



## **Transcript – Sleep, Sex & Tech at the Bulletproof Conference - #327**



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Announcer: Bulletproof Radio. A state of high performance.

Dave: You're listening to Bulletproof Radio with Dave Asprey. Today's cool fact of the day is that most people don't know how a grenade works, and Hollywood doesn't really help. The pin on a grenade prevents the lever or spoon from flipping off, which arms the fuse on the grenade. The standard grenade, M67, can usually go about 30 or 35 meters, or just call it yards, because after all it's government, at least that's by a man, The fuse delays detonation for about 4 to 5 seconds after the spoon is released which gives the grenade time to travel that far. It's a lot less dramatic than they make it in Hollywood.

You might ask why the heck is Dave talking about grenades today? It's because the Bulletproof Conference in September is going to totally blow up, and I'm a huge fan of really, really bad puns, and that was one for sure. You can actually thank my buddy Brock here, who helped me come up with that, or I should say, maybe forced me to come up with it.

Before we get going on today's episode, there's something else way more interesting than grenades, although actually blowing stuff up is kind of fun. If you haven't heard about FreshBooks yet, listen up. These folks are on a serious mission to help small business owners save time, and avoid a lot of the stress that comes with running a business. As a business owner, it's really important to be able to see everything. Which clients that owe you, which invoices that have been paid, and how your business is doing right now on the dashboard. You get that from FreshBooks.

Using FreshBooks, you can take about 30 seconds to create and send an invoice, and you get paid online because FreshBooks gives your clients tons of ways they can just pay you, with credit cards, or other ways, which can seriously improve how quickly you get paid. In fact, customers get paid 5 days faster on average. FreshBooks is offering 30 days of unrestricted use to all Bulletproof listeners, totally free right now, and you don't need a credit card to sign up. To claim your 30 day free trial go to [freshbooks.com/Bulletproof](https://freshbooks.com/Bulletproof), and enter Bulletproof Radio in the how you heard about us section.

I am so pleased to announce 2 new roasts of Bulletproof processed coffee beans. These are mold free, independently lab tested coffees, and they're made at our Bulletproof plantations. We just changed how we roast them. The first new roast is called the Mentalist. It's available in whole bean and ground, it's a medium to dark roast, right in the middle there. It's got dark cocoa and vanilla aromatics that open up to a rich full bodied coffee with some cherry sweetness, and notes of almond and caramel in there as well. It's profoundly good. I've been putting it in my espresso machine, and man, it's crazy. You take it, and it's engineered to taste amazing with butter and brain octane oil. A lot of coffee tastes bitter and weird when you put butter in it. Not this stuff because, well, we built it that way.

The next one is for you if you really like your dark flavored, dark roast coffee. It's called French Kick. It's a dark roast, but it's not charcoal. It's smooth and sweet, it's pleasantly, almost a little



bit smokey. It's got baking chocolate notes, but it finishes really clean, and has a medium body. This is one of the few dark roast coffees I like. I'm not a fan of those burned things that you might find at the corner coffee shop. This isn't one of those, but we pushed it as close to dark as we could get, and still maintain that flavor for you. You will be amazed at how you feel when you have this coffee, just like you are with our existing coffee. Now you've got a whole palate of coffees you can play with, depending if you like espresso, French press, immersion, or just drip brewing. However you like your coffee, you can do it, and you're going to just be amazed at the flavors. I'm excited to share these with you.

Today's podcast is a special edition of Bulletproof Radio, and it was recorded at the Bulletproof conference last year. It's with Eli Block from One Taste. One Taste is a group of people looking at the effects of orgasm on human consciousness and human performance. In case you're wondering, the content here is, shall we say, anti climactic in that it's not inappropriate in any way shape, or form. We're talking about science, and we're talking about emotions, but we're not talking about getting down, if you know what I'm saying. To encourage you to check this out, head on over to the video page and I'll give you the URL in a second, and at the end of the video there's a substantial special discount on the Bulletproof Conference. If you're thinking about attending the Bulletproof Conference, you want to see what it's like, this is a good video for you to see, and if you watch it, and learn, and hear the same things you're going to hear if you're just listening to the iTunes version, we'll give you a pretty substantial discount there.

So head on over to [Bulletproofexec.com/orgasmvideo](http://Bulletproofexec.com/orgasmvideo). Yes, [Bulletproofexec.com/orgasmvideo](http://Bulletproofexec.com/orgasmvideo).

Eli:

Hi Bulletproof audience, this is Eli Block from OneTaste. [www.onetaste.us](http://www.onetaste.us). I have some follow up questions from the podcast I did with Dave the other day that I'd love to answer. Here we go. Number one. Calilove on twitter wants to know, you mentioned it briefly in your talk with Dave, but I wonder what you're in depth thought of the new female Viagra, or Flibasaren, and how it will effect women's sexual experiences, and for that matter, their orgasms. Well Kayla, that is a great question.

I spoke to orgasmic medicine specialist, Theresa Diaz, MD, about her take on the new female viagra, and here's what she had to say. She said that it must be taken for more than a month in continuously. It's effectiveness rate is between 8 and 13% which is actually quite low. The improvement in pleasurable sex was from 2.8 events per month to 4.5 events per month. There are side effects such as fainting, dizziness, and low blood pressure, many of which were found to be exacerbated by alcohol and hormonal contraceptions, so forget your birth control. Not yet on the market, and it's only prescribable by a doctor who's taken a certification class.

So, on the one hand it sounds like a really good idea that for some people who want to pop a pill, this could actually lead to some more enjoyment. Now, there's a whole barrel of monkeys involved in actually getting one of these pills, and seeing eventually down the line, after taking it for a month and possibly fainting, and all those things, that it's actually going to work for you. My perspective is, why don't you try something which actually gets you closer to your partner, which builds both of your intimacy and connection, and is a natural alternative to a pharmaceutical hack which is actually relatively unproven at this point? Thanks for your question.

Number two: Sojim from the forum writes, Taoism lays its spiritual belief on a mysterious force or chi that is supposed to inhabit matter in any form, living or non living. According to the Taoists, chi or semen was responsible for sound, body and mind. Practitioners of this conviction avoid ejaculating too much of their semen during sex. Well, Sojim, to us, orgasm is also chi, not just what a man would ejaculate. There's actually a few different questions rolled into this one which I'll address. One of them is that I think too much, and your question was, avoid ejaculating too much. I agree with you, I think too much is definitely something that each person has to assess for themselves. I love Dave's take on this. I love the experiment that he did around ejaculation. I think that is brilliant, and I learned something myself from that experiment.

What I will say, I've got two other things for you. One is that I've heard the viewpoint that you should basically save all of your semen, and save it, and save it, and save it, and save it, and potentially die with all of it. It makes me think of this guy I knew when I was a little kid. He was rich. This guy had so much money, he didn't know what to do with it. He wouldn't spend any on himself. He had these ratty old jeans, and beat up pair of tennis shoes, and kind of the same outfit every day, drove an old beat up car, and lived in a crappy house, and his whole life was just devoted to the acquisition of wealth. He never really got to enjoy any of it. My take on climax is, I think it's actually there to be enjoyed. I think there's something really awesome about enjoying all of the riches that you build up. That's the first thing.

The second thing is, I'll give you my own personal viewpoint. I'm married, and I think that, well, I'm the kind of guy who honestly has a hard time going out of control. One of the things that I find women find really frustrating in sex, in my experience, my wife included, is when I'm in too much control. I think the whole point of connection is to take us out of control. If we're concentrated on controlling this experience, and controlling this experience, and controlling this experience, and making sure this thing was going to happen, whoops we climax every now and then, that's not very much fun to someone who's actually interested in taking you out of control. If you've ever noticed, women have a really fine knack for doing that. That's my viewpoint, you read it out however you want to.

Okay, OGMAn has a great question from online. He asks, can psychedelics help a person's oming person, what about sex and pot? Well, OGMAn, here's what I think. Oming is actually a consciousness practice. It's a meditative practice where you're doing your best to be as present as possible without adding anything extra. To that point, Om is a nothing extra practice, so we don't play music during Om, we don't add really intense spiritual overlay to the practice so that you have to learn some other God and Goddess forms thing just to have a connect experience with your partner. We don't Om in exotic locations, attempting to affect our experience.

We do everything we can to control the conditions that the practice takes place because here's what we've found. Changing the conditions outside of yourself doesn't really help you get free. There's no freedom in hoping that that person, or that person, does something different so that you can have a more peaceful, more amazing life. Change actually happens from within. That's why we don't augment our Om practice with drugs, or again music, or any of the other things like candles, or any of the other things that we would do to try to create conditions that would give us a more intense, or more meaningful, or more psychedelic experience. Om is a practice of

you learning to use your attention, and grow your consciousness to experience more and more and more of your partner. I would have to have it be that you've got an Om practice dependent, that your awareness in this world is dependent on your psychedelics.

You get in the next great fight with your partner, and you both have to do acid in order to actually get to the important part of the argument where you guys kiss and make up, come on, does anybody really want that? Oming is a practice where you can actually go into these expanded states, and go into these intense experiences, and actually use the same muscles in the rest of your life, whether it be in your sex life, or your business life, or anywhere else you can use it. We say always do 15 minutes, always do it the exact same way so that you're not changing the conditions to get more freedom.

Trish, Trish from California writes, do sex toys benefit or deter from an Oming practice? It's a great question Trish. I think that I talk about this a little bit in the Bulletproof podcast with Dave, but the thing about vibrators is that they vibrate. You've got a set of very delicate nerve endings on the clitoris, between 8 and 80,000 nerve endings depending on who you talk to in the medical profession, they'll say between 8 and 80,000, okay. At the surface of the skin they get very tendril like and very very fine. What ends up happening with vibrator use is that you have to get bigger, and bigger ones.

I remember I had a girlfriend once, who showed me the evolution of her vibrators. It was like, oh, I started with the cute little rabbit one, and then going faster and harder with that, she lost some sensitivity so she had to get the other one with the slightly bigger, 100 more horsepower version, right? Then after that, had to get the Mitsubishi, like plugs into the wall. The thing about using vibrators that you've got to go harder, and you've got to go faster for the most part. You've gotta increase pressure, and in order to get the same results you were once getting.

What you're doing is you're going into those nerves as opposed to drawing the nerves out to full extension and increasing your sensitivity. That's the benefit of actually having a practice which increases your sensitivity. A lot of women don't realize why they feel like they don't have the orgasm they want, they don't have the power in their sex that they want, in a lot of cases of using vibrators it's because over time they've actually deadened their response trying to get more and more out of it. For that reason, Om tends to be a rehabilitative process for a woman's nerve endings, and for her sensitivity in her genitals.

Thomas from Facebook writes, you discuss Oming as helping people with intimacy, not desire. Couldn't sexual desire be considered intimate if shared between 2 people? The short answer is, yes. I'm sorry that it didn't come across all the way in the video and the podcast, but I think what I was probably getting at, and this maybe answers your question, is that sexual activity, desire, all of it, it can either be connected, or disconnected. I think all of us have an experience of having someone approach us with the desire that doesn't really feel connected.

Maybe we've had sex, or a make out, or something which hasn't really felt that connected to us. Om helps people connect. It's really that simple. That connection can be in the sexual realm of course, it can be in the desire realm of course. I put all those things, and intimacy, I put all those things in the same box. Does Om help with connection, and having the connected versions of all

of those things? Absolutely. Are there artificial versions of all those things? Absolutely. That's what I was talking about with Dave on the podcast when I mentioned there's so many alternatives to having an actual life human being, like vibrators, like porn, which we can consume and consume and consume, and never actually fill us up, or never actually satiate our appetites. It's beginning to shift from a disconnected modality of all of those things, everything under that category, to a more connected reality, first bringing an actual human being into the picture, and second, learning how to actually connect. Learning how the physics of connection actually work between people.

Jdog on Facebook writes, you and Dave talk about Oming when single, and Dave even said, "sex starts when 2 people are in the room." But what if you don't want a partner? How can you use Oming to get closer to yourself by choice? Well, Jdog, here's the rub about Oming. Om is a partnered practice because you cannot take yourself out of control. You cannot take yourself anywhere new that you have not been before. You can't tickle yourself, you can't spontaneously high five yourself, there's all of these things that connection as a biological imperative is going to demand that you do, or else we would all just stay at home, isolated watching reruns of whatever your favorite TV show is, Scrubs, and so Om is a practice which gives you a biological imperative to connect, and grows you as a human being in the process.

Thanks for your questions, and thanks for having me. If you're interested in knowing more about orgasm, orgasmic meditation, or myself, you can find us online at [www.OneTaste.us](http://www.OneTaste.us). My twitter handle is @elicanplay. @elicanplay. I'm also on Facebook, and you can find me at [EliBlock.com](http://EliBlock.com).

Announcer: Please welcome to the stage Mr. Dave Asprey.

Dave: I've been tracking my sleep for a long time, including, actually it's been a little more than 900 nights of sleep data. That's just using an iPhone app. I used to use the Zeo, and a few other things. I had a bedit sensor which I really liked until it quit working because they changed their software back end, and I guess you have to have the Bluetooth version, but I had the professional version, so I wish I still had a working Bedit, but all of that time I also used my iPhone because it's the simplest monitor, and I would encourage all of you when you're looking at tracking data, the easier it is, or even if it's completely invisible to gather data, then you've got something really interesting. But if you have to apply a lot of effort to get your data, you probably are going to quit doing it, because applying effort requires willpower, and honestly, you could use willpower to track something, or to change something big, use the willpower for the big stuff, and don't waste it on tracking data unless it's in the service of something you're specifically hacking that's going to be big.

I'm going to share with you some things that happened at Bulletproof Labs, the location up on Vancouver Island where I do all sorts of crazy stuff, and address some of your top questions, so we get some answers for you guys.

What happens when you take Gaba? If you look at this slide, zero percent is, well, it's zero percent, it means nothing happened. If the bar's green, it means there was a slight improvement, and if the bar is red it means you didn't get a slight improvement. Every night when I go to bed, I pull out my phone, which has a zentech screen protector on it, which means

I'm not killing my melatonin for 4 hours, and it's also dimmed all the way, so I don't mind doing this, and the app that I'm running actually has a black background because it's well designed. I've filled out about 30 or so variables that I track. If I did it that day, I tick a box.

That way over time, I can get a picture that says, all right, did I do this, did it make a difference. I take a little bit of Gaba before I go to sleep most nights. Probably enough nights that I've lost the signal from it, because I take it most nights. I don't track that I take 500mg, or 2 and a half grams. There are studies of growth hormone that say you should take 2 and a half grams of Gaba, but if you take too much Gaba it makes you pant, so maybe you don't want to take too much Gaba. Some amount of Gaba might be helpful. Gaba's an amino acid that enhances calmness. It's also a neurotransmitter. It's an inhibitory, or calming neurotransmitter.

What I found is that I don't get that big of a difference in my sleep quality. It could be in the data, it could be not much else, but I do feel like it's worth taking some Gaba because there's lots of science around that. Gaba wave, which we just had this top manufacturing, was noticeably more effective, and I'm sorry about that, not my decision. But when you can't get the good stuff, you don't make it anymore.

With Gaba Wave I am working, though, on a replacement that I can get on a regular basis that I think is going to have a very similar effect, we'll tell you after I'm done testing it. It's interesting, though, that the difference between adding a phenal ring to something makes a noticeable change to sleep quality. But it's still just a little bit of a change. That said, when you're dealing with looking at data that you're tracking, the quality of the data is important as well, and the metric for sleep quality includes length of sleep. Does this data say that I just slept more, or that I slept better? The problem with every sleep tracking system out there is that it includes length of time as a substantial variable which maybe it shouldn't, unless you get to pick the amount of time.

If 6 hours is your target goal, and you slept 6 hours, and you got a lot of really good quality sleep in there, that's different than if your goal is 8 hours and you got a lot of low quality sleep in there. This idea of sleep quality versus sleep quantity is not well represented yet in our sleep tracking software. But in the meantime, this is a combination of number of times you've been in a cycle, as well as length. Maybe I sleep a little bit more on Gaba Wave.

If I do hyperbaric oxygen, that's getting to be a substantial difference. On the days where I do hyperbaric, I sleep better. That's kind of cool. It helps to have hyperbaric in Bulletproof Labs versus having to go out somewhere and give it a shot. If you go out somewhere and do email, or watch Netflix for an hour inside a hyperbaric chamber, it wasn't too expensive, you'd probably do it sometimes, especially after a long flight if it made you sleep better.

What about doing that thing I've been recommending ever since I started writing Bulletproof, which is heart rate variability training. If I do heart rate variability training, there's a substantial improvement in my sleep quality. I can do that in one of two ways. I can do it with a sensor, or I can close my eyes and do it without the sensor, and I have about the same effect. In this case, I track it on the days when I actually do heart rate variability, which, by the way, isn't every day. Honestly, my sympathetic nerve system is generally in reasonable shape.

What about when I stick a laser on my head? You guys don't do that? There are medical lasers that increase mitochondrial function, cause you to grow new mitochondria, increase nitric oxide, and increase blood flow in the brain. They can have a pretty profound effect, actually, but not, it turns out, on sleep very much. I usually do my laser inside hyperbaric oxygen because what the heck, you've got more oxygen, might as well use it.

Do carbs at night really make a difference? For some people they really do, but not that much for me. It also depends on the type of carbs.

Hmm. Turns out that orgasms do not improve sleep quality even if they knock you out, at least for guys. No, I'm not talking about frequency, that was a talk I gave at Quantified Self in 2012, I think.

Pulse electromagnetic frequency devices. I have a variety of them that I use, and when I use one of those, it does improve sleep quality, which is kind of interesting, right? This is almost 3 years worth of testing this stuff on whatever I felt like doing that day.

If I try resistant starch it works better than just random carbs at night, however I don't really find that it makes that big of a difference. I don't use resistant starch right now. I think there's been a really big war online about resistant starch. It's the coming of the Lord. There's probably some useful for certain kinds of structured starch, but just generally saying more resistant starch is better, I'm going to eat a bag of green banana flour because then I'll have more gut bacteria, I think you might be missing a few things in that overall equation, however having the right kinds of stuff growing in your gut, at even the right times, there's good benefit for that. Intelligent use of prebiotics is a good idea, but there was a change in sleep when I did some resistant starch at night. I only did that for about 3 or 4 months because it just wasn't worth the trouble, and I didn't see any other of the amazing benefit changes that you're supposed to see from it.

Hmmm. Sex and orgasm, why would this be different? Because you can have sex without having an orgasm, but it turns out that it's almost exactly the same here. I was sort of thinking that when I looked at the data before that orgasm made me sleep a little bit less better than just plain sex, but it turns out that's not exactly the case, they look almost identical. I'd have to look at the percentage difference for you guys to tell you if there was one. I'm pretty intrigued at the idea that if you have lots and lots of orgasms, as a man, it definitely lowers your energy. What it does to your sleep, I'm not quite sure. I can tell you when it does happen, it doesn't seem to help.

What about just having a stressful day. Like all right, did I feel like it was a stressful day? Actually it seems like you sleep better to recover from stress. Isn't that a good thing? It could also be that you sleep worse. It's a question of how good you are at managing stress. Acknowledging that there was stress and recovering from it is a skill versus, I was stressed therefore I didn't sleep.

How many people here have a hard time getting to sleep on a stressful day? Only 4 of you? It's roughly, it looks like maybe a third to a half. That's not uncommon. A lot of times it's that racing mind. Breathing exercises can make a huge difference. Heart rate variability techniques can

make a big difference. I have not had a night where I've had thoughts keep me asleep, in at least 7 or 8 years. It doesn't happen anymore. It used to happen all the time. Just can't get to sleep. But when you train your brain, and when you basically go in and re-pattern the parts of your brain that are seeing something out there as an existential threat that's actually not a threat, when you get that done, you really can go to sleep when you need to go to sleep, and then you have this effect, stressful day, better sleep.

Theanine is a calming amino acid found in green tea. It's great for relaxation, and just a moderate improvement in sleep. It's possible, I take Theanine in the morning and at night, particularly because Theanine raises alpha in the brain. It's a very common supplement out there. Because it raises alpha waves by up to 20% depending on dose, and depending on your brain, I think it's generally a good idea to have it. It could be just because I take it almost all the time that it goes down just average. I suppose I should quit taking it for a couple months and quit the data, but I kind of like the way I feel on it, so I'm not going to do that. I am lazy.

Remember when I say don't drink coffee after 2? Wait, doesn't it say coffee after 4? Sometimes I have coffee at 2:30 if I'm recording an extra episode of Bulletproof Radio, and I pay the price just like I said I would. Right? So really, I had coffee right before this, ugh, crap, I did it again.

What about cryotherapy? When I, instead of spending an hour in cold the way Wim would, I violate the laws of nature and get way colder than mother nature would let me do it for 3 minutes because I'm lazy, just kidding. I think one's idea of being in cold ocean water is a good one, too. They activate different cold receptors as well. Cryotherapy does improve sleep quality, and whenever I'm home I do cryotherapy at least once a day, and sometimes twice a day. Unless I run out of liquid nitrogen which is a problem that we all face.

I also have a custom made software that allows me to move my brain into a delta state using sounds. This shows that it decreases sleep quality, but what actually happens, I only run that on nights when I'm really not going to get enough sleep. I'm forcing myself to go more into a delta state rather than into a REM state. I believe what's going on here is that when I use that stuff, that does make me feel more refreshed when I wake, I'm probably doing it on nights when I only got 3 or 4 hours of sleep.

If I drink coffee at all during the day, which is most days, there's a very tiny improvement in sleep, but it's probably not statistically significant. Does coffee make you not sleep at night? Not for me. But for you, it's entirely possible if you have a problem metabolism caffeine, it does, in which case there's something called decaf. For the most part, a cup of coffee in the morning, or maybe one in the morning and one at lunch, which is the most I ever really have, you are not going to have a hard time with sleep. Doing it after 2? Not so good. At least these numbers are pretty useful.

Electrical stimulation. I sleep not as well when I do electrical stimulation, but it is an incredible burden the way I do it. I really work myself out beyond what I could really do without electrical stimulation, so that could be an exhaustion effect.

Flotation tank? Which is a really interesting technology. Float tanks allow you to turn off a lot of

the stuff in the environment around you. I'll show you what mine looks like in a little bit. The flotation tank also allows you to reset your amygdala, these really core flight or fight fear parts of the brain. If I lay there for an hour in a magnesium solution, I'm getting magnesium which improves sleep quality, through my skin, and I'm also getting this deep calming of the brain which has a small effect on improving sleep quality.

Taking 5HTP, small improvement in sleep quality, which is a common sleep thing.

Now, hypoxia. Intermittent hypoxia. If you were to breathe really heavy to get way too much oxygen to the body, to get hyperoxic and then say hold your breath and do push ups until you had none left and you dumped all that oxygen out of your body. I didn't do it that way, I actually used an oxygen scrubber that I was breathing through to achieve hypoxia, but on the days I did that, I did sleep better, which is probably because I was recovering more aggressively.

If you eat a late dinner, for me it doesn't make a big difference, and I noticed that there's lots of myths about, oh, if you eat at night you'll get fat, or it'll ruin your sleep. It's true if you have a lot of protein, especially the protein that raises your insulin levels at night, it can change the level of a substance in the brain called Orexin which is stimulating, and you don't sleep as well. Guess what drug affects orexin levels? Modafinil. One of my favorites. Eating a steak at night, turns out there's a reason I recommend collagen if you're going to have protein before bed, because it's not one of those proteins like whey protein, which I also make. Do that one in the morning, just do it once a day, do it in the afternoon, but not right before bed. I don't think whey's great for most people. There are few people that benefit from whey, but I recommend taking them separately.

Cerebral electrical stimulation. The Russian sleep machine designed to give you more sleep in less time. Wait, less time. That damn data comes up again. When am I going to be running my Russian sleep machine running electric current between my ears? I'm going to be doing it on the nights when I'm only getting 3 hours of sleep, so the data is not going to be good here. I can tell you flat out, if you want to sleep almost nothing and wake up feeling human, the reason the Russians invented the cerebral electrical stimulation was this really cool thought. It's Russian engineering at its finest, by the way, Russian engineers kick ass.

What they thought was, it's expensive to send astronauts to space. Let's make them not sleep, and we can send 1/3 less. It's brilliant. They applied, instead of all these dollars to buying rocket propellant and building bigger rocket ships, they applied it to research on sleep. They made a little device that runs a current across your brain, and lets you feel refreshed after less sleep. Is it as good as a full night's sleep, probably not. If you're on a spaceship is your circadian rhythm kind of jacked anyway? I would think so, but I never really tried living on a space ship so I wouldn't really know for sure.

What if you have carbs really late at night? Just the midnight snack? Well, it turns out slight decrease in sleep quality, but it's not the end of the world.

What if you refrigerate your mattress? Okay. Run some ice water through your mattress. You guys don't do this? I had a device that did that. Unfortunately it kept leaking water on the floor,

which was a problem given that whole mold thing, so I decided that I was going to stop that, but I really liked having a cold mattress when I had it. Plus it kept beeping and waking me up, which I didn't like. Other than that, a cold mattress is really cool. It's just hard to pull off in real life.

Why do I have theta on here two times? Interesting. Delta, thank you. Delta and theta. Delta is the very, very deep, almost dreamless sleep where you're getting growth hormone release, and theta is the dreaming state, so if you want to increase dreaming, you can do this. I typically don't do this very often. I used to do it quite a bit. I've tried commercial theta software, I've written my own tones, this shows a slight decrease in sleep quality, and I don't exactly know why, but I would imagine it's probably because instead of doing the cycles that my brain would have done, that I'm [inaudible 00:33:39] more dreams, more dreams, more dreams, so it's not going through the alpha cycles. It's interesting that you can manipulate this at all.

What's the effect of travel on sleep? I use my monitor when I travel all the time, and I tick that box that says traveling. Traveling screws up your sleep. You'd expect it to, right? Time zones, airplanes, hotels, horrible lighting in hotel rooms, you can't close the windows all the way, you have to tape over them with aluminum foil, and then the staff gets all mad at you. This happens to you guys, right? I don't really bring foil, but I will offer an amazing travel tip. You look in the closet, and they have those hangers with little hangers to hold your pants. Do you really need clippies to hold your pants? Probably not, but those clippies will hold the curtains together really, really well. That's what I use them for.

On the days when I do the Bulletproof Vibe which increases lymphatic circulation I do sleep better. My theory for the reason behind this, that is entirely not born out by a study, is that one of the functions of sleep is to pump out toxic proteins that build up in the brain, so you have your glymphatic system that pumps cerebral spinal fluid into the brain, washes it, and pumps it back out again. If you've already done some oxygenation, and you've done some lymphatic drainage, I think that your detoxing systems that work at night probably have an easier time of it, so you may get better quality sleep. It could also be a neurological effect, I don't really know, but I do like how I feel. I've done the Bulletproof Vibe today. When I was doing one of the interviews that wasn't on video, just a little while ago, I stood on the Bulletproof Vibe. The reporter thought I was weird.

Does a workout make you sleep better? In my case marginally better because you want to recover better from a workout.

That was 900 days of sleep data and what I learned straight from the horse's mouth. How can you apply that? Actually the things that were bigger on there, maybe you can try those things ahead, but the more interesting thing is, how much time did it take me to get this data? Here's what I do.

You guys set your alarm to know what time you're going to wake up the next day unless you're one of those amazing people that doesn't have kids and doesn't have to get them at school at a certain time, or doesn't have a job where you have to get there on time, so assuming you set an alarm, by the way, how many of you wake up without an alarm every morning? Holy crap, you guys are weird. Just kidding. Roughly 20, 25%.

The rest of you who set alarms, or at least the few who have backup alarms, what I do is I fire up the alarm app, Sleep Cycle, it's a free or \$2 inexpensive app. I just go in and I say, here's all the things I'm interested, the things I think might matter, or things I just want a record of did I do that. I check check check, it literally takes me 10 seconds. Then I pick what time I want to wake up. My alarm also, I give it a 20 minute window. If I want to wake up at 7am it will wake me up between 6:40 and 7am when I'm already at the top of a sleep cycle, which means I have never been jolted awake unless it's by a child screaming and running at me or something, and that will violate the alarm.

The really cool thing there is that I'm getting a better alarm than I would have had from any other kind of alarm system, and I got all this data, and it took me almost no time more than just setting the alarm in order to have almost 3 years of sleep data that's there. And it's not just sleep data. It's behavior data. Do I really care how many times I orgasm in the last 3 years. If I'm ever in a debate with Lana about that subject, I don't know how valuable that data is to be honest, but it's one of those things where it was almost free to get it, that data may be useful, may be interesting.

I would encourage you though, in your self tracking, do not over obsess on data that you're not going to use for anything. For me, I just want to know what makes me sleep better. This has been kind of enlightening. The things you think would help, if you read, is supposed to be the coming of Jesus, at least it wasn't for my sleep. It was a rounding error just about.

Let's switch gears, and let's talk about what's actually in Bulletproof labs. I'm working to make these technologies not like, look at weird people do, but more like why are these not in high school gyms, why are these not widely accessible because these are ways that everyone can get more out of the amount of time and the amount of effort they put into what they do.

Here's one of the things you'd see there. You'd see cryotherapy. That would be me at 256 below zero. I'd beat doctor Lana by 3 degrees and I look more happy than she does, it's pretty clear. This seems, how many of you have tried liquid nitrogen based cryo? Only maybe 10% of you. Here's the deal. Cold showers, good. Sitting in an ice bath will get your peripheral, your skin receptors, and your core cold receptors and that is uncomfortable. This only gets the peripheral cold receptors. It's kind of like you're in a sweaty hot place, and you walk outside and there's a blizzard, and you're wearing shorts, but you're only walking to your car that's already warmed up. No big deal. You just walk through cold air. How can you do that? Because if a swimming pool was that cold you'd be frozen solid? Because air isn't a good conductor.

What you're doing is your telling about the outer few millimeters of your skin, oh my god, it's an ice age, you're going to die. The rest of your body is like ha ha. That part of your nervous system is like, okay, get ready. Activate brown fat, grow more brown fat, burn white fat burn hundreds more calories, turn off inflammation, sleep better. Heal faster. All of those things happen in we're talking up to 3 minutes of time. Plus another maybe 1 minute to take your clothes off except your underwear, and if you have lots of piercings you have to take those out too. If there's any metal on your body below your neck, the metal will absorb cold much more quickly than your skin, and then the metal will become so cold that it will actually brand you, so that's a

bit of a problem.

You basically go in there wearing underwear, socks, and gloves, and you just chill. Then you're done. In terms of benefit, per minute spent, it is such an amazing technology, I've never found anything else like it for changing your inflammation levels, and for burning fat. It's pretty interesting. The other thing that this kind of cold does is, it triggers collagen synthesis, so if you're eating collagen, say I've created collagen in your coffee, and you're telling your skin make new collagen really quickly, you can see some pretty fast changes in it which is a remarkable thing. I'm very fortunate to have one of these at Bulletproof labs, it's part of the research that I do. As you guys know, I work to make all of the unusual technologies that I'm working on much, much more accessible.

On one of the days here we had cryo available. I couldn't get the trailer that did it for all the days. My goal is to get everyone here to give it a try. Maybe next year we can do that. Make this something where you're like, "why am I going out to places that are supposed to be helping me, like my doctor's office, why is there not a cryotherapy in the front where they make me wait for a half hour, I could have totally taken my clothes off, frozen my ass off, put them back on, and then I wouldn't have had to see the doctor?"

But these are questions we should be asking ourselves, and questions that our healthcare providers should be asking ourselves. Things like our schools, yes, Alan and Ana do cryotherapy. They're 5 and 6 years old, and they know it makes them ripped.

I also, thanks Jackee for being our model, Jackee's our podcast producer for Bulletproof Radio. See those wires coming off of her, and see that look of glee as I'm making her scream? What we do here is electrical stimulation. What I did is I basically was like, this is what it feels like when you turn on which is why you get that look, and then I helped her do squats. Here. What's going on is we're causing her quads and her glutes to contract, in this case about 250 times a second while she does a motion. You can not do this motion 250 times a second, even if you're like a real stud. How do you get such rapid progress, and what happens? What happens is you get neurological development as well as muscle development and oxygenation. I believe if you're going to do a movement, and you do that movement with the right electrical current over it, you'll always get more results from doing it with the electrical current.

Whether you're training speed, or training strength you can do that. There's some things that you want to do without electricity like ARX or some of the other technologies that are out there. Let's talk about ARX, the next one.

In fact, here's Andy Hnilo from Alitura, Andy's out here, and I've helped Andy start his company, he's the guy who has the incredible hulk face mask. Alitura mask. I use that stuff. It basically pulls a lot of toxins out of your face. You can see it change when you use it even one time, and I just come out with some other really cool stuff.

He came up to Bulletproof labs. He's also a cover model for Oakley, which is why he looks like that. I just want to say, I am 10 years older than Andy, but on the ARX machine here, on a quantitative basis, I did bench press more than him.

Truth be told before that I ran electoral current over him and had him do push ups on the Bulletproof Vibe, so I cheated, but still, it was funny. Andy's a total stud.

What this machine does, and there are 2 ARX machines out here that you should try in the tech hall, it's basically the idea that if you're going to pick up heavy stuff, the way we've always done it, the way our cave men ancestors, the ones that we are making extinct, the way they would do it is pick up heavy, nothing wrong with doing that. But when you pick up something heavy, like, okay, at this point, how much can you lift. At this point how much can you lift, and at this point how much can you lift? They're different numbers.

The first company to try and solve this problem was actually Nautilus. If you're as old as I am, you remember. They used to have these machines with round gears on them. Then nautilus had an elliptical gear so you'd have more weight on the muscle at the parts where you were stronger. The problem is that if you're doing a bench press and you're all the way back here, and you have almost no strength, how do you make maximum contractions here, and also maximum contractions here?

Well, it's really, really difficult to solve that problem. What you do there is, you use a computer so you're looking at how much pressure you're putting using your brain to do that, but you're also using a wench to move the force so there is no gravity involved in the system, your body feels there's no gravity. There's no risk of letting go of something and hurting yourself or causing damage. The proprioceptors in your arms, and all of your joints don't fire to defend you the same way.

What you end up doing is this incredibly hard thing, and I'm serious, everyone should try this, and when you do this, you're like, oh my God, how did this happen. But what you did was, you had a hundred percent effort throughout the entire power curve which you could never do before this, and that causes rapid muscle adaptation, like much faster than you would get from doing heavy weights.

Did I just say more benefit in less time? Yes. Are there places on earth where gravity doesn't really play a role in the way things work normally? No. If you're picking up logs in the forest, yes, you can get strong that way but what we're doing is we're intentionally using technology to take gravity out of the equation so the force you're fighting against is not gravity and it's linear and it's always maximum.

When you do that, your body gets a signal that's stronger than Mother Nature can provide. The same way that cryo provides a cold stronger than mother nature can provide. It's that ability to manipulate your environment that allows us to get more changes in less time.

I don't have a slide for it, but I have also a bio density machine which you can see at the front of the exhibit hall. Bio density also uses a computer to show you your force, but your pushing at something that doesn't move. What you're doing with bio density is you're creating bone flexion. You're actually bending your bones, and you can see it happen, and it's kind of creepy because you feel like your bones shouldn't bend.

Why would you ever train your bones? Well, bone density is kind of important for all sorts of things, but the way we normally train our bones is, we jump, we move, we have impact. Impact is good. But impact is fleeting. You have lots of impact, your knees probably aren't going to like that, like long distance runners. That's a bit of a conundrum. It turns out by flexing the bone you're causing a piezo electric effect in the bone. Piezo electricity basically means that when you move something it generates electricity, and your bones generate a micro current.

This has all been proven, I think Robert Back wrote about that a long time ago, in the 80's or 90's. If you're pushing really hard on something, enough to bend the bone at the right angle, the bone will actually get stronger. The reason that I became interested in the bio density is that if you're looking to make stronger bones, if you do normal exercise, 1% improvement in HBA1C, this is your blood marker for how well you process blood sugar. They measure it in diabetics, and in non diabetics to see how well we process carbs.

If you take metformin, the most common diabetes drug, you get another 1% improvement in this marker. Or 10 minutes once a week you flex your bones a bit on the bio density, and you get an 8.2% improvement. 10 minutes once a week, no drugs required, all you need is access to one of these machines. Should this be at your doctor's office? Yeah, it should be at your doctor's office. Or at your gym. Or somewhere where you can do this. So why do I talk about this stuff with all of you? You should know that you can beat drugs and exercise together by 4 times in 10 minutes once a week. The fact that everyone doesn't know this kind of pisses me off.

That's another picture of the air, I actually have an old ghetto looking prototype, the last one that they made. The ones here look like space age aliens or something. I also have a hyperbaric oxygen chamber, and we've talked about hyperbaric oxygen already, about some of the benefits, so I'm not going to dwell on that as much. I do that especially after I fly, or when I'm doing really intense brain training, I spend extra time doing that because you can do more, you can recover faster, you can grow your brain more.

Having the ability to also do something you're unlikely to find in nature really unstable surface to train yourself to have a better vestibular function than you're likely to have from even playing in the forest the way my friends at Move Net world recommend, and the way I also recommend. To be able to stand on a slack line, and find your sense of balance to make your eyes and your brain work really hard, and to be able to even do something like juggle, which I haven't learned how to do yet, I can juggle a little bit, but on this thing I just fall off. Still working on that one.

Infrared sauna, you saw what it did for my sleep. I have a sunlight and infrared sauna which is a really amazing thing to do for detox. People who have had toxic mold, or Lyme, or if you're tired after a long flight, something's wrong, you sit in there. It has a built in little screen, you can watch Netflix while you're in the sauna, you can do email, your laptop won't overheat in 45 minutes, most likely. It gets a little hot. It's probably not good for it, but your phone will definitely work. The point is, you're not losing this time. You can also, this is big enough for 5 people, but Lana and I can go in the sauna together, and if we were going to sit on the couch and talk, we can sit in the sauna and talk. You're not losing anything by doing something that also increases the calories you burn, makes you sweat, makes you detox. You can see a

difference in your abs the next day.

There's also the human cloning tank. This is actually a flotation tank. This is a sensory deprivation tank, and I had to put some stickers on there, and these are the ones that came to mind. My neighbors really think I'm weird. The other thing that makes them think I'm weird is that outside all of the lighting is red at night because I live in a forest, the only lights that I can see that are man made from my house are 3 red lights on a radio tower, even though I'm a half hour from the airport. I have owls, 2 different species, tons of night life, and lots and lots of bugs I can't even identify. I didn't see the need to mess with their circadian biology, so I have red lights that let me see just fine outside, but it looks like Count Dracula's castle.

When they come in, they see that, they're like, oh my God, he's going to eat me. But the effects of doing this, this type of flotation are pretty profound, especially people with a lot of trauma. If you do this on a regular basis for every night for a month, you really feel like a nervous system reset that happens. A reset in the amygdala. Even your sensitivity to the world around you becomes smaller. It's expensive to run one of these at home, it's annoying to have to maintain it just like a hot tub, so I'm not sure that this is the thing that you really want to have at home. It's the sort of thing that you want to go use somewhere. When I'm experimenting with this, plus I live on Vancouver Island, so it's not like there's one of these next door. There are some about 45 minutes, Float Labs, in Victoria, actually, help me set this up. It's really neat to be able to put the kids in there, and play with it.

Alan, my son, when he was 5 had his first float. It was really neat. He was a little afraid, and we didn't close the lid, he was just laying in about 8 or 9 inches in Epsom salt soaked water. You're floating on top of it, you can't sink. You have the lights on or off, your choice, and I got him to flip the lid open, just lay down and relax. I said, okay, Alan, when he got out, rinse off, I said you did a great job, that was your first time floating, you rocked that, you did so well. He goes, "Daddy, that wasn't my first time floating." I'm like, oh really? I'm pretty sure I know. He goes, nope, I floated for 80 hours when I was inside mommy's tummy.

You notice this is kind of a round thing that's dark and full of warm water, like might trigger a few memories of the womb, right? Did we talk about how your nervous system gets set, and gets programmed? Yeah, it does get programmed. It gets programmed when you're in the womb, it gets programmed when you're very, very young. He picked up on that right away because when you're little you still are connected with that more than when adults are. When you throw an adult in there, it is a womb like experience, and it causes your nervous system to act a little bit more flexibly. It's a pretty neat technology.

The final thing that's here is neurofeedback. It's kind of hard to tell what's going on here. I have an 8 channel amplifier, or distributor anyway. An electro box on my chest, and electrodes glued all in my hair which is why I look so dorky. The ability to monitor my brain, and to train my brain, both at Bulletproof Labs, and at other places, has been really transformative for me. You can get a simple thing like Mews for \$200, \$300. You can get systems like the Neuroptimal that I carry on Bulletproof Labs, that costs about \$18/session. The lowest, effective safe one I could find. Most cost effective safe one I could find after a lot of research. Then you can go to therapists who use it, you can go to things like 40 years of Zen, which is still one of our prizes.



Any of these options can have profound effects, but these are things that I do at Bulletproof labs at home. This is not a call to all of you to go out and build a crazy bio hacking lab unless that's your calling. What I'm saying is that these are technologies that radically changed my life and human performance, and I am actively upset that neurofeedback isn't at every school because if you want to teach kids to learn, maybe you could teach them to just regulate their own brains a little bit so that they can pay attention better. That kind of thing is worth so much more than memorizing the capital of every state.

By the way, I don't know the capital of every state. I actually just don't care. Does that make me a bad person, I don't know.

Thank you guys.

Come to the Bulletproof Conference to listen and learn and play. It's the immerse experience of the Bulletproof Conference that sets it apart. You actually get to touch the toys. You get to feel these things. You get to actually change your biology while you're there, and of course you get to learn from the world's top experts, but more importantly you get to play. I want as many people as possible to be able to learn and experience and play. This is actually fun. It's not a boring conference. It's an amazing chance to hang out with the right people, and also to do all those things that you read about, or that you heard me talk about, or things that are in Bulletproof Labs. You get to play. I feel a responsibility to bring this kind of experience to as many people as possible, and that's why we're growing the conference.

Dave: I promise you, you're going to have a good time.

You'll learn about what high performance humans actually do in their daily lives. We're going to focus a lot on brain performance, and even some of the medical aspects of that. You'll learn about relationships, and how you can change your relationships to change how you perform, and how you feel every single day. Even to change the neurochemicals in your mind. And you'll learn about epigenetics, which is the study of how you can change the environment around you so that it changes your genes for you, putting you firmly in the drivers seat. We'll have the full retail store with discounts where you can get everything that you would expect to get at the Bulletproof Coffee Shop. You will also learn more about life, and flow states. Meditation. Training your memory. Gratitude. And the list goes on and on.

There will even be specific speaker breakouts and hands on workshops. You can actually get time with the people who speak at the conference. The Bulletproof Conference speakers are going to speak on topics that are really, really cutting edge. This is the stuff that I live and breathe, the things that have made the biggest difference in my own life. I want to bring those to you, and share them with you, and let you talk to the guy next to you, talk to the woman on the other side of you, and sit down and say, you know what, I just made new friends, and I made new friends doing some of the most impressive, most fun, most amazing things I've done in my entire life. That's what the Bulletproof Conference is all about. Please join me there, I'll look forward to hanging out with you.



## Bulletproof Radio Conference Highlights #327