're pressing against the ground at gravity, and then take cast molds of your legs and design a very specific piece of equipment that would pressurize the vascular beds at the right place at the right time. Another piece of equipment that would slow down the blood flow so you can get the valves to work again.

Dave Asprey: External counter pulsation.

Peter Wasowski: Exactly. This is something that could precisely do what you just described. It hasn't yet been developed into a prototype and tested but the idea is there.

Dave Asprey: If you're listening to this, if you're going, "these guys are such geeks", here's what's happening. In 20 years, the stuff that Peter just talked about will be available widely and cheaply because we'll figure out either it works or it doesn't. If it works, it'll flow down. A lot of people don't know that many of the innovations in your kitchen came from the Space Shuttle research program. Things like teflon, which actually has negative health effects, some substantial ones especially if you heat it above 400 degrees. Things like-

Peter Wasowski: [crosstalk 00:54:49].

Dave Asprey: They're bad for you, right? It's also created a lot of pollution things, DuPont, we know about you. Regardless of all that stuff, so much of what we do today came from pushing boundaries. The whole point of Bulletproof Radio is I want to interview people whoa re pushing boundaries and figure out what boundaries you're pushing. There's another one you're doing aside from the cooling and compression with Vasper. What I want to know though is what makes you push boundaries like this? Tell me what you do in a normal day as a maverick inventor, biohacker guy. What time do you wake up?

Peter Wasowski: I wake up at 5:00 or earlier, 5:00 in the morning. I like to do the meditation. There are several other things that I do. Most people don't realize that before computers, we wrote things down with our hand. We wrote in cursive. There's a very interesting connection between your handwriting cursive and your brain. It actually generates a very specific balance. I do actually write in cursive. There's a phenomenal book that you can download for free online. The book is called "Thought Power".

Dave Asprey: Okay, "Thought Power".

Peter Wasowski: "Thought Power".

Dave Asprey: The link will be in the show notes for this.

Peter Wasowski: I've actually transcribed this book. This is part of my therapy. I'm almost done with it. I write that every morning. It's amazing therapy.

Dave Asprey: Just that one book? You actually copied the book.

Peter Wasowski: I copied the book in cursive, yeah.

Dave Asprey: Okay. How many times have you copied it or just one time?

Peter Wasowski: I'm almost done with the first time. I think if I do it again, it'll be a different book. The whole idea is to write in cursive rather than punch keyboard.

Dave Asprey: Interesting.

Peter Wasowski: There is a tremendous thing that happens. It feels great. I look forward to doing that. I do my exercise and I do Vasper. We eat some pretty amazing food.

Dave Asprey: Are you on a special diet of any sort?

Peter Wasowski: I'm not. The form of medicine that actually resonates with me better that anything else is the ayurvedic medicine. Again, this was done over ten, thousands and thousands of years. It was done with a purpose of creating results because if you didn't create results, you were not rewarded for the results. Again, ayurvedic doctor was getting paid full salary when everyone under his care was healthy. That was the whole idea.

This is what I love doing. This is the type of philosophy that I aspire to. When you talk about CEOs and people that are driven to succeed, this is a very interesting concept that we see in birds and animals. Whenever you see a flock of birds, they're flying in those formation and the bird that is the leading bird has the shortest life span because he has to break the air and create the space for others where they are basically going behind.

Dave Asprey: That's like the person who wakes up earliest in the morning?

Peter Wasowski: Possibly.

Dave Asprey: Just kidding.

Peter Wasowski: That bird actually doesn't ... has the shortest life span as well. There's a competition for that space, just like there's competition among CEOs and athletes and so forth to be the best they can. The whole idea is to do that with intelligence, to balance it and not kill your body inside, but actually do something that does give you that edge with a certain amount of wisdom and balance behind it. That's what, I think, came from India. There's an ayurvedic college Emeryville right next to Berkeley that I go to quite often. It's called Vedika Global.

They do amazing programs online as well and teach you how to eat and what foods to eat. I think, what you're doing with diet is pretty phenomenal. Again, I can't stop thinking this thing up but it actually tastes amazingly good. If you look at what you put in it, it's exactly what you need. It's exactly what you need not to just waterload your body because if you drink too much water, you can actually die from it. You can actually kill yourself with water.

If you drink sweet water like a sugar water, that's like 12 teaspoons of sugar dissolved in it, which takes your body into acidic state and it actually drains your calcium. It does all kinds of great stuff. This feels good and it feels good afterwards. Definitely part of our-

Dave Asprey: We'll get that into the training facility as some astronauts drinking it maybe. Other people can come to ... your facility in Mountain View there is open to the public now or you're about to open it? What the-

Peter Wasowski: It's open to the public. Vasper stands for vascular performance, that's where the name came from. If you go to vasper.com, you can actually schedule yourself online.

Dave Asprey: There are hundreds of thousands of listeners in Silicon Valley. I'm from there and this kind of research is particularly interesting to software developers. People who are actually really willing to just say, "You know what? There is no moral benefit to doing more work than is necessary to solve the problem." If you write code, the most elegant code is the single line of code that does everything. It's not 25 lines of code.

Peter Wasowski: Exactly.

Dave Asprey: If you're doing the same thing when you're controlling your own biology, what is the one thing I could do that would accommodate or accomplish the most goals in the least amount of time? That's why I think this approach has just taken off, first in Silicon valley, and it's big on Wall Street and stuff. That's why I think you're located in a great location. You might have a line out the door from people who listen on their way into work. You're right off the freeway too. I know that neighborhood so well. It smelled stomping ground so it's cool.

Peter Wasowski: Yeah, it's amazing. Thank you for this. This is actually amazing. Many people don't realize that water is actually where your blood comes from.

Dave Asprey: What do you mean? That the plasma-

Peter Wasowski: Blood is mostly water.

Dave Asprey: That's true.

Peter Wasowski: If you have the right water and fat is what you need for your brain. This is amazing combination of the right things that you should be putting into your mouth.

Dave Asprey: There's something called exclusion zone water. We have Gerald Pollack at the Bulletproof Conference. I don't know if you saw his talk when you were there. Gerald Pollack really discovered this. It turns out when water is in a biological system, it's structured in a different way. Your mitochondria need water that is

not water that comes out of the sink. They actually have to convert it by making infrared light inside the mitochondria in order to make the water so that it's less viscous, so that it flows better.

One of the ways you can make exclusion zone water is it happens at the zone where water sticks to lipid membranes. That's where we have microdroplets of fat water in there. The idea is you're getting the actual benefits of brain octane which converts directly to ketones, zero sugar. What I think, the reason I feel it very, very strongly, I think that it's likely, there's a formation of exclusion zone water. I haven't had a chance to test that. I'm talking about ways to do it. This is very cutting edge water chemistry. We don't know, but all I know is I drink it it and I feel good, maybe more good than I would normally feel than if I just took a little bit of brain octane oil in the same amount. You take a one gram capsule in the capsules, you feel that but it's different than drinking it dispersed in water.

Who knows? I'm pleased that it works the way it does, we'll put it that way.

Peter Wasowski: It feels awesome.

Dave Asprey: Now, I'm checking the time here. It looks like we're almost up to the end of the show. Let's see how people are doing on Facebook. There's a bunch of people hanging in there. Let's see, there's a question that I'd like to ask you. This is a question that I've asked every guest on the show.

If someone came to you tomorrow, based on your entire life, not just what you're doing with Vasper, and said, "Look, I want to perform better at everything that I do", what are the three most important piece of advice you'd have for me? What would you offer them?

Peter Wasowski: The first advice is you have to move. Our bodies were designed to move. If you don't move, you don't live. Whenever I see people in those little scooters and whatever, I see somebody who is going to their grave faster. Movement is extremely important.

The second thing that is, perhaps even more important, is what does inside your mouth. The Bulletproof diet, I've been to your Bulletproof Coffee Shop, it's a completely different experience than going some place and throwing something into your stomach. You actually feel rejuvenated afterwards. We do need to get smart about what we consume because you are what you eat.

Then, the third thing would be how you think about life. There's this book, "Thought Power", actually, it's amazing because it teaches you how much change in your life and in others you can influence just by controlling your thoughts and realizing the amount of energy and power that you can change inside yourself and how you can actually influence others so all of us live in a better-connected world. All of us are connected. The idea is, I love what you do, this biohacking is a great antidote to just taking a pill and thinking that's going to

help. Very often, it may help somebody who sells the pill but not the person who consumes it.

Dave Asprey: There's a big industry of that, right?

Peter Wasowski: Right. I think we're on the same tribe as far as what we're doing and it's all about creating positive difference in the lives of others. Those three things, moving, right food, and positive thoughts. The ayurvedic medicine has a very interesting thing about food that applies to Bulletproof as well. They basically said that if the food is right, no medicine is necessary. If the food is wrong, no medicine will help. I, definitely, have always admired the work you've done, and, obviously, the results you've created for yourself and others.

Dave Asprey: I really appreciate that. I appreciate your knowledge and wisdom. One of the things that I maybe don't talk about enough on Bulletproof Radio is learning from people with a lot more experience than you. You're almost 69, I'm 44, so you've been around the block a few times more than I have. Probably made a lot more mistakes than I have yet. If I can point some of my mistakes by learning from yours or share that with a couple of hundred thousand people, maybe we'll all benefit from that. It's always fun for me to get to interview someone with a lot more experience than I have which is great.

Thanks for being on Bulletproof Radio. I really appreciate it. Where can people find out more about Vasper aside from going to your place in Mountain View? Vasper.com if I remember right?

Peter Wasowski: Yeah, vasper.com. If you go to vasper.com and you want to, if you live in, obviously, not close to Mountain View, we have some commercial facilities that gives Vasper. You can actually find out where they are. At this moment, it's the United States and Canada. Starting next week, we will have two in Europe, one in Poland, one in United Kingdom in England. Hopefully, that's going to keep on expanding. Vasper.com is the place. You can send an email to an information at vasper. If you have questions, I will be happy to respond.

Dave Asprey: I would encourage you to, if this is interesting, find a place near you, go give it a try. They usually will let you use it for an amount of money less than a massage or maybe a little bit more than a yoga class, but it's not outrageous. These are not meant to be, consumer-grade unless you're a very, very successful consumer maybe.

If it works and you'll love it, you'll soon find that you want to go to your local gym and just say, "Guys, you need to put one of these in." That's how we drive change in workout facilities. My take on this is, look, if I have an hour, I could go get on an electrical machine and just praying for an hour, prayed. But what if i did a 20-minute workout and I got way more benefits that I would have in the hour, and I freed up 40 minutes. I could take that 40 minutes so I could go play with my kids. I could write another blog post for you. I could just meditate or I

could do some neuro feedback. There's so many things you can do. The world is more abundant and more interesting and more rich now than it ever has been in all of history.

Despite all that whatever people are saying about 2016 or whatever current negative news where you're in, there is so much cool stuff. This bone in my hand has more compute power than it was on the planet when I was born. It's the coolest time ever to be alive so why would you waste it doing inefficient exercise? I don't get it. There is no merit in suffering more than it is necessary to get the results you want. You should minimize suffering. When you do that, you'll maximize what you have to get back to the rest of the world. That's why I wanted Peter on the show today.

Peter, thanks again.

Peter Wasowski: Thank you, David. Thank you.

Dave Asprey: If you like the show or you like this on Facebook, since we did a live broadcast on this one, there's a couple things that you could do. One is go to iTunes and subscribe and leave a five star review. It makes more difference than you would possibly imagine. It's just a way to thanks for this kind of interview. You can also go to the Facebook page. There's a Bulletproof page and I always put the podcast up on the day of Asprey, a public person page Facebook. If you're not following that, I'd appreciate if you went there and just click follow or like or whatever it is you click on Facebook for that, so that I can notify you about these.

All right, on that note, thanks everyone.

Peter Wasowski: You're much ... I'm learning from you just like listening to all this stuff. Thank you.

Dave Asprey: I'm fortunate to be surrounded by a lot of smart people who tell me good stuff. All right. Thank you all, have a wonderful day.