MERYL: Welcome back everybody to the Rebel Nutritionist Podcast. So today it is going to be me. Solo talking to you about detoxification. So a little bit about why I decided to do this a little bit of a shift from our typical interview style podcast because we've gotten so many questions about some of these biochemical and processes, biochemical and natural processes that have gone that go on in the body.

And people are confused. There's a lot of misinformation, there's a lot of hype, and I feel like it is time to set the record straight, so. In a clear, concise way so that we can really understand what is going on inside the body, underneath the hood, and why it's so important to pay attention to these processes.

We are so focused on this one size fits all approach. We become so focused on just resolving symptoms, meaning if you have a gut issue or if you have this issue, or if you don't sleep well, and really all of those things are always tied into. What goes on in the body as a whole, and all these processes are connected.

So if we don't pay attention to these, let's call it first line processes that really run our entire operating system, which is our body, then we're missing so much of the picture.

So why are we starting with detoxification? Because I think it's the natural way to start.

There's a lot to talk about.

We're gonna talk about methylation and we're gonna talk about inflammation, but I feel like let's, let's address detox because people, I think this is one of the most talked about topics. So really what is detoxification and why is it important? Let's start with that.

Detoxification is the process that the body uses. So it's a natural process. Happens every day, every hour, seven days a week. Your body does not stop to detoxify ever. It's always a constant in motion process. And so, Your body has to detoxify everything you eat, drink, breathe, and think. So the primary organ organ for detoxification is the liver, but the intestine, the kidney, the lungs, and the brain detoxify substances that we are exposed to.

So, If, if the body has to remove the toxins, like even hormones have to be detoxified, neurotransmitters in our brains, right? Adrenaline, norepinephrine, cortisol, those things need to be detoxified and they need to be handled by the body in a very specific way.

And these systems need to be in check in order to detoxify correctly.

So for example, if you're constipated, this is going to impact. How your body gets rid of toxins, because think about this, or if you have any gut issues, if you are creating toxins from the natural processes that go on through life from exposure, and **one of the ways** we remove toxins is through the bowel, is through stool, and you're constipated and you're not removing those toxins on a pretty much a daily basis.

What's happening? You are flooding your body, you're recirculating toxins. Think about it like this. If you take out your garbage on a daily basis from your home, and most people put it in a trash can in the garage, right? And they take it from the garage to the. Curb. So if you are not able to remove that garbage from your garage, what happens?

Or if it starts to build up in excess, you have a party and you know, I don't know. I've had this happen, right? You have a party. A lot of people come over, there's a ton of garage, I

mean a ton of garbage in the garage and. Your garage starts to smell and then it leaks into your house and the house starts to smell right.

That is kind of like what we're talking about with detoxification. If it doesn't that process doesn't run smooth, then you're building up toxins. They're not getting removed, they're being recirculated, and that is wreaking havoc. On your body. So, so why do I wanna talk about that process of detoxification?

Because it is a complex process. It's not like you eat food, the liver breaks it down, it gets processed, and then it gets removed. It's much, much more complex than that. And I don't really wanna get into the deep dive biochemistry, cuz I really don't wanna bore you, but I think it's important to understand that **there are certain phases of**detoxification.

There's. Three, four, some will argue right, that there's a fourth phase of detox, but really the three are the main ones I want to talk about.

So we have something called **phase one detoxification** and, and what is the starting point of that? Well, think about this. Your body, when you ingest the toxins when you breathe them, they come in as or when you, again, right?

Even in your brain, they are presented to the body in a fat soluble way. They are they get stuck in the fat cells and they get processed, but they can't get processed until they are broken down into a molecule that the body can actually package up and remove. Right? So, In that phase one, the body uses specific nutrients to break down that.

Fat soluble molecule so it can turn into a water soluble molecule. Once it's a water soluble molecule, it can be packaged up and processed outta the body. Now remember, I am oversimplifying a very, very complex process, but I want you to try and get this picture into your head so that you can understand the importance of why detoxification needs to happen in a very deliberate way, right?

So, Phase one, we break down those fat-soluble nutrients. You need certain vitamins, your B vitamins, you need, you need certain minerals, and you need antioxidants. Why do we need antioxidants? And we talk about this so intently when we talk about detoxification, because your body goes from phase one. It breaks down those fat soluble toxins.

They start to become more water soluble. But in that process, they actually become more reactive. They have the potential to do a lot of harm in your body if they are not moved from that phase one to that phase two in a very systematic way. And so, The importance of those antioxidants is that they protect the body from those intermediate metabolites, those intermediate, dangerous chemicals that can cause more harm than good.

And so we. Need to have different kinds of antioxidants, and I'll talk about this as I move through this, but it's not just vitamin A, vitamin C, vitamin E. We're not talking about supplementing. We are talking food. Food that helps support these detoxification processes. So, We ingest those antioxidants, it helps neutralize those compounds, those free radicals, and then it moves into phase two and phase two.

Think of it this way, this is again, really, really complex, but **phase two is like taking those molecules and packaging them up. So they can be eliminated out of the system.**And again, we need very specific things. There is a little bit of overlap from the nutrients that we need in phase one, but **in phase two we need amino acids from quality protein.**

We need things like choline and octal. And this is why consuming really clean and robust sources of protein is so important because, This is what I wanna tell you.

Proteins are needed to create the enzymes that package up those toxins. And so if this system is impaired in any way, it is going to burden our bodies with toxins again, that are recirculated and not getting removed from the body.

And so that would be phase two and then phase three. Is elimination. And so we have to, again, goes back to how is our digestive system working? Are we eliminating in a, in a healthy way, in a productive way, as I say, so that we don't get the reabsorption of these toxins. And so phase three, you need good vital flow.

It it, the. Gut is involved in phase three Absolutely right, because everything has to go through the intestines and the colon, and you also need to make sure that your kidneys are healthy because the kidneys are involved with obviously excreting urine and so forth. So, That whole system also needs to be optimized to make sure that we are getting rid of these toxins.

And so, right, you're sitting here thinking, wow, this is complicated. And yet the body does this day in, day out, day in, day out, without much thought on our parts. Like, oh

wow, how is my liver detoxing today? And so when again, when there's an imbalance in any of these systems, it can cause an imbalance in the system.

So, Why, or like what who, who is, or what would indicate, let's put it that way, what would indicate that you need a detox? Because people are like, well wait a minute. I dunno, should I detox? Should I not? If you look culturally, let's take a step back. Many cultures really understood the benefit of cleansing the system.

Some cultures did it quarterly when the solstice came in, right, the, the change of seasons, and they naturally just kind of did it, a detox to help their bodies reset. And, and for some people it's a detox is not these fancy juices. It's not these fancy supplements to detox your body.

Yeah. There are certain nutrients that we're gonna talk about that you need, like I said, those B vitamins, that protein sometimes it's just giving your body a little bit of a rest, A rest from digesting a rest, from consuming. Copious amounts of food, especially processed food. And so these are the things, there's many ways to detox.

It's not like there's one way or one specific way or right, wrong, or otherwise. It is what are the, the bottom line is what are the nutrients that you're consuming that are going to support these phases of detoxification? So you know, think about it like, okay, I'm time, I'm cleaning out the closet, getting, getting rid of the old stuff.

Time to make room for bringing in some new stuff. But I want you to be that sometimes being too strict on a detox and too restrictive can do more harm than good. So, for

example, like I said toxins are stored in our fat cells, right? They're fat soluble, but they are stored in our fat cells.

And so if you are on or try to do a quick strict. Detox, like some of the ones that are out there, the gimmicky ones that are out there and you lose weight too quick and you start releasing those toxins from the fat cells, you could actually become sicker. And so you've gotta be really careful about that.

And so, and doing a detox doesn't mean that you have to restrict and punish yourself.

So we also need to be careful about that. But what indicates. If you need a detox. Now remember there's a lot of overlap in symptoms, right? I'm gonna say that. Frequent headaches, sensitivities to chemicals, to perfumes, to detergents, to deodorants food sensitivities that come out of the blue, feeling anxious, having trouble with your memory or cognition, fatigue.

Of course, all of these things can overlap other kinds of imbalances in the body. So, But if we go back and look at, remember, this is a primary process. So if we can get detoxification under control and optimized, then many of these symptoms or disconnects elsewhere in the body get rebalanced.

So it's a really, really good place to start. Other things, if there's inflammation that you can't get rid of, if you don't sweat, If you are not sweating, there is something compromised with your detoxification pathways. And so that's important if you are in a new home, those chemicals from a new home, from whether it's flooring and paint and all that can overburden a system that is maybe already compromised.

So I think we need to pay attention to that. We're gonna talk more about food in a second, but the other thing that I want you to think about are what, where is your exposure coming from? Because we talk about toxins and we talk about them breaking down in the body, but we really have to understand exposure.

And so part of the issue why detoxification is compromised in so many people is because our exposure to toxins is greater than ever before. There's so many chemicals in the environment, there's so many pollutants, and so even the best of us, right? Even those of us, like I. I'm mindful about what I eat.

I'm mindful about my home, but I know, or you know, my environment, but I know that my exposure to toxins is so much greater than it ever was before. How do I continue to support myself in that way? So we wanna reduce where we can things like fuel, like if you're on a boat, right? We're in South Florida.

People who ride boats a lot are on the water. That exposure to diesel fuel is a toxin. So, The Bisphenol A B P A B p H B P S, all of those plastics things that come out of the plastic bottles. Plastic container, plastic food storage. You guys cannot be storing stuff in plastic containers, Ziploc bags.

Exposure to you know, smoke, cigarette smoke, like I said, exhaust fumes, whether it's from a boat or from a car. So again, if you are that person who's outside walking and outside running, great. I love it that you're outside. I love that you're moving, but don't forget that exposure to those fumes from the cars needs to be detoxified.

Insect pesticides. So pesticides from if you are spraying your lawn, if you are putting down repellent bug repellent and all that kind of stuff. Important to think about. Flame retardants chemicals from dry cleaning. The aluminum phthalates, like from a spray can aerosol can.

And of course things like alcohol. Alcohol is a toxin in excess. It becomes toxic to the body. And pesticides from food are other places, pesticides, herbicides, fungicides. And so we're gonna get into the food part, like I said. But one thing I want you to think about, and I will probably reiterate this, is that **you cannot wash away.**

Pesticides and fungicides that are in the soil, right? Our food is grown in soil, and those chemicals are absorbed into. The plant or the tree or the whatever it is. And so we've gotta be very cautious about what we are putting in our body from a produce perspective. And and be mindful that if we can produce, should be organic when you can do that.

And then of course we talk about Like I said, the liver supplementing when we need to, supporting these natural pathways through food. We'll talk about the supplements also in a moment, and so your environment, your home is important to create a good uhin free area. The gut, I mentioned the food we're gonna get into, and of course then we're gonna talk about the mental emotional aspect because guess what, our brains produce toxins as well, so, Let's get into, I also wanna mention, and this is going to be another podcast, but let's talk about genetics and why it's so important to understand our own D n A and what role it has in this detoxification process.

So one thing we look at when we are testing d n a is. What are the SNPs, what we call single nucleotide polymorphisms that are affecting our own ability, our body's ability to detox? Efficiently on its own. So single nucleotide polymorphisms, think of it like a typo in your genetics, right? So it's not a life or death thing.

This is not d n a insertions, deletion, like in life-threatening diseases. These are changes that happen in your D n A that are a part of life. Everybody has them. That doesn't mean they're bad. Some are beneficial, some are not beneficial. So it really is about understanding the context in which we are looking at genes.

Cuz people come into me and they're like, oh my God, you're gonna test my genes.

You're gonna tell me I have something bad? Couldn't be further from the truth. And,
again, if you haven't heard any of our podcasts on genetics and what you get from that, I
would really encourage you to look at that. And this is a much, much deeper
conversation which we will be having.

But what I want you to understand is that, When there's a typo or a misstep in how your d n a makes protein, right? So let's say there's a specific protein that we need for detoxification, and your body has a genetic misstep in how that protein is made. So that protein is not gonna be efficient at helping your body detoxify.

So I don't want you to think that your D n A is like giving you a death sentence or something major. If we can look at that, we can help correct that through food and the right supplementation and changing your lifestyle that will allow your body to sort of circumvent or move around that misstep.

It really is how do I help my body? Work more efficiently and operate more efficiently. So I can feel the way I wanna feel. And so that's the beauty and why I now start every consultation with genetic testing or genomic testing because we need to, I, as a practitioner, I as your quarterback, need to understand how your body is going through this process.

So, Let's talk about food because it's so important to nourish your body in the right way for this process of detoxification. So how do I wanna break it down? Well, let's think about three different ways that we can look at this. Okay. And I'll expand on this as well, but we want to make sure that we're.

Eating foods that offer a variety of nutrients. This is why variety is so important because different foods do different things. So for example, we want to eat two to three cups of food that support liver enzymes. So actually supporting the enzymes that are involved in this process. So when I say two to three cups, I mean of those specific foods, and I'm gonna give you an example, but in a broader scope, ideally, If we want to eat a therapeutic diet, which means that we are giving the body nourishment through food, that we are actually causing a shift.

Through food, then you're talking somewhere **between nine to 10, 11 cups of vegetables a day. That's a lot for people to consume.** It's, it's doable. You know, look,

Atter, Dr. Terry Walls, for example, she's done this. But it is prohibitive for a lot of people and this is why we say let, let's use food's food first, but we wanna.

Then how do we optimize? And that's where supplementation comes in. But you have to make sure you're using the right supplements and that your body is going to absorb them. Again, this goes back to gut health, so everything is really all interconnected, but let's get back to food. Two to three cups of foods that support liver enzymes, for example.

Onions, garlic, right? Those allum, that allium food, family, those white foods that we don't often think of that are so beneficial. So onions, garlic, shallots, Lees I'm sure I will think of more green onions, scallions, all of those chives. Green tea. Pomegranate grapefruit, raw cruciferous vegetables, things like your broccoli, cauliflower, Brussels sprouts, kale, arugula, watercress, for example, broccoli sprouts.

So the actual sprout is, is really beneficial. We wanna look at wild caught cold water fish. So your salmon, your sardines, those little little fish. Organic grassfed meat.

Because grass fed is important, so grass fed, pasture raised meats, chicken, poultry, a Turkey lamb, those kinds of things, lentils and beans can also be a good source of foods that support liver enzymes.

So that's the foods that support the enzymes. Now let's talk about foods that actually help neutralize toxins. So again, we go back to things like garlic and onions, but bitter foods like radishes asparagus, apples. Apples are obviously not bitter, but in the bitter. Category, like I said, dandelion greens.

Mustard greens, any of those greens that have a bitter taste like that radish, like I said, arugula, watercress, dandelion, I think I mentioned help to really neutralize toxins, but

apples nuts, sesame seeds, pumpkin seeds, mustard seeds, ginger. Going back to those good organic proteins and **avoiding genetically modified foods.**

So what is a genetically modified food? That's a whole discussion for another day. But genetically modified foods are foods that Have a gene inserted from some other organism that creates the desired attribute. So genetically modified crops, for example, corn is one of them where they insert a resistant type of bacteria so the corn can resist disease.

And then we've got Roundup that the Roundup spray that is the Glyphosate, again, a whole other area to talk about, but we want to avoid genetically modified organisms as much as possible. And then we wanna look at number three, **supporting that gut elimination.** So we wanna include. Foods that have toxin binding properties, right?

They bind the toxins and help remove them outta the body. We wanna look at **25 to 40** grams of fiber a day from plant foods. That is way more than most people are probably eating, so, Where do we get that kind of food? Things like cilantro, macha, green tea, oregano, rosemary, dandelion, peppermint, and any of your fibrous vegetables are going to support that.

So really, really important to to look at this food piece when it comes to really understanding why we need quality food. So when we dial down a little bit into these plants, why are we specifically talking about these plants and, and the way to nourish our body is because. This is where our bodies get the antioxidants from.

And so we need the different colors, literally, of the rainbow because we get different antioxidants that have different benefits from different color groups. And so we've got things like polyphenols and flavonoids and lutein and luteolin and beta and the carotinoids. And so all of these things are important because they provide different kinds of compounds for the body to use in this detoxification process.

The other part of this food piece then is then looking at water. Because water is an essential nutrient for life, and so many people are drinking poor quality water. And if you are drinking fluoridated water, water that has fluoride in it, a few things to know. First of all, fluoride is a toxin. Number one.

Okay. So fluoride, for example, and bromide, which bromide is added to things like breads and crackers. It's added as a preservative and **fluoride and bromide actually interfere with iodine absorption.** So what do we wanna think about thyroid health?

Thyroid health is, is intricately connected to the fluoride and bromide in our food supply.

So really, really important to think about that. So. Plastic water bottles, these single use plastic water bottles have to go. Not only are they dangerous for our environment and they're, they're just, it's wreaking havoc in our oceans, but plastic gets broken down into these compounds that the body has to then detoxify.

And if we are consuming water, day in, day out, day in, day out from these plastic containers, then we are overburdening our. Toxic ability our ability to, we're overburdening our system and that becomes an issue in terms of the detoxification

process. Best thing to do, there's something called a burkey water filter, great water filter reverse osmosis system in your house.

Great way to start to think about how to, how to get those chemicals out. I mean, but look, doing something, drinking out of glass. If you can't get any kind of filter, drinking out of glass bottles or stainless steel is definitely gonna be a better option than your plastic. So it's all about starting where you're at, moving one step at a time.

Because if you try and implement all of these things at once, and I always say, you gotta do it slow then you're gonna, you're gonna really overload your mind so, Let's start with little things and I encourage you to ask questions, right? One of the next sessions that we're gonna be having, the next podcast will be addressing your questions around this topic.

So write 'em down, send them in and I'm happy to address that. So fluoride I didn't mention in the conversation about fluoride and bromide, but chlorine is in there as well. So, fluoride, bromide, and chlorine. So we drink chlorinated water. In Florida and many places where they treat it.

And so chlorine is also a toxin. So really, really, really important to get that filter that filtered water. So, So the next thing that I really want to talk about is we talked about reducing exposure, but do you know where your source of exposure is coming from?

And that's one thing to think about so we can get exposure from bacteria and mold.

Like I said, herbicides, pollution. **One thing to think about is mercury and heavy metal toxicity.** And I see this all day long in my practice. If you are eating big fish like. Tuna if
you are eating halibut and sea bass and some of those grouper, some of these really big
fish that live a long time towards the lower part of the ocean.

They have tremendous amounts of mercury exposure and we eat that fish and then we are getting that mercury. And I test it all day long and I can tell you. **People are coming** in with ridiculously high levels of mercury, so you really need to pay attention to the fish that you are eating. Where is it coming from?

One of the great sources that I use. It's a great resource is the **Environmental working group**, **ewg.org**. Again, I will say it again. ewg.org will list. They have a seafood guide, a **consumer seafood guide**. They've got a water guide, they've got a beauty product guide, cleaning products. They rank these products according to safest, to least safe, and there is a really nice consumer guide to seafood.

That lists the foods lowest of mercury to highest. And I really want you to start paying attention to those because that impacts your toxic burden. The other thing we wanna think about processed foods, oh, going back to Mercury for a second. If you also have those mercury amalgams in your mouth, the fillings, that is also a source, it can be a slow leaky source of mercury poisoning.

So pay attention to that, **the cleaners that you are using in your home.** Are important to look at because they do contain these chemicals that create toxins that have to be

processed. So it's anything from what you're cleaning in your kitchen and, and household and bathroom and so forth.

What's you're cleaning your floors with. The Fabuloso stuff kills me people. Oh my God. People, I don't know. I don't know where that originally came from, but, oh my God, you walk into so many places here and you smell that. Stench of Fabuloso, that is the strongest cleaner I've ever encountered. And it, it actually makes me sick.

So you've gotta pay attention to your cleaning products what you're using and really what you're also then using. Detergent wise for your clothing. I know everybody loves the smell of that tide or whatever, but those cleaning products, those detergents are loaded with toxic chemicals and whatever is on our skin is absorbed.

Our skin is our largest organ and it absorbs everything, so it will absorb toxins from your clothing. So you wanna look at that. One of the other things is personal care products. What is the lotion that you're putting on your body? Anything that's made with petroleum, you can go look on the label, right?

I will tell you all of these lotions and personal care products that look natural and, and I am gonna call out for example, like Aveeno and Nivea. If you look on the label the third or fourth ingredient down is petroleum. Well, petroleum is comes from oil. It's a fossil fuel, and that has to be broken down by your skin, and it creates toxins.

So not only does it create toxins, these chemicals that have petroleum in it and some of the other phthalates, like what's in your makeup? All of these things contain these petroleum based chemicals that get broken down into one of the things that get broken down is, is estrogen, and it's like what we call a fake estrogen or xeno estrogen, because it's not fake.

It's actually something that our body does not make, but it's an estrogen-like molecule that is very, very, very potent. It's way more potent than our own estrogen. And it wreaks havoc on the body because it's processed like estrogen and it or create tumors and things like that. So when we talk about how to detoxify, yes, we have to detoxify our own hormones, but if we are now being exposed to an exorbitant amount of these products that now get broken down into estrogen-like or estrogen-mimicking products, Can't help but wonder where that connection is to these hormonal based cancers.

So I'll digress for a second. When people are like, I can't take hormones cuz I'm gonna get cancer. I, I'm gonna encourage you to, you look at your detoxification pathways first because if you can't detoxify the, the chemicals that are coming in, then you're not gonna be able to detoxify these hormones properly.

But it's not the hormones themselves that cause the issue. So we really have to look at the totality. Of our exposure and where our risk is and not just, I always say throw the baby out with the bath water and say, oh my God, it's this one thing that's causing an issue. Because oftentimes it is, or I should say it is never just one thing, it is always a culmination of all the things in all of our exposure, which is why this is such an important topic and something that we really need to look at.

So you know, the idea here is remove what you can, right? I don't wanna overwhelm you. Like, oh my gosh, we are doomed. But remove what you can avoid processed foods, avoid sugar. Sugar creates a whole disarray in our body that our body has to deal with. And that is the sugar alternatives. You want to pay attention to the food that you are eating.

So, like I said, if you really wanna support detoxification, we have to bring in these natural foods. But if you wanna support detoxification as well, you need to avoid the processed food, the processed oils. Stuff that comes out of a box, stuff that comes out of a package that is full of chemicals. Read your labels.

So important. If you can't pronounce it, your body doesn't know what to do with it, and it's gonna end up in that toxic soup of garbage. So pay attention to that. Other things I want you to think about is I said no Ziploc bags. There's something called stacher bags, S T A S H E R, Stacher bags. You can get them on Amazon, make sure your cookware right if we're talking about the house.

Then looking at cookware, things like stainless steel, cast, iron glass, ceramic like your Corning wear, for example. Stay away from Teflon. Stay away from aluminum, stay away from copper, those produce toxins. And the other thing I wanna leave you with, again, not to really overwhelm, but to think about what is also toxic in your lifestyle.

So are you sleeping? Because during sleep we process our body processes. It goes through this whole detoxification phase, and You know, if you are not sleeping, if you are not resting, if you are not recovering, then your body cannot detoxify. **Same thing with**

stress. I talked about how stress or chemicals that our, that our brains have to detoxify chemicals.

If we are producing cortisol and cortisone, those, those hormones of stress, our bodies have to detoxify it again, another place we can become overburdened with toxins. So, stress, sleep, sweat. You wanna make sure you are sweating. **Sweating is a great way to detoxify.** So if you're doing hot yoga, great way to do it.

Sauna, getting into the sauna, just getting out and sweating. You know, 20, 30 minutes, a few times a week. Great way to detoxify. Doing things like dry brushing in the shower. I do that a few times a week. It helps the limp, which is the garbage of the system, the garbage can of your blood. Helps it detoxify.

So that's a great thing to do to help detoxification really easy. You do it in your shower. I use a nice sea salt scrub when I do it. And so those are the things I want you to pay attention to. And then what do we always talk about **if we don't test, then we're guessing.** And so much of the work that we do is looking at, again, it starts with the D n

A, but if you really wanna know are you detoxifying, well then we can certainly test for it.

Again, I don't believe in over testing. We wanna test for the right things at the right times, for the right reasons. But definitely wanna be looking at how are those toxins accumulating and just as importantly, how are they actually being detoxified in our system so that we make sure that we are optimizing our system.

So those are just a little of the things. I know I probably went longer than I should have in this whole thing, but. You know, hard to get all of these biological and these system concepts down pat in, in a short time. So wanted to make sure we covered all the bases. Please write in if you have any questions.

Let us know what you thought. Let us know what you wanna hear. We're gonna start to get into these topics in a little bit more of a deep dive way, so that people are really clear on what is happening inside the body, what's happening under the hood, and what are the things that you can do to support your health.

So with that, this is your Rebel nutritionist signing off. Make it a great day, everybody.