Introduction to Kashif Khan and DNA Company

Hello. Welcome back to the Heal Your Thyroid and Reversing Hashimoto's summit. So Dr. Jen here. So excited today to talk about DNA breakthroughs and healing the thyroid.

We're here with Kashif Khan. He's executive director 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 UNPILLED Podcast. Growing up in Vancouver, Canada, in an immigrant household, Kashif developed an industrial and a pioneer spirit from a young age.

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

So welcome Kashif. Thank you for coming on. I love your background and what you do. It's so exciting. Oh, it's a pleasure. Thank you. This is an awesome event that you're putting on that was so needed for everybody. So it's amazing what you're doing.

Yeah, definitely. Thyroid is a is a big topic, especially with sensitivities and gluten. So really excited to hear about how DNA breakthroughs can give us some more insight on thyroid health.

Yeah, and I think people will probably as they're listening to all of what you put together, learn that it's not just isolated, here's my thyroid, how do I deal with it?

Which is kind of the medical answer. That's the very last sort of spoke coming out of this hub of any problems. And so our perspective is the same that thyroid happens to be where you are.

Illness expressed itself, but for someone else it could have been something else.

Genetics vs Functional Genomics

Really, we're talking about the terrain head to toe and we can dove deep into the genetics of how do we maintain optimal function. You know, whether you're male or female, whatever your lifestyle is, how much you exercise, all of these considerations.

It's really layers and layers before that is where the truth unfolds. And we can dove into that. Absolutely. Well, let's start with the basics. Can you tell our audience about genetics versus functional genomic?

Yeah, sure. So genetics is say, in the context of thyroid, there's probably research out researchers out there looking for the thyroid gene, for example.

Right. What says gene? That if we find it isolated, understand it's related, that we can eventually build a pill for it that turns a switch on or off.

So a gene is an instruction telling your cell what to do. So if there's a gene instructing something in thyroid, you know, that's now something you can manipulate through a drug.

Apparently, you might turn it off. What we're saying is, just like medicine treats the symptom and doesn't even ask,

why did I get sick in the first place?

Versus functional medicine says, forget about your symptoms, we're going to get your systems firing properly. Let's deep dive into human biology to figure out, oh, that's that's functional genomics.

When somebody comes to us with a thyroid problem, we aren't looking for the thyroid gene. We're looking for all of what causes autoimmune conditions. And it's not the same for everybody.

Everyone has a different red flag, and that's the whole point of genetics. And what it was meant to be is a personalization of health care. If functional medicine practitioners, people like yourself already know great stuff, people are going to learn so much as they listen over these next few days.

How do I know which one of those things I need? How do I know which one of those is a 10% problem or 90% problem? For me, that's functional genomics. Looking at the systems that in point to the biology that equals the affiliate physiology, I now have a thyroid problem.

Well, two, three, four steps back. We have to go to identify the root, root, root cause. Fix that. And you're probably fixing other things that you didn't even intend to fix.

Exactly. And it's about narrowing it down because this can be overwhelming. And I really do think a lot of patients out there and gosh, even extended family members, you know, they're like, oh, I have this disease.

And I'm like, oh, it's autoimmune. And they're like, I just got diagnosed. And it's like, No, that's been stirring in your body for decades and you've influenced it.

So let's talk about epigenetics. Does epigenetics matter? Well, for sure. So there's two ways to think about epigenetics. One is, so what is epigenetics?

Genetics is, here's your genes. Here's what version of each gene you got. Right. Epigenetics is based now on your environment, nutrition, lifestyle. How are they expressing?

To what degree are they operating? I might have a bad version of a gene, but I might be eating the exact foods that cause that gene to express well and all of a sudden it's a good version.

So that's epigenetics. So there's one way to measure expression, and there's another thing to understand. Based on my genome, here's the right choices for me.

And if you don't combine those two things, you don't have a plan. So the plan is I'm going to use my genetics to figure out why do I have an autoimmune condition?

Why me? Forget about the condition itself. Why did it happen? Root, root, root cause. Now, with that information, I'm going to know what are the right environment, nutrition and lifestyle factors for me.

For most people, we kind of know what those things should be, but it's really about prioritizing, especially if you're getting started on this journey of healing yourself.

What do you do first? What's the biggest reward? How do you not overwhelm yourself and try to do everything that everybody says? If I let me give you an example.

So in the gut, there's a gene called STEM one, right? That gene is primarily directing the thigh bone and detox function of the gut. So when you eat things, there's toxins and other things that come along with the food that aren't meant to go in your bloodstream, that we have a protective system that allows those things to be filtered before they go through the gut track.

Right. And so to deliver, get rid of it, just like you drink a glass of wine. Liver helps you with the alcohol, right? So

that's what glutathione does in our data.

It shows that most people don't do well there. They don't have the best copies of these genes, or some are entirely missing this gene. Don't even have it.

Now, what we learned is the people that have the best copy, they have a copy for mom. Copy from Dad. Highly functional. Actually trigger an autoimmune response.

It's counterintuitive. Oh, I got the good genes. Why is I making me sick? Because food is not what food used to be in grandmother's generation and great grandmother's generation.

And, Grandma, go back, back, back as far as you want. Right. So the current reality of having the good detox genes. Great. I now know my genetics. I now know that if I eat garbage like chemicals, coloring pesticides, heavy metals, mold, etc.

Epigenetics, Environment, and Root Causes

, I do such a good job of detoxifying it that it triggers an autoimmune response because our ancestry did not experience. So the genetic legacy that we inherited is not designed for this reality of, you know, I'm not talking about everybody, but the majority of people who are not conscious about their food.

Absolutely. And when you look at genetics, this could be a reason why I had a patient today or was it yesterday that their spouse eats like garbage and is doing good, you know, not having not issues?

And they are and you try to tell them like it's not your fault, right? I mean, your genetics and the epigenetics, you have an influence. You have the power to take it back.

But sometimes genetics kind of short certain people. Right. And they're they're going down that other pathway. Yeah. And it's hard to know what that thing is without trial and error.

And all we're saying is why waste all the time? I go through all that pain. So, you know, the hobbies that you're talking about potentially the and why one gene maybe she doesn't metabolize starch as well.

You know, insulin response, TCF 702 There's a gene that really determines your optimal or suboptimal insulin response. So somebody can go eat their white bread and spaghetti and feel okay, another person can't get off the couch an hour later.

So what's the difference there? The difference is genetically how they handle that metabolic process. So if you know that's you and yet you're eating spaghetti every day, what do you think's going to happen?

You're going to be diabetic and sick, right. So you can't expect that. Yes. Information is key. You have to listen. You have to learn. How do you then determine what is the priority?

There's all we're saying. What what is the thing that I need to do for myself? What's my red flag? Absolutely. And and I like that you can actually have the information in front of you, because it's frustrating for people.

Some people are like, I've always been this way and why do I have to work harder to make gains? And unfortunately, some of it's genetics. But like, as you're saying with the epigenetics, you can change those things.

Yeah. Even the gains that. Can you talk about training, right? Simple thing. Everybody is on Instagram and TikTok wanting a different kind of bottom these days.

So if that's you going to the gym, trying to do what somebody else is doing, are your hormones even wired for that? Meaning a woman that is estrogen dominant, which we can predict.

You give me a newborn child that I can tell you what the hormones are because your DNA doesn't change. And if you are more estrogen dominant, then it may be a lot easier for you to have the curvy female physique that is being pushed online versus if you're much more androgen is testosterone pathway, then you're going to be slim, then more pronounced jawline, less female features.

Skin and hair might be a problem, but guess what? Having a six pack very easy, right? Burning the fat. No problem. You're going to have nice striated muscle.

It's very easy to see, but it's not going to have a big and strong. So understanding even that like, here's my innate design, here's who I am and here's my goal.

Getting there may not be the standard process of eat calories and work out. You know, if it's your hormones that are blocking you, you may never get there.

This is a plateau which is extremely frustrating to be in that stuck place. Right. So just knowing that even allows you to hit your goals properly. Yeah, absolutely.

And then you're not comparing yourself with other people. Why am I not getting there? So I think it's so important to know more information about your body.

So do you know people that have solved their thyroid problems from these genetic insights? Yeah. So one thing that we did, which is why we have the functional interpretation, we realize the gap in genetics was that geneticists were over here doing research, studying DNA.

Clinicians are over here helping people and they didn't talk. There was products being built by geneticists, designed by geniuses, and the way they research being forced on clinicians who did an entirely different job and they did it a different way.

And then everyone said genetics doesn't work. It worked great in a lab, but it didn't work clinically. So what we do is we actually spend three years studying patients and we we work with 7000 people, you know, one by one by one, unraveling and solving their health concerns.

We worked with executive clinics, functional medicine doctors, where somebody was kind of like stuck that were way it was earlier. They just couldn't get past whatever the threshold was.

And we'd figure out genetically what was our root, root cause and solve the problem. A lot of it, I would say the biggest problem if I, you know, have an overarching problem was female hormone health.

That's the area that just sucks all bad when it comes to health care. It's like, here's everything we learned by studying white U. S. or Western European males, and hopefully it will work for you too.

And that's kind of what medicine is. And and so that's where there was the biggest need for change and impact and where we were forced to learn the most.

And so we spent most of our time, I'd say out of those 7000 cases, a good 30% of them was just female hormone health. That's what we did over and over again.

So and thyroid and autoimmune was a big part of that, even though the people didn't know that that was, I call it a female hormone problem. They they know I have an autoimmune condition.

So what we learned there was there's several key detox pathways and we are highly variable in how we do those jobs and the oxidation glucagon on addition growth ionization.

And then there's the methylation, the anti inflammatory processes, highly variable and how we do those then women also have to deal with estrogen toxicity a whole other load.

You know, when it comes to things like cardiovascular disease, the women are multi multifold, much more likely to die of their first cardiovascular event than men.

Detox Pathways, Gut Health, and Autoimmunity

66% of women, in fact, will die on their first cardio and they didn't even know they're sick by with this, with no symptomology, no prior history. First sign death.

That's the answer. Why? Because of this cool factor of estrogen toxicity that men are dealing with for the most part. So there's other trickle of inflammation teetering.

You so close to that threshold that that catalyst that comes like the cardiovascular disease, you get pushed over the edge quickly. So we learned all of these things and we understood there's not the same answer for everybody, but the right answer for the person unravels the whole thing right?

We deal with that flame that's fueling this thing and it unravels the whole thing, you know. So it could be, for example, we're dealing with this young lady here in Toronto where we live, who was a lawyer downtown and ah, she lived and worked downtown and her routine was she would get up and go for a run and what she didn't realize she was doing was running in the downtown pollution every day.

She also aide garbage because she was a busy lawyer. Right. And guess what? The key detox gene, DEA, GST, P one which is protective of the lungs. She had the worst version, GST one which goes out into the blood and finds the toxins and now got past the first line of defense.

She also had the worst version. So she had zero was slim to none of defense against this toxic load that she was breathing day after day after day after day, leading to this inflammatory state that her body was trying to fight.

And the way that her body fight, autoimmune and all sudden she has what she thinks is Hashimoto's, right? She's it's a diagnosis and all the symptomology matches.

But if you only ever treat that and you're constantly suppressing, suppressing, suppressing, but still feeling from the other side, where do you think that's going to end up?

So we unravel this route and there's a sigh of relief. I don't have a condition. I don't have a problem. It was a functional problem. I was in the wrong environment and never genes matched to mine.

I had the wrong habits. I learned new habits and also the condition goes away. So that happened over and over and over again. And we have so many stories of different paths to getting there.

Absolutely. I think that's beautiful. The story you told and what people don't understand. Like you said, it's a diagnosis, but what's the root cause?

The problem is, is especially women. Once you have one autoimmune disease, another one's going to follow because like you said, you're not fixing the actual problem.

We just slap diagnosis on everything and that's not good enough. And that's why, you know, I went into the functional medicine world because I wanted to help people.

And conventional medicine is just Band-Aids and pharmaceuticals. Now, I love conventional medicine. If I'm having a heart attack, I broke a bone. Take me to the E. R..

But other than that but like you said, it's like unraveling a ball. Have you played that Saran Wrap ball game where you wrap up in a big. Yeah it's like you know when you it's it's so hard to get it open but once you get it open and you yeah and that's yeah.

So I mean you just have to find that and you know, it could be looking at your DNA, it could be an Aha moment looking at your, your medical history, you know, or a habit like that lawyer did.

So it's, it's so, so key. So there's a lot of hype around neutral genomics and gut microbiome testing. Now, there's also functional genomics. So how does how does someone understand, like, what do I need?

Like, what would give me the correct piece of the puzzle? So all these tools do different things. So a neutral genomics is how do I understand how to eat aligned to my genetics?

Some of it is highly impactful. Some of it is still, I would say, under studied like it's recreational in nature, right? The impact is not going to be certain, let's just say that.

But some of it highly. So things like macros, fats, carbs, insulin response micronutrients like vitamin D, vitamin C, highly cite, studied, highly understood and very actionable.

Should I be eating cauliflower or carrots? I wouldn't rely on my genes for that. Right? So that's why I push things kind of aside. Gut microbiome testing.

I believe the other half of personalization is the gut. Brain genetics is who am I, right? What are what am I wired for and what should my habits be? Gut is where am I at based on the things that I've done over the last 20, 30, 40, however many years you've been on this earth, where am I at?

And your gut will give you a pretty clear indication of where to focus, especially when it comes to diet. What flora is flourishing in your gut. If it is, for example, we have a case we dealt with with a lady that had fibromyalgia who also had an autoimmune condition, and she was being treated no no solution, wasn't getting better.

So we looked at her gut and it was pretty clear that she did not eat well based on the balance of her flora, her microbiome. She didn't tell us the truth, which a lot of people don't.

It's embarrassing sometimes, which don't lie to your lawyer and your doctor. You they won't be able to help you. Right. So she wouldn't tell us how she actually but we found out by looking at her gut.

So now what happens is there's certain, Flora, that your gut is meant to have that is protective, that is your immune system. There's certain, Flora, that's not it's there, but it's meant to be there in small numbers.

Now, if you're eating the wrong food that fuels that, that's what flourishes. And if that's what flourishes, it creates an environment. For example, this lady, the excrement, the excrement, the poop, literally the pool of that flora that was flourishing because she was just eating way too much sugar constantly.

The excrement of that flora is highly toxic, which then led to her with her bad detox pathways having inflammation to head to toe. And the sugar was causing that.

Florida, of course, and guess what? It also was causing the other floors to Flora to diminish because it wasn't being fed what it needed. So the good stuff was dying, the good stuff, the bad stuff was flourishing.

The poop of the bad stuff is so toxic that it gave her fibromyalgia and eventually an autoimmune condition. So now she would have continued treating that autoimmune condition for life, likely if she didn't change one thing.

What? How she ate. That was her. Why? It was how she ate. And the gut kind of revealed that. But we understood it by looking at her detox pathways. I would say for the most part, gut microbiome testing is kind of where genetics was sort of a decade ago, where we're learning what everything means.

Some of it is actionable, some of it isn't. Functional genomics is like actionable today. I can tell you when it comes to your body exactly where to focus, what to do and how to prevent disease and slow down. You.

Yeah, that's awesome. And I work with a lot of gut patients and you know, when it comes down to it, you do have to have healthy lifestyle changes. You want you have to want to change. Right.

And most of the people listening here, they have a thyroid condition and they want to change it or prevent a thyroid condition from happening. And detox pathways in gut health are so important with that and daily habits.

I mean, it's great though. So the people that you work with are really ready to make some changes in their lifestyles, right? Yeah. By the time they've come to us, it's like I've done everything, nothing worked.

I've taken every pill. That was me. By the way, why does this company even exist? Because I had eczema, psoriasis, depression, migraines. I had gut issues, leaky gut, all of those things, except for the leaky gut, which was not diagnosed, let's say four different five different pills, different doctors, different scans, constantly.

It all happened at the same time. And to me, I had never been sick before that. So I asked you, doctors, why? Why is it happening? I had never gone through this process of, you know, a pill for an al prescribe.

And, you know, I thought that they actually tell you why you're sick. I didn't know. So I kept asking the wrong question. And that's when I realized, wait a second, they don't even know why this happened and they don't even think they're supposed to know.

So I started doing my own research and learning from functional medicine practitioners and homeopaths and naturopaths and eventually through genetics, why these things were happening.

And I was literally missing certain key detox genes. I was working in a building where downstairs there was a manufacturing company pushing pollutants into the airways that I was breathing every day with all those zero ability to detoxify it.

I guess what my business partner has amazing genetic detox pathways, so he didn't get sick. He's the guy that would drive me home when I had the crazy migraines, so it was being blamed on me.

I have a problem, right? You have this. You have eczema, you have psoriasis, not what caused it. Well, why didn't it cause it for him? That can't be true, right?

Well, because we're not the same. The his genetic capacity to deal with that insult was very different than mine. So I started to learn all this stuff unpacked, unravel.

Personalized Health, Hormones, and Training

I'm healthier than I've ever been, right? Other than if I had done it sooner, maybe I wouldn't have as much white hair as I do. You know, I aged myself a little bit, but now I'm reversing that.

So and I've learned what the right habits are for me, what my body, for example, I stopped doing cardiovascular exercise because I learned that my genetic ability for the mitochondria to sort of be resilient and thrive isn't the best.

So when it comes to recovery from oxidation, I don't do it so well. So I stopped doing it. I just do it. I still sweat, but I sort of superset my weight training and push my butt, my muscles as opposed to my lungs. Right?

So there's things that you start to learn. Here's your human instruction, here's your playbook, here's your human playbook on what you need to do to thrive and be your best.

Right. And that's the thing. It should be individualized. And I have felt like medicine in the past decade has gone to just cookie cutter for everyone.

I mean, I feel like there's more and more protocols, there's less and less individual, like actual sitting down. And

and I blame administration on a lot of that.

I'm pretty vocal about that because the doctors, they they came into medicine because they love people and want to help people. That's why that's why we went to school for so long.

But the problem is, is our our time with patients is being dictated not by us, but by other people. And this is when you go to the hospital and stuff like and and I think that one thing you realize is you're in your insurance.

Think of it like your car. You pay car insurance, right? But that doesn't pay for gas or oil changes. So when you look at your health insurance is not going to cover everything.

And this is something that I feel like we really have to realize and teach people if you want to thrive and be healthy, if you don't want to be the standard American on the standard American diet with the standard American depression, anxiety, being overweight, having headaches and headaches, people think that's normal, right?

Like, oh, I have a headache. I took a Tylenol and I'm like, first of all, don't take Tylenol. Second of all, why are you having a headache? So like like you said, like you went to your doctor, you had all these problems and they're just like, oh, here's a prescription.

We fixed it. Yeah. It's not fixing anything. I don't. Know. What you call it. Worse, right? Clogging up your detoxification pathways or your. Eczema, for example.

Here's a steroid cream that you put on the site. It was on my I actually couldn't open my left eye. It was so bad. So here's a cream that makes it go away.

I feel relief. Well, these doctors are amazing. Guess what? It pops up on my arm. So I put it on my arm. Guess what? It popped up here. Why? Because I didn't solve the problem.

I just suppressed a symptom. Like whack a. Mole. Yeah, it's whack. A mole with. Exactly. Excellent. That's what I was doing, because I. All I was doing was getting rid of the very last tier of the problem, which is the symptomology, the toxins causing the inflammation, which was making my skin scream.

Please help me. Here's a warning sign. That's what symptoms are. They aren't the problem. They're your body's screaming to you. We've got we've now gotten to a point where we need to do something about this.

You've got to figure out what that thing is. It's and it's probably not the skin or the headache or the whatever. There's something else. So I'm curious, what happened with the building?

Did you move buildings or did you have them stop like put your hands in the air? My immediate reaction wasn't to move because, you know, I figured I'm working like just so everybody else.

Things you don't think that big out of the box, right? So I started taking the right supplements to support the detox pathways I didn't have, and I did feel a lot better.

I knew that my glutathione pathway was off. I knew my methylation was off. So I started supplementing the right way and it helped a lot. Then eventually I moved because I realized if I saw a fire and I knew there was there was just enough water to not have the fire progress but not actually go away.

Is that the solution or do I just add a little bit more and get rid of the fire and live comfortably without that fear? And so I literally moved my office because what am I doing?

Going to the thing that was slowly killing me and just masking it with pills like so I did move and I feel extreme. And it's not only I moved out of that space, I moved everything.

Like I now understand, what do I clean my clothes with? What pesticides are in my lawn. Right? I now understand

when I when I go say to a hotel, you know, what's going on with what extra supplements I might take that day because I was on an airplane, for example, with EMF and all the I understand all the insults around me.

No, I didn't even know they were there before. Absolutely. And that's what people have to understand genetically. We are different, right? Some people have to detox differently and harder than other people.

But I like what you said about like if you're flying, you know, you need some extra support. I do the same thing. I know exactly what I need to do when I travel to keep my level of feeling good.

And a lot of people that might even be listening, they might not know what it feels like to feel. Yeah. I mean, that's that's the thing because we've normalized all of these ailments and diseases and then every time we turn on the TV, there's an ad for a biological to fix your psoriasis and eczema.

Right. So what you just said is so key and people that are get healthy, get backlash for this and it's actually they should be that. So for example, take me in the airport yesterday and the group that I was with ordered pizza and you can imagine what an airport pizza was like.

All right. So I said, I'm not eating it. I went and I got some nuts and I got a protein bar because I did a workout. I said, at least I'm getting the nutrient that my body's craving for right now.

Real-World Case Studies and Lifestyle Triggers

I might not be satisfied, but so now they thought that that was extreme. I said, If I have one slice, I'm going to feel bloated. I did that. It ended up like, Yeah, because you overdo it.

No, because I'm so healthy that I know what it feels like to be healthy. And when I do something unhealthy, I notice it. You're so inflamed in your gut is in such a dysbiosis that you think the way you feel is normal, right?

The bloating, the gas, the fact that you're you can't feel how bad that food is. It's because you're already feeling bad and you just think that that's normal.

The lack of energy, the nap that you have to take, etc.. So I just feel so healthy and clean and pure that, you know, this is like pristine, let's call it.

So every little scuff is going to show and I'm happy that I'm there because now I know what hurts me and what's bad and to eliminate it. Yeah, I love how you said they said it was extreme because I mean, my husband kind of makes fun of me sometimes, but I'm like, I want to keep protecting my body because I want to feel good as I age and because I had Hashimoto's, I really want to keep my body low.

Inflammation and treat it well. I want to go back. And so now you had Hashimoto's, right? Yes. Your and this is counterintuitive. You're of the lucky few that had something that triggered at an earlier age so that you changed your habits.

Most people, it's not Hashimoto's, it's cancer, Alzheimer's, cardiovascular disease, stroke, right? They avoid the Hashimoto's and they keep those habits going.

And the chronic disease eventually sets in the average. The American average is you have your first cardio, first chronic disease by the age of 55. By the age of 65, you have to this is actually the average and you spend the last 15 of your life years in treatment.

But those last 15 years. So it's because, unlike you, there wasn't a trigger that caused something to change. Well, you're not going to have, you know, be 90 years old playing with your grandchildren, riding your bike, as opposed to making sure you have your pills and sitting on the sidelines watching them.

So it's kind of like a blessing in disguise, but you have to unfortunately, we only react to pain because we think that

I can do whatever I want. And when I break myself, the doctor's job is to fix me.

But that's not the reality of any any. The way you treat anything else in your life, including your car and your phone and your laptop. Why do you do that to yourself?

Absolutely. I love that. And I do feel very blessed. Like I know I went through my journey to be able to help others and I changed how I practice medicine.

So it is a blessing, like you said, that I've changed everything. But we do have to change how people think about chronic disease and more prevention.

And people also, they think prevention is getting a mammogram or getting a colonoscopy. It's like no prevention is in your twenties, thirties, forties.

It's never too late. I mean, in the fifties you could. But prevention is eating well, you know, working with your genetics, working with your gut health.

And it's not easy. I'm sure you wanted that piece of pizza, right? It's not. It's not, but it's not. Right. I would never just gluten. I'm just like no, like I like my gluten free and people are like, it's he's gross come on.

And I'm like, no, like, I feel good. Like, I don't want to feel bloated. I'm I'm good. So stick up for yourselves because I think sometimes those people, it comes from a place of hurt, like they want to make the change, but they're scared or they don't know how, you know?

I don't know. I don't know the kind of people you were with, but that's what I've noticed. It's yeah. And there's. Scary. It's scary. And there's two things there is when it comes to that you this is gross or how can you do this right?

There's a, there's a true palate change that happens not only in your mouth but also in your body in the way you like, in everything that you do. So your what your desires and what gives you satisfaction is different.

Once you learn it, enjoy it so you actually don't taste what they're tasting. You know what I walk into, for example, a Starbucks and somebody buys a some kind of cookie, right?

The way that I used to experience that cookie five years ago versus what it now feels like in my mouth, I want to spit it out. It's taste. It's got all I taste is corn sirup and chemicals and I literally can't eat it.

So my palate has changed where I need, you know, real food. I need a fruit, I need a berry. And that gives me pleasure. So that's one thing is that the palate truly shifts.

It takes time, but you'll get there and you'll get to the point where you actually get this pleasure from that stuff and you'll taste the toxicity of it.

Yes. That that happened to me this year. So we in our house keep like more organic candy because I have four children, so then we can swap it out. And because it's sugars everywhere, they give it out in the schools, it drives me bananas.

But so Halloween, I'm like, oh, I really want like one of my kids butterfingers. And like, usually I have a couple of different pieces of candy. I, I took a bite and I spit it out in the garbage.

I'm like this. I can taste the chemicals in it. And my friend's like, Yeah, I can too. So then I just picked one of my, like, more organic, you know, because it's coming the, the, the corn sirup, like you said, the, the extra chemicals, they add preservatives.

It is chemicals. And your body has to yeah. You know pick you can swap I think that's a good thing to tell people

very overwhelmed by this swap it out you know have you yeah me make simple swaps you don't have to be extreme as people would maybe call us or you know if they saw me walking around in my EMF blanket and the last time I flew.

But, but yeah. Like what you're saying where you're trying to prevent we're trying to prevent disease and suffering. And the things I've seen practicing medicine in the emergency room, people with chronic disease, I come home from shifts and my heart is broken because.

I still practice in the emergency room. It keeps me very grounded. It keeps me passionate and it makes me want to make a difference. Do summits like this because I see the pain in the hurt and people with chronic disease and you can't fix it with a pill.

You can't, you know, it just doesn't work like that. It's not getting fixed. It's getting covered up. And then you're on more and more meds. So the healthiest people I see in the E. R.

would be like these cute, like nine year old women, and they're so active and they're just on an aspirin a day. So I just, you know, I love what you're and your passion.

And it it's so telling that it came from a place of your health. And that's why you can just feel the passion and what you're doing. So it's great. Yeah. And thank you.

And you mentioned mammogram and that it made me realize that for the purpose of what we're talking about here, which is such a big sort of how do you understand genetics from a female perspective?

Let's say that. Right. That's a great example because everyone is scared of the breakup gene. Right. And that's a gene that people have heard of. Bracket gene, scary word, breast cancer.

And if you ask the person, why are you scared? They probably don't know. And I would even argue against their doctor. Why should they be scared? They don't know what is Brack actually do.

They're told you have a higher risk of breast cancer. Go cut something off. That's prevention. That's preventative medicine. Right. Or get your mammograms regularly.

That's prevention. What? BRAC is actually a tumor suppressor. So if you, God forbid, got cancer, it's supposed to go fix it. It's something you need.

Womenu2019s Health, Estrogen, and Breast Cancer Risk

But if you have the bad version, you don't do a good job of repair, which just means that you're less likely to survive the cancer. But it does explain why you got it in the first place.

So you haven't prevented really anything because if you still do not identify the cause of the cancer and you cut your breast off, you don't think it's going to pop up somewhere else, like in your ovaries, for example, which is what typically happens.

So why is that? What what's the route? So I can give you an example. Some women are more estrogen dominant. And this is also painting a picture of the difference between genetics and functional genomics.

Genetics is, you have Raccah let's put you into the farmer will either cut something off or go get mammograms regularly or take some kind of pill versus why does that happen?

What's the root functional genomics says. Well there's some women that are more estrogen dominant, very easy to determine with your genes, you just make a lot more estrogen.

Some women are more estrogen toxic. So before you have your monthly cycle, you converted into a metabolite

called hydroxy estrogen. And there's two, four and six, four and six are toxic.

And you might make one of those. So you may be estrogen dominant, an estrogen toxic big pipe, making a lot of toxic stuff. Then we have to look at your detox pathways.

How well do you get rid of it? How well do you detoxify? How well do you do deal with anti oxidation? How fast is your cont enzyme, your methylation? These are all the things that help you get rid of this bad inflammatory insult.

So if you are this woman that's estrogen dominant, estrogen toxic does not detoxify. Well, you now have a profile, a functional profile, someone that really actually has breast cancer risk.

Now we get into why not every woman that looks like this actually gets breast cancer with the ones I did while. Well, how many women are on birth control pills for five, ten, 15 years, fueling the estrogen toxicity, increasing that load.

How many women as they age get onto hormone replacement therapy as a standard? Now doctors say, oh, your pre menopause get into hormones without understanding what to give you and personalizing it and just standard you get some estrogen you turned into more estrogen toxicity.

How many women don't understand the hormone disruptors in their environment and everything that they breathe and eat and smell and taste, just mimicking estrogen isn't your body.

If you're not careful about what to do something as simple as the thing you clean your desk with the chemical, something as simple as a Teflon coated frying pan.

Being a hormone disruptor. Right now, you have the woman that has the profile that also has the epigenetic habits that create a load on that profile, that push you over the edge.

Then you have to alter the biology, which is what we did by studying the 7000 people. When women get into menopause, which is where most breast cancer happens, not all, but most.

You no longer have a menstrual cycle to get rid of that estrogen toxicity that you're making every month, you start making it. There's just no cycle. And the body sees it as a threat because it's inflammatory in nature.

So it goes and stores it in fat to keep it away from your organs and protect you. And where do women have fat in their breasts? And now all of a sudden you have this monthly deposit of toxic insult causing inflammation to tissue that was not designed to cope with that kind of inflammation leading to damage leading to breast cancer.

So now, if you know all this to be true, I could test a girl when she's five years old and tell you truly preventatively, here's something that we see as a red flag.

You need to have these habits, these habits, these habits. And by the way, these habits are going to make you sick. That, after all, this is when Bracken's supposed to come in and get to work, right?

That's when if you actually did all wrong because you didn't know and actually got the breast cancer bracket supposed to go fix it. And then if you don't have the right version, it's hard to heal.

It's hard to fight the cancer. Why did it happen to me? And this same thinking is true for thyroid is true for autoimmune, it's true for fibromyalgia, true for infertility, polycystic ovarian syndrome.

Start thinking about the problem itself and ask why is that happening? And all of these things. The whys are very similar, by the way. Yeah, the oh gosh.

The women's health and the breast cancer risk in my office. I work with women like this a lot. We look at their family history and yes, we're not seen a lot of us, honestly, I'm seeing other forms of breast cancer.

So then we we look at their estrogen break down, like you said, the tumor toxic form of toxic. And then the 16 hydroxy. You have to see where they're they're going with that.

And you want to promote that good pathway through for DNA repair and not the toxic pathways in with estrogen. I just had a conversation last week with a patient and be like, look, if you have more toxicity, if that's clogging your liver up, you're not detoxing estrogens as well.

So it's a huge problem. And oh my goodness, with all of the endocrine disruptors, BPA perfumes, you know, there's there's everything. And that is where your risk is coming from.

Like you said, when you could tell that five year old what to do. Right. We're not looking at prevention, mammograms, not prevention. They're detection.

And with with our world. I mean, it's big money, I hate to say it, but breast cancer is big money. And whenever October rolls around, all that pink and I'm like, but this is not helping anyone.

You have companies that have underground disrupters in their products, like fragrances promoting Breast Cancer Awareness Month. And I'm like, that is so shady because they should be they should really, truly be working on those root causes and yeah, and it takes you're not forming breast cancer.

You don't just form it when you're 50. It's not just there on the mammogram. It was being formed years ago. So this is where we have to shift our thinking with, like you said, it applies to any disease, any disease, right?

I do a lot of fasting insulins with patients and a whole are scored to see what their insulin sensitivity is and if they're fasting. Insulin is more than five.

I get them on a continuous glucose monitor and we go at it. We start those habits quick because my patients don't want to have diabetes in ten years, you know, you know, we could talk all day about how flawed the medical system is.

It's it's so nice to talk to someone about it. Sometimes I feel like the world's lost its mind, right? Yeah. When you try and intervene on that system and talk to the players, it's like, well, how is this really happening and how is this possible?

You know, with the knowledge that we have, how is this really going on? But anyway, that's what causes this to happen, right? It's a response to the kind of pain you feel when you go through it and understand how backwards it is.

That's why this happens and people actually heal and thrive. So it's our job just to keep doing this. Absolutely.

Data Privacy and DNA Testing

Well Kashif, let's talk about one more thing. So when we talk about DNA and giving our information out to people, what are the concerns of data privacy when we're giving our DNA to a company to analyze?

Can you talk? Oh, yeah. So for the most part, it is a concern. You know, meaning that here's the challenge with genetic testing, unlike all other testing, blood work, etc., you only need to do it once.

So you buy a DNA test if you got the one that's the right one for whatever your goal is, that's it. Your DNA is not going to change, so you don't need to go back test again.

And so all these companies said, well, that doesn't work. How do we make money? You know? So they said, well, we have this really valuable data. Why don't we sell that?

So all their terms and conditions turned into we will create a recreated recreational entertainment type product that

allows us to sell a lot of tests and we'll sell you a test for a two or $300.

But we're going to sell your data for 5000, right? So that's what you're at. Now, the problem with that is the test is no longer designed for you. It's designed for the person that's demanding the data.

It's collecting what they want as opposed to giving it to you. What you your question is, take my DNA, mine it, and tell me whatever I need to know, not take my DNA and map it in the way we are.

Data become sellable and that I get whatever's left over from that. So we very purposely went out. First of all, if we want to do what we were doing, it wouldn't work because the data buyers don't want what we have.

They want a mass collection of data. They want all these genes. And of the 22,000 genes, we only test for less than 100 because those are the ones that are functionally impactful in nature in the way that we're talking here.

And so we very purposely went down the path of that's become the insight machine. Let's give people what they actually asked for to begin with, which is take my DNA, figure out what threats are and me what to do about it, what supplements do I take, what diet should I have, etc., etc.

Then we think we can keep working with people through coaching and helping them buy solutions, etc. So there is a way to do this properly. There is a way to have a customer for life.

That's a win win where they're benefiting and we still have a business to speak of. So that's we went down a very different path. But all in all, I would say our terms clearly we don't sell data, it's aggregated, it automates, we don't even see you.

But I'll tell you that I would assume that your data is being mine and sold because that's what the industry is now doing. That's like the standard. Right? Wow, that's crazy.

Well, thank you so much for talking about all of the things about your past and about what you're doing now to help everyone be healthier and help people heal their thyroid.

So I would love to know, where can we find you and your company? Oh, it's thednacompany.com. So I have actually put my reports up there.

Where to Find the DNA Company

So if anyone wants to see what it looks like, I think you just scroll down to like the second or third screen and it says, look at sample report. Those are actually my reports.

And the report isn't a report per se. It's more of a portal. We can drill into things. It kind of looks like Netflix. We're clicking on tiles and looking, so go take a look.

You'll see what kind of information you can get. But keep in mind that that's the information that you can get as a consumer coming in and what we're allowed to give you.

But any concerns our clinical team can help far beyond what you see there. Like you ask us a question whether it's autism, whether it's hair loss, you know, whether it's energy and performance.

We've understood it at a functional genomics level. We can help with it. Awesome. I'm definitely going to go creep on your report after this. Thank you so much.

It's a pleasure. Great to be here.