How Your DNA Impacts Your Menopause Transcript

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Introduction to Genetics and Personalized Medicine

Hi, everyone. Welcome back to Mastering the Menopause Transition Summit. I'm your host, doctor Sharon Stills, as always, a pleasure a pleasure to be here with you.

And we're going to have a really good talk today about a topic that's probably at some point has been on your mind, and we're going to get some good answers.

We all hear about genetics and epigenetics and how it makes a difference in how our health plays out. And so I've got the man here to talk with us through it today and how it relates to you and your hormone.

So I'm very happy and honored to be joined by Kashif Khan. He's the chief executive officer and founder of the DNA company, where personalized medicine is being pioneered through unique insights into the human genome.

He's also the host of the Unpeeled podcast. Growing up in Vancouver, Canada, in an immigrant household, he developed an industrious, entrepreneurial spirit from a young age.

Prior to his tenure at the DNA company, he advised a number of high growth startups in a variety of industries as he dove into the field of functional genomics.

As the CEO of the DNA company, it was revealed that his neural wiring was actually genetically designed to be entrepreneurial. However, his genes also revealed a particular sensitivity to pollutants.

Now seeing his health from a new lens, Kashif drove further and further and started to see the genetic pathways that led to his own family's challenges and the opportunities to reverse chronic disease.

His measure of success is not in dollars earned, but in lives improved. I love that I didn't know that about you. Welcome. It's really great to have you here. No. Thank you.

So it's an honor. Pleasure. So this is this is just such an important topic because it's such a game changer. And it really is such a key part. There's there's a few different things that contribute to personalized medicine, but really understanding someone's genetic or epigenetic expression really can be the difference in why this works for you and doesn't work for me.

And so I'm really excited to share this conversation with the ladies today. So, you know, let's just let's just dive in. You know what? It what how do we know?

What do we know about DNA in our bones? And, oh, there's so much we can. I mean, we need the whole day. Yeah. So I mean, firstly, like 101 type stuff, is that what we know we can glean from DNA is so much more than what we think, because the interpretation has got a lot better.

How DNA Influences Hormones and Menopause

So testing is something that anybody can do. Meaning you literally can go by a DNA testing machine and put it in your garage and start testing DNA. It might be illegal, but you can still do it, you know?

And the challenge there has always been outside of rare genetic conditions where a gene directly equals a problem, this gene was turned off. I have a certain version of it, things like Bracco, which we'll talk about.

Scary for that are words that make you think, oh, I have a propensity towards a disease. That was kind of the limit of genetics, which is what do I have an 80% chance of getting?

Right. That was kind of what genetics was, which is why most people weren't interested. I was like, I don't want to know by about 80% chance of Alzheimer's.

I'd rather just enjoy my life then rather than have all the, you know, anxiety for 30 years. So what was missing was the genes point to poor biological function.

All right. There's something if you have a good version of a gene or a bad version of gene, you're doing that job good or you're doing it bad. That doesn't equal a problem except for rare genetic conditions.

What a equals is bad biological function. What was then required is now that I have a profile, here's what this person is doing. Bad. What are the environment, nutrition and lifestyle factors that then equal the problem?

That's how chronic diseases are formed. They're not born with breast cancer or menopause problems or cardiovascular disease or Alzheimer's. All these things happen later in life because the body is very resilient and those wrong choices you're making, the body will keep fighting until one day you get to a certain age and the hormone levels go down and the threshold gets crossed of how much nonsense your body can tolerate.

And then the inflammation gets to a level where it turns into disease. Right? So all we're saying now is we've moved far, far away from your gene means you got an 80% chance of breast cancer, too.

Here's why breast cancer happens. And if you know why, you can actually prevent it. Forget about fighting it. Right. So we're we're way, way down that track now.

And I think people need to know a lot more about interpretation. Yeah I love the saying genetics loads the gun but your your epigenetics your actions pull the trigger.

And so sure it's not a, it's not a sentence that this is your genes and this is we have, it's so empowering that we have the opportunity with the choices we make and the knowledge we get to, to make a different expression, to go back towards health rather than marching towards disease, for sure.

And that's when the challenges are at nobody's fault. They didn't know choices to make, right? The one size fits all trial and error. Okay, I need to lose weight.

I'm going to go watch a YouTube video or listen to a podcast. It may work. Amazing. It may make you feel sick, right? Literally. There's some people genetically that we have to tell them cardiovascular disease will actually make you get sick.

I'm sorry, cardiovascular exercise sorry will actually make you get sick because the amount of oxidation produced by breathing in that much oxygen that you don't have, the genetic ability to clear, starts suffocating your cells and causing inflammation. For some people, no problem.

They can be a marathon runner their whole life. There's some people we have to tell them, you can't go on a keto diet, you know? Yeah, you might feel great in two weeks because you're in ketosis and the brain is firing and all these ketones make you feel so great.

But a month, two months, three months into it, it's going to make you feel horrible. There's some people we have to tell them, I'm sorry. The day you got sick was the day you decided to become a vegan.

And that's not true for everybody. But for some people, they the genes that create the enzymes to break down beans, lentils, legumes, chickpeas it's very clear.

So if you don't make those enzymes, how can you thrive as a vegan. Right. But if you do, you may do very well as a vegan. You'll feel great. Then you'll tell your friend to do it, and one of them isn't going to do so well.

So that's where genetics can sort of guide you. Let's remove the trial and error. Let's remove the one size fits all

and like what do I need? What do you need.

Here's my instruction manual was a telling me it's really the the textbook definition of what naturopathic medicine is, right? We treat everyone as an individual.

We get to the root cause for you and that. Yes. Unfortunately, because and Mary had a great experience doesn't mean you're going to. And that's it saves you so much time because that is a lot of how healthcare gets spread in our society.

When you talk to your cousin Jane like, oh, I did this diet and lost 20 pounds and you're like, oh, give me the book. I want to do. And it's just not that simple.

And it, as you said, it just can save you a lot of time and energy and problems. So. So how does DNA drive our hormones and what does it have to do with menopause?

What do the ladies need to know? What are some of the big things you can check and help with. So this is another part of genetic reporting that was broken.

And I don't say testing purposely because testing is testing everyone. Test for DNA. You're just figuring out what version of what gene you have. The interpretation is in the reporting and gene reporting.

If anyone here has done a genetic test, you probably got some document that says gene this this version, gene this, this for. So it tells you about each gene.

Right. But the body doesn't work like that. The body you have 22,000 genes and make a rare genetic code. It's not a bunch of independent separate processes.

You have systems and hormones are such an important place to think of things in pathways and systems as opposed to each individual gene. And this is why most genetic reports don't actually talk about hormones, because each gene on its own doesn't tell you much.

You need to understand the full cascade. So what does that cascade? You make? Progesterone or you make progesterone. You convert that into testosterone.

You convert that into estrogen, whether you're a man or a woman. And in that process, there's multitude and there's a multitude of ways you can go. There could be a very fast conversion of progesterone into testosterone based on what version of the gene you have.

You could bypass the estrogen and convert that testosterone into DHT, which is like the manly man version of testosterone. That gives you a nice rip six pack, but your hair starts falling out, right?

Or you could clear the androgen or the testosterone before you convert it into estrogen and have very low estrogen. Or you can have a big green light here that flows all of the testosterone into estrogen.

You have a very heavy bucket. So what does that mean? You can understand. And this is one of three things you need to understand. What is your hormone dominance.

What is your hormone profile look like. Are you estrogen dominant. Are you androgen or testosterone dominant. Are you Co dominant. Are you a little bit of both.

Are you more balanced or are you just have a little bit of both right. So from that you can start to predict what is your body look like. What is your skin look like? What is your hair look like?

What conditions may you be prone to if you add the epigenetic loads. Right. So now second, for women important if you're estrogen dominant. With so many of us, not me included, I'm not a woman, but so many women are.

You may also be estrogen toxic, which means before that monthly cycle, or even if you're menopausal, you're still creating. And in converting, you convert that estrogen depending on what version of what gene you have, either into two 4 or 16 hydroxy estrogen, two is great.

It's the good stuff that you want four and 16 potent toxins. You make toxins. Now if you're in that bucket that you're estrogen dominant, you happen to fall in that path genetically.

This is what you're wired to do. And you're also estrogen toxic. So there's a very heavy bucket of estrogen being converted into this potent toxin that's starting to not look so good.

Now all of a sudden there's an inflammatory insult that you're making every single month. Step three how well do you get rid of it? There's very specific genes that drive very specific clearance pathways, detox pathways.

We have heard of Bluetooth Island Bluetooth ionization. There's anti oxidation. There's a gene called side two that also supports that.

BRCA Genes, Estrogen Toxicity, and Cancer Risk

There's a lot of women have heard about the Comp gene which is at the tail end of what's called methylation. And sort of takes the garbage out the door.

Right. That's its job. So you could have any one of these sort of genes turning different dials at different levels. So you may be estrogen dominant, you may be estrogen toxic.

And you may not clear that toxin. So well, here's a perfect storm for the woman who now epi genetically decided to go on birth control pills and add more estrogen, decided to go on hormone therapy without understanding where and when to intervene and what version and what type.

More estrogen, you know, isn't familiar with the hormone disruptors in her environment. Chemicals, food, pesticides in your grass, Teflon coated frying pan, all this stuff that you don't know is mimicking estrogen, which again, creates an additional that's the woman for whom, no surprise, once you're menopausal, you know, no longer have a menstrual cycle and your body's trying to figure out what to do with this toxin, it starts to stored in fat, which is in your breasts, in your hips, and you start to get things like breast cancer.

And then you start to get things like ovarian cancer. And your menopause is a crazy, crazy roller coaster, you know? So what we believe and, you know, it's sad that I have to say this as a man, but what I find is in all of the work we do, what is the most underserved medically, you know, and I just say this as a, as an ambassador of women now as a man, because I've seen so much of it is female hormone health.

It sucks so bad. It is horrible, horrible, horrible. And the key thing, it's just taken for granted that you're supposed to have these problems with your hormones.

You're a woman. Live with it, right? When in fact this very gray stuff is so black and white. Here's your map. Here's what your body is doing with your hormones.

Now you know exactly where and when to intervene to have a beautiful, balanced life as opposed to this roller coaster. Exactly. That's why estrogen, you know, has been so demonized when if you just you know I love estrogen and it has so many beautiful health benefits.

But you have to know all these pieces so you can use it appropriately. And you can be looking at what's going on downstream and so I, I love I love what you just said.

It's, it's, it's and it is such an overlooked area I think in Maine's dream medicine it just no one wanted. It's like, I don't know, what were you guys doing in medical school?

Because I was, did it really? Yeah, I why are you going into these things? It's like you said earlier that medicine is, you know, treats the symptom. So we have this really good acute care system.

You break your arm, you have terminal cancer, someone's going to fix you, right? You respond to the emergency. That same toolkit is applied to chronic disease.

And so when you think of female hormone problems we're dealing with the problems endometriosis, fibromyalgia, bad menopause. We're not dealing with the sole clear and obvious root, which is the hub of all of them.

Right. This one thing may cause three different problems, and now you're treating them in three separate, siloed events with three separate pills and three separate doctors.

When they're all the same thing, they could just be estrogen toxicity. That's the one thing driving all of this, right. So and that's why, you know, the it just it becomes gray.

Because when you treat female hormone problems as a symptom level, they're hard to measure. Right? They're hard to, you know, put into a bucket of some kind of clinical efficacy.

Because how is the person even perceiving it to what degree? All that kind of stuff. And they're hard to fix because you fix one another one pops up, but you didn't get rid of the root, right?

Yeah. It's really a a symphony. Yeah. So I want to talk about, like the bracket genes. And if you could just kind of set the record straight on this at all, really means.

So it goes back to what I said. So I laid out the profile for why women get breast cancer at the menopause age, which I said estrogen dominant, estrogen toxic.

Don't clear. There's the profile. Now you got to add the epigenetics birth control pill. 85% of women will be on a birth control pill in North America for some elongated period hormone replacement therapy without first understanding, like working with somebody like yourself who knows what to give somebody right?

Not just random, one size fits all endocrine and hormone disruptors. Now you're adding a load. And I would add to that also, my experience has been like patients unfortunately have gone through IVF.

Yeah. And are put on all those strong meds. So that that's a big one I see too. Like in that. Yeah. Working with a breast cancer patient who's dealing with breast cancer I see that a lot in the history.

Yeah. Just month after month of progesterone and estrogen loading them up, not knowing what they're doing with it. Right. So that's the those are those loads that are fueling this bad profile.

So that's the woman for whom once she reaches menopause doesn't have a menstrual cycle, the body wants to protect you. So it keeps the estrogen toxicity away from the organs and away from the vasculature, and it stores it in fat, which you have in your breasts with all these glands that are so sensitive that we're not designed to deal with that level of toxicity, which leads to cancer.

What we're told is, oh, break a gene, let's go cut a piece of you off to prevent cancer. What does the packaging actually do? It doesn't cause cancer, right?

This is the misnomer the bracket is supposed to. It's a it's actually a repair tool. So it's a tumor suppressor. So if you have breast cancer Brac is supposed to go fix it.

So the reality is that if you have a certain version, the not so good repair man, you're not doing a good job repair. So if you were to get breast cancer, it's harder for you to survive.

That's what we're saying about breakup. There's nowhere in there that it causes it. But that's what everyone thinks.

Yeah. Because and then by the way, that's what most of the doctors think I know.

Right. Because they don't they don't dig into the why when it comes to chronic disease, aging, all the, you know, poor dis optimal health. We're not we don't believe.

In fact, we're even asking why is shunned upon because that's not part of the toolkit. The toolkit is check mark of success. The pain is gone. Whenever you're complaining about the rash, the pain, the thing, whatever, we're going to get rid of that.

We're not going to ask why it happened or dig deeper. And if we got rid of it, success right in the end, they never ask like, so we got rid of it. But then, you know, where does it resurface when you suppressed it?

Because it's going to show up again somewhere. And they never put those connections together. So you think you have the bad breakup and you don't repair tumors by cutting off your breast.

It may not happen somewhere else. If you're still loaded up with estrogen toxicity and causing all the wrong habits that caused the cancer to express in the first place.

Yes, it's much easier to come to fruition in the breast, but it may happen in your ovaries, may happen somewhere else. So it's so important to understand the why behind diseases as opposed to how do I mask diseases.

And I see it because this is an area I work with a lot. It'll just manifest in the chest wall. Yeah. Cutting off the breast doesn't solve the problem.

If you have. And balance the terrain and you haven't got rid of the reasons it was there in the first place, and it makes me so sad. I remember when what's her name like Angelina Jolie, that was like such a big thing.

And I felt so sad that she was misleading. She did. I think it was a New York Times op ed, and like, I just felt like she misled so many women to just think the solution was just to go in and get a prophylactic bilateral mastectomy.

If they had a Brac, a gene. Yeah, yeah. It's I mean, it's really the word terrain you use is the right term because it's understanding what you're wired to do, your genetic capacity.

It's kind of like if you look at terrain outwardly. So you're talking about terrain and we're inwardly okay, you're outside and you're driving a car and you're off road.

And you may say that in order to survive being off road, I need better tires.

Genetics, Behavior, and Brain Chemistry

Right? That's kind of like a. Surviving or not surviving. If I have bad tires, I won't survive. I have good tires. Right. So you switch your tires and things still go wrong.

Did you not first ask that you have a Ferrari, that you're driving off road in the mud, and it doesn't matter what tires you put on it, it's not designed for that.

Exactly. Right. Yeah. And for your and this is the same thing with if you're not designed to deal with the hormone disruptors chemicals which by the way, some women do a much better job, some don't.

If you're more estrogen toxic, if you don't clear the estrogen toxicity, if there's some red flag in your genomics that's pointing to you, don't do this.

Well, it doesn't matter if you cut something off, which was just like fixing the tires, the place where it actually happens. It's the flat tire. Let's get a better tire.

You're still pushing this thing through the mud that was never designed to go through the mud. So what do you think's going to happen? Something else is going to break.

Exactly. That's a really good analogy. I like that I might have to steal that. So in your and thinking about something, that's when I read your bio that you revealed that you were genetically designed to be entrepreneurial.

Yeah. That's because we think about genetics and looking at the reports of how do I detox? Is my phase two working? Is phase one working, what am I creating?

But what's how do you like, what's this about genetically designed to be? So yeah, this is the one of the things we uniquely do. So the three areas where I really think we dive at dive a lot deeper.

One is hormones. Another one is the sort, the full detox and methylation pathways to cellular health. And the other one is the brain, mood and behavior.

And the reason why we realized in our research, there's enough people that have published enough stuff about what every gene does. We don't need to study genes.

We need to study people because we need to apply this stuff clinically. And that's why we have these insights about the breast cancer example. Right. So what we then did is we then spent three years studying 7000 people.

So one by one, by one by one, we met 7000 people with their DNA in one hand, their health problem in history, another hand to understand how they got from risk to problem or people that actually had a bad profile that didn't get sick.

We also studied them. What were they doing? Right. Which is actually almost a more important study. So then, having done that, we started to notice the behavior traits, and we started to notice that every time we met somebody with these genes that drove these neurochemicals, they did this or they reacted like this, or they weren't compliant and they didn't do the thing we told them to do, or they overdid it.

So there's there's a few main neurochemicals of the brain. We already know what they are in science. Well, we understood is the pathway in which they happen that experience.

So for example, dopamine is a chemical that allows you to experience pleasure. It also allows you to experience reward. The way that happens is first there's an anticipation phase.

You know the thing is coming. So you start to feel giddy and the dopamine is being deployed. Then you truly bind it. There's binders in your brain when you it where you actually experience the pleasure and you're in that all have eureka moment.

Then you have to clear it. You have to get rid of it to come back to normal. And there's a couple steps there. Break it down. Boom comes and sleeps it up.

So if you now understand the pathway and you know what gene drives each step in that pathway, you know exactly how somebody behaves. So if I have your DNA, I don't ever need to speak to you to know your personality to a T.

I know if you're more entrepreneurial, if you are more risk averse, if you are, if you procrastinate, if you have high functioning anxiety that drives you towards things, or more acute anxiety that makes you stay in bed and not get out of bed.

If you're prone to addiction or binging like you just can't turn Netflix off, it's hard for you to get out of pleasure, right? Should you be an accountant because of the way your brain is wired?

Literally to that degree. So we've understood this stuff. So, deterministically. And for me, it comes down to this to

answer that question about why do I believe I'm entrepreneurial based on my DNA?

Well, I have the absolute minimum ability to bind dopamine. So it's very hard for me to experience pleasure and reward. I have the absolute fastest clearance, so it's gone before it even started.

Which means I'm constantly seeking reward. I'm taking risks and doing stupid things that other people wouldn't do. But that's because I went down the reward path.

I could have also gone down the addiction path because dopamine power is both reward and pleasure. Or if I didn't get either of these, I could have gone down right down the middle, which is the depression path, because I didn't feed my dopamine through reward, I didn't feed it to pleasure.

I instead didn't get either and became depressed. So the context drives the outcome. But the wiring, just like we said about breast cancer, you could have the profile, but if you don't do the wrong things of taking birth control pills, etc., you're not going to get sick.

Same thing with me. It depends what context I'm in, how this mood and behavior expresses, and there's other layers to it. How you experience trauma, how are you more sensitive to stimulus around you?

Are you more irritable? Do you give things way more meaning that other people so it becomes a burden to you? All of this is mapped out genetically. It's genetic psychology.

It's fascinating. Yeah. I'm thinking also just, you know, the doctor in me is thinking how it can really, you know, be harnessed to help patients. Oh, for sure.

Know how they're going to respond and how they're going to react. And how are they going to procrastinate? Are they going to be compliant or are they overly compliant? Yep.

There's so much benefit that what you can derive from this, this is what we do internally in our clinic, which is more of a research clinic. But when we deal with a patient, the not just the protocol or whatever we're doing, the interaction is custom.

There are some people we we know, we we can't tell them the problem because they'll never start the solution, because they just give it so much meaning and they're just stuck on the problem.

So we have to take it a different way. There's some people where we know that we have to overdo the problem because they just don't give a damn, right?

Hey, I'm so excited to start integrating this because I do that intuitively. Like, yeah, there are certain patients where I'm like, you may not know the name of your homeopathic remedy because I know by the time they leave two hours later, they're going to bend down every. Yes.

Materia medica on what this remedy means. And they're going to start freaking out. And then there are others where, yeah, you're like, you need to get them a little more involved so they have a less in the game.

Exactly. Yeah, exactly. That is fascinating. So back to back to hormones. Is there anything else about hormones that the ladies listening you think is important for them to know?

Yeah, I think that. So we see it sort of as three phases. Is that early stage of call it puberty in development and there's a kind of fertility, mid adult phase.

And then there's that menopause phase. And this is where I talk about these phases, because these are where the problems are. And I think one area that doesn't get enough attention is the first stage.

There's so many young women because again, in dealing with your hormones, we're usually reacting to problems.

And the problems usually start when you're older.

We're not reacting to, things that aren't disease based, which a lot of it is mood and behavior related. And I use my own niece as an example. In fact, I'll tell you her story.

So and she is the reason why we went from a research company to a commercial. We got to change the world company, because when I realized and saw what happened to her, I like how many young women are struggling like this and just could have gone down a very different path.

So let me tell you what happened with her. She, during sort of, it was about two years ago. My sister, my mother and my niece lived together, and my mother was texting me during a call, and I didn't answer.

You know, I figure I'll call her back after. And she was calling, calling, calling says you're your niece. Something's wrong. You got to get over. She collapsed.

So I said, okay. So I called a pediatrician friend and he said, it sounds like an anxiety attack. Once I got there, I explained it and that's what it looked like to me.

You couldn't really breathe, digest all this stuff. So he said, if it happens again, let me know. But, you know, it sounds like she's past it now. And in his mind, it's like teenage girl.

This is what happens, right? They go through this kind of stuff. So it happens again. And this time my mom said, you need to take her to the hospital because she fell over and she can't walk.

So they thought she had actually fractured something. So I took her Canadian health care system. It's free, but you got to wait six hours to see somebody.

So we we go to the hospital, I call my pediatrician friend again. I said, can you help me with, like, getting her in a bit quicker or whatever you can do?

He said I'll try. And the quicker was six hours. So what happened in that six hours scans test? There was no problem. This time. The doctor working in the hospital in the E. R.

said if it happens again, let us know. And I knew what that meant. If it happens again, we're diagnosing her with anxiety and she's getting a pill. Right.

So I thought at that time oh silly me. You know I have her DNA which I also have for my kids. Let me dive into this. I dropped her off, got a phone call, got distracted, didn't take a look.

So it happens again. This time I'm mom calls me freaking out and crying, saying that your niece run away from home. She left a note saying, I can't take it.

I have to leave, right? And it is completely out of character. She's a sweet, young, innocent girl. Like she doesn't even go out by herself, but she's with her mom or my mom, and like, she doesn't, it's not.

You would not expect this at all. Know? So I said to her, first of all, for her, running away from home probably means she's like down the street. Like she's not gone anywhere.

I'll find her. I'll bring her home, figure it out. So literally, I pull up to their apartment building they live in, and she was standing there outside the lobby, and she just didn't, you know.

So I grabbed her, put it in the car, and I said, just tell me, is it a boy? Is it bullying? Is it like social media stuff? Like what? All the usual suspects.

And she said, I don't know, I just needed to get out of there. And it's kind of like she's running away from herself.

There's like a feeling. And she just is so clueless as to what it is.

You just needed to leave. And even that didn't help her. That's when I literally right there, went into my email and open up her DNA report, which was sent to me like a year before that.

And I started to look for red flags, not for her problem, but for what's a gap in the DNA.

Using DNA Insights for Early Intervention

And the first thing I found was her hormone dominance. So when women have their menstrual cycle at the very beginning, the hormone levels are very low. You just finish getting rid of everything.

So there's nothing there, right? So her being androgen dominant had a much deeper valley because there wasn't that many hormones to begin with. Right. So testosterone dominant.

So the and then I started looking at the calls and texts from my mother. And they're like clockwork like every 28, 29 days. Right. So then I asked my mom, this has something to do with her menstrual cycle.

What can you tell me about the days you call? She said, you know what? You're right. Her thing had just started. Right. The cycle, the period had just started.

So I realized that's the bottom valley. So she was absolutely the lowest she could possibly be. So then I look for other things. So why did it happen then?

Why now? Because she had already had her cycle for a year and a half. So this was during peak Covid lockdown time in the winter in Toronto. And she hadn't been outside in four months, which meant zero vitamin D, then I looked at her vitamin D genetics and there's three steps.

How well do I take vitamin D from the sun, D2 and convert it to D3? She did that horribly. That's G number one. How well do I transport that vitamin D from the blood to the cell where it's actually used?

She did that horribly G number two. How well do I bind and actually use that vitamin D. She did that horribly. So her entire vitamin D cascade is horrible.

No surprise because our ancestors, more equatorial. There was a lot of sunlight for you to mitigate that overdose of sun. So and this is really important, by the way, for people that aren't familiar, the 22,000 genes that make up your genetic code 2000 require vitamin D to function.

So 10% of your human biochemistry is dependent on this one thing that's actually a hormone, right? And this is why bone health, brain health, immunity, you know, everything gets better when you have the right amount of vitamin D.

So now why did expresses as mood and behavior issue? Like her uncle, she has the lowest possible dopamine receptors and she has a very very fast clearance.

So it's very easy for her to feel not so well mentally. So hormone levels are slim to none. Already feeling kind of off vitamin D zero making it even worse.

Exponentially worse. Where does a trigger mood and behavior? Because she was already teetering on the borderline of not feeling pleasure and satisfaction with life, and it turned into this anxiety response so that when the minute I figure that out, I call their team.

We put her on a high dose vitamin D 10,000 IU at the beginning of her cycle, 5000 IU in the first week, and then 2500 maintenance. I put it on lithium to boost her dopamine levels.

That was it. She has not had this issue since. That's amazing. I love that that's all she needed. Now imagine if I didn't have this information, I would have gone back to my pediatrician friend and said, what now?

While now it's time for a pill? Oh, she's running away from home. She needs an anxiety pill. She? How many young women are going through the exact same thing, and they're taking birth control pills for their pimples, or they're like, whatever's going on and they have no clue what their hormones are actually doing.

Their body. Oh, hormones are for my period or for my that very, very surface level meaning of what? Hormones are and what they actually do in your body and what vitamin D does and what your brain chemicals do, and that functional map of who you are right and why you're reacting different.

Why didn't her mother have that reaction to the Covid lockdown? Right. So that personalization is what takes it away from she needs to be an anxiety pill, right, to like two supplements.

And it's been almost two years now. She has not had the problem once again, such a powerful story. And it certainly goes. You know, you can use that story for anxiety, for infertility, for menopause, for for everything and everything.

Yeah, really, I love it because it it pinpoints because you actually knew what it was even like. So yes, she could have gone to a traditional doctor who would have given her Xanax or whatever kind of medication and totally blown it, or even just didn't.

Working with a health care practitioner who sees things like I do, she could have gotten the wrong supplement, or they might not have realized it was the vitamin D or too many supplements, or a focus on diet when she really needed the vitamin D.

So really it makes you a medical detective, but an accurate one when you have the the genetic output, the epigenetics and what's going on. It's it's it's just a win win for the doctor and for the and for the patient.

Yeah. It's literal. It's literally all you said. Imagine doing the detective work and starting from scratch. There was a murderer in Beijing. Great. Where do I start?

Right. You need clothes, right? Versus there was a murder on this street. This was a guy's name. And he was with this person five minutes before the murder like that.

You know, the amount of work and investigation required when you're starting from, like, one size fits all trial and error versus. Here's your genetic map.

Just look for the problems. Right? It's it's that your biology is being driven by these codes. So where's the code broken. And and once you you know if we could have it where everyone tests this young, it's like this.

This is it. Now, you know, it's not like if tested every six months. Yeah, that's the beauty of. And this is why, you know, a lot of genetic testing when testing companies went down the route of selling data, which is a big problem in the industry, is because you only need to test your DNA once you know you it doesn't.

It's it's your DNA. You're born with it. You're going to die with it. The epigenetics change based on your choices. And that's what we're talking about. How do you make the right choices?

And so that actually caused a problem in the genetic business because they realized, hey, once I saw your DNA tests were done, like, there's nothing else to tell you because your DNA is not going to change on, like, bloodwork or, you know, gut samples or whatever.

And so they all went down this data selling route because that became the reoccurring business. So we realized that there was a big opportunity to be the inside company.

If we just follow and mine the insights, like all of what we've been talking about today, and instead of giving you a DNA report, give you a map of what's going on and then you'll work with us on coaching and supplements and other things, and it becomes a different way of that reoccurring relationship.

So, you know, we're very strict about that in terms of the data, because that's what we think makes the product not work, because it's now designed as a data collection tool as opposed to an inside delivery tool.

So we're safe with your company. I because I wanted my son this is years ago and today I did you 23 and me because we were then converting and and he is like I'm not doing it.

They're selling to no way they most giant companies, if you walk into their office, they have these giant -80 degree freezers to store your saliva sample and sell it for for research.

Right. We destroy them. Wow. And people think we're crazy because those samples are worth $5,000 each. Well, but we're not in that business. And in order to truly do what we do, well, we have to pick a direction.

And our direction is insights. It's supporting health. It's not about mining your data to sell well. Thank you for being ethical. And so with your company, are you constantly evolving and finding new insights?

Is there constant research going on? There is, and it's going deeper into what we already know. So for example, we used to talk about anxiety. Now we talk about high functioning anxiety, low top functioning anxiety and acute anxiety because genetically, the three very different things, you know, and on the recommendation side, which is one unique thing we can do with unique thing we do we we offer recommendations for the genetic expression level.

We're constantly learning there. And I think that there's a lot more work to do there. We're also studying more genes, but we only work on stuff that's functional in nature, meaning we're not looking for like things like Raca.

There's plenty of companies that you can go get that from. We're looking for the hormone cascade. And why does cancer happen? So most of your genome isn't functional in nature, to be honest.

There's a few key systems. Hormones. Phase one and two, detox, methylation, cardiovascular mood and behavior. And then how you metabolize, you know, diet, nutrition, metabolic pathways, those are the key systems that if you were to understand them, cause everything else.

Right. If you fix this stuff and you have innate cellular health, like proper for your health, you've sort of fixed everything. You don't have to worry about the symptomatic expression of stuff.

So that's we've taken a very different route. And my belief is there isn't really much more for us to add. Interesting. Yeah. There's some times where you have to say that more isn't always better.

Absolutely. And I agree with the systems. That's kind of again naturopathic medicine. Those are the systems. If you fix those systems. Yeah. Gut fix the liver then everything kind of has a way of working itself out.

And so rather than chasing symptoms. Yeah for sure. Well I love it I love it I love it. So where can the listeners learn more. And. Well, actually, before I ask that, I what are those supplements behind you?

Are those DNA? So I'm actually hiding in a room in our office because there's, there's there's a renovate. We had a water leak at home when I had I, when I set up where we do our podcasting and all that stuff and there's just so much noise.

I escaped to the office and I'm hiding in a room which has some supplement stores. So we actually make supplements, that are formulated based on managing genetic expression.

So, for example, I can't sleep at night. It's not he takes a melatonin. It's more like, what is the genetic pathway that is either breaking your circadian rhythm and clock?

That's a different reason why you can't sleep. I can't fall asleep because my clock doesn't work, or you're overstimulated by stimulants, or you wake up in the middle of the night or your serotonin response is off.

Or maybe going back to phase one into detox. You're not clearing things as well, so you're struggling with what you did the day before, and then you're sleeping on a toxic mattress and toxic pillow, and you're getting even more toxic exposure, so you don't wake up feeling rested.

So genetically, those are very different. So we don't say, you know, here's, like I said, melatonin, here's the genes that need to be upregulated for you.

And so what you see behind me is some of the stuff we've been working on. You know, in our research, some I love it, true personalized medicine. Yeah.

So, so for the ladies who are intrigued and want to learn more. Right. I would say that, by the way, I'm just on the fly going to make up a promo code because I think, you know, I thank you for listening and being part of this.

And, you know, if you're here, you're a true health enthusiast and you already understand that there's more to it than what you're being told. So let's let's help you work on that.

So don't go to the website and buy let's give you a bit of a deal here. So if you go to the DNA company.com and forward slash SS so Sharon Stills right SS the DNA company.com/ss I'll make sure that there's a code that that prompts a, a promo code discount for you guys.

Thank you. I was going to ask, so thank you. Thank you for offering. Yeah, I think it's just I'm just blown away. And I think it's just such powerful, amazing work.

And really, the future of medicine, which hopefully the future is here now because this is how we truly understand our bodies and how we heal and what we need to do to stay healthy.

So you have contributed to that in a very powerful and meaningful way. So thank you. It's a pleasure. It's an honor. And for me, it's just it's fun. It's more fun than it is work. And I'm never going to stop.

Good. We don't want you to. Well thank you. Thank you for taking the time out of your busy schedule, for hiding out and sharing your wisdom with us, and for just educating and letting the ladies know what's possible and how they can learn more about themselves.

That's what this summit is about, to really put the power in their hands, to know it was their pleasure and honor. Thank you and thank you, everyone, for being here, and we'll see you again real soon for the next time.

Next up.