Introduction to Biohacking and Genetic Testing

All right, everyone, if you are tuning in. Whether you admit it or not, whether you agree or not, whether you know or not. You're probably some degree of biohacker.

Meaning that you, you know, you're out here trying to do more than we can do at your primary care. And or your service provider or your quarterback, which means you are learning how to hack yourself.

And that's why we're all, you know, listening to all of what we've been listening to, and we're going to dive in and understand where to even start, some really cool thinking about hacking, biohacking.

Meaning where like, where do you start? Isn't even what item or what tool, but how you know, the process and search. First of all, Doctor Brian, thanks for joining us.

Oh, thank you, thank you. It's a pleasure to be with you, especially for this topic. Well, before we even get there, let me ask you your thoughts because I know you have a lot of experience, the work you do with the Institute for Functional Medicine and Patient Facing all over the place.

Let's start off before we dive into biohacking. What do you think about genetic testing? It's a really important question because, people are many people are terrified to look for the genes if they have a history of Alzheimer's in their family.

Right. Or, or they have a history of some type of cancer. You know, my wife, her grandmother and her great grandmother both died of cervical cancer. And so my wife was terrified of that concept.

There are a few genes. If you've got the genes, it's likely, very likely you're going to get the disease, such as cystic fibrosis. Right? There's there's a few, but the vast majority of genes do not determine what you're going to get, what's down the road for you.

Rather, they identify the weak link in your chain. Yeah. If you pull a chain, it always breaks off the weak because link it's at one end, the middle, the other end.

It's your heart, your brain, your liver, your kidneys, wherever your genetic link is, that's where the chain is most likely to break if you pull it the chain so hard.

Yeah. So, you know, if you carry the Apple E4 gene, the commonly referred to as an Alzheimer's gene, if you carry that master gene, it means if you pull it the chain, that's where the chain is going to break.

Yeah. Likely. Likely. So what do I mean by pulling on the chain. That's really a no brainer. You know, there are some one on one concepts that unfortunately many people and doctors forget 14 of the top 15 causes of death.

According to National Institute of Health, 14 of 15 are chronic inflammatory diseases. Yeah, the only one that is not is unintentional injuries. Like an accident.

But every other disease that people die from, meaning what's very likely to take you down in your life is a chronic inflammatory disease. Now inflammation is what pulls at the chain.

Yeah, that's what's pulling it your chain. So you have the ability for for Alzheimer's. Don't pull on the chain so hard. Well what does that mean. It means learn how to live an anti-inflammatory lifestyle.

There is no evidence that I've ever seen that taking particular supplements reduces your risk of developing

Alzheimer's. If you carry the ApoE4 gene. I've never seen any long term evidence.

There's lots of supplements that are called nootropic, meaning they help your brain function better. But if the inflammation is continuing in the background, you're killing off brain cells, killing off brain cells, killing off brain cells while you seem to be functioning better because you're putting jet fuel in a Volkswagen, you're taking high, high doses of whatever the nutrient is.

That really does help. But it's a bandaid on an oozing wound. If you're still living an inflammatory lifestyle, this is basic. So when you're going to spend your time to learn how to change the direction of your life, you want a bio hack, the direction your health is going.

And if you're going to do that, you got a fad right now. Are there markers of inflammation in my body? Meaning if the markers are high, it means it's pulling on the chain.

So excessive inflammation because inflammation is not bad for you. It saves our life every day. You know we have to have inflammation to kill bacteria, to kill viruses, to kill bugs were exposed to.

It's there to protect us. And it also gets rid of all the damaged cells to make room for new cells.

Inflammation, Biomarkers, and Weak Links

Misses patient. You have an entire new body. Every seven years. Every cell in your body regenerates every single cell. Well, how does that happen? You have to get rid of the old and damaged cells to make room for the new cells.

That's inflammation. It's good for you. Excessive inflammation is bad for you and pulls at the chain. So we have to we have to understand this basic one on one concept before you devote any of your time into buying supplements, changing diets, doing anything because somebody said, oh, I feel much better after I did that, that you have to.

Practice. That. But I. Because you're. Are we okay? Sorry I lost you when you said you have to address. Oh. Oh, if you don't mind. Just started. You have to address again. I just completely froze.

I don't know what happened there. Wow. Okay. Yeah. Okay. Let me just see where we're at for time. So 321. Okay. Okay. You have to address am I inflamed right now.

So you look for biomarkers of inflammation before you start going down a path of taking this or doing that to so that you can measure six months from now, am I less inflamed?

Right. Because if you're not less inflamed, it doesn't matter what you're taking. If you have excess inflammation, you're killing off brain cells, killing your brain cells, killing our brain cells.

Or if you have the bracket gene, you're damaging your breast cells, damaging brush cells, damaging breast cells because that's the weak link in the chain.

So when you're evaluating your DNA, which is a really good thing, you know, to take a look at your genes and see where the weak links are. That's a really good thing because then you can dial down, okay.

What are the biomarkers for this vulnerability, this genetic vulnerability I have, for example, if I'm carrying some of the genes to not metabolize cholesterol very well, or perhaps to have high blood pressure, then what are the biomarkers I'm going to look for?

Well, you don't just look at cholesterol. You do a called a lipid sub fractionation. You look at the many different types of HDL, the many different types of LDL, and you look at TMH.

Oh, Cleveland Clinic has shown it's the, the, new kid on the block of high risk markers that is, in the background. Most people haven't looked at you look at homocysteine levels.

So if you've got genetic vulnerability to, poor metabolism of cholesterol and cardiovascular risk, then you look at those biomarkers. If you've got genetic vulnerability to Alzheimer's, then you do the neural Zoomer plus, which is the most accurate test blood test out there that looks at 53 markers of inflammation in your brain.

And Mayo Clinic tells us that. There are 97. These tests are 97 to 99% sensitive. Meaning if you got the problem, it's going to identify it and 98 to 100% specific meaning it's going to show up every single time you've got that disease.

So you do the blood tests for neural zoomer plus and you see, all right, do I have any markers of inflammation in my brain? And what you're going to find out is if you carry the gene.

Yes you do. And that's going to be a wake up call. And when you wake up, because you can't feel when you're killing off brain cells, you can't feel it killed off.

All right. So still not every single day, but you can't feel it. So you don't know it's going on. But it's in the background. You're killing off more brain cells, producing more of the crud in the brain called amyloid beta plaque.

And if the markers are elevated, then it's a wake up call. All right. I need to learn what to do to get this marker down or. Oh my gosh, I've got nine of 53 markers elevated for inflammation in my brain.

All right I really need to dial down. Wow. I've got the herpes simplex one antibodies elevated. There's over 270 studies. Just go to Google and type in herpes simplex one HSV one and Alzheimer's.

There's over 270 studies now. And the correlation of that virus getting into your brain killing off brain cells create inflammation in your brain, killing all brain cells.

So anyone that gets those little sores in the corner of their mouth, right when they're when they're too stressed, and they just pop up every once in a while.

And so you've got herpes, which is some studies say 90% of the population does to some degree. But if you're getting breakouts, that means your immune system cannot handle the amount of virus that's there.

And the result is you're killing off brain cells, killing our brain cells, killing our brains. Right. So when you see that on the test result, you're not going to like it.

But now you've got, okay, let's get a game plan together to enhance my immune function, to go after viruses. And then you focus on and then you take the supplements, or you look for the lifestyle changes that help with supporting your immune system, dealing with viruses.

Right. So identifying your vulnerable, links in the chain by doing genetic testing is extremely valuable. If you know what the next steps are. The next step.

So I carry the gene for elevated homocysteine. So every doctor would say, well, just make sure you're taking B6, B12. Folate is that. Well, that's true.

Those are the things that help to lower, elevated homocysteine. But the question is, why do I have a imbalance of B6, B12, folate, and tri methyl glycine?

What's wrong with my diet? How come you know you you don't want to live on the pills the rest of your life? They're good to take as support in the background, but you find out, oh, wow.

So my guts inflamed. Really. I did a stool analysis and my guts and flame and B vitamins are the vitamins that are absorbed in the first part of the small intestine.

And I've got small intestinal bacterial overgrowth, or I've got celiac disease or whatever you've got in your gut.

Right. But you've got to fix the underlying problem.

That's creating the b-complex deficiency. That's the way you think about how do I use my genetic tests? That was incredible. And there's, something you said and there's there's of many things you said in there, but, one item in particular I've just seen over and over where, like you said, there's one thing to take a supplement for a sensorial response.

Like, it makes me feel like this. And then that I feel like this is an illusion, that something's better in some cases. In fact, in most cases, the reality is, if you're supporting a system as opposed to a symptom, you know you may not feel anything you can't feel not getting cancer.

Right? You can't. Right? Exactly. Right. Yeah. So in that system, support is more about it's about being empirical data as opposed to how do I feel like here's the pathway, the the publications, the science already talks and proves what we're talking about.

Here's the exact substance that will elevate this gene expression or downregulated this gene expression that will lead to this result. So doing that you're kind of plugging you're kind of strengthening that weak link. Right.

That's exactly right. Let's replace that with a strong one. And as soon as you stop that new habit you go back to, by the way, I'm going to be plagiarizing that.

I'm just telling you straight off that that's you're welcome to know you're welcome to, because it so eloquently puts it, and it's so easy to understand that it's not about, you know, focusing on a different link, like, let's make me feel happier or let's give me more energy, or let me give me more libido.

But the weak is still the link is still weak, right? And I haven't dealt with that link. So ultimately you can't feel getting to normal. You can feel supporting the system.

You can't feel the way you're supposed to feel. All that happens is the problem. The spokes, all the problems. There's going to be less problems, right?

You're going to lose. Why? That's why you need biomarkers. Yeah. Now that's 1988. My wife and I and our two kids were driving back from Michigan, summer vacation, going back to Chicago, where I used to live.

We had a Chrysler minivan, and it was the end of August. It was a 9090 day, 90 degree temperature, 90% humidity, really hot and sticky and just a lousy day, right?

But we had the air conditioning out of the car, had some soft music in the background, kids in the back seat playing and we're cruising down the highway 70 miles an hour by car.

I have I had this car, I ordered this car and Oldsmobile at the time, and my uncle works at Oldsmobile, you know, so I got to put some special things in the car that most cars didn't have.

Like on the dashboard, I had a dashboard of gauges installed at the factory. There's two ways to measure the temperature and the engine of the car. And one, the hot light comes on the dashboard, and that's most common.

And you know, you got a problem. You better pull over really quick when that red light shines on the dashboard, or you're going to blow up your engine.

But another way. And my car had a temperature gauge and you can see the temperature of the engine. And I saw that the the gauge was heading over towards the red zone as we're going down the highway.

And I saw it and I'm just watching it. And then it kissed the red. The red zone just started to kiss and I said, oh no. And my wife said, what's wrong?

And I said, oh, the engine's about to overheat. And she, oh no, it's going to be okay. It's going to be okay. So what did I do? I saw the problem that was about to happen.

I slowed down to 55, rolled down the windows, turned off the air conditioning, take a load off of the engine and the needle came back in into the solid green zone.

And we made it home okay. I took preventive action because I saw the problem that was about to occur. That's what biomarkers are. Yeah.

Using Biomarkers to Guide Personalized Health

You take preventive action because you can see the problem on the horizon. It's pulling on your chain. Yeah. And that's what you do with your brain. And that's the neural zoom or plus test or that's what you do with your gut.

And that's the gut zoomer test, you know, or that's what you do with your liver. And it doesn't matter what tissue of your body. Genetically, you're sensitive to having a problem with.

There's two things to determine where the weak link is in your chain. There is your genes, and then there's your antecedents. Antecedents are how you've lived your life up to now.

For example, if you love tuna fish and you eat tuna fish sandwiches 2 or 3 times a week, you got mercury poisoning. Yeah, it's almost 100% for sure. So the mercury is accumulating in your body.

You can't feel that. But that's an end to see. And that would set you up for brain inflammation. Because Mercury loves the brain and it causes lots of inflammation in the brain.

So it's your genetics and how you lived your life. If you live in a moldy house and you have and you do for years, that's an antecedent that sets you up, right.

We know that 60 to 65% of all Alzheimer's is inhalation Alzheimer's. It's what you're breathing that's that throws the gasoline on the fire of the memory center of your brain.

And if you live in a moldy house, you're smelling that 24 over seven. Yeah. So it's genetics and antecedents. Yeah. So once you've got the genetics now you check biomarkers to see is this gene expressing itself.

And you you certainly can can do the diet or do the nutrition that the genetics suggest without checking the biomarkers. But then you never know. It's you're you're shotgunning, you're hoping, you know, I grew up in Detroit and Motown.

You know, I grew up with Motown and we had a song, Shotgun Shack. You know, we would do line dancing to shotgun, you know? But nutritional therapy is usually shotgun therapy.

You don't know if it's working or not, because it depends on how you feel. And that's the last place you see results. But killing off brain cells, killing our brain cells, plugging up your pipes with high cholesterol.

Plug up your pipes with inflammation. You don't feel any of that. So if you don't have biomarkers to check and see if that vulnerable gene is expressing yourself, you're shotgunning.

Yeah, you know, it's okay to shotgun, but that's historic. That's you know, that's not necessary anymore. We've got so many tools. These are better tools. Yeah. We were limited by the toolkit.

So practitioners were limited by their toolkit. So they could only make the job that they were equipped to do. There's so much more now. We've gotten so far ahead that practitioners need to catch up and learn what the new tools are, for the most part, right.

And in your world, IFM example, it's there's a lot of training, but for the most part somebody listening here goes to their doctor mentioned the test.

You mentioned that those don't even exist. What are you talking about right. Yeah. The doctor we know. So you know, we've got the tests on my site and I recommend people go to the site, download the information, take it to your doctor and say, hey, this makes a lot of sense to me.

Would you order this test for me, please? Yeah. Which would force the doctor to begin to learn something new outside of what they know. Yeah, sure. Yeah, yeah.

And, you know, one of the interesting things you said in there, like the example of the person with the moldy home, the end and see what gets them there.

What is that? What pushes you, creates a load that makes you cross the threshold where something gets triggered. Right? Right. And then the, the put some simplicity to the genes as well.

Why did three people in the same exact household have three different outcomes? Right. Because their genetic capacity to deal with it in the first place was different.

So it's bad for all of them, right? The mold. The mold is the gasoline on the fire that creates the inflammation. Yeah. And wherever your genetic vulnerability is, that's where the link is going to break.

Yeah. And eventually here come your symptoms. Yeah. So let's dive into biohacking because have you you've said something that really piqued my interest because it resonated with my own personal experience.

My foray into the biohacking world was, you know, weird genetic testing company. We help people all day long. We work with practitioners, especially in the functional medicine space.

And so you kind of automatically cross the line and have feed in multiple paths, including biohacking. You just have to give the tools, like you said, that's where they come from.

But I kind of was a victim of what you say is the wrong way to do things. And again, you make things so easy to understand. I read what you said about, you know, the getting there step by step, the baby as opposed to what people typically do.

So let's dive into that. First of all, like how do you hack biohacking? What are you supposed to do? What's the best way to actually get the results? Yeah, really good question.

Thank you. The first thing, and I was very guilty of saying this wrong for many, many years. Like most of my colleagues, you can't turn genes on and off.

Genes don't operate on an on off switch. Your genes operate on a dimmer switch, and you can dim down the genes of inflammation and ramp up the genes of anti inflammation.

And that's the goal. You know but you can't. And I you say well let's turn off that gene for Alzheimer's. You know let's just shut it down. You can't shut down genes.

You it's not possible. So when people understand that the goal here is to jam down and ramp up selective genes, then you understand that every baby step you take is going to have an impact on that round dial of the dimmer switch one way or another.

So when you're looking for a snap late at night and you've got the option of making some popcorn with butter and a little bit of Himalayan sea salt, or you can have a bowl of blueberries and you think about this.

You go for the blueberries, because we've known for years that one cup of blueberries a day for three years and

your brain's working as well as it was 12 years earlier.

Wow, that you completely reverse the inflammation in the brain. You increase what's called brain derived neurotrophic factor. You make new brain cells and new nerve connections by having a cup of blueberries every day.

And so it's the baby steps you take on a consistent basis that in the long term, have the big kahuna effect. So what does that mean. You have to begin with the basics.

You have to learn one on one before you can go to master's level. Have to take the introductory courses. You go to 101. Then you go to 102. And then eventually you go to 201 and 202 and then 301 and then 401.

Now you graduate with the back of baccalaureate degree, maybe you're going to go on for a master's, and then maybe you go on for a PhD because you really love the world that you're studying.

But if someone just getting started wants to go to the PhD level, they're going to fall flat on their face. They're going to find out years later. They made some mistakes and they just didn't know about the mistakes they made.

And then they're going to be hustling to try and play catch up. So what's the basic one on ones? Reduce inflammation for 14 of the top 15 causes of death.

Reduce inflammation. What does that mean. Well the most common source of gasoline on the fire is what's on the end of your fork. So you have to determine you have to do, biomarker testing.

Is my diet supporting me more than harming me? And how do you how do you do that? Your immune system is the armed forces in your body. It's the army, the air force, the Marines, the Coast Guard, the Navy.

We call them IGA, IG I ge I GM. They're all branches of the armed forces. They're to protect you. So you do biomarker testing to see what foods is my immune system fighting right now?

What foods? And there are some very common foods like gluten and dairy, soy, corn. Let's see, eggs are very common, but you do these tests to find out.

Now let's talk about the testing. Lectins. There was a book that came out a few years ago called The Plant Paradox. Good book. But the author said nobody should eat lectins ever.

And that's just nonsense. I shouldn't say it like that. The way we interpret those messages to our patients is if you're immune system is functioning normally, and that's easy to tell on a blood test if you've got adequate immune function, if your immune system is fighting tomatoes, don't eat tomatoes.

If your immune system is fighting beans, like like lentils, don't eat beans. But you can check now to see technologies improved dramatically. And so you do the tests that are called the Zuma test because you zoom in on the problem and we zoom or corn zoom or soya zoom or egg zoom or, lectern Zuma and you find out what is my immune system having, having to allocate it's very precious energy because your immune system operates on a bank account, and every time your immune system is activated, you're withdrawing from your bank account.

Baby Steps and the Dimmer Switch Model

And if you keep eating something that your immune system has to produce more antibodies to fight, you're withdrawing from the bank account. And then when you get an overdue draft now you start to have symptoms, right?

So you want to identify what is my immune system fighting right now. That's basic 101. You want to get healthier I don't care what you've got. You have to stop throwing gasoline on the fire.

That's basic. Yeah. And most doctors don't quite go there. You know they'll start, they'll start with some other testing perhaps. But for any imbalance a person has our focus to begin with.

We don't do genetic testing immediately. There are a few situations where we do, but usually actually the first thing we have patients, if they have to allocate their dollars on a selective basis, the first thing to find out is, how am I throwing gasoline on the fire?

Then once you've got that estab flush, now you look. See. Okay, where are the weak links. In my chain. Where are my genetic vulnerabilities. Oh so I should really monitor these biomarkers.

For example, my ex, her father died of Alzheimer's. Her three and state of Alzheimer's. And so she checks every year her biomarkers for brain inflammation to make sure the life she's living, and she has, April before.

Before. So she's a high risk. Well, but she's making sure that the life she's living is not inflammatory to her brain. And so you can tell things like that right now, right?

The technology is really great. So let's talk about that for a minute. So people are really clear. 25 years ago, if I told you that I was going to hold this thing in my hand, that, about the size a little bigger than my wallet, my iPhone, and, you know, I shut it down for the, for this interview.

So I'm going to let it boot up here for a minute. But if I told you 25 years ago, let's say in 1990 or 1995, I was going to tell you that, you know, I'm going to hold this little thing in my hand.

And if I push a couple of buttons on this phone, then I can tell you within five, six the oh, no, it's not. Oh, I know what I did because I turned off the, I turned off the, I was on an airplane mode airplane.

Yeah, let's try it again. Because this is a really good analogy, you know? So if I were to tell you this and I push a button and the air particulate matter in spazio Italy right now is eight, that's really good.

It's a good day to be outside. But in Chicago it's 64. And that's a, that's a red zone. Do not exercise today in Chicago because the amount of particulate matter in the air is really high.

And if you're outside exercising, you're sucking in, you know, if you read the studies in LA now, this is years ago. But in LA if you ran ten kilometers, you get as much particulate matter as smoking a pack of cigarets for running a ten kilometer run.

You know, because we're sucking in all these fumes. Remember, the most common type of Alzheimer's is inhalation Alzheimer's. Right. What? You're breathing. Right.

So in San Diego 66, that's a yellow. You know, that's kind of a warning warning zone. But I can tell you that in five minutes. In other words, I've got the Encyclopedia of the world in my hand.

And if I told you that in 1990 or 1995, you would think that was a nutcase watching too much Star Trek. Yeah, right. It was beyond conceptualization for most people.

The same is true in laboratory medicine that most of the laboratories out there that are checking the immune system are using technology from the 1990s, perhaps the early 2000.

It's pretty good technology, but the accuracy is somewhere between 65 to 85%, meaning it's wrong 1 to 3 out of ten times. Completely wrong, and doctors just are crossing their arms.

When I talk about this on stage, you know, they start to feel a little defensive because they're, you know, I've been using those tests myself for years.

So here's how you know, doc, when you draw the blood and whatever test you're doing, draw a second tube out of

the same blood. Draw. Label the second tube with a different name, send it to the same lab ordering the same test, and you pay for the second one.

And then look at the results when they come back. And when I started doing that, I was blown away. How inaccurate my tests. So which 1 a.m. I going to talk to the patient about?

The one where they're test is pretty good or the one where it's pretty bad? I mean, it was like that, really like that. So just throwing a dart, you, you could have just thrown a dart and got the same result.

You know, that's what sensitivity and specificity means. Right? Then in January of 2016. Now I'm a world expert on gluten and its impact. And I travel the world teaching about this.

So I know about the testing on gluten very, very well and about wheat. And in January of 2016, one of the greats in the field of celiac disease, at Mayo Clinic, published a paper.

And he called this laboratory technology a new era in laboratory medicine. And this is a world renowned gastroenterologist, high integrity. I said, what?

And the sensitivity and specificity was 97 to 99% sensitivity, 98 to 100% specificity, meaning right on the money every time. That's the Zoomers. And they can look at 6000 antigens, meaning things that might offend your body in one blood draw with that kind of sensitivity and specificity, because they're doing what's called silicon chip technology.

And in your world of genetic testing, you have that kind of sophisticated stuff that you guys are doing, right. You know, I'm I'm not a lab guy. I don't, know about the genetic testing and all that, but it's accurate.

It's extremely accurate. But in the world of other blood tests, most of the tests, you can't be sure. And so I challenge doctors. Take the test you're currently doing, do two samples and then see for yourself.

Do it three times and see. And so that'll probably cost you 800 bucks or you know, whatever the cost is of each individual blood test. But you do it three times.

Then make a decision about using that lab again. Yeah. And then do the same thing with vibrance. And these Zoomer tests. And they come back within 2 to 3% every single time.

So that's critically important for people to understand because we've all thought for a lifetime that, oh, yeah, the doc drew my blood and it came back and said, my, my cholesterol is good.

Well, if he had done a second draw or a second to that, 1st May have come back and said, your cholesterol is really bad. Yeah. So, you know, so you, you you have to understand, it's unfortunate the patients have to understand this concept because doctors are supposed to know this and they don't.

And there's all kinds of politics involved when you're talking about laboratory testing in hospitals and in networks in HMOs, you know, they're. Negotiating pricing.

And, there's so much politics in all of that. I'm sure in your company, I don't know your company, but I'm sure it's not like that because you're an independent.

But, but for the the the functional tests, and when patients want biomarkers to look at the temperature gauges of their body and how they're working, you want accurate results.

So it's people are in this odd position. It's kind of a rock and a hard place because you have on one end you're talking about sort of allopathic medicine and what you might get your primary care M. D.

and your it's the like absolute minimum like 1950s technology plus a little tweaking right. Then on the other end

you're like, okay, well let me find an alternative, which is the biohacking world.

And you're saying, take baby steps, but you can't even enter that world without, you know, expert level is where you start. Meaning that's what about right? You're right.

That's why you're right. That's why I'm talking about this now, is that one on one is how am I throwing gasoline on the fire? Yeah, but you have to have accurate tests to make the determination.

Yeah. So it was it literally what you're describing is that thing in the middle.

Accurate Lab Testing and Modern Diagnostics

How do you learn from what all the Biohackers are saying, where they've identified the root causes of everything? Read my books. Yeah. There you go. That's a great.

But in fact, that is actually a great place to start, because I ultimately what we're saying is somebody has to take all of this, all this leading edge, cutting edge biohacking type stuff, which and even if you pick one thing, red light therapy, some kind of device, that in itself requires an expert level interpretation for that thing, right?

And it doesn't even solve everything it does one. So somebody has to distill all of this and make it digestible, consumable. And outside of that suite of solutions.

Like what? Like what can I do today? Right. So you've kind of done that in your writing, which I've read a little bit, and it's been just like the way you speak.

You know, you make it very easy to understand, to the point. And you're able to distill this, we're able to say what's broken here. Here's the thing in the middle, which is exactly where you start.

And that's where most people are at. Most people aren't over here, right? Yeah. You have that community, but most people are like, right here, tell me what I can do.

And I don't have time to be a biomarker. Right? I've had read every book, so I would actually recommend where do people actually find the books? Oh, Thank you.

Our website is the drawcard. The doctor.com. Just don't spell the word doctor out that that's an amazing URL by the way. Yeah. Thank you so much. Know.

And yeah and the books are there. There's lots of videos, lots of courses. You know my goal and my goal is to make it easy to do the right thing. Yeah. No, I mean yeah, but in order in order to do the right thing, you've got to start with 101.

Yeah, you have to. It's the basics. You have to start the basics. Now, unfortunately, to start with the basics, you have to learn about the technology and what the good labs are.

Yeah that that are accurate. I shouldn't say good. I mean everybody's got good intent. But it's which ones are the accurate labs. So if somebody somebody listening thing.

Sorry. Go ahead. You'll see. It's all science. I've got two books. The first one is called the Auto Immune Fix. It won a national book award. I'm very proud of that.

And it's where does autoimmune disease come from? And when you understand that, you understand what to do. And the second one is you can fix your brain, right?

And it, once again, it and I could have written that book. You can fix your heart or you can fix your liver because it's the same for every system of your body.

These basic concepts are the same. I took the brain because I just dropped this bomb on you. Blue Cross Blue Shield told us two years ago. They published that between 2013 and 2017, in four years, there was a 407% increase in the diagnosis of Alzheimer's in 30 to 44 year olds.

Wow. We have a huge pandemic going on in our brains right now across the world because of all of the environmental. Toxins were being exposed to 60 to 65% of all Alzheimer's is inhalation, Alzheimer's and the amount of indoor air pollution is worse than outdoor air pollution in most areas of the world.

You know, just look in the room that you're in for people that are watching this, look at the plastic blinds on your windows. They oh, guess fell legs into the air that you're breathing 24 over seven.

Now you can't taste it. You can't smell it, but they're out gassing it. Look at the, kitchen cabinets. If they're not solid wood, they're a press board.

They're soaked in formaldehyde. That's outgassing into the air. 24 over seven. Never run your dishwasher during the day. Only run it when everybody's going to sleep. Why?

Because it's water tight. But it's not airtight. And those toxic chemicals that you're throwing in there with, you know, the soap, detergent stuff, they're coming.

They're getting heated up really high. They get steam, it comes out the air. You're breathing that crap, which is cancer causing chemicals, and you start to learn about indoor air pollution, which is pretty overwhelming to learn about.

But then you go to the doctor.com/plant and you download the handouts from NASA. Messer had a problem that their astronauts were getting loopy in space.

They said, this guy's got brain fog. What's going on here? And they found out it was the toxic air in the capsules that they were in, because they're all plastic and they're all metal. They're outgassing.

You know, the leather sofas or the the, whatever the material is on the seats that they've got and, it's out gassing constantly. And so NASA did the studies on house plants, you know, two six inch house plants in a ten by ten room absorbs over 70% of the toxins in the air, two little six inch house plants.

So you have eight rooms in your house. You go by 20 house plants. Yeah. Excuse me. And someone says, well, I don't have a green thumb. They're going to die. Then you buy more, but you protect your family.

You put them in your kid's bedrooms. Yeah. And at night, the house plants are outgassing. Oxygen into the air. Yeah. During the day when there's light, they're pulling in the toxins from the air and the microbiome in the roots of the house.

Plants converts that stuff into oxygen. And so you get house plants in your house to reduce the danger. At 60 to 65% of all Alzheimer's is inhalation Alzheimer's.

So you learn to do these little base hits, these little one on one things that accumulative Lee, make a huge difference in your life. You know, every time I sign a book, it's always the same base hits when the ballgame.

Amazing. That's how you win at this game is all the little base hits you do. Yeah, it's like that movie Moneyball. Did you watch Moneyball? I did, yeah, it's exactly the same thing is they all they cared about is does the guy get on base or not?

Right. One step at a time. Because the cumulative cumulative factor of every single player getting on base is a lot of runs. That's exactly right. Right.

And that's exactly what you're talking about. We're we we strive for Band-Aids and masking where the pain point is

gone. But the pain point usually is in the problem.

That's your body telling you that there's something layers before that you got to deal with and that emergency fix or that Band-Aid. If you're not getting that feeling, you're like, well, you didn't the clinician didn't do their job, but the job is in that.

Did you ever get an answer of why you had the pain in the first place? You know? Right. Let me tell you that, the science is really clear, especially with celiac disease of tens of thousands of articles now. But the ratio is 8 to 1.

For every one person that has gut symptoms when they eat wheat, there are eight people that don't. They've got brain symptoms or joint symptoms or skin symptoms or detox problems, or eye symptoms.

The ratio is 8 to 1. So if you're sitting there thinking, well, I feel fine when I eat wheat, it doesn't matter how you feel if you're using that as a determinant factor, that you feel fine when you eat pizza, then you'll identify it correctly one out of eight times, you'll be wrong seven out of eight times.

And that that could be the gasoline on the fire. That's why you do the tests. Because it doesn't matter how you feel when you eat a food. Of course it matters.

You know, if you feel bad, don't eat the food. But most people don't feel bad with the food that is gasoline on the fire for them. So the absence of feeling bad doesn't mean that it was good.

Exactly. Right. Exactly. There's some things that aren't sensorial, and it's and for the most part, that's the story of inflammation. Exactly. Right. You know, I, I, have to apologize.

I didn't know that you are one of the owners of a genetic testing company and that you're hosting this event, which is great, but I know that you've got profiles that are inflammation profiles, right?

And those profiles are so important for people that have a history of being sick or having symptoms on and off and on and off. You need to do the test to see are the weak links in your chain that your immune system is hyper sensitive.

It gets activated really easily. Yeah. If that's the case, you need to be a squeaky clean in your lifestyle. You can't afford to say, well, I can have a cheat day once in a while.

Well, no, you can't.

Environmental Toxins, Air Quality, and Brain Health

You know, it's like it's like celiac patients say say, well, you know, my doctor said I can have a cheat day once in a while. And I said, look, you can't be a little pregnant.

You can't have a little gluten, can't, you know, because the effects will last for 2 to 4 months from one single exposure. Wow. People that are hyper vigilant, you know, some of your, genetic profiles will identify those people that have a sensitivity for an over inflammation, excessive inflammation response.

Those are really important tests to do. Yeah. And and for the most part they aren't interpreted properly. An interpretation is one of the big gaps in genetics.

Like what does it actually mean? So as an example, what you just said, the TM one gene, which is part of the glutathione pathway. Right, right. It's possible to have what's called a copy number variation, meaning forget about what version or snip you don't even have it.

So the belief is I got a copy for mom. I got a copy for dad. I'm well armed. I got both my copies. Right know. Belief also is that if I missing one or if I have zero, I don't do that.

Part of my glutathione process. Well. And so my detox is off. What we learn is yeah. Yes that's true. If you have zero copies. Horrible. Especially in the gut.

You know, this this is implicit in the gut. But if you have two copies, you actually elicit an autoimmune response. Or this you know, cytokine storm type response because your body is so good at fighting the fight that it over, does it.

Right, right. So, so, so in instead of using a high powered rifle to attack something, your body uses a bazooka. Exactly. A bazooka to kill an amp. That's.

You can imagine what that looks like in the end, right? Yeah. That's right, that's right. That's a that's really good. Yeah. So it's important to know that it's important to know so that, so that you can learn how to take appropriate protective action.

You're that's really cool. So yeah, you have opened up a whole other perspective for me, you know, just speaking to you for this short while, we've had, I'm sure for everyone it's been really eye opening.

But the beauty is that it doesn't end here. Anyone. If you go to your website and keep learning and you've made that available, which is incredible, sort of your life's work is out there for people to keep improving, you know, and, if anyone takes anything away, I think what you're suggesting, and we've seen this in behavior change, you see this in coaching.

We've seen this in trying to get anyone to true health, not how do I not make you feel bad anymore, but how do I actually make you healthy? It's not an overnight answer.

It's what are you going to do for the next year? And then what are you gonna do for the next five years? And then what is your new identity going to be?

Right. And those people think, you know, if, if, if there's one takeaway, it's learn how to use the biomarkers to identify inflammation. Right. Because 14 of the 15 top causes of death, meaning when you go down, whenever that is, it's going to be from a chronic inflammatory disease, which means it was going on for years.

The inflammation was going on for years. And if you can reduce that inflammation, you will. Look, I have a, 18 month old son. I just turned 70, you know, so I'm really grateful.

And who knows, I may be gone tomorrow, but, don't think so. You know, there's no plan, but you can live a long, vibrant, dynamic life. Yeah. If you learn the basics and live by the basics and stop going for shortcuts.

Yeah, yeah. No, I agree, if you if you do things right, it's, you know, when people are not yet 70 right there. You know younger you, you feel like you're invincible even when you're in your 40s.

In your 50s, you don't feel anything. Right. And the belief is, especially when you were independent adult, that there's no punishment for my poor choices.

You feel like the who's going to tell me otherwise, right? The punishment comes later. That's what the there's a gap in time between the choice you made and the the repercussion. Right.

But there's also a 400, 477% increase in Alzheimer's and 30 to 44 year olds in three years. Yeah, 407%, because the younger generations have been exposed to so much higher volumes of chemicals earlier in life.

And you've heard the studies, we know now that newborns today, on average, have over 280 chemicals in their bloodstream at birth that are not supposed to be there, right?

Pesticides, insecticides, petroleum products, varnishes, they're all in the bloodstream because mom's got them in her body. Yeah. It's incredible. And and that's where this silent killer of environmental health, which we don't even think of as as, you know, because we think about what do we eat, what do we see, what we feel.

You know, it's not what, like you said, it has no smell, has no flavor, you know, sight unseen. It's like ostrich burying their their head in the sand.

We got to pull your head out and start to look for it, you know, if that's right. Yeah. All of our patients, all of our patients know to get, the best air filtration system they can afford for their house.

Right. And to have houseplants in every room. Those are basics. And in my book, you can fix your brain. There's 38 different tips like that. Like the houseplant tips.

The little thing, like, you've got to get rid of plastic food containers in the kitchen because you can put your leftover food in there in the next day.

The food you take out the refrigerator, it's got pellets in it from the plastic. Yeah. And so I give you three URLs for glass storage containers. Right.

And you know, all of these little things that you learn a cumulatively make the difference. Bass hits win the ball game. That's incredible. Thank you so much.

And you know for everyone that wants to continue learning go to the website. The doctor is a doctor a doctor's the doctor. Doctor Drf.com. So take a look.

Read the book because it's he's I mean, you've made it so easy for people to implement, which is the key. Like, what do I do right. And then you've, you've given that dispelled out.

So thank you again. There's one more thing. Yeah, sure. One one more thing, if I may, the subtitle of you can Fix your Brain, is really the Secret of Success.

The subtitle is just one hour a week to the best memory, productivity and sleep you've ever had. And it's not a cutesy subtitle. It's the path to success.

Because everybody is so busy, they don't have time for anything. But you tell your family every Tuesday night after dinner or every Sunday morning after services, whenever it is.

But every week I'm going to take one hour. Don't bother me because I'm going to learn more of how we can be healthier. And then you go back to the book and you look to the three URLs for glass storage containers and Miles Kimball, dot com and Amazon and whatever the third one is I don't remember.

And you go those oh, those are okay. Oh I like those. I like, you ordered three round ones and two square ones and one for the Pi. You pay with a credit card, you hit send.

It took you an hour. Yeah. You're done for the week. For the week. And never again are you going to poison your family because you're using Tupperware.

Yeah. And then next week you look at organic nail polish. Because you'll learn that when you apply nail polish, the phthalates, the plasticizers in the polish are in your bloodstream in 4 to 5 minutes.

And so you look for organic nail polish, and I give you a couple of URLs for organic cosmetics. And every week you just take one thing. Yeah. One thing. Yeah.

And in six months you've dialed this down and you see someone that you haven't seen in a while and they say, wow, you look like a million bucks. What happened to you?

So, well, I'm learning to live an anti-inflammatory lifestyle. And bottom line, that's what you're doing, right? That's incredible. Reducing the inflammation.

But that's the secret to success is one hour a week. Just the base hits a little bit every week. Yeah. And in six months you've got all this stuff. Yeah. One small, tiny habit.

Keep stacking them until you have a full stack. And also, yeah, that's awesome. Thank you again. I feel like this could go on for another 2 to 3 hours.

And I'll just be like ten minutes, you know, and we honor your time and respect the appreciate that you gave us so much valuable information. Thank you. This is great.

Thank you so much for the opportunity.