

MERYL: Welcome back, everybody to the Rebel Nutritionist Podcast. Today we are going to do part two of our detoxification series. So last week we talked a little bit about detox, what it was, and this week we're going into the genetics of detox.

And I have Amanda here today. Hey Amanda. Hey. I decided I didn't wanna be all by myself. Happy to join. Yes. Yes. It's always good to have someone prompt me with questions. Well, we get a lot of questions from our listeners and our clients about detox, about genetics, about all the things that we talk about, and I think it's important to clarify some of this.

I agree. So today, I think before we get into actually detoxification per se, in the genetic component of that, I think we gotta take a little bit of a step back. I mean, yes, we've done other podcasts about genetics, genomics, what it is But I feel like we need to refresh everyone's memory about, about it, because I think it's still be, it's still confusing.

Yeah. You know, and so I'm gonna let you kind of ask some of the questions that the clients ask and And what it is. But let me just clarify. You know what, when I'm looking at genetics and what we look at when we're testing, because this is really, really confusing for people, because **a lot of people come in and they're like, well, I'm scared to do a genetic test because I don't want you to tell me I'm gonna get cancer.**

Right? That's the big one. Or, I don't want you to tell me I'm gonna get Alzheimer's. **And it is not about predicting or diagnosing. That is the most important thing to hear is that**

we're not predicting a disease. We're not diagnosing. What, what we look at is really.

The expression, what is going on with how our genes get expressed?

Meaning what can we see that we may be predisposed to in terms of imbalances in our body? But it is not saying that, oh, you're gonna get cancer, right? We can see genes. So for example, as we get into detoxification, **If your body is not detoxing well and you end up accumulating toxins, that toxic accumulation can lead to disease, right?**

It's not like you're just gonna get a disease because of your D n A. So I feel like that is important to, to address. Would you agree? I agree. So what should we start out with? Like, what are you seeing that people are asking us that we should address first?

AMANDA: I think the number one question people ask are, is kind of just piggybacking off of what you just mentioned was like, **aren't my genes set in stone?**

MERYL: Right. Right, and that's a great question. So we assume that we can't change our genes, like why even bother kind of thing. But we really know, so we can't change our actual d n A code, right? And so what does that mean? Like we're born with a set of genes. We're born with genes from our mom, genes from our dad, and okay, we make, that makes us who, who we are uniquely individual, but genes actually, like I said, genetic expression.

So, **What we are looking at is something called SNPs, S N P , single Nucleotide Polymorphism.** What does that mean? **That means within our d n A code, how our**

genes get expressed is unique. And those things can change based on environment, based on diet based on a lot of things that are lifestyle choices.

So, If, if a gene, let's put it this way, **a gene makes an enzyme and enzymes. Are, really think it, it, it's how our body operates.** Enzymes are required for certain reactions in the body. That's a very simple way of, of putting it. **If your DNA code has a little snip, this little misstep, this little typo that changes the enzyme, well, it's gonna change the function in your body.** To simplify this, if I have an enzyme that instructs my body how to digest protein, and there's a little misstep in that Enzyme structure.

So now I'm not making the enzyme to digest protein. Well, my protein's not gonna get digested efficiently. Does that make sense? And so that it, it's a very, very complex process that I'm really trying to simplify. But that is the simplest way to explain it, is that **these little missteps affect how your body functions on a day to day.**

And we can go back and test that to see. Is my body making these enzymes efficiently? Is my body doing this particular process efficiently? So hopefully that explains a little bit about can we change anything? Yeah, we can certainly change, **we can work around these snips, we can work around these missteps so that we're still digesting efficiently as long as we know what we need to do.**

So we have information on how to make. Make this better. Yeah. Does that make sense? Yeah. Okay. Sometimes I feel like I talk in circles.

AMANDA: No, I thought it was pretty clear. All right. So, okay. I mean, I kind of think you answered this, but I think another question is like, **isn't genetic testing just used to determine my ancestry?**

MERYL: Right. And so sure we use d n A to test ancestry and track family history, but we use it for. More than just, okay, where did you come from? Right? **So we use it to really be proactive. So it's how does your body function? And it really is, how does your body function at the cellular level?** Like how does your body metabolize even things like caffeine or how is it using.

Nutrients or how is it? Again, like we're gonna talk about detoxification and why that's important to understand. So yeah, more, more than just ancestry. Okay.

AMANDA: And then **isn't genetic testing looking at one or two genes only?** Right?

MERYL: Well, that's who we get a lot, right? Everybody walks in like, I don't methylate.

Well, I have that MT. H F R gene where. Or I have the C O M T gene, right? Most people come in with the methylation gene, right? Yeah. So, so we use genes. Yes, genes are important, but it's never just one gene. And whenever I do my, what I call my gene reports, right, or my gene stories, **it really is about how we look at genes in patterns** because it's never, there's, there's a lot of companies or many companies out there, or **many people who just look at what we call monogenic approach, which is that.**

One gene that's responsible for one thing. And we know now through the science, through the research, it's not true. We have many, many, many genes. Right now we can,

we're looking at over 200 genes. How do they work collectively to impact my health?

So it's never, ever just one gene and anybody who's telling you that it's one gene and that one gene is the be all, end all.

And all you need is folic acid, or methylated folate or b12. To make your genetics work properly is giving you. False information.

AMANDA: Okay. So I think this is like the last question I'm gonna ask in this regard. So, **is it used to predict disease?** I mean, I kind of think you answered that right, but I do see that that's a very, very common question.

MERYL: So I did, like I said genetic, **there is genetic testing out there that screens for genetic variants that you're more predisposed. People think of brca, right? But we don't look at that** Again, we're not looking at genes. That we can't do anything about.

Mm-hmm. And I think that's really important if we're looking at neurologic, cognitive things, cuz people are so afraid everybody Oh, **since Chris Hemsworth announced that he has the, the, the Alzheimer's gene.**

Yeah. It's like people are freaking out. You know, it's, it just gives you information. It gives you information that maybe I'm predisposed again, it's the predisposition for certain types of For certain types of diseases, really certain types of missteps is really the best way because we're not predicting disease.

And I think that's the most important thing is we are really not, we're looking at what are **we looking for information that's gonna impact root cause of illness where we wanna**

focus and, and really how does. How does that information allow us to improve our health And improve our wellness and longevity.

And that's, I think the, the crux of, of the most important things that we want people to know about, about D N A testing. Okay. Or genetic testing.

AMANDA: All right. So in terms of today's. Kind of main focus of the podcast. We wanted to kind of **dive into detoxification, but really from a genetic perspective.**

Right. Can you kind of break that down a little bit for us?

MERYL: Yes. Yes. Absolutely. So when we talk about detoxification, it's like I mentioned last week. I think what we really need to know is that. **Toxins enter our body every day every minute of every day. And our bodies have to detoxify and break down these chemicals that come into our bodies.**

The food we eat, the air we breathe, the water we drink, all of that has to be detoxified.

Oh, and by the way, the thoughts that we think. All right. When we have those negative thoughts that affects our body when we have positive thoughts like, like that translates into energy and that translates into biochemistry.

And so mostly why I say negative is because that produces **hormones of stress since those hormones have to be detoxified. So that comes from our brain.** So literally everything has to be broken down. And so what happens now is **we know our exposure is so great in the environment that our bodies are overburdened, and this is where we start to see disease and so forth.**

But if we're going back and looking and saying, okay, well how does. My DNA and my genetics have anything to do with that? Well, **we can look at the specific genes that are associated with detoxification.** So for example, if we have genes and I mentioned last week and last week's podcast. **We have to go through phase one detoxification and phase two in order for the body to clear out toxins.**

Now we're not gonna get too much into the detail because I know people get bored and overwhelmed and it's just too much information. again, this is trying to simplify it so that you guys can really understand. Why it's important to understand this information and, and what do I do with this information?

Because doesn't matter if we talk about all the science, if you don't know what to do with it and how to make, how to make you better and healthier, then it's really or not. So why why is it important that we understand these genes in these phases? **Because let's say you have genes that are too fast.**

Or too slow in, in those phases, it's gonna impact how your body uses nutrients, right? So for example, if we have genes in phase one, we call them the CYP genes or the SIP genes it's gonna impact. **How quickly your body uses vitamin B** and things like that, or does it even use it that well?

And so if, if **those genes are off kilter, so, Then that it is gonna impact how quickly your body is using or going through that phase one detoxification.** So, for example, if phase one goes too fast, and I don't know if I'm again, and this gets a little technical, **if phase one goes too fast and all of these toxins are flowing through really, really quickly.**

Now they get stuck in phase two. It's like phase two becomes overwhelmed. It's like, whoa, you're throwing all this stuff at me. I can't handle it. And, and phase two becomes overwhelmed and now it's like, oh my gosh. It's like toxins overflowing into the body. That's, that's sort of the simplest way to.

Kind of explain that. And so if, if they're overflowing, we now get, we now are symptomatic. We're not clearing them fast enough. And so when people wonder, well, **how well am I detoxing when we're looking at their genetics, we're really able to say to them, Oh yeah, we see some missteps here.**

How do we best support that? So I don't think it's important that you understand, okay, well is it this specific gene? Like that's my job. My job is to look at, oh, are your phase one genes fast enough, slow enough, optimize phase two, same thing. You know? Are they, are they there? I mean, **one of the things that we really look at is glutathione.**

People hear about glutathione, glutathione, glutathione. And **glutathione's a really important antioxidant, and it's important for both phase one and phase two, but primarily we see it more in phase two. Well, if you have these SNPs, these missteps in, in glutathione, how it's produced, how it's transported, how it's used in the body Then you're not going to be getting rid of those toxins.**

And again, those toxins are gonna recirculate through the body. **So if I know I have a misstep or an issue with how I utilize or make or transport or whatever, glutathione, then I know I need to support the body with glutathione specifically, whether it's foods that are higher in glutathione or whether it is a supplement.**

And that's something that we're gonna look at testing. We're gonna go back and validate the information and the genetics with the testing. And that's why we go back and, and do the testing. So for example, people say, well, I'm gonna take an acetylcysteine neck. Right? We hear about that.

We've heard about that in, in Covid. Well, if you don't have that glutathione enzyme to convert from N a C to glutathione, then you're not gonna be making glutathione, and N a C isn't gonna go anywhere. Does that make sense? Mm-hmm. Did I explain that?

AMANDA: Okay. Yeah. Let me ask you, so if you do have one of these genetic SNPs, Let's say you don't make glutathione, is that one of those things that if a, if you start supporting it with glutathione, and let's say you do that consistently, is will there ever be a point in time where you don't need that extra support for glutathione or is that kind of like you have this mishap, so let's kind of just.

Know that and what are we doing kind of on a regular basis to support that?

MERYL: Yes. And, and so it is one of those things that doesn't change, right? Your, your genetics in that respect you, **that SNP will always be there, okay? It doesn't go back to where it used to be. Ah, it doesn't go back to normal, right?**

See, it doesn't go back to optimal. So whatever these snips that you have, you're, you're. Pretty much gonna have, right.

AMANDA: You always wanna be prioritizing the support of those.

MERYL: Correct. Because you can turn the genes on and off. Right. How they express themselves. Yeah. Right. But if you have so there's certain genes like that we know that are master inflammatory genes that stress triggers those inflammatory gene genes, which is why we talk about stress, right?

Yeah. Like reduce the stress so those J genes don't get turned, so they're gonna become activated. Mm. Or or, or, Or then deactivated. Right? Right. **But like with glutathione, for example, some people have a deletion, meaning they don't have it. And if you don't have that gene ability right then, then you're gonna need to support it.**

And this is why, knowing which genes you have you know, where your insertions are, where your deletions are, where the little missteps are is important because. Because **everybody is unique, so your situation's gonna be different than mine. You know, you may need to support glutathione forever and ever and ever.**

But maybe I can, me, I can add certain foods in, or I can up-regulate antioxidants, or I can do something else that will kind of get around that particular snp. So this is why we always say, your genetics is so unique to you, and how we support that is also so unique to you. So does that, yeah. Hopefully answer that question. It did. Mm-hmm.

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AMANDA: And then so when we see these missteps, we, we are personalizing, I.

Support for our clients based on their specific

correct SNPs. Right. Okay. Right.

MERYL: So when we get the test, I always say we look at, I am looking at the overall picture of the genes, but what we also do, **I always say we look at these gene buckets, right?**

What is the category? So if we're talking about detoxification, we're saying where.

Where, what in that category, right? It'll give me the list of genes that are, that are implicated in detoxification. So we get those C Y P genes, right? Those sip genes that we call them that are in that first phase of detoxification and.

If there's any missteps. So those sip genes are, are very important for detoxifying hormones, right? Like estrogen. So if I'm looking at that and I'm looking at, at **someone who's got a lot of genes in that, First phase that there's a misstep in a lot of those genes, then we know we really have to support that first phase.**

We really have to help them with those B vitamins, right? With the antioxidants we need. We really, really need those antioxidants to help help the body get over. Over that hump of, of you know, where it's stuck. And, and part of the knowing that if we know that your body doesn't detoxify, those genes or those like estrogen very well, then we also have to pay attention to measuring that.

And this is what we're gonna talk about next podcast about hormones and detoxification and cancer and so forth. But, This is really important. So I'll, I'll give you a

little teaser. If, if people are so worried about taking hormones, taking hormones, taking hormones, oh, I'm gonna take hormones, I'm gonna get cancer.

Really **part of that hormone story is, am I detoxifying those hormones well?** And how am I looking at that? So that's the little teaser for the next podcast and why you're gonna wanna listen to that. But, Even, let's go back to chemicals. So we can look at specific genetics that show us how well your body breaks down.

Not just the hormones that we make, but hormones that come from chemicals. Hmm. How well does your body detoxify chemicals? **So if you are not detoxifying the chemicals in the environment, and certainly we can't look at all of them, but we can look at certain categories of them.**

Then what are we doing to A, reduce our exposure to these chemicals? And B, how are we again continuing to support natural detoxification? Whether we're increasing our foods that we're eating, whether we're increasing, how we're getting rid of them. Making sure our gut health is good, so we're eliminating them and making sure our lifestyle habits, right, saunas and dry brushing.

And these are things that I mentioned in the last podcast, but important to reiterate because I think we really need to be deliberate about, about detoxification. You know, detoxification is one, and we're gonna talk about this as we go through all this.

Detoxification is one of the many, what I would call.

Master cellular processes that we have to look at when we're talking about genetics.

So we look at detoxification, we look at inflammation, we look at oxidative stress, and then of course methylation. And we're gonna talk about all these in the next upcoming podcast because I think these are really important topics for people to understand.

Cellularly as simply in a cellular way as possible, because I don't think day to day, we don't walk around going, oh, how's my detoxification? How's my inflammation? How's my methylation? Right? But these are things that we wanna make sure are balanced and online and working well. If we're gonna, if we're gonna function well, right?

We've got all this information now about longevity and wellness, right? Everybody's writing these books about longevity. Well, I have news for you. **If these cellular processes are not balanced, you could do all you want for longevity. You, this is, this is longevity at its core. Understanding your DNA is longevity at its core,** and understanding how your body is getting rid of these toxins.

It is longevity cuz if your body is swimming in toxins, guess what? It ain't living so long.

AMANDA: Well, and then in terms of like confirming whether or not these systems are balanced, you wanna talk a little bit about **how we validate the findings in the labs that we do?** Right?

MERYL: Absolutely. So, right, if we're gonna start with DNA and I'm gonna say, okay, well, and we're focusing again on detoxification.

Then what I'm gonna do is in the nutrient testing that we're running, I'm gonna make sure, right, if we need, let's go back for a second. **If we need in you know, phase one these B vitamins, right? We know we need antioxidants. Then I'm gonna make sure in the testing that I'm doing, I'm gonna look at your levels of your actual right.**

Where are your B vitamins? Where are your levels of antioxidants in in phase two, are we making sure that we have, again, we still need the antioxidants, but we also need where are your Where's your glutathione? Where's your protein? Because we know we need certain amounts of protein to be able to detoxify.

And so these are the things we're gonna wanna look at to make sure that your body is working the way it should. And, and we look at actual on, so for instance, **when we're doing organic acid testing, we're actually looking at detoxification markers themselves. Like how is your body getting rid of those chemicals?**

AMANDA: I was just like having a thought here as you were talking cuz you imagine if you went to your. You know, your primary doctor and you went for your annual checkup and you had your blueprint, and then they were matching the results that you were, do you know your CBC and all your, your blood work that you do with them, and they were matching it to your unique genetic blueprint.

Could you imagine? Right. What a game changer that would be.

MERY:: Oh, for everybody. I would, right. Right. You know, that would be great. That would be great if they all did that and they all knew knew that. And that's, and that's why we're trying to get this work out there. I always say the N of one.

This is you. This is uniquely you, and what makes you uniquely you and why? You know, people are like, oh, **well I'm just gonna go do a green juice fast, or I'm gonna do right. You know, take milk, milk thistle for my phase two detoxification. I'm like, it doesn't work like that. Right. It's like guessing.**

It is guessing. It is guessing. And this is like the ultimate tool. Well, because you, you we're looking at exactly what's going on inside your body, and so how do we and, and then. And then we can say, all right, well and I don't want people to think, well, this is just about what, what supplements are you gonna sell me?

It's not about that at all. Really, it is how **the best way, to support detoxification is through food, right? We wanna look at foods that support your liver enzymes, right? We wanna look at. Foods that neutralize toxins.** So, and those are the **foods that have the B vitamins**, that have the B vitamins in, in for supporting liver enzymes, we wanna look at the **foods that neutralize toxins are those foods that are the bitter foods**, right?

Your radishes, your onions, your bitter greens, like they really, really help. Neutralize toxins way better than any supplement ever will. And the same thing, **gut elimination, like you wanna be eating fiber.** That's how we take fi toxins out of the body. And we wanna make sure our gut health is good because if your gut health is not good.

Then you're not eliminating your toxins as well. Right. And **so we measure levels of all kinds of these things when we do testing so that we can go back and tell you how to best support your levels of detoxification.** And then **of course if you're not getting enough of that through food.**

Then we're balancing that with some of the supplements that will help support that.

But you know, our. Our best way to support detoxification and give our body those antioxidants. You know, our bodies make our own antioxidants. It's not just supporting vitamins A and C and E those are important antioxidants, but really glutathione, as I mentioned, and like poetic acid, are huge antioxidants because they neutralize toxins come into the body.

They have to get broken down. When they get broken down, they get broken down into these free radicals that are dangerous. And guess what? Like folic acid and glutathione neutralize those. So if we don't have enough of those neutralizing agents, we're even recirculating more toxins. Mm. So detox is a big, big conversation.

And I think it's a bigger conversation because **we are seeing. So many more people come in sicker and sicker because these systems are offline in their body.** Right.

They're offline because our exposure is so great. Right. You know, and, and to these chemicals. I mean, I tease my kids all the time, like, stop bringing in the detergents that smell like tide.

Like stop. They're like, but you're clothes smell. Like like, I don't care. I, you need to not do that because all these things turn into hormones and we gotta break those down

and. We want you to all be healthy and safe. But yeah. You know it is a really, really, really important topic.

And I think the hard part is, I'm trying to really simplify it for people. And I still think it's, it's complicated. Yeah. You know, and **the bottom line is, is that there's just no one size fits all approach. Yeah. There's no one answer. Knowing your blueprint is going to be the key to you staying healthy for a really, really, really long time.**

AMANDA: **I think out of all of the labs that I have done, just through my journey of healing, this to me was the biggest game changer because now I know my unique blueprint and I know ways that I can continue to help support these unique SNPs that I have, right? And, and how they, how they show up.**

And I could tell when I'm imbalanced and if I need to support it a little bit more. And. I just think this is just an amazing test to have in your arsenal.

MERYL: Yeah, for sure. You know, one thing I was thinking about when we talk about brain health also, right? When I said that your body, **your brain has to detoxify hormones.**

It's true, right? C O M T, that C O M T gene is used to break down the neurotransmitters that go through our serotonin and, excuse me, epinephrine or epinephrine, adrenaline. All of those things have to be detoxified. And if that enzyme has a little bit of a misstep, that can lead to a lot of neurological issues and you know, whether it's mood.

Disorders, behavior disorders. I mean, we see that all the time. Yeah. And if you're not detoxifying well then your brain gets toxic. Yeah. And I think we're seeing a lot of that. Yeah. You know, and, and so I just think look, I could talk about this all day long, but, but I won't. And I just think. It's, it's just so beneficial and I love doing it.

And you know, and I want people to understand how truly, like you said, right, life changing can be in such a beneficial way. Yeah. I think people get, get scared. Yes. And, and I, what I want you to know is that this is probably more empowering and you can speak to that too, I think. Right. **You've been so empowered to make changes because of your genetics.**

AMANDA: Yeah, for sure. **I mean, knowing that I don't detoxify very well is very validating. You're right. You know when I do put in a lot of work and effort into living a healthy, balanced life, knowing I have these little mishaps and that they need a little extra support, I. Gives me so much more power. Right. And, and more control in the things that I do.**

So yeah, I mean, it is such a game changer and it's always at the forefront of my mind knowing that I don't just go and have these weekends of like, let me just have a couple drinks and see what happens. No, I know what happens. I know that I do not detoxify very well and I will feel terrible.

So just knowing these little the, the snips that you have that are unique to you, you have a lot of, you have a lot more control and, and support in your overall health. Yeah. And I think that's really powerful.

MERYL: Absolutely. Absolutely. Well, I appreciate you joining me on this.

Yeah. I think we've covered that. And listen, write in with any questions. Call in. We wanna know what you wanna think about what you think about it. And What questions you want answered because this is important information. So with that, we will be covering cancer hormones in genetics in our, and detox in the next upcoming podcast.

So stay tuned for that one. In the meantime, this is your Rebel Nutritionist signing off.

Make it a great day, everybody.