

Male: Many people in the bio hacking community have had trouble with how much they've overpaid their life insurance provider because these companies haven't caught up with new, scientific studies that have changed the way different diet types and exercise are viewed by the scientific community. For example, people who are committed to the Bulletproof diet may have an increased level of a good kind of cholesterol called HDL. Some life insurance companies lump all cholesterol into one negative category like they were created in the 1950s. Oh wait, that's because they were.

A decision like this can greatly increase what you'd pay for life insurance. Well, Health IQ is a company that's decided to change that. Health IQ advocates for health-conscious lifestyle. They use science and data to fight for lower rates on life insurance for health-conscious people, including cyclists, runners, vegans, and vegetarians, weightlifters, and other people who are on diets that actually make them feel better, perform better, and live longer. In fact, research has shown that people with a high health IQ are 42% less likely to be obese, and have a 57% lower risk of early death.

Many people don't even know their health IQ, let alone realize they can get a lower rate due to having a high health IQ. Health IQ has special rates on life insurance for the health-conscious. Right now, Bulletproof listeners can learn more and get a free life insurance quote by going to [healthiq.com/bulletproof](http://healthiq.com/bulletproof). That's [healthiq.com/bulletproof](http://healthiq.com/bulletproof) to learn more about life insurance for people who care about their health.

Female: Bulletproof Radio, a station of high performance.

Dave: You're listening to Bulletproof Radio with Dave Asprey. Today's cool facts of the day is that babies have around 100 more bones than adults. We have about 300 bones at birth with cartilage between many of them. The extra flexibility helps you pass through the birth canal, and allows you to grow really rapidly. As you age, those bones fuse together leaving about 206 bones in the average adult skeleton. This is probably one of those reasons that babies are basically made out of rubber, because they take the most horrific falls and just get up and keep going. It's creepy if you ever have one.

Today is one of my favorite kind of episodes because we're recording a Q and A where Doctor Mark Atkinson, the Bulletproof medical director and I, get to hear your questions, and then respond to them. You can leave questions for us by going to [bulletproof.com/pq](http://bulletproof.com/pq). That stands for podcast questions, that's [bulletproof.com/pq](http://bulletproof.com/pq). If you go there, you can just use your phone or your computer to record a quick question, we'll play it on the air, and we'll answer it for you. It's like a talkshow dial in sort of thing, but you can do it at your convenience, and we'll answer when we get a chance to be together in the studio so we can really focus on what you want to hear.

If you're interested in hearing something, the odds are very high that tens of thousands of other people want to hear that, so I'd appreciate it if you take your time to just go to [bulletproof.com/pq](http://bulletproof.com/pq) and ask away. The other thing to know about is that we just upgraded the Bulletproof forums. You can go to [forum.bulletproofexact.com](http://forum.bulletproofexact.com), and there's a whole bunch of people, tens of thousands of people who are Bulletproof who are willing to answer your questions, and it's a community of people. One of the things

that leads to happiness is community, and one of the things that leads to success, yeah, socially and economically actually, is happiness. I gave a talk at the last Bulletproof conference about that.

Join the community and go to [forum.bulletproofexact.com](http://forum.bulletproofexact.com), and ask questions there as well. If you recorded something for us, we'll answer your question on the air, most likely anyway. I do my best to answer all of them. Mark and I just love doing this. Mark's an integrative functional medicine physician, and leads the Bulletproof coach training. You can learn about the Bulletproof executive coach training at [bulletprooftraininginstitute.com](http://bulletprooftraininginstitute.com). Here's a big announcement for you today, well, actually it's a small announcements, like 3 ounces small. After receiving literally thousands of emails from people requesting something more portable than our 16 and 32 ounce bottles of Brain Octane, Bulletproof is finally rolling out a 3 ounce travel size bottle. They're portable, they're spill proof, they are TSA friendly, and they come in just under the 3.4 ounce liquid limit for airplanes. That's really important for someone like me who travels over 100 days out of the year.

In order to celebrate the kickoff of the new 3 ounce bottle of Brain Octane, I'm offering you a chance to try out the new 3 ounce bottle for free. All you have to do is pick up the cost of shipping. Just text the word BP radio to the number 38470 on your mobile phone, and then respond with your email address to get a special coupon code for a 3 ounce bottle of Brain Octane free when you pay standard shipping anywhere in the US.

Again, just text the word BP radio to the number 38470. That's number 38470, and reply when you get a text back asking for your email address so I can email you the code for a free bottle. I actually started carrying 6 of these bottles in my quart size Ziploc, and it's still carry on legal. All right, shall we get started Mark?

Mark: Okay, yes, so the first question we have is in audio.

Female: Hi Dave. I came to the US when I was 29, and it's been almost 16 years, but I still struggle with the English language, especially in listening. I know that it's impossible to recognize the sounds that you aren't exposed to when you were young. I wonder if you have come across any brain hack to improve your listening skills in foreign languages. Any little tip would be appreciated, thanks.

Dave: Well, the first tip is to go back to your question, then when you say something like, "I know it's impossible to." It actually is impossible. You've got to rewire that statement and that belief system, because there are people, and in fact, my wife's father, who is from Czechoslovakia. Actually not her father, her grandfather, learned Swedish, which is definitely not at all like Czech, when he was 80. It can be done. There is one case that disproved the statement, "It's impossible to." Maybe he was an alien, in fact, I'm pretty sure of it, but that notwithstanding, you've got to understand, this is possible, and it is doable. [inaudible 00:06:33] we'll pick Mark's brain on this.

Aside from the cognitive enhancers, getting mitochondria working better is because your ears are tied into your mitochondria, and your neurological processing is tied in. There are ways to exercise your ears. There is a technology called Tomatis, T-O-M-A-T-I-

S, which can actually train the muscles in your ears to be able to hear a wider range of sounds, and to have more flexibility. Auditory training may really, really make a difference. What this is is, in part, almost a biofeedback thing. That's an exercise for your ears.

There are other things, if you're missing segments of sound, that you could use. Something called auditory integration training. The other thing that I have played with, but I haven't played enough with, is that your language processing is basically a couple inches above your left ear and back a little bit, that part of the brain. I've never tried running TVCS, a small electrical current over that, but it could work. I did try infrared simulation many years ago, that part of the brain, and I spoke in garbled words for 46 hours, which is a little scary. Who knows, maybe it's better.

I can tell you, I've not successfully hacked this, because I do not hear Swedish. Swedish and French both sound like someone mumbling sounds, and when someone says a word to me, just one word, I will say a different word back. It's slightly different. I don't hear the sounds right. Which is frustrating, because I can hear Spanish sounds okay. You can fix it, but it's going to take effort, and it's probably going to take real-time feedback. I would be looking at apps that allow you to know when you hear it exactly right. I believe you can hack this as long as you understand, first and foremost, that you can hack this. That's the first unlocking of the key. Mark?

Mark: Yes. I'm really pleased you picked up on the belief system. I just want to take a big picture back, which is, any time we ask a question, it's always really helpful to reread through the question and just say, "Is there a belief system there that's actually getting in the way of it?" There's actually research that says that adults can even learn better languages than kids. Normally people think, "Okay, kids learn language much easier, the younger they start, the easier." That's absolutely true, but as an adult, you absolutely can learn the language, and you can improve your listening skills.

Dave: Yeah.

Mark: What's really important is how we listen. Most people don't listen, what they do is they listen to themselves. Everyone listening to this podcast knows that there is a constant story process going on inside your brain. What tends to happen is that when we are with another person, we're actually listening to ourselves. I'm going to give you some little tips on how to listen. The first thing is to set a real clear intention that when you're surrounded by people who are speaking English is to slow right down, and come into your body. What I mean by that is, most people spend their life living in their head.

Just breathe into your lower body, allow your mind to come clear, and really listen. Allow yourself to almost just take in what's being said to you through osmosis. If you're getting tense around it, that will actually shut the process down. The more relaxed you are, the better. Because actually, we learn better in a state called theta state. Theta state is a brainwave state that is a trainable skill that you can actually access in which your present, relaxed, and open.

Now, if we get really stressed around a language, then what happens is we going to hide

beta which shuts us down to [inaudible 00:10:14]. It's a trainable skill. Learning how to relax, be grounded, and be really clear in your mind, why is learning and listening to English really important? What is it you want to achieve? You really have a goal in mind. Most people just need to learn 200, 300 words of any given language, and you master those words, and there are loads of websites you can go to that will give you the main English language words, and you just go immerse yourself in that. Listen to local radio, surround yourself by that. If you get tense around it, that will shut it down.

Dave: I picked up, just from listening to your voice, a little bit of tension there. You've been working on it for 16 years, there's the anxiety that's a block for anything. One of the ways to do anxiety here, just to get past that to open up learning, I can think of 3 things just off the top of my head that could be helpful for you. If there is a time where you were yelled at for not knowing words, or not hearing a language or something, that's going to be triggered all the time.

If it's a quick and dirty thing, EMDR, which is a therapy technique to go back and erase little traumas like that could be really beneficial for you. If it's a bigger thing, I think 40 Years of Zen is probably the biggest, most high performance neural feedback program out there, but it's pretty exclusive. You could also try something that came to mind when you were talking about theta states, Mark. If you were to go into a flotation tank, like these big, sensory deprivation things, these put you in a theta state pretty reliably. The one that I have downstairs at Bulletproof labs here allows you to plug a audio source in, and it has underwater speakers.

If you want something to sink really deep, it's almost amazing what happens. You lay there, your floating, you got your plugs in, but the sound comes into your whole body, and you're in a theta state. Anything you listen to when you're in there goes in really deep. There are cases of people learning languages almost exclusively while floating, because it gets you out of the anxiety mode into the theta mode. A few interesting helps there.

Mark: Yeah, you learn languages by osmosis then. If you're being overly effortful, putting yourself under pressure, it's going to backfire.

Dave: Right.

Mark: Learning how to manage your state, relax, and just being really clear is like, when is enough as well? You can know this for 16 years, which is a long time, and you know what? It may well be just finding being at peace with where you're at, and being at peace with your level of comprehension will actually unlock your ability to learn a bit more.

Dave: It's true. The truth is, we heard the question just fine.

Mark: Your spoken English was really great.

Dave: Yeah.

Mark: Yeah. Also, which part of America are you in? There are different dialects, and tones. If this is a real big source of anxiety for you, please, first of all, tend to the anxiety, and the stress, and the tension, and [inaudible 00:13:28] to be more accepting of where you're at, learn how to access the theta states through relaxation, and be open to being surprised.

Dave: Beautiful, well said. I think we got that one?

Mark: I think we got that one.

Dave: You put locks on your home, you buy home insurance, you have an alarm on your car, and you buy car insurance. You've worked hard to build your business, and yet, you don't have any cyber insurance to protect it. Small businesses like yours are especially vulnerable to cyber attacks. Over 40% of cyber attacks in 2015 targeted small businesses. 60% of those small businesses attacked closed within 6 months. Let Cyber Policy keep you safe.

Cyber Policy is the first end to end solution that combines cyber planning, security, and insurance customize for a small business. With Cyber Policy, your business will be protected against cyber attacks. Get peace of mind for as little as \$0.40 a day. Secure your business. Visit [cyberpolicy.com](http://cyberpolicy.com) and get a custom quote in just 4 minutes. Look, it's not about if some hacker is going to try to attack your company, it's a question of when. Plan, prevent, ensure with [cyberpolicy.com](http://cyberpolicy.com).

Mark: Next question.

Sharon: Hi, Dave. My name is Sharon, I'm from Chicago, and I'm wondering if you have any thoughts on the bait method for bio hacking your vision. I noticed you were starting to wear some reading glasses, me too. It's quite the drag, and I was curious if you are into checking that out. I know Doctor Mercola has done it, and it's been successful. Thanks, bye-bye.

Dave: That is an awesome question, Sharon, and thanks for asking. I have definitely hacked my vision. The first thing that I did, which was probably the wrong thing, was, in about a 97, so this is going back a ways, I did Lasix surgery where they use a laser to reshape the eyes. I ended up with feeling like I had sand in my eyes for a couple years, really dry eyes, and I saw halos for a very long time. I don't see halos anymore, they are probably still there, but my brain has programmed them out of my reality, so my visual processing changed. It may have contributed to light sensitivity that I have since been able to hack.

One of the things that made the biggest difference, though, is about 8 or so years after having the original surgery there, my eyes had drifted from 20-15, instead of 20-20. It was better than normal. They drifted to about 20-60. I don't remember how many diopters that is, because I tend to think in the old way of measuring vision. I sat down, and I spent about an hour every Saturday morning for 3 months, and I trained my eyes using the base method and more to go back to better than 20-20. You can absolutely train your eyes. You noticed that I was wearing reading glasses, I actually don't need reading glasses, I don't wear reading glasses. The glasses you see me wear on some of

the episodes have a coating on the lens that reduces the eyestrain that's caused by excessive blue light. Because the studio here has 2 LED lights.

I talk about all the time how bright blue LED lights are bad for your mitochondria, and you have the most mitochondria in your eyes, and your brain, and your heart. I get visual stress from these things, I always have, and probably 48% of people have that, if not all of us. 48% of people have excessive stress. That's according to Helen Irlen, and I'm actually changing these lights out for halogen, which will reduce my stress, but I wear those glasses, not for lens correction, but to basically keep junk light out of my eyes. I'd rather just not have junk light present in the studio, it's just hard to get a good video for you without having that look right.

Now, the Bates method is something that's ... I understand it's controversial. I think it's only controversial because it makes optometrists feel threatened from a commercial perspective, because it generally works. The idea is that there's muscles in your eyes. You can train the muscles in your eyes. Like in the rest of your body, if the mitochondria in your eyes are weak, and I just mentioned you have 10,000 mitochondria per cell in parts of the eye, versus about 1000 mitochondria, say, in the rest of your body. There's a huge amount of energy use, huge oxygen requirements inside the eye. You address the eye from a strengthen it biologically, imagine things like ketosis and things that increase mitochondrial function.

Most of the [inaudible 00:17:49] techniques do that anyway. Those will help your eyes, help your vision, and then you go into the steps of the base method to train your vision. Some of the simple things you can do, I spent time doing, you tie a string to the wall 10 feet away from you, and you put 3 beads on the string, and you hold the string to your nose. You'll look like a total dork to do Bates training.

As you're looking at this, you actually see 2 strings coming away from your eyes because it's the floating finger illusion that you can have if you hold both hands in front of your eyes. That same effect happens. And then you train yourself to look at each bead. You're teaching your eyes to work well together. What I discovered in the course of 3 months of training my eyes with a specialty called, yeah, developmental ophthalmologist, is that my movement patterns, my body, my functional movement patterns weren't wired right. When I do things like close my eyes and march in space unconsciously without my knowledge, I spin in a circle, I'm doing it.

These are crawling reflexes. Very low level wiring that happens at the brain stem level. In my case, it's probably because I learned to read when I was 18 months old, there's a lot of advantages to learning to read when you're 18 months old. Visual processing and physical movement are not among these advantages that you get from learning to read early. You spend all your time thinking instead of feeling, and you spend all of your time reading instead of moving. Those are both advantages and disadvantages that I've had, and this kind of work to train my vision was some of the most exhausting work that I've ever done. I would come home [inaudible 00:19:20] an hour of training, and just go to sleep. Sleep for 4 hours, and be a zombie and a jerk because I was just exhausted at a cognitive level.

I absolutely support the Bates method. You can retrain these things. I didn't realize that Doctor Mercola had started doing the Bates training, but it doesn't surprise me. He's actually a pretty accomplished bio hacker, he's been on the show, and we've shared a stage at a couple conferences. I have a lot of respect there. If you are listening to this, and you're thinking about your eyes, or considering an eye surgery let's say, I even had an astigmatism on one side that went away in 3 months. We're talking 12 one hour sessions of training.

It's not that much work, except that when you're doing the training it's really hard. Finding specialists like this isn't that easy to do. You might also consider reading a book by Meir Schneider called Yoga for Your Eyes, which takes the Bates method and moves it on. Meir's training videos, I would call them, are hard to follow. I have them. I can tell you, though, that in person, when he spoke at the Silicon Valley Health Institute, which is the antiaging nonprofit group that I've run for more than a decade in Silicon Valley, he was one of the more inspiring people I've ever met. This guy has had 200 surgeries on his eyes since he was a very small child.

He, by every definition known to man, should be legally blind. His cornea is like shattered glass, like looking at pieces of a broken mirror. Just through force of will, and through some physical movement things, and breathing, and relaxation, and embodying things, he can drive. He can read. What he did is he just refused to accept being blind, and he reprogrammed his brain to reassemble the world around him that comes in through these shattered lenses to reprogram it into a picture of reality that's completely functional. Just the amount of willpower, and effort, and force in the story there is just ... Brings a tear to your eye, it's that powerful. The story of just overcoming triumph.

We know you can tell your brain to reprogram whatever the eyes see. You should read Yoga for Your Eyes. You also owe it to yourself to check out Helen Irlen's work at the Irlen Institute. Helen spoke at the last Bulletproof conference, she'll be at the 4th annual conference this year where we are expecting around 3000 attendees. First conference is only 100. I'm now a certified Irlen practitioner for level I, which means I can diagnose whether someone has, what Helen's identified as [scoptic 00:22:05] sensitivity.

I have it. When you see me wearing my sunglasses indoors, I have some older ones that were more orange, and as my brain actually improved, the ones I have now are a little bit more gray, but what this is, is a custom tint for my eyes, because certain wavelengths of color create stress inside my brain, so I tend to get more tired if I'm in a visually stressful environment. My color of tint might be different than Mark's color would be. Mark, you are not sensitive. You did the training as well with me?

Mark: No, I was, and that was a revelation. I'll share a bit about that once you [inaudible 00:22:40].

Dave: Let's talk about that a little bit. Helen Irlen's stuff is something you absolutely should look at. If you're looking at the Bates method, you might that just putting a colored sheet of plastic over what you read, it can change the amount of energy you have every day. When people, roughly half of us who have this, put on these lenses, it's like you got your brain back at the end of the day. It's a game changer.

My buddy, Abel James did this from Fat Burning Man. He went and saw Helen Irlen after, I think, meeting her at the Bulletproof conference, and he has his indoor sunglasses. Same things, like, "I got 25% of my brain back." This is big thing. The eyes, if you stress them out the mitochondria in your eyes, they get stressed. Mitochondria are just basically ancient bacteria embedded in our cells that are running the cells to be honest. They get stressed, where do they go? They go into the brain where you also have a lot of mitochondria density, and these things communicate with each other. You can create a wave of mitochondrial stressed throughout the body just by having visual stress. It's really important to get your eyes fixed. Anything Mark?

Mark: Yeah, I feel like this is a great question. I came across his work 10 years ago. Anyone who is a bio hacker, or into natural health will come across this eventually. It's just one of the rites of passage. You just come across it. Doctor Bates, he actually wrote his book, way back in 1919, this is nearly 100 years ago, I think he's one of the original bio hackers. What I love about his approach is just saying, "Hey, listen, before you were told to get corrective lenses, take a moment to pause and ask yourself the question, why do I have this problem?"

That is at the heart of taking charge of your health. You just ask the question, "Why?" Really what he was saying in a nutshell was that, tension held in the muscles that surround the eye distort the eyeball, and therefore create blurred vision. We create and store muscular tension throughout our body, but also around our eyes. He came up with this series of exercises, relaxation exercises, that were designed to essentially release this held tension. For some people it works really well, for others it doesn't. You only find out by doing it. The worst mistake you can make is immediately to go to corrective lenses.

Because then that falls under the category of what I call lazy medicine. Lazy medicine is, well, you treat the symptom with a medication, or a tool, or a procedure. What you want to do is you want to intervene before then. I'm going to take some time to read around the subject, and to look at all the different causes, and to do what I can do over the next couple of weeks and months to help myself. When I first came across this, I thought this was deeply insightful.

Then I go on to learn about Helen Irlen's work. Because I think, "Well, why do we get this kind of muscular tension in these eyeball muscles, what is it about our environment that actually triggers this?" Well, it turns out that a lot of us are very sensitive to very specific wavelengths of light. What they do is, when you're exposed to those wavelengths, they scramble and create brain static. When you grow up with this, it becomes normal for you.

Then when you apply the remedy, which is color tinted glasses, or if you do some reading and read it through a colored, translucent sheet, you experience this wave of relaxation, because it's no longer stressful to your body. One way you can tell whether you have the syndrome is really whether you struggle and suffer when you're exposed to bright lights and fluorescent lighting. If you go into the shopping mall, and you notice you get depleted real easy, you get distracted, you get irritable, you get anxious.



Dave: Hold on a second, most people don't know it's lighting. I used to talk to my dad, he's like, "There's no oxygen inside these big box stores, inside these shopping malls. I hate the shopping mall." He didn't know why. He used to say, "It's got to be the air." Sometimes they have [inaudible 00:26:54].

Mark: They have stuff in there, oh yeah.

Dave: Right, but here's the trick, go to a store that always makes you tired, put on a baseball hat and sunglasses, just look like a terrorist or shoplifter, it's okay, and just see the difference. What you'll find is, you went in, you bought what you wanted, you went out, and when you go in there normally, and you have this, which is roughly half of us, you go in there and you're like, "I have no idea why I'm here, I'll just take one of everything." You have a shopping cart full of crap you don't need.

Mark: Then the shop is in charge of your decision-making abilities, because you make bad decisions when your brain is stressed. Here's the thing, so when you're exposed to this light, it scrambles your brain. Your energy goes down, and you may also know this, and just take a moment to reflect on this, that when you read text, particularly if it's white paper with black text, if you find that hard to read a sentence and it cause a bit of strain, or you see distortion in the text, and we actually have a video of this.

Dave: Oh, yeah, we'll link that in here.

Mark: Which we will link in.

Dave: Yeah.

Mark: What happens is, people tell me, they say, "Well, I've lived with this all of my life and I thought it was normal." You should not get tired when you read. You should not get tired when you're exposed to some wavelengths of light, but if you have this underlying predisposition, then it is a significant source of kryptonite, and a source of stress, and my belief is that it's a significant contributor to the muscular tension in and around the eyes that cause distortion.

Dave: I've read, I have no idea how many thousands and thousands of books, but I'm a voracious reader, so I learned to read when I was young, and I didn't know I had this. I remember when I first sat down, this is probably 10 years ago, 2008, 8 years ago, I was noticing we'd shifted to LED lights indoors, which are even worse than fluorescents, and I was having a hard time in my new job at a big box in Silicon Valley. I said, "I'm going to hack this." I did all this research, and I found Helen Irlen's work, and I went, and I drove to Walnut Creek, and I took a look at doing the Irlen test. I said, "I don't have a problem reading, are you kidding me? I read fast, I read reliably, I love to read, I read for fun."

Then this guy sat me down with bright paper under fluorescent lights, and he's like, "What do you see around the words?" I'm like, "Space?" He goes, "No, look some more, there's something going on there." I had filtered this out of my awareness. Around the words there's all sorts of dancing crap, but I couldn't see it because I had just trained

myself to not see it. When I looked what was there I'm like, "This is weird." When I went and I met Helen, the inventor of this stuff, down in LA a while later, like actually almost 8 years later, she did her own review of me, she said, "Dave, you're one of the 5 worst cases I've ever seen." I was unaware of it. How could I have not known?

Mark: The reason you didn't know was because the brain is incredibly adaptive. It finds ways to accommodate and work around it, but here's the thing. When you correct the problem by using the [inaudible 00:30:05], your brain no longer has to do that, and it increases the efficiency of the brain, and then liberates all this sense of energy and freedom. If you're listening to this and going, "Well, I don't know whether that applies to me or not." Take a look at the video, which we're going to provide you the link to, and go and take a look at her website as well, because if you have this, this will be undermining your ability to focus, and perform, and do everything that matters to you most, because it's a constant source of stress.

Dave: Think about this. Okay, this is going on, it's constantly sucking energy, so you do a test, it's like going to an ophthalmologist kind of thing, and then you get a pair of sunglasses with custom lenses, and you just wear them like you would reading glasses indoors, and suddenly you doubled the amount of energy you have. That is a serious bio hack. It's ginormous.

Mark: This is why it's so important we ask ourselves, "What is the cause of this problem?" Because, say if you're tired all the time, and so you're taking all the adaptogens, you're doing herbs, you doing all these kinds of things to improve your energy, but if the problem is the light exposure combined with the Irlen syndrome, that's what you need to address.

Dave: In fact, if this is really, really interesting for you, I have, in the last year, reduced my light sensitivity by at least 50%. I don't know, Mark, if we even talked about this. Yeah, so I am way more resilient under even the worst, crappiest, junk light you can possibly get. Resilience is what I'm working on with Bulletproof. It's like, how do I have the energy to always bring it no matter what environment I'm in?

Mark: That's the key.

Dave: Some people, I don't know, they don't seem to care, or the light sensitivity doesn't seem to affect them at all. That's cool, I want that superpower, but I don't have it right now. I'm going to do a whole big blog series on this, and maybe we'll do a special show on it, and I will be talking on stage at the Bulletproof conference about this. If you'd like to know more, subscribe to Bulletproof, and we'll send an email out when I've got all this together. I will tell you exactly how I reduce my light sensitivity, and how I reduced the symptoms of Irlen syndrome.

I still have it. I still have more energy when I wear my Irlen lenses, I travel with them all the time. I bring them with me. If I'm going to sit indoors under crappy lighting, I'm going to use them. I'm probably going to wear a baseball hat, which you'll see in a lot of my Facebook lives if you go to my Instagram account, dave.asprey, or on Snapchat I'm often times wearing a baseball hat. When I'm not just behind a camera like this, on

Snapchat, I'm just Dave Asprey. You'll find that's part of what I do, and it's because if I'm in an airport, I'm going to wear a baseball hat, because the airport lighting is crappy. I'm not going to take that into my system. I don't eat junk food, and I don't expose myself to junk light on purpose. This is part of being a high performance human. I'm saving my capacity for something that matters, because wasting my energy on crappy food and crappy light, it's just not okay.

Mark: If you care about your energy, you care about your performance, you care about the way you feel, the way you show up, you go take a look at this. This is such an important area that hardly anyone knows about.

Dave: Yeah, and I should mention too, Helen's work changed my life. I was really struggling, it was my first public company vice president position, so I was responsible for I think corporate development, and company strategy, and some of the project management stuff at computer security and network acceleration company. The light in that building was messing with me. I really want to perform my best, and sometimes I'm in a meeting, and I can't stay awake. My brain is going all over the place. This stuff really changed things for me. Helen's work changed my career, I don't have any financial relationship with Helen whatsoever, I'm just recommending this because it's really important work. Irlen.com, I-R-L-E-N.com.

Mark: Okay, so next question. "Do you have any hacks for anxiety? I was diagnosed with generalized anxiety disorder 4 years ago. My doctor wants to put me on meds, but I'm not keen. What are my options?" This is from Craig H. 29.

Dave: Craig, first it's awesome that you're paying attention to this, and you're looking at it from, I have control of this, versus, what probably I would have done when I was in my early 20s, if not my late 20s. I'd be like, "Whatever you say Doctor. You have a white lab coat, you must have special powers." You probably can't hack it, and maybe meds are the right thing. There's no shame in using a medication when it's what gives you control of your own biology. There is a case for it. It is not wise to go straight to the medication until you've looked at environmental factors and things that you can control that will maybe be better for you in the long term.

Almost every anxiety medication that you can name is shown to reduce your mitochondrial function, which is really interesting. The one exception there is that some of the SSRIs, at least in a short term, increase mitochondrial function, and in the long term they may harm it. Just weird. I would encourage you to say, "All right." Don't discard the meds, you're not weak if you're on meds, but what do you do about anxiety? One of my favorite technologies, and something that I do for people who don't even know they have anxiety, we all have some of it, is heart rate variability training.

I had a hedge fund manager, this guy ran a multibillion-dollar hedge fund, and I sat down with him and said, "Look, all of my coaching clients, we need to get a heart math device." They are 100 bucks or something. Like orders one from his private jet. That kind of a situation. I said, "Just do it for 20 minutes a day. It just teaches you to breathe in and breathe out, and there's a thing you do that makes the light green, and when you do it, you're changing the spacing between your heartbeats to take yourself out of flight

or fight mode, and put yourself into rest and reset mode. It's called sympathetic dominant parasympathetic dominant."

Most people who don't have strong anxiety, over the course of about 6 weeks, they develop a new skill. You can develop a skill over 5 years of meditating in a cave without feedback, it's just easier with feedback. I did this, and it was really transformative for me, because I figured out that hundreds of times a day, without my knowledge or consent, my nervous system was kicking into fight or flight mode. Once I used this kind of feedback to learn what it felt like, there's a little twinge you feel, at least for me I feel it in my chest, and then you learn a 2nd skill which is how to turn it off. Pretty soon I caught myself playing whack a mole. Hundreds of times during the day, my nervous system would go ... That's anxiety. Then I would go, "Flak." That's the antidote for anxiety, which is parasympathetic mode.

These are learned states and controlled states. You might not find it that easy to do if your basic biology isn't working. If you don't have adequate energy delivery to your brain, which happens if your blood sugar swings a lot, you're not eating enough of the good fats, you are probably going to get this much deeper level anxiety. I think this is a chronic problem for people right now, because we have this weird situation where people eat a bowl of kale, rock kale with a low-fat dressing or some crap, and they're like, "I don't feel good." 2 hours later.

It's because you have no energy in yourselves. There's not enough calories in a raw kale salad, and some of the stuff in the kale inhibits mitochondrial function anyway. When there is a brownout of energy, it's not quite a blackout, you didn't pass out, you didn't die, but you just had insufficient energy delivery to the neurons in your brain, the neurons, 10,000 mitochondria ... In fact, neurons are so bad ass, these cells in the body, they are the only cells that have basically a shuttling system, 2 different shuttling systems to move mitochondria around inside the cell.

Imagine a city that had so much power demand that it's impossible for this skyscraper to have enough power, so when everyone in that building's working, a bunch of trucks drive in with extra generators and plug-in, and then they provide power while it's needed, and then they go, "Oh, better drive somewhere else." That's what's happening inside your neurons. Your mitochondria actually are motile. These little bacteria that run who you are and who I am, that's going on in there. When they don't get the power they need, when that skyscraper is like, "I'm trying to build something here. I don't have enough power." Guess what that feels like? It feels like anxiety.

Mark: It's the emergency.

Dave: Yeah. What happens then? You get a cortisol spike, you get an adrenaline spike. When you get those, you get those spikes because those liberate glucose. When they liberate glucose, hey, look, there's more power for the mitochondria, now the neuron can do what it was going to do. You're dealing with this on a second by second basis. You better address your food, you better be on the Bulletproof diet, and you better learn what it feels like when you kick into fight or flight mode, whether it's caused by an energy lag, or whether it's caused by a trauma in your life. The traumas come through because

you're programmed just like a deer. Just like any mammal out there.

The programming happens when you're young, and it happens that way so you can survive long enough to reproduce. There's only 3 things you've got to do as any animal. Eat everything so you don't starve to death, that would be address the energy brownout situation. It would be kill or run away from anything that might be a threat. Those I said might be, that not actually is a threat. Then make sure you have sex with everything just to make sure the species survives. There you go, you've got a recipe for a self replicating creature.

Well, in order for you to know what is a threat to you and what isn't a threat, you get programmed with automated threat detection systems that come in your first several years of life before you had a chance to think about things or understand anything. Before you'd had a profound cortex. If, like me, you got programming that told you everything was a threat, you're going to have anxiety. In my case, I was born with the cord wrapped around my neck. I came into the world choking and thinking something was trying to kill me. Actually, I didn't think that, you're a baby, you don't really think. I felt like something was trying to kill me.

That stuck with me until I recognized that that was a source of anxiety, and I addressed that when I was 30. I did Holotropic breathing, I did neural feedback, and to this day, 40 Years of Zen, it's something I do with my executive coaching clients. It's a very high-end [inaudible 00:40:42], it's the one that reaches the deepest to light or reprogram those traumas. I've done EMDR and I recommend it to people. This is a type of trauma identification and removal system you can do with the therapist. These are really important for anxiety.

If you don't address the biology, it's going to be harder to do all these other things. Do the heart rate variability starting tomorrow, change your diet starting tomorrow, and then look at the sources of things that may have programmed you to have anxiety so that you see things as a threat that aren't naturally threats. When you can undo that tangle, it sets you free. If you start doing the psychology work and having to address the energy stuff underneath it, it's going to be a lot more work, and your chances of success go down.

Mark: Yeah, I'm with you on this. The [inaudible 00:41:25] looks exactly the same is we start with saying, "What is the cause of this?" Now, I want to back a little bit, because I just want to say, listen, age 29, and asking for help, I love that because-

Dave: I wouldn't have done it.

Mark: So many people suffer in silence. They normalize their experience, they just resign themselves to feeling this way, and then [inaudible 00:41:48] root of self-medication. You turn to cannabis, to alcohol, to tranquilizers. That is the default route for most people. I just love the fact, Craig, the age of 29, that you're putting out these things. I do not want to feel this way, what can I do? I love that. Because that's the first step to change. What you just heard from Dave is great, because this can be a symptom of a energy deficient syndrome. When your body does not have enough energy, it goes into

panic and survival mode.

How does it let you know there's a problem? It activates the sympathetic nervous system that creates anxiety, stress, tension, and arousal. Managing your blood sugar, improving your diet, working with your biology is the foundation. Then you've got to ask yourself a question, what's deeper than that? What deepened that absolutely can be the trauma is our pre-peri-postnatal experiences can all have a significant impact, and set up the template for a default way of being to be fundamentally anxious.

The other big thing is for anyone listening to this, some anxious people don't know they are anxious because they've always felt this way, and they are being brought up surrounded by other anxious people. Let me explain how you know if you're anxious. If you have a lot of mind chatter, and you can't control that mind chatter, and you rarely experience peace, and stillness, and space inside your head, you've probably got some anxiety there. What happens is that when we don't attend to the anxious energy sitting in our body, that energy goes up into the head and fuels over thinking and story making. What happens is, we get caught up in these anxiety creating stories which are normally rooted in fear, and then that generates more arousal, which generates more stories, and then becomes self-perpetuating.

Here's the good news, you can put a stop to that, and here's how you do it. Anytime you feel anxious, or overwhelmed, or stressed, you take your focus away from the story, the narrative inside your head, you turn your attention into your body, and this sounds a little bit weird, but silently you notice where the tension is inside your body, it'll be there somewhere, it'll be a heaviness that contracts, you say to it silently, "I'm pleased you're here. I'm going to be okay." What happens is, when you shift from avoiding your felt experience or feeling experience, and you turn towards it, and you accept it, and you affirm safety, your neurology relaxes. Your parasympathetic nervous system kicks in.

The relaxation response takes over, and you'll feel yourself so much more grounded. If you have a lot of trapped energy there, another thing I'd love you to do, and I love teaching this. We teach this to our [characters 00:44:54] in the Bulletproof coach training program. It's one of the favorite things they love. It's called shaking medicine. Now, many indigenous populations have found that by allowing the body to shake our energy, actually resets the nervous system. If you watch a traumatized animal that has been, say, has ever chased by a lion, that has ever escaped, and it will automatically, and involuntary start to shake uncontrollably.

If you have ever witnessed somebody that's in a car accident, they'll often shake uncontrollably. That is actually the body's inbuilt mechanism for releasing stress, adrenaline, and trauma. Shaking medicine just simply says, "Every single day for a couple of minutes, allow your body to shake." You'll feel a bit self-conscious, that's normal, but allow yourself to start shaking, and you'll actually start discharging all of a sudden. That's why it is when you exercise and discharge energy you feel so good. That's why it is when some people have sex and they discharge energy, they feel so good. There is a temporary discharge in this trapped energy.

Dave: There's a couple things, didn't mean to cut you off their, one is SWAT team members and military special operators all know this. If you go out on a raid, and all of that, to arrest someone for smoking pot, you got a [inaudible 00:46:12], but it could have been dangerous. Kidding. If you go out there for a real life and death situation, where your life as a serviceman, or as a care provider, is on the line, when you're done, you cannot sleep. You're so charged up. What they learned is, oh, yeah, what you do is you go work out. [inaudible 00:46:32] you got to discharge it, you've got to burn it off. Until they knew that, this is the neuropsychology of trauma, and this comes from the book On Killing actually, where they studied first responders, and firefighters, and all, and they looked at these biological reactions, but we all have these, just like you're saying.

Mark: Yeah, we have it. Anxiety be combination of an energy issue, and an energy mismanagement issue. You need to learn how to build biological energy, and manage your emotional energy. Do that as a daily practice, make it one of the most important things you do, and what you'll probably start to find is, particularly when you affirm your safety, as long as you are genuinely safe, is the part of us that feels anxious is often the young part of us. When you turn to that part of you inside, and you affirm safety, and you discharge the energy, you come back into the present moment.

What tends to happen for a lot of people is, particularly if you're a people pleaser, you don't allow yourself to feel anger, you get this build up of energy inside of you, because you're in this inauthentic state, and authenticity and resistance to reality generates tension that builds up day after day after day. Part of your self-care practice would be, at the end of the day, reviewing today. What pissed me off today? Allowing yourself to feel that emotional charge, welcome it, shaking out, or using whatever practice you want to do, and you need a calming practice as well. When Dave talked about heart rate variability, that's a great practice.

Even just doing belly breathing, 4/7 breathing, you breathe into the count of 4, out at the count of 7. The prolonged expiration triggers the body's parasympathetic nervous system. Also, use some amino acids as well. When we need to relax, that uses neurotransmittical GABA. In some countries you can buy GABA, if you can't buy GABA, you can use [inaudible 00:48:29]. You can use [inaudible 00:48:31] all of those change into GABA as well. You can use passionflower, you can use [inaudible 00:48:35]. Please, and there is a lot of people listening to this who are probably using this approach, please do not self medicate with tranquilizers, alcohol, cannabis.

Know why you have the anxiety, start managing your biological energy, your emotional energy, start doing that discharge, make yourself feel safe. If, after all that, you have to use medications, great. Because medications can just enable you to be higher functioning for a period of time whilst you're dealing with all that. Say, for example, the origin of your anxiety was torment. Then, for that [inaudible 00:49:17], you may need something like that to help you through. There's no shame in that. Just in summary, I love the fact that you wrote in that you put it out, the fact that you want to take charge of yourself. Just know there is so much you can do to help yourself.

Dave: Craig, there's some other stuff too to understand, and just something that really came crystal-clear for me through doing 10 weeks of the 40 Years of Zen training, and doing it

with lots of clients, one of the things that happens when you have electrodes on your head for hours a day, for a week, is, it functions like a lie detector. What you find is that, what happens is, something occurs in the world around you, and your biology response to it, and it responds with a feeling, or emotion.

Then, oh, 200 ms or so, 300 ms later your conscious, rational brain says, "I'm going to make up a story about why I had that feeling." What actually happened was, the feeling happened for no freaking reason, the reasons are not, in any way, shape, or form, rational or logical. They simply occur. They occur to keep your meat alive, they occur in animals too, it's just a feeling. The problem is that, in your case, your feeling anxiety. The good thing is that you are feeling anxiety. When I started on this path, I didn't even feel anxiety. All I felt was generally pissed off most of the time.

Mark: Or numb.

Dave: Yeah, numb. Yet, there you go, numb and pissed off. It took me like 3 days of working at a workshop. It was a 10 day workshop to get in touch with your feelings. I'm like, "Why is it that something isn't right?" The lady who was running it, Barbara Findeisen, this was something called the Starr Foundation, and she's like, "Dave, you have some feelings in there." I go, "Yeah, I'm pissed off." She says, "No, there's other feelings." I'm like, "No, there's not." Finally she looked at me after 3 days of being in my head and arguing with her, she's like, "Okay, is there a feeling in your body anywhere?" I go, "Yeah, there's a feeling in my stomach." She goes, "There's a name for that feeling." I go, "What is it?" She goes, "It's called fear." I was like, "Are you kidding me?"

I didn't have the labeling for these things, probably because I was Asperger's in my approach to things. I wasn't formally diagnosed with it, although many members of my family have, and the odds are very high that I had it. Maybe I'm disconnected from that more than average, but it's given me the gift of being able to watch what's going on in there. In my own case, understanding that I had any anxiety at all, [inaudible 00:51:55] anxiety, it's invisible to me, it's not there. I may be don't like a lot of people because they are stupid, that was my take on the world, but it did come down to, feelings happen, and then I tell myself a story. The story is that everyone else is an ass hole. Well, okay, that wasn't really an accurate story, but that was whatever my own internal dialogue was. Your internal dialogue, the story you tell yourself as a result of the feeling of anxiety, is very likely not actually true.

That's something that you'll work through. Whether you do it with meds or without meds, it doesn't actually matter, just do it in the right order. Address the biological energy, and then go in and work on the therapeutic things. You can unwind it, and you'll find that over the course of, usually 1 to 2 years, and may be faster if you're doing some neural feedback, or some of the assisted biofeedback type of things, the stories you tell yourself about the feelings you have will change, and the feelings themselves will change.

One of the things we do at 40 Years of Zen is called neural feedback augmented retro framing. There, we go into an altered state, we use the computer to show you how to alter your own state, and then you go back and you rewrite the experiences that told



your nervous system how to interpret reality around you. Today, you walk in and you feel anxiety because it's a room full of people. Well, if you can reprogram your nervous system so that when it sees a room full of people, it's like, "Wow, look at all these people here to help." The core feeling went away, so then your story about the feeling can go away too. There's actually processes to do this, they are just a hell of a lot faster with technology. That's why I'm so excited about this, so that's why I do it.

Mark: Yeah. Just one final ... I keep saying one final thing. This is such a great opportunity because here's another thing as well, and this probably applies to every single person listening to this podcast right now. Please give yourself permission to feel all of your emotions. It's okay to feel anger, it's okay to feel sadness, it's okay to feel guilt, it's okay to feel happiness. It's okay to feel joy. What we want to do is go to a place where our emotional bandwidth expands from being locked into a specific emotion, so your default, underlying tone was anger, to expand this so we get to a place where we just see emotion for what it is, which is just energy that we label as being this or that, we learn how to welcome with it, and work with it. Because when you learn how to work with your biological energy and your emotional energy, and you do those 2 simultaneously, that's when your life takes off, and that is at the heart of high performance.

Dave: Indeed. We're upon the end of the show Mark. If you enjoyed this show, you can do a couple things to say thanks. The first one is go on over to [bulletproof.com/pq](http://bulletproof.com/pq), that's short for podcast questions, and record a question of your own so that Mark and I can riff on it and have a conversation like this with maybe half a million people listening, and benefit them greatly. The question that you have in your mind is probably something that everyone else has too, so have the courage to ask us. I would appreciate that. That's [bulletproof.com/pq](http://bulletproof.com/pq), you can also, while you're at [bulletproof.com](http://bulletproof.com), you can go there and try some Brain Octane.

If you haven't tried this, if you're using coconut oil, it takes about between 10 and 18 times as much coconut oil as you can get for Brain Octane oil. This may be 5% of the oil found in coconut oil. Coconut oil doesn't raise ketones the way that Brain Octane does. It is a very different neurological feeling to try the real stuff. Give it a shot. If you don't drink coffee, I won't judge you, at least not very much, but you can pour Brain Octane on any food, you can cook with it, you can use it in your salad dressing. I actually have Brain Octane in a little flask, and when I travel I put it on every meal. I get it 3 times a day, because my energy is so stable, I just have more energy to do things like this. You can check that out, and you can also go to iTunes. You can leave a rating that said, "This was a valuable use of your time while you were commuting, or sitting at work today listening to this."

One of the commitments that Mark and I have is to not waste your time with Bulletproof Radio. If you look at the number of hours of downloads of this, we are pushing 50 million downloads, and you divide by the number of hours in human life, there is something like 100, a little bit more than 100 human lives have been consumed by this content. If we are adding value, then, well, we earn some karma bonus points. If we are basically making a bunch of dick jokes and wasting your time, we do the opposite of that. That's not what we're going to do. Hopefully you laugh a few times during this,

but hopefully you leave every single episode with an upgrade. That's what this is here to do, that's why we're here. If we're doing that for you, just let us know through a rating, or through supporting Bulletproof. I greatly appreciate it, thank you.