Dr. Mandyu2019s Health Crisis and Recovery

So when I was pregnant 22 years ago, so I do have six kids, like I said, in the bio, from 22 down to 11. So I actually, initially before I became a naturopathic doctor, was an occupational therapist.

And I on my clinicals and ended up developing severe preeclampsia, and I went into HELP syndrome, which was kidney and liver failure. So when I walked into the hospital, they basically told me, you need to get your things in order.

We don't think you're going to survive this. Your baby probably won't survive as either. This is Dr. Talks. Hello everyone, welcome back to Reversing Hashimoto's and Thyroid Disorder Summit.

I am your show host Dr. Anshul Gupta and I have a very wonderful speaker today and very excited towards our discussion especially how nutrigenomics or how your genes can affect your thyroid and what you should be looking forward to.

But let me introduce my speaker first and then we will delve into all this great discussion. So Dr. Mandy Patterson is a founder of two online wellness consulting businesses including MandyPatterson.com and PositiveFertility.com that empowers high performing women struggling with hormonal challenges and infertility to find optimal health.

As a naturopathic doctor, functional medicine practitioner, certified holistic health coach, fertility specialist and mom of six, she knows women that they can have lasting vibrant health using a lifetime of personal and professional experiences.

She bridges a division between conventional and alternative medicines. creating a simple holistic health plan that shows women that achieving wellness can be invigorating and fun.

She offers personalized one-to-one coaching and group programs, options in person and online. Equip women and couples with the tools to be the healthiest version of themselves.

she has advanced expertise and interest in fertility, hormones, and nutrigenomics. Dr. Mandy, welcome over here. Hi, Dr Gupta. Thanks for having me today.

Absolutely. And as you are having the discussion, you know, like you were sharing that you have your own health struggles that propelled you into this field and you also have some genetic snips which kind of, increases your chances of having thyroid disorders, especially because of your family history.

So if you don't mind sharing your health, struggles first and how you're able to overcome it, I think that will be very, very hopeful for people around here.

Yeah, absolutely. So when I was pregnant 22 years ago, so I do have six kids, like I said, in the bio from 22 down to 11. I actually initially before I became a naturopathic doctor was an occupational therapist and I and ended up developing severe preeclampsia, which for the listeners is pregnancy induced hypertension.

And I went into help syndrome, kidney and liver failure. So when I walked into the hospital, they basically told me, you need to get your things in order.

We don't think you're going to survive this. Your baby probably won't survive either. It was a bit of a blow for me being a pretty healthy 22 year old.

Um, I'd always been an athlete. I grew up playing multiple sports and fitness and, you know, was a real passionate

of mine. And so, luckily, God willing, came through that okay.

Introduction to Nutrigenomics and Thyroid Health

I was in a drug-induced coma for approximately three days and it was a lot of touch and go, so quite serious situation. So my son ended up being born a pound and 14 ounces and we spent about five months in the NICU navigating all the things that come with premature babies.

Very early on, I learned to become an advocate for myself and really kind of push the boundaries in asking, you know, the doctors that were on his case, researchers, let's talk more about this and I want to have informed consent, right?

I wanna know what treatments are there and how we can maximize our outcomes. That set the stage early on for me as a healthcare professional. So I worked in conventional medicine for over 22 years, worked all sectors of healthcare from acute care to assisted living, NICU.

I've really done it all. And like, you know, with our situation, I was kind of thrust into becoming a real advocate because my son had a lot of gut issues.

He ended up with an ileostomy for a period of time because he had an infection called necrotizing enterocolitis, where they had to go in and take out part of a small and large intestine.

So learned very quickly that the gut microbiome is really like so important. And that was many years ago before we even had data or even really knew about the microbiomes, which I feel like has, you know, become a forefront conversation of recent in the past five to 10 years.

So, so yeah, when I came through that, I was pretty much told, You know you won't have any more children because of your genetics and being the, assertive, person that pushes the boundaries.

I was like, that's not going to be my reality if it's up to me. So very quickly started researching and my master's degree was actually in research. So I was looking at data, looking to genetics back then, which was very early on, like, you know, 2003 is when the human like genome project came out and we started understanding the complexities of genetics, but actually was able to kind of pack my own genes and went on to have five more healthy pregnancies with no complications.

So. That is huge, you know, that gives hope to a lot of people because you lot people have been struggling with infertility issues or hormonal issues, with thyroid problems and they are going with treatments after treatments, sometimes they even go to IVF several cycles and still do not get pregnant.

So that is a very hopeful situation that, you know, even beating your genes is possibility. So I would like to go ahead and just kind of delve into this whole world of nutrigenomics.

First of all, let's tell people like what exactly this means, because a lot of people might not have heard this term of what is exactly nutrigeonomics.

Yeah, that's a great question. And so Neutrogenomics is essentially the study of how individual genetic variations affect the way our bodies respond to nutrients and foods and dietary patterns.

So this field of research that has kind of been, you know, coming to the forefront combines nutrition, genetics, and molecular biology. to understand how our individual unique genetics make up and influence nutrient metabolism, dietary needs, and susceptibility to like certain health conditions.

Hmm, so pretty complex situation. So basically like, you know, it's an individualized approach, of looking at a person's, particular genetic pool. And then let's say what is the best diet for them, what are the supplements for.

Or like how they can get better. Is that kind of, an easier way of putting it together? Yes, absolutely. And this ties in so intimately with the thyroid.

The thyroid is that gland that's located in our neck that plays a crucial role in regulating our metabolism, energy levels, and overall health. So as we kind of talk through thyroid conditions, a lot of times that we know, probably 80% of hypothyroidism has autoimmune roots.

So we can really go in kind of with a, you know, a magnifying glass and see, okay, what is our unique genetics that, we're able to turn on and turn off our genes based upon the environment that we are living in and the diet that were consuming.

So it really gets down to root cause medicine, So that's great. So even so, I mean, obviously a lot of people have this question, what is the best diet, right?

You know, some people propagate, you know an AIP diet. Some people propogate a paleo diet some, people are not going towards carnivore diet and I find it very difficult to answer that question because I think it's different for different people, Right?

And I this film of nutrigenomics can further narrow down the diet for that particular thyroid patients. Is that correct? Yeah, that's absolutely correct.

And even in my own unique situation, which I'll use myself, I have always struggled with my weight. Obviously, like I said, have been so much about exercise, stress management strategies, all of those things.

But knowing the roots of even my genetics, for instance, you and I were talking about this before the interview, but my mom actually had autoimmune Hashimoto's hypothyroidism as when I was a kid.

And she was diagnosed with so many auto immune situations, including sarcoids. So for the listener, sarchoids is like where your immune system ends up kind of attacking your lung tissue.

Then she also had IBS. Irritable bowel syndrome was also ended up with condition like from a skin standpoint where she loses the pigment in her skin.

Genetic Variations, Autoimmunity, and Detox Support

And we do know this that when people have autoimmune propensities or diagnosis, they are much more prone to go on to develop other auto immune conditions because the immune system is dysregulated.

Absolutely, yes that is so true that you know I always tell my patients too that once you get one autoimmune disease like Hashimoto's if you don't do anything to address those root causes you are looking for more auto immune disease in the future whether it is the lupus, the sarcoid, rheumatoid arthritis or or any of those things.

Absolutely. So then tell us about like, you know, we're talking about this new to genomics and these genes and stuff. Are there certain common snips, as we call them or genetic variations that you see, which are associated with thyroid patients?

Yeah, and so I think let's make the distinction here because I when we talk about genetics, people think about genetic that they might run like whenever maybe a couple is looking to get pregnant.

Maybe they've had a lot of miscarriages or, you know, recurrent losses. And so like this is different than the genetics of like looking at, you know, actual genetic defects in the human biology.

And that would be like, for instance, like a situation like cystic fibrosis. So, Neutrogenomics is difference than that because from a Neuterogenomic side of things, we know that, Like I said, You can turn on and turn off genes.

based upon the inputs into the body. So the bodies are very, very wise in knowing what it needs to do. And so our body's always looking to establish balance.

What becomes a challenge is all of the things that are in our environment, from the standard American diet to stress to toxins, and toxins are so ubiquitous that those things over time can really impact and skew the immune system.

So I like to look at the immune system as if we have a straight line, like in the middle is where we've actually got balance established. And if we go one way, we can end up with infection, which means that like our immune system's a bit asleep at the wheel, like it's not able to fight things actively, all the way to the other spectrum of where we got autoimmunity, where our body's kind of turning on itself.

And it varies from person to person genetically based upon their unique genetics, right? So one person might manifest auto immunity in their thyroid, Whereas someone else, it might manifest, like you said, from a neurological side of things with like MS or even like rheumatoid arthritis.

So, you know, when we can figure that out, what's going on with those imbalances, then we go in and make suggestions from the dietary side to help improve outcomes and that can make genes express more balance, which is what we want them to express, Absolutely.

So that's great. You know, so it basically affects a whole bunch of things because, you know as a functional medicine provider, we are also working at different levels of people.

We are working on the diet, working mitochondria, We're working detoxification, Working on inflammation levels. It looks like nutrient genomics could be a very important tool.

Kind of, fine-tuning each of these aspects. Is that correct? Yeah, absolutely. And so here's like an example for you. So like with thyroid hormone production regulation, genes like the TSHR, it's a thyroid stimulating hormone receptor, that influences how the thyroid gland responds to TSh, which is a hormone produced by the pituitary gland that stimulates the thyroid to produce T4 and T3.

So I know a lot of your listeners are probably savvy and like at least understanding, you know, TSH is a fantastic level and in most all physicians will run a T SH, add an annual review, but we do know that T S H obviously like is, it's actually a pituitary hormone.

So an indirect level of thyroid metabolism. Whenever someone has like a snip, which means again, how do I want to say it, variation, right? That actually over time, like our bodies have adapted to our environments.

And so these SNPs are just subtle variations, but it can really impact like how optimal our thyroid is running. So like that would be like a specific genetic SNP that relates back to the thyroid that is good to know, Absolutely.

Yeah, no, absolutely. Like it's good to know like how your thyroid is functioning and how that can impact it. So I think you like, you know, point out an important point over here is that, in a differentiating between what a SNP is, right?

Because a lot of people think that those are absolute terminology that okay, well, if I have this genetic problem, my body will not produce thyroid hormone at all.

That's not what we're talking about. Let's say if your body produces like 100% of thyroid hormones, If you have that SNIP, maybe you might be producing 70 or 80%. But if you do certain things in the right manner, you can take that 70%, 200%. Is that the way it works right?

Absolutely. And two, if we think about this, even going back to foods, and I think you and are very much in alignment because we've had other conversations around this.

But when we know someone has more of a propensity to autoimmunity with the thyroid, for instance, we like gluten can be an inflammatory food. The reason for that is because our wheat in the United States is heavily sprayed with glyphosate.

and glyphosate is really round up. And so when we're adding on those toxins and those pesticides, then that can even further challenge the thyroid. Like you said, maybe down-regulate it to maybe 70 to 80% of the optimal function versus the 100%. Absolutely.

So I mean, I believe that toxins play a huge, huge role, right? Especially mold toxins and heavy metals, you know, in thyroid disorders. And we have worked a lot of people on the detox profile.

But again, detox channels are also affected with these like snips, so shed more light on that. Yeah, so the detox snips are a whole nother area where we know that certain people aren't as able to get rid of toxins as efficiently.

And again, going back to remembering like the body's not defective. We have just evolved over time to respond to our environment. So the signs and signals that we get from our body are telling us what we need more of or less of.

certain people that might have, say for instance, like the MTHFR, that's one that talked about a lot, but I think it's gotten a lotta press and unfortunately, most people will just kind of like zero in on the NTHFR, But it is important to know because people do have Mthfr, the heterozygous or the homozygus, and there's a couple different snips in there, they need more like folate.

in their diet. And unfortunately, you know, for people that are like, especially women that aren't pregnant that being given folic acid, that can be a real challenge.

That was something that I found out was a challenge for me back in the day because, folate acid has been kind of, the most frequently prescribed option as far as that.

And when we don't have optimal nutrients in our system, be that our B vitamins, B12, folate, magnesium, those co-factors, then our detoxification systems can run more sluggish.

And I really do feel like in my individual case, whenever I was pregnant with my first pregnancy, I think that was one of the challenges that really kind of set me up to have such a large health event that could have been life threatening.

So yeah, so there's many factors there, but from a nutrigenomic side of things, we can go back and see, you know, some people need more magnesium than the average.

Some people needs more vitamin D. And I really firmly believe when we look at root cause medicine, We go to the minerals, which are the building blocks of the body.

So calcium, magnesium, sodium. and potassium are an essential macronutrients. And we can see people are really depleted because of the stress that we're under, the toxins that our body's having to process, and just the food is not always the best.

So like, you know, a lot of thyroid patients, we feel that they should be using iodine or selenium or zinc and all those nutrients in there. So what you are proposing is that maybe there are some people who need a higher dosage of those supplements as compared to the others.

Is that correct? Yes, that's absolutely correct. And Neutrogenomics can really help to identify those genetic variants or SNPs that relate back to individual processes of those nutrients that are so crucial for thyroid health.

Iodine is one of these, and you'll know this as well. There's different camps on if people need iodine supplementation, or if iodines, we do know iodide is in a lot of our products.

our body care products. And so really kind of going in and assessing if, you know, if people are deficient in iodine, I have seen iodide be miraculous for some people because of their unique genetics.

In the same with selenium, selinium is an antioxidant and everybody has different needs. So that's where you and I both use, you know, testing lab work and, different modalities to kind of get to the root of, are there deficiencies here?

And so, organic acids testing is really valuable. I in fact use hair tissue mineral analysis in my practice, I can really get great results with simply looking at the hair And for the listeners, hair tissue mineral analysis is essentially taking samples of your hair and hair is dead cells.

So we're able to look at what has been going on at a molecular level over a three or four month timeframe, and it can give us such valuable feedback.

Metabolism, Energy, and Nutrient Optimization

Absolutely. I think, you know, like testing is a very powerful tool. And the good part is that, with these new different tests of functional medicine, we can actually get to the cellular level of what is happening over there, right?

Because sometimes when we do these traditional lab testing, which just most of these nutrients in your you know, in your blood or red blood cells, we do not get that cellular level of what is happening inside of your body.

So absolutely the hair mineralizes, organic acids and a whole bunch of other things which we can do to know these cellular-level information. I think that's huge.

Yeah. So now let's delve into this energy and metabolism piece of it because that's another problem that happens with most of the thyroid and Hashimoto's patients that their metabolism is poor, they get these issues with not able to lose weight, plus they have this low energy.

So how does a nutrigenomics play a role in that? Yeah, great question. So, you know, we do know obviously like more people, many more, people tend to struggle with hypothyroidism.

And, and, I really do believe, the crux of that is like I said, it's the standard American diet, its stress and toxins, if we go back, so like really simplify it for people.

Another thing that's really interesting, if you dive into the research of even hair tissue mineral analysis testing, is 50 years ago, like, it was pretty much split down the middle with the population.

50% were under-methylators, and then there was a 50 percent that were actually fast metabolizers or oxidizers. And so over time, we've really seen the shift with metabolism with people and I do feel like it goes back to those things.

So, you know, I think getting to the root cause for that individual is so important. And if we come from it from the angle of just stress simply alone, we do know that a stressed out state really burns through those minerals and those nutrients and we have much higher needs.

And another piece of it is too, we know from an agricultural side of things, our crops are not the same that they were 50 years ago from a nutrient density standpoint.

So I find in my practice, a lot of times people do need extra supplementation to actually meet their needs. And, you know, for instance, say like magnesium, we know magnesium's like, needed for over 300 cellular reactions in the body.

And that is a mineral that very quickly gets depleted in a stressed state. So, if we go in and look at like the balance of these you know, nutrients and what's going on with the body systems, then, you, know for instance, like, people

need more B vitamins generally when they're under stress.

And B Vitamins are like such a building block and needed for metabolism. So when we know that, we can do better with a diet. We can make more recommendations around optimizing supplementation.

Um, you know, another, key point here is to vitamin D that has come on the stage in the last, probably five years, four to five, years with the COVID crisis and all of that.

And we know that people tend to fare better when they have optimized vitamin d levels. and from a functional medicine lens and a conventional lens, they're, different right on how much vitamin do we need, but, I think, and this is such a simple thing for people, actually just getting out in sunshine.

20 minutes a day soaking up the sun. You know, the challenges is when we live in more, you know cold climates. It's hard to get out in the sunshine when it's freezing cold outside, right?

But there are some different ways we can really work on optimizing the diet using and leveraging sunshine and stress management strategies. And then also from a mineral standpoint, If your mineral balance is out of whack, so like those four main macro minerals we were talking about, magnesium, you know, sodium, potassium and calcium, then our body's not going to have the building blocks it needs to actually support optimal vitamin D.

So that's another like, point. as far as when we look at nutrigenomics. And even in my case, I have much higher need for vitamin D than the average person.

So that's where we go in from a personalized lifestyle medicine standpoint to really help people achieve optimization. Yeah, that is very interesting about vitamin B because a lot of people that come to work with us, everybody goes on vitamin But typically, we'll put them in 5,000 units a day, and they will do really good.

The levels will reach between 60 to 70. That's what is a good optimal level. But there are a few others, even after putting them on 10,00, they'll not budge beyond 50 on that best levels.

And I was like, what's going on with those people? So now it makes absolute sense that they have this genetic snip that their body either cannot absorb, cannot utilize it, or they Yeah, absolutely.

And then two, maybe the structural components of the house are off. So like comparing the body to like a house, you know, whenever we're building a House, we want to lay a really firm foundation, right?

So that house is safe. Um, and so that's where these nutrients from a bio individuality side of things are so important, um, to making sure we have those macro minerals.

and then you and I've had many conversations around the antioxidants and the phytonutrients that are for really working on lowering inflammation, oxidative stress in those free radicals.

Yeah, so let's talk a little bit more about that because, you know, like initially when we were talking about various SNPs, You said that, there can be various snips which increases the propensity of a person having autoimmune diseases, which essentially means also having higher chances of inflammation.

So let's say, you know, like you found those snips that for a person, has increased chances of autoimmune diseases, then what are the few tips that you will have for those people to do?

Yeah. So, interestingly enough, we know that people that have celiac disease, so celia is an auto immune disease. Those people are four times more likely to have hypothyroid dynamics.

And so like when we that, and that's genes like, um, this is going to sound like foreign you know, information for people. But like, so for instance, the HLA-DRB1 is one of those that makes them more at risk for autoimmunity.

When we know that, then there's, again, things that we can put in place. And what we notice from an auto immunity side of things is we're more sensitive to certain foods.

We could dive in and do a whole hour long on the gut microbiome, But the gut microbiome is our second brain, which I honestly kind of feel like it's our first brain.

And our immune system, a massive portion of our system is in our gut. So we've got to go back to what foods are we putting into our bodies. We know from a functional lens that there are foods that are higher inflammatory than others.

And i don't like to villainize food because as a naturopath i really firmly believe that all food was created to nourish our bodies but unfortunately we have to go back to you know like it wasn't natural to have the amount of stress that we had the mount of toxins all these things that are man made right.

So when we start to think through this, we do know that gluten is, like I said, highly inflammatory.

Testing Options and Working with Dr. Mandy

So we know with a lot of people that struggle with autoimmune dynamics, taking out gluten can really lower that threshold and can kind of allow the immune system to reset.

A lot times when talk about an elimination diet, that is one of the foods that we pull. Another one is dairy. So conventional dairy has a lot of problems because of the amount of antibiotics that are actually used with the animals.

And then it's highly processed and we remove those enzymes that is so important for breaking down our nutrients. I find in my own practice dairy A lot of times needs to be pulled for a period of time.

Doesn't mean that it's forever. However, with people that are celiac, we do know that in order for them to achieve health, they are going to have to remove gluten for, you know, forever, unfortunately.

And then dairy too, thinking about dairy. you know, can be a challenge for many people, even with gut dysfunction. And then two, from an elimination side of things, you now, there's a small list of other foods that we remove for a period of time, which can eggs, eggs are a great food.

It's just our immune system that lives in our gut is constantly bombarded by so many things. We start to kind of erode that gut lining that is the seat of our system.

So our body just starts to react to that. That's kind the start on where land and getting people to just reset things and lower inflammation in the body and just give the bodies some time to heal.

Absolutely. I think those are all great tips. One thing actually, a lot of people might have this question over here is that, okay, well, you're talking about this neutral genomic testing, but where should I get this testing?

Should I go to my PCP and talk about these testing or can I online and order it? So tell a little bit about that too. Yeah, that's a great question. And so, you know, many people here might have heard 23andMe.

That's been in the news and like, people have that they can run their DNA through that. The challenge with like 23 and Me, for instance, is that we know that maybe it's about 50% accurate.

So it is really important to find a good company that can walk you through. I work with a couple of companies myself, which is 3×4 Genetics and also Intellix DNA.

I love IntellX because they come at it from a real functional medicine lens where there's this intersection between, you and I both can agree on this, I believe, that modern day medicine is so valuable.

There's so much that we can use in our toolbox with modern-day medicine that can really help people get back on track and really helped them restore health and balance in their bodies.

So, but I do even know like with IntelliX DNA, you're looking at 98 to 99% accuracy in the interpretation of your genes. And two, what they- So tell us a little bit more about this Intel DNA testing that you were talking about.

Yeah. So it is important to know who you are getting your DNA test through, right? And to, important question to ask is how do they store the DNA? What does that process look like?

Because you want to make sure that your information is protected. Um, and so that has been a challenge with say 23 and me is that, you know, it's not protected.

So, so those are some questions to ask when you're looking at different DNA companies, because they're kind of popping up all over. And so asking questions around like the accuracy of.

the information that they're using. And so like in IntellX's case, they actually look at SNPs that are in say less than 20% of the population and how that may influence your own genetics from the standpoint of optimizing.

Absolutely. Thanks for sharing that information. You know, I think we can keep going and on and because this is such a great topic and very in-depth, you know like conversations can be happening.

So I just think that we just crash the surface so people are aware of Neutrogenomics and then so that they can start looking into it. But tell people a little bit more about where they find you and how they work with you.

Yeah, absolutely. So, so my website, like you had read in my bio is mandypatterson.com. That's a great way to reach out to me, inquiries at mandyspatterson.

com. Like you said, I do one-on-one coaching and then I also work with women and couples in group coaching format. I have some different programs. with positivity fertility for couples that are struggling with infertility.

And then also for women that just really working through hormonal challenges, nutrigenomics, like I use a program called Hormone Harmony to really help women optimize their health, their hormones, they're thyroid.

I'm also out there on social media, Instagram, Dr. Mandy Patterson, and then Facebook, Mandy Paterson, functional medicine practitioner. Awesome, great.

We'll have all these links in the description. So please look into that. Follow her. Great wealth of information. And then kind of, you know, look at all this information about nutrigenomics.

Dr. Mandy, thank you so much for coming over here and sharing this great information today. Thank you for having me, Dr Gupta. It's been an honor. Absolutely.

Pleasure, pleasure talking about this topic today, Thank You so Much. This is it for guys today Thank Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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