



Transcript: #505 DNA Testing for Detox and Diet Optimization with Kashif Khan

Dr. Wendy Myers: Hello, everyone. I'm Dr. Wendy Myers. Welcome to the Myers Detox Podcast. Today, we have a really interesting show on DNA and DNA testing, and testing your genetics and why that's so important because there are so many different factors that play out when it comes to the diet you should choose, the lifestyle factors that you should choose, the exercise that you should be doing, supplements you should or shouldn't be taking, and that even includes detoxification. What are your detox genetics? Can you take glutathione or not? There are a lot of questions that are answered for you when you do DNA testing. And so, today we have the founder of The DNA Company. His name is Kashif Khan, and he's the chief executive officer and founder of The DNA Company. And this is a great interview where we talk about so many different factors.

In many DNA companies, you can do testing, but they don't really give you very functional information. They may give you a scientific explanation of what this gene does, but not really terribly useful information you can apply to your life. We talk about Kashif's story about how he healed his health, and that of his niece and that of his mother as well, and that really fueled his drive to create The DNA Company. I know you guys listening to this show are concerned about your body's burden of toxins and want to do something about it. You're really motivated. And I created a quiz that you can take at heavymetalsquiz.com. Just take a few minutes, and you get your quiz result. And then, you get a free video series answering your most frequently asked questions about detoxification. So, go take that at heavymetalsquiz.com.

Our guest today, Kashif Khan, is the founder of The DNA Company, where personalized medicine is being pioneered through unique insights into the human genome. With the largest study of its kind globally, The DNA Company has developed a functional approach to genomic interpretation, overlaying environment, nutrition, and lifestyle on the genetic blueprint to create personalized and deterministic health outcomes. Growing up in Vancouver, Canada, in an immigrant household, Kashif developed an industrious

entrepreneurial spirit from a young age. Prior to his tenure at The DNA Company, Kashif advised a number of high-growth startups in a variety of industries including luxury retail, technology, finance, fine arts, healthcare, tourism, and real estate. He participated in over \$300 million in revenue in his own retail business prior to launching consulting services to help others thrive.

So, Kashif dived into the field of functional genomics as the CEO of The DNA Company. And it was revealed that his neural wiring was actually genetically designed to be an entrepreneur. However, his genes also revealed a particular sensitivity to pollutants, and so this inspired him to develop custom nutrient supplements to enhance his suboptimal detoxification pathway, enabling Kashif's body to deal with the pollutants and chemicals while reducing his long-term risk of illness. And now, seeing his health from a new lens, Kashif dove further and started to see the genetic pathways that led to his own family's challenges and the opportunities to reverse chronic disease. And he's since made it his mission to build The DNA Company into a business that has an impact and whose success is measured not in dollars earned, but in lives improved. You can learn more about Kashif, and his story and get your DNA tested at thednacompany.com/myersdetox.

Kashif Khan: By the way, everyone pronounces it like that.

Dr. Wendy Myers: Okay, great. Kashif, thanks so much for joining the show.

Kashif Khan: Pleasure. Great to be here.

Dr. Wendy Myers: Yeah, so why don't you tell us a little bit about yourself and how you came to find the DNA-testing company?

Kashif Khan: Sure. So, I don't come from the industry and it's interesting how we got here. And I find this, you ask anyone that's sort of functional medicine healing, root cause medicine, they usually stumble upon it because of their own health struggles. And there's a problem they have to solve and they solve it and they're like, "Wow, the world needs to know about this." And that's how I got there, which was five years ago. I had five chronic conditions, eczema, psoriasis, I had gut issues, depression, and migraines. The migraines were horrible and really, really intense. And I couldn't work. I couldn't function. And so, I was going from doctor to doctor, being given different pills, being told what these things are and how I manage them.

And the one question I kept asking wasn't getting answered, which is, why? I've never been sick, and all of a sudden, five different things at the same time. I must be doing something wrong, eating something wrong, exposed to something wrong, and I couldn't get that answer. I couldn't even start the conversation. So, that forced me to research myself and learn and become this biomedical explorer, going out there in the world and figuring out what's true

and what's not true. And I learned, after fast-forwarding a few months, that there were certain parts of my genetic code that were completely broken.

If I give you one example, my ability to detoxify in my gut all of what comes along with our toxic food supply when I'm sitting amongst my peers having lunch every day downtown, which is what I did. I worked in the city. They were fine and I wasn't. My gut was missing key genetic instructions to block these toxins from entering my gut lining causing a dysbiotic state and causing inflammation. The big aha moment was that there's a gene pathway that helps you clear inhalation-based toxins, things that you breathe. I was also not doing well there. And my office was sitting on top of a manufacturing company that was pumping pollutants into the airways day after day. After so many years of exposure, my body fell apart, but my business partner was fine because he had an extra copy of this gene that I was missing.

So, that was the big aha moment to me, like, "Why doesn't everybody know this?" So, I literally walked away from my business, started funding the research, and built what we have. And now, really I spend my days just speaking and teaching because I've learned so much about how this can change lives.

Dr. Wendy Myers:

Yeah, it's just amazing when you really start looking at things, you start realizing how many different exposures you have. It's crazy you had a company that was distributing so many toxins into the air and into your building. It's just insane. And so, talk to us just about anyone who's not familiar with it, what actually are genetics and how they're controlling the body?

Kashif Khan:

Sure. So, every one of your 50 trillion cells that make up this body you walk around in has an instruction manual in it that tells that cell how to do all the jobs that it does. Now, certain cells read only certain pages, the heart cell reads the heart section, the liver cell reads. And that's how you end up becoming those various organs and parts. So, now that code, as much as it is incredibly perfect to allow us to be who we are, has some variability. And variability from spelling mistakes, so a job may be a little off, all the way up to pages entirely missing, where the job isn't even happening.

So, now, these are innate foundational biological processes that you need to function every day. You could all of a sudden start to understand why certain things are good for you and certain things are bad for you, why you should be a vegan, why you should be on a keto diet, or why you shouldn't. Why when you work out like this, you recover, but your friends can't? Why do you have a six-pack and your friend doesn't? So, why are we different? So, those lines of code that have that variability make us different, and therefore, the choices that we make that either push us towards health or take us away from health are also different, and that's what we've learned. Decoding that code helps you understand how this body works.

Dr. Wendy Myers: Yes. And so, talk to us about some genes that are involved in detoxing heavy metals. You mentioned you were having trouble doing that, and I imagine the more ill they are, the less their ability to detox, and the more the toxins are impacting their health. Say, people that have a complex chronic illness or have chronic fatigue, but then you have other people that can drink and smoke until they're 100, no problem.

Kashif Khan: For sure. And some grandmas will tell you their secret to success is smoking a pack of cigarettes every day, right? Maybe they're wired for it. And I'm not suggesting anyone do that, but we all have different capacities when it comes to detox. And so, the other key thing here is that genetics, what you may have heard from anyone that's listening is this gene means this, this gene means that. That is an old way of understanding how to use this genetic code. Functional genomics, meaning here are the systems that we already understand in the body. Now, let's reverse engineer what genes drive the map versus one individual gene. The body doesn't work in these individual siloed interpretations. They're systems like your hormone system, the neurochemicals of your brain. There are flows to how we use these tools.

So, we have to first map that out. The reason why I bring that up is because singular detox genes only tell you part of the story. So, one part is, yeah, GSTP1. My lungs, how good of a filter, first line of defense do I have? When I breathe in all of the nonsense that's in today's air, how well do I prevent it from entering my bloodstream? Step one. Step two, GSTT1, now that it's gotten in, some of it's gotten in, how well do I clear it from the bloodstream and send it to the liver to clear and metabolize, right? So, it's possible to have what's called a copy number variation for that particular gene, meaning that it's not just about a spelling mistake or error, but you might be missing it entirely. And a lot of people are.

So, that's stuff getting in. Now that it's in, what level of damage is it causing? So, we have to look at the antioxidative pathways and how resilient your mitochondria are. How healthy are the cells, right? If your cells are flourishing, you may be that person that detox inhalation. It's allowing stuff in, but you're coping with it. Your cells are resilient, they're strong, which just means that you're going to develop a much bigger chronic disease later on because you didn't get the pain early enough to stop, right? So, it's not that one's good, one's bad. It's just a different problem. Then there's methylation. Okay, the toxins got in. My cells aren't that resilient, so I start to feel sick.

Dr. Wendy Myers: Yeah, and that's the MTHFR that many people get concerned about and they think that's the only gene, really, that impacts their ability to detox because it's very popular, a lot of people talk about it, but it's much more to it than just MTHFR.

Kashif Khan: So much more. And even just MTHFR is one piece of the methylation, right? The reason why everyone says MTHFR is because it's the most studied and published, and nobody thinks functionally. So, geneticists themselves say, "If I

can work on this gene, I will fix the problem." No, you fix one link in the chain. And now you've got this really great link and all the other links aren't working. How good is your chain?

Dr. Wendy Myers: I think it's so hilarious when people go to their doctor and their doctor only tests MTHFR. I'm like, "That's not really giving you any information whatsoever, except maybe a little bit more folate, but it's just not really terribly helpful."

Kashif Khan: It's not. And so, that methylation cascade is okay, MTHFR, folate, but there's also a B9, B12, what version of B12, sublingual, under my tongue or in my gut? There are genes that dictate all of those things, right? Did my ancestors eat beef or did my ancestors eat sheep and lamb? Now, I know what version of the gene I have that determines what version of B12 I need. And you may be swallowing B12 pills and just peeing them out because you don't have the genes to metabolize them. So, that entire cascade. And now, you're done with methylation, the last step is COMT, which is clearance protein. You may be told, "Hey, you have amazing MTHFR, your methylation is great. Go away. No problem." If your COMT is slow, picture methylation as bringing all of the garbage to the door, and then the COMT is the door.

If it's closed, where's it going? You're still sick. You need to open up that door and the exit has to be working too. So, it goes back to what I've said, which is that if you don't understand the full cascade, how the body actually works, and only look at independent genes, you're not going to be able to do it. You're going to go back to the same old, "You got an 80% chance of Alzheimer's. Good luck." Versus, "How do I prevent it?"

Dr. Wendy Myers: And what are some of the main lifestyle factors that really can impact our genetics? Because we know that genetics are the gun and the environment is the bullet. Just the gun itself, just having genetics or a certain genetic predisposition doesn't mean it's going to express itself. And I think this is where people get confused about genetic testing, and some of these genes have to be expressed or epigenetic, so to speak.

Kashif Khan: Sure. So, unless it's a genetic condition that you're born with, you do not have to have it. So, what we're saying is if you are wired and your genome is pointing to Alzheimer's, it's still a choice. It's not prescriptive. Now, something like sickle cell syndrome, it's a genetic condition you have and you already know you have it, right? There's a gene treatment that maybe one day may exist to turn that gene off, and then you don't have it anymore. Until then, you have it. Diabetes, cardiovascular disease, Alzheimer's, all the big ones, the big chronic diseases, which are the majority of healthcare, do not have to happen if you understand why they happen, and they're all rooted in inflammation. 14 of the 15 top killers are based on inflammation. And unfortunately, the other one of the 15 is just a medical error, right? Doctors make mistakes. So, it's still rooted in inflammation because you have to get there in the first place, right?

So, what we're saying is the genome will help you prioritize. Here's the job that my body doesn't do well. I now know that if I eat like this, breathe like this, exercise like this, I might get breast cancer, me, specifically. But if I eat like this, exercise like this, et cetera, I won't. And it sounds oversimplified, but it is. And let me paint a picture for you as an example. So, if we think about the number one killer, cardiovascular disease, we think, "Oh, it's in my family. There's cardiovascular disease in my family." So, what is actually in your family? There's a gene called 9p21 that determines how robust your arterial walls are. So, keep in mind that most cardiovascular disease doesn't happen in the heart. It happens in the arteries, calcification, plaque, cholesterolemia, it's all in the arteries.

So, the inner lining is called the endothelium. That's where the blood actually touches and flows through. We can determine with your genes, what quality of hardware do you have? Are you that grandma, like we said, smoking to 100, who has this resilient stainless steel endothelium that doesn't get inflamed or is it paper thin? Now, park that because, again, you're born genetically with bad hardware, but you weren't born sick, right? It's not a prescription, so let's park that.

Now, why would you eventually get sick? Why is this a priority for you? If you, like me, have bad detox pathways and had the wrong epigenetic input of taking in too many toxins, you now have the free radical activity to cause the inflammation here. If you have a bad mitochondrial function and you go run on a treadmill every day and you don't have the ability to clear the oxidation that you're causing by using all that oxygen, then you have oxidative stress, you have oxidative activity in the blood, which is another free radical causing inflammation. So, running on the treadmill for your heart might be the thing that gives you heart disease for some people right?

Now, why does it lead to the disease? Once this gets inflamed from your epigenetic choices, that trigger pull that you were talking about, your body will actually deploy cholesterol here to mitigate the inflammation and reduce it, and like Vaseline, smooth things out. And when that cholesterol meets the toxicity, it oxidizes and hardens, then you get the beginning of the thing that we label as a disease, cholesterolemia, the plaque build-up. And then, you start to take a pill for that. When really, the truth was, I have bad hardware. I can determine that genetically when I'm five years old. My genes don't change. I now know that these choices will cause me the inflammation that leads to the disease, and these choices will keep me away from the inflammation, and I'll never have the disease. It becomes a choice.

Dr. Wendy Myers:

Yeah, and this is such important information for people to arm themselves with. So many people will just wait until they have a diagnosis. And this is one thing that is why I do this podcast. My father died of heart disease, atherosclerosis diabetes and cancer, and just all these things combined, and all the medications are thrown on top of that, the toxicity from the medications and the side effects.

And so, this is one thing I'm trying to do is arm people with this knowledge that they can very easily get by doing this DNA test, to just make better choices. And it's a motivator. It's a very strong motivator to make better choices. If you don't want to do it for yourself, you can see the results of the test and make smart choices. Because a lot of people will not eat gluten or whatever their choices are, and they may not have to do that. They may not have to suffer if they just do some testing and figure out what it is they need to do for themselves.

Kashif Khan:

Yeah, that's exactly it. You're making the first choice of, "I'm going to make an effort to be healthy. I want to add 10 years to my life. I don't want to spend the last 15 years of my life in treatment," which is the American average now, unfortunately. The first chronic disease starts at 55, the second one at 65, and the last 15 years in treatment. That's what's going on right now. So, that all is a choice. So, the first choice is, "I want to do some work." So, what's the work? What are you going to do? Are you going to start a keto diet? Are you going to start training? Are you going to clean up your environment? How do you know what to prioritize? How do you know what your kryptonite is?

So, your genes will tell you that. And so all of a sudden you can have this personalized plan. It's hard to do everything, that's the other challenge. It's hard to make a change when it's not easy. When you're listening to every podcast, when you're listening to every YouTube show and you're reading every book, where do I start? How do I do all this stuff? If you could pick those three, or four habits that have super impact because they are your kryptonite, they're truly your red flag, those are the things that are going to get you to the problem land instead of the promised land, right? Focus there, and it becomes so much easier and takes so much less of your time.

Dr. Wendy Myers:

It is very difficult to figure out what to eat. And you read all these diets and people talk about the diet that worked for them, but that may not be the diet that worked for you. So, I mean, I started out with studying China and becoming vegetarian, and then I got a hold of the Atkins and then I did this and that. And now, I'm settled on a modern paleo-type diet, which works for me, but it may not work for somebody else. So, can you talk more about that, about diets and exercise and what works better for other people?

Kashif Khan:

I literally was just dealing with a clinician, who is an oncologist, who had been having hormone problems herself, and she couldn't figure out what was going on. So, she uses our testing in her practice and she herself is struggling. So, we tried to reverse engineer like when did the pain start, her problems? And it came back to the day that she decided to become vegan, right? And I'm not saying that veganism works for anybody. I'm saying it doesn't work for many of the people we see. So, there are genes that produce the enzymes to break down your chickpeas, beans, lentils, and legumes. She had the worst version of those genes. So, her primary protein sources, she wasn't able to metabolize. She was constantly bloated, and the gut was dysbiotic. And once you get into a dysbiotic gut state, everything else starts to fall apart. For two years if you're eating the

wrong food and causing your gut that level of stress, you're just going to start to feel horrible head to toe.

And her mood was off. Well, your mood is directly related to your gut health, right? There's no surprise her mood was off. So, she got herself to the point of a leaky gut and inflammatory state. The healing took a few weeks when we got her into the right place. Your body's resilient and will recover if you start giving it what it actually needs. So, one simple example. The opposite is also true. There's a professional athlete we were working with who started to struggle, and we realized that two months prior he started a keto diet. And he felt amazing in the first few weeks. Anyone who gets into keto starts using fat as fuel. Your ketones start firing your brain, and you feel so sharp. There's a gene called APOA2, that is a key contributor to how well you metabolize fats, and he had the worst version of that gene.

He also had the worst version of the TCF7L2 gene, which is your driver for your insulin response. And ultimately, what we do with our proteins is turn them into glucose when we have too much. And so, as little as we talk about this, it also drives an insulin response, especially if you're not eating any sugar. So, he was on this insulin rollercoaster. And this is true by the way more so for Eastern ethnicities than it is for Western, the insulin response from fats and proteins. There's some genetic anomaly going on there. And so, we found that struggle point. He didn't have a mood issue, an energy issue. That wasn't a problem. It was a diet issue. And again, the fix within a couple of weeks, he was back on his feet, feeling amazing. And he did switch to somewhat more of a paleo-style diet.

So, we get hyper-personalized about that. And when it comes to training, specifically with women, there's a lot more precision needed because the hormone cascade has so much more variability during the cycle. Men have a daily cascade. Every day, make some testosterone and get rid of it. Sometimes it goes down the estrogen pathway. It's much more complex as you go day to day. And so, we have to work with women to show them, first of all, their hormone dominance. Are you more estrogen-dominant? Are you more androgen-dominant? Or somewhere in the middle? Some people are co-dominant. They make both at too high of a degree. Are you also estrogen-toxic? Do you make a toxic metabolite from your estrogens that may be inflammatory in nature? In this case, there are certain weeks in the month when you shouldn't be doing any heavy lifting. Your tendons and your joints are going to be brutal. That's where injury happens.

So, we've worked with a lot of Olympic athletes, specifically female Olympic athletes for the US Olympic team, and we found that their injuries kept happening during this time when their estrogens were being metabolized into what are called 4 and 16 hydroxy estrogens. And the women that were fast in those pathways were much more likely to get injuries. So, we had to change their training routine. It was more of a monthly schedule, as opposed to a weekly schedule.

Dr. Wendy Myers: So, by detoxing toxic estrogens, can you kind of improve the elasticity of your muscles and reduce-

Kashif Khan: In a huge way, yeah.

Dr. Wendy Myers: Really? I'm having a big problem with that right now. Because I've done DUTCH testing and found that I do produce a lot of the toxic estrogens, and I do. I have problems with muscle tension and pulling muscles really easily, thwarting my weight-loss efforts, and it's super frustrating.

Kashif Khan: Yeah. So, toxins are a big challenge for weight loss efforts and for training and recovery. And women have to struggle with this internal toxin that men typically don't. There are some men who are estrogen-dominant, but even then, the numbers are nowhere near the same. And I can't tell you how many women we see that are being treated for everything that's external, because that's what we assume, "I'm doing something wrong." It's more like, no, you make this toxin plus you're on the birth control pill, so you're feeling that estrogen pathway, or you don't understand hormone disruption and your Teflon-coated frying pan and the plastic and the phthalates and everything else that's causing that estrogen to be elevated in numbers.

So, yeah, the big endemic-type problem we see right now. It's in the water, in the air, it's everywhere, right? Estrogen mimics. So, certainly, the women that we see that have the 4 or 16 hydroxy estrogen genes expressing high, we dive deep into the detox pathways. And, again, going back to the thing I said earlier, what do you prioritize? Are you slowing down the estrogens? Are you slowing down the estrogen toxicity? Or are you bumping up the detox pathways? Well, that decision is made once you look at the genes and understand what job's not happening well, and you fix that job.

Dr. Wendy Myers: Makes sense. Well, I'm doing a bioenergetic program right now to balance my hormones. So, I'm like, "Hmm, maybe a good time to do that program, when I'm podcasting." Yeah. So, let's talk a little bit about energy levels. So, a lot of your ability to produce energy can be based on your genetics. So, what's going on there and what can push some people to have high levels of energy or even the opposite spectrum of chronic fatigue?

Kashif Khan: Yeah. So, when it comes to energy, there's the science, the genetics, and then there's all of what we're learning about the miracle of this human body that goes beyond just energy as the sort of unsophisticated way we think about it. It's also an emotion. It's also grounding. It's also what really is energy? Where do we get it from? Why do we have it? How do we get it? So, we've dove much deeper into the solution side, and I'll give you some examples. So, the first thing we do with anyone we're working with if it's clinical, is map out their brain. Because if we don't first understand how they think and perceive the world, and if they don't understand how they think and perceive the world, it's very hard to fix

things. Because if I tell you, "Go do this," what does that mean to you? Does that mean you're going to do it until you burn out and quit? Does it mean you're only going to do it when I call you, at the last minute, and you're going to pretend you did it on time? Who are you up here?

So, we've mapped out mood and behavior to a T, to the point where if I have your DNA, I don't ever need to speak to you to understand your personality to a T. I know if you burn out, procrastinate if you're more reward-seeking and entrepreneurial if you're more risk averse. Are you a drama queen? Are you highly irritable? These things are all genetically driven and they're contextually based. Am I in my sweet spot of what I'm designed for or I'm in the wrong place, which is going to cause more of a burden to me? So, everything that is a problem, anxiety, depression, addiction, are also your superpowers if you are in the right context. And I can get into details here if you need to, but that's the first place we start.

Because how you're experiencing the world has a major impact on how energetic you feel. Because energy is not just the level, it's the motivation, the desire, and the alignment between what you want and what you're doing. Being in your sweet spot is a very different energy level than being in the absolute worst place that you don't want to be. So, that's step one. Then, we get straight to the science, which is mitochondrial health. How well do your cells function, right? And if your mitochondrial is off, we need to intervene there because that's where you make your energy, right? That's where the ATP, those little batteries that power everything if you're not doing that well, we need to clean that up. And it's everything from breath work to supplementation, to breath-holding, to what kind of training, to sauna. There are a lot of things we can do to fix that if we know exactly what's wrong.

Another layer of energy is your relationship with this planet. What does your day look like? When do you wake up? What are your vitamin D levels? How much sunshine? The vitamin D cascade is the most complex of all the micronutrients, because keep in mind, our DNA is assuming that we're still cavemen and women. It doesn't know that there are towers and 5G, Wi-Fi. It doesn't know that that stuff exists. It thinks we still live in the cave because that's the DNA we have, it hasn't changed. And so, when it comes to our habits, we are designed for those habits of walking out of my cave and being outdoors for 12 hours until I kill an animal, and bring it back to the family to eat it, right?

So, our vitamin D cascade looks like this. There's a gene that takes D2 from the sun and converts it to D3, step one. There's another gene that transports it to the cell where you actually use it, step two. There's another gene that then binds it and actually utilizes it, step three. Most of us aren't doing well because if you overload on vitamin D, it's actually toxic. And so, our bodies are designed to mitigate the overdose of sunlight their ancestors used to get. Now, we have that genetic cascade sitting on a Zoom call indoors, and we may not see this sunlight today, and we may forget to take our vitamin D. So, we're in the wrong context

based on our wiring. And this is where we see a lot of what we think is energy has to do with vitamin D management.

Vitamin D management is not just taking your vitamin D, some people who don't transport or bind might need to split the dose. They might need to take it two or three times a day. Because if I give you 5,000, 10,000 IU, because you don't metabolize it well genetically if you don't transport and bind it, you're not using it either. You're storing it in fat. So, we can get very specific on how and where to intervene.

The last one I'll say is we were talking about our relationship with the Earth. So, we're not grounding, we're not touching the Earth and the bioenergetics you're talking about, we're not being fed the frequency that our ancestors. We don't hear water, we don't hear leaves rustling in the wind through trees. All of that is frequency. All of that is energy. We are indoors and we listen to Chris Hemsworth on Netflix. So, it's a very different frequency. So, if you're not doing that type of activity, you need to. The evening walk, all that stuff. And we can determine, again, genetically for whom that's more of a priority and for whom it isn't. There are certain people where it's a must. You won't sleep properly if you don't do this. For some people, it's more an optimization thing. So, I can go on and on and on, but there are other layers to this that go beyond just the innate, how do I feel? Do I need a coffee or not? There's so much more to it than that if you look at the genetics of it.

Dr. Wendy Myers: Yeah, I think people don't realize how important grounding is. Your own circadian rhythm management. Your body's just not going to work right if you're not properly grounded. They're very simple things. Easily solvable problems. A huge domino effect on our health. And so what are some of the key factors that turn on and off genes the most?

Kashif Khan: So, a lot of the functional genes we look at don't have a major swing when it comes to expression. They all express themselves at different levels. But some of these are really prescriptive in terms of, you're going to feel like this, and there's very little you can do to change it. It's more like a replacement. So, if you, for example, don't do a detox job because you're missing the gene, you don't even have the gene, so there's nothing you can do about expression management. It doesn't exist. So, there are two options and there are two dials you turn. Remove the things that are the threats. You have to learn what is bad for you and get rid of it. Or add and supplement to do the job because your body doesn't do it. So, in my example of missing some key detox genes, I have to remove the pollutants, chemicals, toxins, chemicals, everything that I was breathing and eating. And I have to start taking the right supplements that are precursors to glutathione, because keep in mind, I don't have the right glutathione genetics, so I can't instruct it properly.

So, when I take glutathione, I actually feel worse because I'm also losing all my minerals and the nutrients that I need. It's not being instructed genetically on

what to do. So, I take precursors like NAC, selenium, milk thistle, and alpha-lipoic acid, and I actually feel okay, but I have to do it on an ongoing, regular basis. It's like stopping training, you're going to lose your muscle. Same thing with this detox. I don't do the job, right? So, those are the two dials you turn. Then there are genes that can manage expression. Hormones are where that's really implicit.

So, if you do a DUTCH test, for example, you can have a very different result determined by what you ate the day before. Did you have three green broccoli smoothies or did you have five steaks? What did you have the day or the week before? So, yeah, hormone expression management. This is why supplementing is so impactful when it comes to hormone pathways and things like DIM and sulforaphane, and there are supplements that are known that women can use to manage hormones. Because they speed up and slow down genes so aggressively, they're very impactful. So, there are certain areas where we can rely on gene expression, and there are certain areas where we truly just have to replace and supplement as opposed to expressing the gene differently.

Dr. Wendy Myers:

Really, really interesting. There's so much possibility in figuring out exactly what you need to do and not wasting your time when you do genetic testing. So, tell us about your company. Tell us about your genetic testing at The DNA Company and what that looks like. How do people go about doing that?

Kashif Khan:

Yeah. So, we actually never intended to be having conversations like this where we offer tests. We are a research company. We do offer tests, we'll talk about that. But what happened was I was sick. I healed myself, I healed my mom, and I healed my niece who had anxiety and ran away from home because of her mood issues, which she doesn't have anymore. And I started to heal my friends. And at the time, I ran a PR and marketing company. So, I used to help technology startups grow. That's what I did. And I walked away when I realized this is my legacy. I found this is the reason I was put on this planet because somebody had to come from outside the industry and not be the scientist and not be the clinician, and see what the consumer needed. Here's what I wish this looked like if on day one it actually worked for me. And so I went and started building it.

And I handed the keys to my other business to my partner and said, "Here you go. Good luck. You can keep whatever I owned and I'm going to go do this now." And so, we built it. And so, we started off as a research company, in which the genome needs to be interpreted differently and I'm going to be the person that works with scientists and clinicians to make sure it is interpreted differently. And so, we built that functional interpretation versus the gene-by-gene, here's what your genes mean, which doesn't really drive the needle.

We then started working with other clinics and healthcare companies to help them do a better job. And it wasn't until my niece had this episode where she ran away from home after her third bout with an anxiety crash that I opened up her genomic manual because I had it. And I realized she didn't have an anxiety

issue, she had a hormone issue, she had a hormone dominance issue, and she had a vitamin D issue. She was the worst possible metabolizer, transporter, and binder. And during peak COVID in Toronto in the winter, she hadn't been outside in five months. So, she got zero vitamin D, and the slim to none amount she got, she doesn't metabolize properly anyway. So, that hormone variability that she had was just highly exaggerated because this key secondary hormone that manages mood was missing and her ability to actually bind dopamine and experience pleasure was the absolute minimum possible.

So, the receptors in the brain, DRD2 are the gene that determines how dense these receptors are, she has a minimal possible density, so she can't feel pleasure like her peers. So, it was a perfect storm to create this anxiety response. What was going to go on was give her an anxiety pill. We're diagnosing this thing. No, we gave her a high dose of vitamin D and L-theanine, and she has not had anxiety since that time. It's been two years. She would probably still be on a pill today. So, that's the day that I truly realized that everybody needs this and I have to build something that allows people to access it.

So, we built a completely new portal and set of reports. It wasn't about a Ph.D. reading data and working with some other scientists. It was more like, I can log in and this looks like Netflix and I can read things that I understand. And there's AI feeding into everything, so I don't even need a scientist or a doctor to talk to me. That's what we've now built, and that's what I wished I had on day one when I started my journey. Sorry, I went on a long rant to answer your question. That was a very long answer, but that's really what got us to where we are.

Dr. Wendy Myers:

And I think that some people that have done genetic testing, they get the results and it's this kind of scientific explanation of what this gene does, and it's not looking at patterns of genes and how there's certain patterns you need to look at to glean certain information. And the information's just kind of lost on you. For a lot of people, it's not terribly functional.

Kashif Khan:

And that's really not what anyone needs. I don't really need to know my gene results. I need to know what's wrong and how to fix it. And if it's not that simple, whoever's providing it to me didn't do their job, right? What's wrong? How do I fix it? By the way, I need to know there's some science behind this, but I don't need to understand the science, and that's what I wish I had. "Go do this and you're going to feel great. Go do this and you're going to feel horrible." That's where I'm now. I now am the healthiest I've ever been and the best fitness level I've ever been.

So, when we started this journey, I was 38 years old and my biological age. Since I was doing all this stuff, I started using all these tools. My biological age was tested as 43, so I was five years older, which was no surprise. Crazy inflammation, five chronic conditions. I am now 43 and my biological age is 33. So, not only have I healed myself of these chronic conditions, I've gone back in

time. I built a time machine, and I feel better than I did when I was 38 at 43 in every measure possible. Energy, the way I sleep, everything is better. So, it's not only about preventing, it's also about reversing. You can go back.

Dr. Wendy Myers:

I think a lot of people listening to this podcast are fairly advanced in their health journey and they're looking at detox and bioenergetics to address their health issues, but the knowledge for many people is very hard-won. There's a lot of trial and error, trying a lot of different diets, trying a lot of different supplements, different ways to detox their body, and a lot of money, energy, and time wasted. And a lot of reactions too, a lot of negative reactions or weight gain or whatever going on when you try things that don't work for your body. So, it's much easier to take a shortcut and really look at what you really need to be doing.

So, you have a discount for our audience. You have a 10% discount. If you guys want to try DNA testing at The DNA Company. So, just go to thednacompany.com/myersdetox, M-Y-E-R-S D-E-T-O-X, to get your 10% off. And yeah, and you get 38 health reports with this. And also, you said you have AI learning as well, or AI interaction, if you have questions.

Kashif Khan:

Yeah, there are the reports that allow you to dive into problems, looking up things like anxiety and vitamin D, as we talked about, and hormones. Then, some people still want the experience of, "Oh, I want a doctor to interpret this for me." So, we built an AI, and what we call it is Gene Cast. So, it's like a personalized podcast for you, where you can go listen to this AI describing your genes to you. "You have this version of this gene, and this is what the gene does. And you might behave like this and you might feel like this."

The other thing that happened is we had a book come out last week, and this was never an intention, but it was kind of like, again, when my niece's story happened, I realized how much people needed to know that the world just doesn't know, and how much does this need to be in everybody's toolkit. So, right at the time, serendipitously, a publisher came to us and said, "Hey, you guys have some amazing stuff that the world needs to know. Can you write a book?" And so, that was painful. It kept me up at night for a year after trying to do my day job of running and building this company and writing this book.

And so, it's called The DNA Way, and it just came out literally last week. It's everywhere. But the reason I bring it up is because some people want to learn more and understand how their body works. The testing is going to get you there. It's that hack. It's that shortcut. It's, "Here is your human instruction manual. Never make the wrong choice again," that's kind of what we're saying. Anyone that's like, "I just need to know more," I would say read the book and your mind's going to be blown in terms of what's possible.

Dr. Wendy Myers:

Yeah. What is just still so shocking to me is the level of information we have at our fingertips in doing our DNA testing and getting the information we need to

make better choices with our diet and supplementation and lifestyle, exercise, et cetera. And still, doctors are just guessing at what's going on and just arbitrarily prescribing a medication, just a cover-up and ameliorate symptoms. And it still just shocks me so much that so many tools are not being utilized to very easily correct symptoms, very simply.

Kashif Khan: I mean, we need another hour just to talk about that because what's going on is we have a \$4 trillion healthcare industry. 90%, this is not an estimation, this is what the CDC is saying, 90% is spent on chronic disease, none of which we need to have. So, we're talking about a \$3.6 trillion industry that doesn't need to exist. Very difficult to explain to that industry that we now have tools to explain why people don't need their products. That's ultimately what we're saying is, "I should be able to go to the doctor and know exactly what choices to make to never be sick." That is 90% of healthcare today, and without going too far, that's your answer.

Dr. Wendy Myers: Yeah. I know there's no money and telling people to eat broccoli or to lift weights instead of walking, or what have you. Yeah, so right there with you. So, everyone, if you want to get 10% off The DNA Company testing, just go to TheDNAcompany.com, T-H-E-D-N-A-C-O-M-P-A-N-Y.com/myersdetox. And very much worth your while, worth your time. Are there any other words or parting thoughts that you want to give to the audience?

Kashif Khan: No. For me, I'm truly inspired that I now understand that chronic disease is a choice. And I had this anxiousness about me wanting to scream it out to everybody because I've seen the impact. And I appreciate the work that people like you are doing to educate and show people what's possible. This is a big reason, by the way, why people can be healthy because people like you exist. We didn't have these platforms a few years ago. It wasn't possible. So, now, access to information is direct. There's no ivory tower conduit that's filtering things for you. You can go straight to the person who healed themselves and ask them how it happened.

So, I think that's awesome. And just understand, that chronic disease is optional. It is truly optional. The pace at which you age is a decision that you make. You're going to age, how fast does it happen? That's a decision. Your energy levels, the quality of your sleep, your libido, your hair, your skin, all of the problems that could be happening there are optional. If you weren't born with it, you don't have it. And this has been proven scientifically, you just need to now sort of understand how you do this for yourself.

Dr. Wendy Myers: Yeah, and I think that's also really fascinating that you have all these detox genetics that you can look at to help optimize how you're detoxing and what's going to work for you, and what's not going to work for you. Because a lot of people are taking different detox supplements and feeling worse. And I know many people get glutathione IVs, and it just knocks them out. As you mentioned,

there's genetics involved in that. And so, just a lot of really good information to be gleaned, especially to upgrade your detox, upgrade your health as well.

Kashif Khan:

For sure.

Dr. Wendy Myers:

Yeah. So, thank you, Kashif, for coming on the show. And everyone, I'm Dr. Wendy Myers. Thank you so much for joining us for the Myers Detox Podcast, where I love bringing you experts from around the world to help you upgrade your health because you deserve to feel good.