Meryl: Welcome back everybody to the Rebel Nutritionist podcast. So today I am going to answer some questions that we had after our last podcast on genetics. And Ozempic because some of you wanted to know. A little bit more about how genetics impact your metabolism. And what that means for you.

And especially if you're on. Oh, Zenbeck or any of the GLP one agonist medications. So luckily for me, genetics is one of my favorite topics to discuss, and I am an expert in the area of what I would call. Uh, genetic or genomic nutritional medicine. I've got. A couple of different certifications in this have been studying this for a long time.

And so I am really well equipped to handle these questions and really to tackle the subject that we really should be focusing on because we want to, if we really want to tackle. Weight loss and, um, keeping it off. — Then we need to talk about what is your blueprint telling us? What is your DNA telling us?

Because that is the most specific we can get when it comes to your own. Bodies functions your own, as I always say blueprint. So I know that, um, there are a lot of doctors who don't even talk about modifying your diet or even exercise. Like they maybe just say, oh, okay, go exercise or go read a book when you get these medications.

Like I know. So, so many people who've said to me, Yeah, my doctor just handed me the prescription and said, go follow keto, go follow paleo and go walk. — First of all, that's terrible. Advice. And it's a one size fits all approach. And you know, me, I am not about the one size fits all approach. And this is where especially genetics can come into play because it is not, that is the farthest thing from one size.

Now we're really honing deep into your own. I always say, N of one, what is your body need? And what is it telling us? And. And what are your genes telling us? So, uh, the other part of that is how you, when we understand your genetics and your DNA, We can understand how it will impact your

body's ability to lose weight and then keep it off in the longterm. Even after you've come off these medications and that's where this is so crucial. And this information is so critical because we know you'll lose the weight. That's what the medications are designed to do, but what happens when you're finished and you can't stay on these things forever. And so, and it's going to be really unhealthy to cycle on and off and on and off. And I'm sure that's what people will do, but it's not the best way to do things. So let's dive into some of the questions and, uh, and get some answers. And, um, — The other thing is, is that, you know what we're seeing, um, in terms of like, why are we talking about this?

It's because there's so many people on these medications, like every day, every week, you know, I get phone calls from people who are either on it, need support and don't have it, or coming off of it and need support and don't have it. So this is a really timely topic. And I think we also, I said this in one of my other, other, uh, podcasts. To not be judgemental, you know, there's, there were people who, who need to lose weight or want to lose weight or whatever the case may be for health reasons. — Are judged on every angle of it, right?

If you're heavy or you're obese, you're judged for that. If you want to be on the medication and you lose weight. You're judged for that. So we're just, it's, it's terrible. The, uh, the judgment, the criticism. The backlash that's going on with these medications. And I always say, if you need it, and it's something that helps to get you where, to, where you want to be. All for it. Right, but we've got to pay attention to a, the side effects and B what is the longterm consequences in terms of, are you really paying attention to your lifestyle and your diet and so forth?

So let's dive into the questions and hopefully I can explain it some more. And if you have any more questions as always email me, let me know, send us messages on Insta, DME, whatever it is. Okay. And I will happily assist where I can.

So I want to provide a little more clarity on what the test is, how it works and what the process is like, because we've had a lot of questions on that.

So the first thing that we do is a, it is not a blood test for those of you that are afraid to do blood.

It is literally a cheek swab. So, uh, if you're interested in doing the test, you reach out to us, we send you the kit, you do it at home, you do the cheek swab, you send it off and we get the results in about four weeks. So it does take that long for. For the company that D to. A sequence. You are DNA. And, um, the preferred company right now that I am using is called three X four. You can go look them up. Three X, four.com. The number three X four. Uh, and I like that they're test for a lot of reasons, but it becomes so many people have had genetic testing and no 23 and me is not the same thing, but people who have had genetic testing, a lot of times the reports just come back in a very. Um, unfriendly you, they're just not user-friendly at all. I'd Scott, the actual results, and then you have to compile them and go back and forth. So from a. Uh, client perspective, it's very cumbersome and confusing, and most people don't even know how to interpret them. And from a clinical perspective, It's cumbersome, less confusing, but it's cumbersome because we have to go back and look at some of the, um, The genes and, and the, the impact of them and so forth.

So. — I liked three XR because it's easy for the client. It's easy for the, for the clinician. And, um, it's an easy report to look at. It's pretty things are color coded. And so I think it makes it more user-friendly. So, uh, we got the results after four weeks, you come in. Well, come in virtual, uh, you know, we make a session. And I analyze before you even see me right before you get the results I'm on the backend, analyzing the test, looking at what it means and getting a sense of how am I going to interpret this for you? And so the next question is, well then what does the report tell us? And how does it help us to. Uh, to decide what to do next.

So there's a ton of information in this report. And the beauty is that yes, as a, as a client, you can look at this and kind of understand certain things in terms of organizationally, because like I said, things are color coded and we talk about, uh, the impact of things. And I'm going to get to that in a second. But, um, I look at this and I say, how am I organizing this in a way that I can help you as the client? I really understand what is going on.

Not just genetically, but even from a health perspective, where are the missteps or where are the likelihoods that you can express or present with a certain condition? And it's not like we're diagnosing you. I said this before, we're not diagnosing you with a cancer. We're not predicting. You're going to get something like that.

We're not saying you're going to get Alzheimer's these tests. Tests do not do that. They are. — As, as specific as they can be, they're really pointing us in the direction of where the missteps in the body, where the systems that become off balance. So I've talked about, for instance, detoxification, your liver has to break down everything you eat, drink and breathe, right. We can look at your DNA and see, is there a genetic predisposition for your body being a little compromised in the area of detoxification? Why. Why is that so important? Well, it's critical because if you are not detoxing well or efficiently, Then toxins can build up in your system. And they can create wreak all kinds of havoc.

Number one, when there's toxins, it means nutrients are not getting into your cells. It means that they're not being eliminated and they're being research-related. So is that a breeding ground for tumor formation or cancers? Sure. But it doesn't mean you are going to get that. We're not predicting that, but we can look at so many things that. Allow us to help you balance your health in a way that is going to be meaningful, moving forward. Same thing. We can look at inflammation. So if you have any kind of inflammatory disorders, Auto-immune or otherwise we can look at specific genes that may get triggered from the immune system, for instance. Right. So I don't want to get into the weeds as far as which specific genes, because for you guys, that's not as relevant. But just know that we can look at. Areas in the body that are a little imbalanced and then we then help support you in, in understanding how to rebalance those. So. — For me, it's about prioritizing, how do I help organize your care?

And then when I get that information, are we validating it with other testing so we can do other kinds of tests, like nutrient tests or a stool test that gives us what's going on in the gut microbiome or other kinds of inflammatory markers. So it gives me them a jumping off point of what do

we need to look at next and how do I want to inform. **Inform you and without it being overwhelming**. Right.

There's a lot. I, you know, I see this often with practitioners, they'll run a whole lot of tests and then they, you know, basically do very little interpretation for the client. They'll give them few talking points. You've got this, this and this. Don't really explain it all that well, and then say, oh, here's a bucket full of supplements.

And go take that. And. — Yeah, that's not the answer either because supplementation is just a part of the process of how we help someone and help someone. Uh, you know, support their health and wellbeing. I would say we got to look at the pillars of health. You've got to look at sleep and stress, of course, nutrition and exercise and mental, emotional, and environmental.

So all of those things have to come into play on one. We're doing a genetic report. We are providing that for you. We are providing the. — Organization of what is the first thing we need to look at? What is the next thing we look at? And so this is why it's always a process. It's never just, here's one thing all at once.

And let's try and mitigate these things to. Get you back to health. It just doesn't work that way. And so when we're looking at the test and it is color coded, and so if you go look at a sample of the report, like I said, from their website, We're looking at things that have a high impact or a very high impact.

So that's like purple or dark purple on the test. And we're focusing on those first because those are going to be the priorities. Genetically that we want to look at, but again, it's so individual, so you can have a high impact in detoxification. But your detoxification system may be running really, really well based on the other tests that we do to validate that.

So that's great. We want to then continue to say, okay, what are the things we're going to continue to do to make sure that your detox system is optimized? For example, same thing with inflammation. If you have a predisposition for inflammation, we're going to want to validate that on the

testing to say, right, we're not seeing this play out, but here are the things that we want to pay attention to moving forward.

So it does not happen. So hopefully. That sheds a little bit of light on that. And, um, yeah. And the other thing is, is a lot of times, so someone had said to me, oh, well, you didn't really tell me anything. I didn't know, because they are very in tune with their body. Like they have a feeling like that they didn't detox well, because they were sluggish or whatever it was, or have been told before, by another practitioner that their livers were a little sluggish.

And so, but what they did learn is the nuances of that. Right. If you think you don't detox? Well, well now we can get into the nitty gritty of what exactly does that mean? And without getting too complicated, you know, we have different phases of detoxification phase one phase two. Well, if you're a little compromised on one of those phases, guess what? It will impact your health. The other thing is hormones need to be detoxified.

So people who are having. Uh, women who are having severe hot flashes and symptoms of menopause or perimenopause, oftentimes we can dig a little deep and say, oh, is this a detoxification issue? Because guess what? Your hormones have to be detoxified in order to be deactivated and then removed out of the body.

So lots of. — Deviations and permutations on how we use these tasks. But just know that they are always specific to your individual body. And what goes on for you is going to be different than what goes on for someone else. — So it's about putting the puzzle pieces together, getting to the root cause of what is underlying everything and then building back up and balancing from there.

So. Tremendous tremendous tool for us to be able to use in supporting your health. So now let's talk about it in relation to energy or metabolism. And so there is a specific area on the report. And if you guys are watching me, I know you can't see this. I went through it yesterday, but I mean, not yesterday last time, but it does.

It's called the energy overview. And so it, the energy overview is also like. — Another words, it's about metabolism. How does your metabolism work so that, um, you can, you can lose weight effectively and efficiently. And what,

and what drives that? So, and how I'm, what are the genetic differences in metabolism specifically? That impact how your body holds on to, or gets rid of the fat that's stored.

Right? That's, that's what we're looking at. So there's six key categories. You don't need to remember all of them, but just know it's never as simple as calories in calories out. And, you know, I'm eating a 1500 calorie, 1800 calorie diet, and, um, I'm working out this much. And so I should lose, you know, two pounds a week and, and then you get upset while you're not so. That first of all, the calories in calories out model has been debunked. — So many years ago, Um, but there's still people using it, you know, calories in calories out and, and calories matter because yes, it's, it's the energy, uh, the measure of the energy of the food that you're eating. Bye. — The quality of the calories are so much more important than the quantity.

And so again, there's nuances there too, that we really do need to look at. And so when we're looking at the report, I'm looking at areas such as appetite and satiety, what does that mean? It means there's genes that impact how your body, um, tells you you're full or hungry. And so if you have a little bit of a misstep in the area of appetite, Appetite and satiety, you may be that person who never feels satisfied, always feels hungry, feels like they ate and then needs to eat a few hours later.

And so. That's important, right? That's going to impact how much you decide to eat. So how do we help support that while that depends on what, what the genes are in that particular area? Again, my, my expertise is in looking at that, analyzing that, and then saying to you, okay, here, here's what you need to do to support that in your life. And it is specific to your individual, uh, your individuality. So that's appetite and satiety.

We've got pro-inflammatory fat. What does that mean? It means that if you, as you gain weight, You may have a higher likelihood of, uh, throwing off inflammatory markers that way, because **we know fat cells are** metabolically active. And so if you have that genetic predisposition to have pro-inflammatory fat, that means as you gain weight, you are, your body is just going to tend to be more inflamed.

And, and again, how important is that for us to know that if you are that person that has a high impact in that area, —— Well, then we're going to have to validate where is there inflammation in the body and how do we then help support that? And so again, the nuances of that are so incredibly powerful to be able to help support someone in their weight loss journey. When we have that information.

Adipogenesis is the third area that we look at. So adipogenesis is how readily your body stores, the fat. So have you ever had a friend or know someone or maybe it's you where you're like, oh, I just look at a piece of lattice and I gain weight. So intuitively, you know, you can't eat the same as your friend who probably, you know, can eat meat need and still say thin, you feel like you eat a little bit and gain weight.

Well, that is a genetic, there's a genetic predisposition to that. And so we can look at that and then say, all right, well then how do we help support that? And help you in that area so that you're not feeling so frustrated. And, and just as importantly, that you're validated in what intuitively you knew. So, like I said, a lot of people who, who are, um, aware of their own bodies and sensitive to their own bodies sometimes have that intuitive hit that. Yeah, this is me, but then what do you do with that? And how do you work with that? So important to understand that.

## Fourth area is energy expenditure.

So energy expenditure is basically how your body uses calories. It's your metabolism, your, your metabolic output. And if you're that person that has a higher, a very high impact genetically in that area, then you are going to need to watch how much food you eat. Uh, and so. — This is where again, validating to someone that's pay attention to the quality. Of the food and the kinds of food.

And let's try and do more of a, maybe we're looking at a plant-based diet for that kind of person. Maybe we're looking at a really low saturated, fat diet for that person, but we're able to then hone in specifically in that area and say, okay, well, these are the genes that we're looking at. And these are the things that we need to do to mitigate what, what that impact is so important there.

Then we have exercise response. So that's on the flip side. Of calories it's how efficiently does your body or effectively does your body let go of fat? Uh, those fatty acids when you're exercising. And so if you have a high impact in that area, then you may not. Exercise may not be the most effective way for you to manage your weight.

And sometimes it's always, you know, it could be a balance of it's going to be calorie, you know, how do we bounce the calories versus how do we look at the exercise? And the nuances of that become really important for someone again, not just short-term, but long-term to know the kinds of activities, the kinds of exercises that they need to do to be able to support weight loss. And then of course, weight maintenance.

And the sec, uh, the sixth area is, um, wait, what, what we call weight loss resistance. So overall in the grand scheme of things, how hard is it for you to lose weight and how resistant is your body? Uh, to that weight loss and knowing again, that information is going to be super helpful because we can then provide you with recommendations on what does your weight loss journey need to look like and how do you do that to sustain that and maintain that over time.

So that's a little bit about the questions that we've gotten in specific. Yeah, specifically to the genetics, but as I have mentioned before, you know, **doing** this testing is so important because we have so much information now that we can use to really support your health and your health journey and your weight loss journey.

And we don't have to shoot in the dark anymore. I think for me as a clinician, That has been a huge game changer for us to be able to help our clients. So. — I think that was it. As far as the questions we have gotten, but I wanted to be a little more deliberate about answering those and being

specific because I think it's such an important area to focus on in terms of your DNA and understanding overall, it doesn't just have to be with weight. If you have any kind of chronic health condition. As I said, if you have any kind of auto immune disease, even hormonal imbalances and another big one that we didn't cover, because we were talking more about Jose limbic, but his mood and behavior. So we work with a lot of children. Actually to help with understanding things like behavior, you could even be things like add ADHD.

Um, and it could be with adults too. It's not just kids, but we have used this on kids really effectively. Uh, to help understand what are the genes that impact behavior that can impact attention and so forth. But the other thing that we can use it for, for children and adults are mood disorders, right? We look at things like anxiety and depression. And, um, um, all kinds of other mood disorders. Again, we're not, we're not diagnosing you with a mood disorder, but if you have the tendency towards anxiety, You know, we all think it's just, um, the medication. Oh, it's a lack of medication. I have an Adderall division C Nope.

I don't think that's what it is. I think if we can look at things like — dopamine and serotonin and GABA, all of these neuro-transmitters that run around in the brain. That have an impact on our behavior and our mood. And so it really becomes, again, super validating for someone to see that they may have this tendency. But more importantly, how do I. Balance my anxiety.

How do I manage my anxiety or my depression? With some of these tools when it comes to food, when it comes to lifestyle, when it comes to behavior.

So like I said, the sky's the limit on this. We can look at so many different things. And, uh, that was really the important point I wanted to make when it comes to talking about why do we need to do these genetic tests? We do have other podcasts on it as well. So make sure you listen. I had done one with a yell Joffey who is the founder and creator of three X four. So that's

worth listening to, and as always. Please like share and subscribe and give us feedback. Always want to hear from you guys. Hope this was helpful. And, uh, we got more of this coming down the pike. This is your rebel nutritionist. Make it a great day, everybody.