Why Sick People Can't Fix Their Dopamine Transcript

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Introduction to Dopamine and the Podcast

Dopamine is demotivation molecule. Dopamin is the foundation for life. What determines your baseline dopamine activity is, the number of D2 receptors on your brain cells.

And if you keep going down that rabbit hole, eventually your base line dopamine levels starts to drop and drop, and number D two receptors will drop. So that after a few months, you wake up in the morning and you're constantly in this dopamine deficit.

and you're constantly seeking certain drugs or certain foods that can increase that phasic dopamine response just to bring you back to normal. If you are overwhelmed with chronic health symptoms and still don't have answers, you aren't alone.

I'm Dr. Javan and on redefining wellness with Dr Javin, we'll be exploring root causes like Lyme disease, mold and parasites and I'll guide you with simple and practical steps towards real healing.

Welcome back to another episode of redefining wellness podcast. I'm your host Dr. David Moore and today I am with my guest Dr Sarah Zeldivar. She is a PhD and she specialized into what we're talking about today, which is the effect that dopamine can have on your health now.

I'm not just talking about your sugar cravings. I am not talking just what you get addicted to or what makes you happy. We are talking how actually a baseline affects your ability to be able to get well but also how dopamine can make you maybe a little bit more prone to the illnesses that you're struggling with.

And I'm really excited to hear about this because this is going to get deep into the weeds of why some of our people feel that exhaustion, fatigue, brain fog, why they might not be able to recover in the same speed or have the Same motivations that someone else does when they're say leaving mold toxicity or some trauma.

So Sarah, thank you so much for joining us today. Thank you. Dr. Moore for having me very excited for our conversation today We've been getting to know each other as we were doing this pre-interview.

And honestly, it's been a lot of fun. You've a part of the carnivore movement, the fitness movement.

How Baseline Dopamine and D2 Receptors Work

Your part the neuroscience research movement which is all coinciding today with I don't know, the Instagram battles of conversation, which I always like to figure out what is going viral.

What are people thinking about? How is this here? Because there has to be a shred of truth to carnivores healthy. If millions of people are doing it, there is a massive movement for neuroscience right now.

I mean, if you're a neuroscientist, you going to multi-million followers on social media because everybody wants to understand their brain. So can you give me the nuts and bolts, just like the overview of how dopamine, which is this neurotransmitter that's supposed to affect pleasure, how it can be different at baseline?

So not necessarily just the spikes, but why that is important to somebody with illness. Great question. So I started getting super interested in the brain and neurotransmitters back when I first came to Miami to pursue my PhD in exercise, physiology and nutrition.

And the first two years, while at the same time, trying to compete in a bodybuilding competition in The Bikini Division, right? So where you need to have very lean body fat, but at same a healthy looking body.

You have to put on muscle. So I'm really laser focused on my studies and laser focus on the body composition goals and I just could not figure it out.

And I started realizing like the thing that always trips me out was the cravings aspect. What is that feeling that people feel when they're trying to follow a health meal plan or even any kind of plant, what is that thing that makes it very difficult for us to stick to the meal plans, to to consistency with the workouts, just stick any goal really in life.

And so I started doing all this research and reading all these blogs and all of these blog we're talking about dopamine, we were talking serotonin and it would be like just eat a banana to improve your neurotransmitters in your brain.

Those things never clicked for me. If we do certain things to release dopamine and seratonin in the brain, Well, a cupcake is gonna release dopamine in the brain.

That's why I'm choosing it, right? And so by doing a deeper dive into what is going on in my brain and that sensation that I am feeling that's making it very hard for me to follow the plan, I stumbled across the whole world of baseline dopamine and the baseline of your neurotransmitter activity and how that is different from those phasic spikes.

You have, if you eat a cookie right now, you have a phacic dopamine response. It releases lots of dopamine and then it goes back down again. But that, eventually, the more you of those phases responses, it actually down regulates the dopamine receptor in the brain called the Dopamine D2 receptor.

So for dopamine to do its function, to feel motivated, because what is dopamine? Dopamine is the motivation molecule. Dopamin is anti-stress molecule, dopamine is a foundation for life.

It determines your mental clarity, how well you feel, your energy levels, mental sharpness, memory, and your cravings as well. So when you have a craving, it's basically a low dopamine state.

So for dopamine, to give you all these amazing benefits, you want to release dopamine from a brain cell and it has to attach to the dopamine D2 receptor on the cell surface of an adjacent brain cells.

It's only when this cross happens, this interaction occurs, is when we feel the powerful benefits of dopamine and where you feel that it is very easy to follow the meal plan.

Is very to say no to an extra helping of a meal or this extra cookie. What determines your baseline dopamine activity is the number of D2 receptors on your brain cells.

If you're constantly relying on phasic dopamine releases from eating a cookie or taking a bath, or thinking taking about doesn't really give you that much of the dopamine release, but You know, if you're constantly just relying on things to give you a quick hit of dopamine, relying in the dopamine phasic responses, every time that happens, you start to destroy the number of D2 receptors which sets your baseline.

So now, when you wake up the next morning, the numbers of the D 2 receptors in your brain are lower than the day before. And if you keep going down that rabbit hole, eventually, your baseline dopamine level starts to drop and drop.

So now, if were a healthy, happy person and you start constantly taking drugs or cookies or cakes or things like that in excess, tons of phasic dopamine releases.

Over time, the number of D2 receptors will drop so that after a few months, you wake up in the morning and are depressed.

Stress, Cortisol, and Chronic Illness

and now you feel that you're constantly in this dopamine deficit and you are constantly seeking certain drugs or certain foods that can increase that phasic dopamine response just to bring you back to normal, just so you can feel like a normal human being, not so much to feel the euphoric effects, the great amazing effects of high dopamine levels.

So dopamine, a motivation molecule, you said the molecule of life, right? is something your body releases, you receive, and the more spikes you have, the worse you received.

So it's like insulin resists, like diabetes almost. Like the, more you hate yourself with of it, your, body starts to pull back. But why is, how does that associate to an illness?

Like someone who's been through Lyme disease, mold toxicity, autoimmune. Cause how are these things triggering or damaging say dopamine D2 receptors? How is that happening?

When you go through chronic illness, your body is releasing a lot of cortisol in a lotta cases. And cortisol, the stress molecule, directly destroys dopamine secretion and your baseline dopamine at so many different levels.

So cortisol actually paralyzes the enzyme that creates dopamine from the amino acid precursor tyrosine So tyrosine converts into dopamine using the enzyme tyrasine hydroxylase.

Cortisol starts to burn through that enzyme, so you're struggling to make enough dopamine molecules. Also, the number of D2 receptors can be destroyed and downregulated the more cortisol you are exposed to.

Also, the dopamine transporter, DAT, which is on the cell surface of your brain cells, Which is responsible for picking up the Dopamine that's been released in your Brain and recycling it so you can release it again and again.

That also is affected by cortisol. So there are so many different steps in the biochemistry of dopamine functioning that are affected directly by just having lots of stress hormones in Your body.

So, and it goes bidirectionally, you know, so this is why dopamine is the anti-stress molecule. If you have a lot of dopamine, even if you encounter lots of stress, whether it's from sickness or just life stress.

You have large pool of dopamines. So releasing a ton of cortisol can still eat into your pool. But now you still have. A lot left over. so you'll still be fine.

So stress in general, a burden on your body that triggers cortisol, whether that be working out too hard, stressing out about life, having infections or toxins, living in mold, that stress triggers, cortisol in a multifaceted way by decreasing production of dopamine, damaging receptors that pull dopamine in.

decrease your ability to even have dopamine. But you kind of earlier said, dopamine is the molecule of life. What tells you if dopamine in a good place in your body?

Are there specific associated symptoms to a low dopamine problem? You actually can run a PET scan, but that's very expensive. You would have to go to participate in some research study.

Or the food companies, they actually use those brain scans to see which variation of their recipe can achieve a high release of dopamine. They literally will try different variations of the same recipe, slide the subjects into the brain scanner and see which recipe releases the highest, but not too high.

There's a certain zone that is just the optimal amount of dopamine release, which is still very high relative to baseline. That can be the most addictive.

And then once they find out the recipe, then they'll just push money behind it and their advertising monies, they will go towards that specific variation.

So you can either do that or participate in a study. So it's very expensive. It requires a research team. You have to drink a radioactive solution that would highlight the D2 receptors activity in the brain, in this, the, brain scanner.

That's one way. When I was doing my dissertation, because my dissociation, I looked at how exercise. A bout of high-intensity interval exercise can influence dopamine levels.

There is a test kit that you can purchase to check for metabolites of dopamine byproduct.

Testing Dopamine and Recognizing Low-Dopamine Symptoms

A lot of functional medicine doctors will test for that, especially if they're focused, you know, in psychiatry, functional medicines, psychiaty. And then you have your signs and symptoms.

How are you feeling? You know? Are you focused? Do you brain fog? do you a lot energy? Gut motility? Your digestive function is affected by dopamine. Literally every single area in your body, every function, organ, system in you body is influenced by your baseline dopamine activity.

So you'd say that if I were to build a questionnaire for dopamine, I'd ask, do you have brain fog, depression, lack of motivation, cravings? So if you're listening out there and you are like, oh, that sounds a lot like me, then we'd be looking at, well, what's causing damage?

There's stressors that we talked about earlier. that can affect all of the different pathways that you mentioned. But is there genetics that play a role in dopamine at all?

Are there snips that would make you less productive as far as like producing dopamine? Great question. There is this researcher, Dr. Ben, super famous in the addiction world, and he coined the term reward deficiency syndrome, RDS.

And he actually even started a scientific journal called the reward Deficiency Syndrome Journal. And the journal basically just publishes all the studies on the people who are born with the genes that make them code for 30% less D2 receptors in the brain.

So we're more vulnerable to addictions. We're vulnerable being less motivated. Were more to kind of operating on a lower level of performance as compared to somebody without it who can become a peak performer with more ease because it just genetically they have a higher activity of dopamine in their brain.

So yes, there is that genetic variable, but if 40% of us are born with it, is it really such a terrible thing or does it just mean that it's very common?

It's like you have 50-50 chance of having it or not. Now, if you do have it, what do you about it? And the answer is anything that's outside your comfort zone.

If I really want to simplify things, If you don't want you get into the supplements and do all the other things. The thing that has always been consistent, that never shows any negative side effect from it is being outside of your Comfort Zone.

So any kind of. pain, sensation, but working out, let's say, is a form of discomfort and making sure that you're constantly adding this extra weight every time you go to the gym or this is extra rep every times you do that, you trigger your brain to start creating more D2 receptors over time.

Right? You can rebuild D two receptors. Yes. And I know you can build your microbiome to help produce more dopamine. the different testing you do. We do an organic acid urine test and we see stuff all the time.

So I definitely want to get into that. But as you're talking about this 40% population, I'm like, man, that's my mom's family. My cousin, who is an engineer and a great guy, she's always just like I am tired.

I was tired No one to get out of bed as much, still a very productive guy, but just always a little more lethargic, a littler slower, little less umph to him.

And I'm like, man, that's got to be that side of the family. Whereas I was very different. I very easily motivated to being a lead athlete. As a national champion in shot put in high school, I, was an all American athlete in college.

There's always drive to do some things. Obviously there's nature versus nurture, maybe dopamine is a piece of a puzzle of how we be differentiated. thousand percent.

There's so many things that influence your baseline dopamine. And by the way, serotonin as well, they work together closely. If you've grown up in a more supportive environment, loving family, all the support, All the love, always praise, right?

You're gonna rewire your brain to constantly create more dopamine and D2 receptors and more seratonin, as Well. Somebody who comes from a higher status environment versus lower status environments, They're going to have higher serotonin levels.

The moment somebody gets a promotion and their status in society goes up, they're going to have a higher baseline serotonin and dopamine level. There are so many things.

Genetics, Reward Deficiency, and Building Resilience

If you're a minority, if you are a female, for example, whether consciously or unconsciously, you've been constantly messaging that somehow kind of make you feel less good about yourself, that's going to rewire your brain to have a lower baseline dopamine serotonin.

If you have gone through poverty versus if you always had what you needed, all those things affect how your mind is wired. And so there's that. There's also the gut health issue.

Like if somebody, sometimes it might not be in the brain. You might have the reward deficiency syndrome. Or maybe environment that led to SIBO, right?

Small intestinal bacterial overgrowth, some gut imbalance that's going to interfere with your vagus nerve. It's gonna interfere how much dopamine D2 receptors you have.

There's so many things that play out. This is why I say it's the foundation of life. Everything affects it. Every little variable in your life is going to determine the net effect of what is your overall dopamine and D2 receptor in you brain.

So this makes me think of a book that I was listening to a podcast on. It was about a Navy SEAL talking about how to increase dopamine. And you said you got to do something uncomfortable and who does more uncomfortable crap in their life than some sort of special forces Navy seal type person, right?

So. Exactly. But what you just said seems counterintuitive to what my thought would have been. I would've thought that your high status, coddled, perfect life people would of had less baseline because they never had to struggle, whereas your people that have had to fight and claw.

I mean, growing up for me, I lived in a family that was stable, but low income. I worked out and I always said there's nothing impossible. I'll outwork anyone always all the time forever.

5'10", I'm not tall, I have to out work and put higher effort levels. So forever it was always I had to do more and be uncomfortable. To me that resonated with the Navy SEAL mindset of if it's uncomfortable, go forward, build dopamine.

But it does not match what you're saying to me. Both are true. It's about the net effect of both. So if you're born with

a silver or gold spoon, you chronically did not release tons of cortisol throughout a period of your life.

You did. Not constantly destroy your those Z2 receptors. They were preserved at a higher level and you practice the brain. pathways that are constantly releasing dopamine, which actually this constant drip of dopamine also increases due to receptors, right?

The guy who discovered reward deficiency syndrome and started the scientific journal called Reward Deficiency Syndrome Journal, he also created this supplement that has those precursors for dopamine.

And the idea behind it is to give it to people who are going through rehab or deal with addiction so that it gives them a constant drip of dopamine and by giving them this constant low level drip dopamine constantly released in their brain, it can increase also their baseline and it increase D2 receptors.

So that is true. The pain aspect is also true and both interact together to get you a net effect of where your baseline ends up being. So either you have the silver spoon and you were consistent for life and just have ones you're born with and kept them and didn't damage them due to cortisol or you somehow had the nurturing or were put in the position where for whatever your personal reason was, you didn' break.

You built the I'm gonna fight and did the hard things. Those are the two ways that you Yes. Build your reward pathways. I guess you could say reward pathway.

You're not building the deficiency. That is so interesting and I obviously missed it because I could not understand how you can have both but now it makes so much sense.

Ideally, you want to have both. Like if you can't have, both you, can become superhuman. I feel like every time I look up the guys that are at the top, the ones that we know their stories of anyway, they had to fight, right?

They had a fight for whatever they have. They're, there are the, ones, that overcame poverty. they over came difficulty and that for, whatever psychological reason, put the fight in and then they just kept climbing.

The trust fund kid that just, you know, got all the connections and they're still up there and you see plenty of them fail too. But it's just interesting of what makes people tick, which is why I love the neuroscience piece of everything.

And I've even had a guest that did a whole podcast on fecal matter transplants.

Dopamine, Trauma, and the Cycle of Chronic Symptoms

And the development of the technology to where it can be oral and pills, which at first I thought was really terrible sounding, but it turned out that it was just basically a probiotic made by humans.

And that was so interesting. So if you're listening, you can go listen to that. That's another neuroscientist that that information was incredible. The research that they did on the lack of efficacy with probiotics on actual long-term outcomes of digestive tract seeding.

So they had found that human probiotics, meaning we pulled the bacteria from human stool, get it dried down and give it to somebody actually seeded and then long-term changed microbiome density versus not from humans, bacteria, long term, there wasn't a major change from probiotic.

So it was an interesting information. And to be honest in practice, I've seen similar outcomes. Like probiotics can be beneficial, but long-term those alone without changing the diet, which you and I talked a little bit about being carnivore only or vegan only having a smaller variety of food decreases microbiome densities.

I just want to stay on topic with you a little bit because I'm so interested in the dopamine. How does dopamine apply to illness? So if somebody's had long-term fatigue and brain fog, potentially body pain, they deal with maybe microbiome issues and it's been these long term health conditions.

Did dopamine put them there or did they get a bad dopamine because they were there? Bad dopamine receptor. I think it's usually a mix of two. It's really low dopamine, but then again, it can be as simple as just not having great genetics for having a strong gut health and microbiome, which then affects your vagus nerve, this nerve highway that takes signals from your gut to your brain and from brain to gut and affects the activity of dopamine serotonin and acetylcholine and so many other brain chemicals in your So I think it's a mix of both.

It's hard to tell. Did it start with you being in an unhealthy situation? Maybe you got sucked into a narcissistic relationship. Maybe your parents were a narcissist and you were constantly pulled around by controlling people that can control your actions.

Control is dopamine. When we lose agency, every tiny bit of drop in control that we feel we have over our decisions in our life is going to drop my dopamine and serotonin.

And so it could be just as simple as a relationship dynamics, right? Lots of narcissism around which ends up making the other person sick and their vagus nerve is constantly stressed out which affects digestive function, which effects microbiome, effects your dopamine serotonin activity.

And now that having now leading your life with low activity of those brain chemicals sets you up for more cravings, more unhealthy food patterns, maybe more alcohol, may be drugs, or maybe other unhealthy relationships because you don't have enough mental strength, which is determined by your dopamine levels.

then it's easier also to not set boundaries in future relationships or in your job. It becomes a cycle. And so the best and fastest way to break apart all these problems in life is to go and target it at the root.

I oftentimes find that the thing that I'm talking about all the time, which is dope, I mean, it is kind of like what David Goggins does in the Navy Sea yoga, right?

But like I just break it down into what's happening in their brain. So he just have to raise that baseline dopamine everything he does all the crazy stuff he Does intentionally bringing upon himself higher and higher levels of pain and discomfort every time he adapts to higher low levels Of pain in discomfort brings upon him self even more.

That's how he keeps raising his baseline. Dopamine constantly You can literally draw a line, right? More pain and discomfort, higher baseline dopamine levels.

But people hear that message and it's so jarring to them. And I used to be one of those. It's like, what do you mean pain that's suffering? Like I tried to do everything.

I did all the hacks before coming back to the basics and understanding there is no hack. The only way out is through. and It takes different people, different amounts of time for it, for this lesson to finally click in their heads, to have a visceral feeling.

That the only way out is through. And it's a little bit of discomfort over time you adapt to it. Yeah. And you said pain and suffering from David Goggins.

Why Discomfort and Discipline Raise Baseline Dopamine

It's not necessarily actual physical body pain, although it can be if you want to go work out or do some sort of 60 mile ruck or the things that David Goggans has done as a seal.

But it could be as simple as, you know, You need to do something for your job. Or in my case, I have to film something. I had to send an email, fill out a document.

And I feel myself procrastinating that, not wanting to that. And it can be as simple as at the beginning of this journey of you want to procrastinate and you're like, no, I don't want do that.

I need to get up and go. Like just forcing yourself to not procrastinating technically is the begging point for some people. It could be the whole point.

If you are a parapsychic, you Stephen Hawking, he wanted to build his discipline and he has no control of his limbs. Just overcoming resistance mentally and staying on task and studying more about physics and quantum physics.

that also raises his baseline dopamine. So it literally just means doing something you do not want to necessarily do that is hard for you. And going forward, as I listened to David Goggins, just to differentiate from that, going to the gym and working out hard when you love working hard because you enjoy working is not the same thing going to the gym when you're a lifter because like I love lifting weights I do not want to go for a run cardio nope don't want do it so what did I I joined a CrossFit gym because they're gonna force me to do things that I cannot stand And then I go out and do it and I'm like, dang it.

But at the end of it, you get a little bit of that, like I could accomplish something high, which is the dopamine. Exactly. 1000%. So there is an interview between Andrew Huberman and David Goggins, I think two years ago, posted it on January 1st.

It went live and it's got like maybe 23 million views now. In it, Andrew Huberman breaks down the biochemistry of overcoming resistance. And he tells David Goggins, there's an area in the brain called the mid anterior cingulate cortex, or MAC, that grows in size every time you try, you do something that you really don't want to do.

everything that David Goggins is about, but like what happens on the surface of what literally happens inside his brain. Every time he goes and tries to do a 200 mile run, right?

Or every time, it's crazy. I cannot even imagine. Like the most I've ever done, I would say there's 13 miles, you know, But I can do that easily. Once a week I'll do long run.

The thing with the running and the cardio. The cardio, because of the time under tension, it also raises your baseline serotonin levels, not just dopamine.

Whereas with strength training, unless you're doing what David Goggins would do, like constant reps, you know, that can increase also seratonin. But usually strength-training and the higher intensity workouts are mainly driving up your baseline dopamine levels.

To really get this insane peak performer brain and to get the insane feeling in your body and brain, you want high dopamine, high norepinephrine, and high serotonin, but not as high as dopamine so that it would not kind of cancel out the dopamine.

So, higher dopamine and higher seratonin than your baseline, This is pretty much, if you have a normal brain and you take an Adderall pill, that is the biochemistry that occurs in the brain.

It raises dopamine, norepinephrine, and serotonin in that ratio. So like high-high, kind of high. And the cardio is what allows you to have that full spectrum of brain function.

it gives you the seratonin aspect, whereas if just lift, you're only getting the dopamine and the nora-pinephrin. Usually, every time you are raising the dopamine, your also raising nara-pinephin.

But you're missing the serotonin aspect, which when you have this trifecta working together, you are superhuman. Interesting. So with health and individuals who have been struggling for years and years, at some point the cortisol has continued to damage the D2 receptors.

The GI upset, SIBO, parasites, clostridias that damage, the enzyme to make dopamine into the epinephrine, norepinephrin. combination that can happen to somebody the wear and tear on honestly just motivation because you don't feel well to do things cause you to backslide back slide back side backside on your baseline dopamine Yep.

That leads to more brain fog that leads more depression, anxiety, fatigue. And the way through would be obviously nutrition enough that you get your body the fuel.

The next thing would. Removing any infections or toxins that are disrupting productions and breaking down enzymes and then picking some things that. You're afraid of or don't want to do and simply just taking the next step forward.

Perfection, exactly. The thing is, in order to do all the other things, and in inorder to change your diet, to improve your gut health, there are things and steps that you have to comply with that, you HAVE to force your way through them.

Exercise, Goggins, and the Brainu2019s Reward Pathways

And so it goes back to like the discipline, which is the overcoming of resistance, doing the things even when you don't really feel like doing them, that is foundation, right?

So if you just focus on that all of the others things are easy. success in any area of life, 80% of it is discipline. So it's like, why even bother with anything else before you max out on your building your discipline muscles?

Because that's what's going to allow everything else to work. It's so interesting to hear about the neurology of motivation, your backbone, Overcome struggles because everybody that we work with in our community is is that they're within they've been to 20 doctors They've they tried everything they and the reason why they still working is because it's failed which those failures increased cortisol which decreases motivation which puts them further down this seemingly this hole for dopamine.

Now one of the questions that that I have on my list that i wanted to ask you is you've done so much research into diet, you have done fitness research, your obviously a PhD in neuroscience and what does diets like carnivore and vegan do to someone because everybody wants to go after these really crazy diets.

I'm always talking to people like, look, I think there is a place and time to use these diets I've seen carnivore help somebody with eczema to where the exema was gone.

And I always tell people this, you are on borrowed time when you're on a diet that is that strict. Thank you. There is eventually going to make you worse because of the lack of variety, but temporarily if that's where you have to be to then make some other shifts.

Okay. So what are you seeing from the neuroscience dietician side of it? Great question! Like you said, there is a time and place for using these specialized kinds of diets for a short period of time.

And you've said it so beautifully, you literally are on borrowed time if you're doing something like a carnivore diet. Because in the short term, just like you, I've seen amazing success stories where literally rheumatoid arthritis is reversed or, like, temporarily put into remission.

Every single condition you can think of, psoriasis, eczema, type 2 diabetes, I mean everything, MS, multiple sclerosis. How is that happening? How can eating nothing but meat lead to these crazy results, you know, clear skin, acne?

And after working and personally doing carnivore for five years and just coaching hundreds and hundreds of people on the carnival diet and running gut testing and lab testing, Eventually, you start to notice that the long-term benefits usually don't last.

I've had so many people that I have interviewed that interviews are still on my YouTube channel, reversing the rheumatoid arthritis, the skin issues, debilitating, crippling depression and anxiety.

When you check up on them after a couple of years, or even since I started talking about reintroducing carbs, he

sometimes will let me know, like, yes, that was my experience as well, I had to re-introduce carbs eventually, because it works in the short term, kind of like taking an antibiotic, right?

An antibiotic destroys the bad gut bugs, and a carnivore diet, similar to an antibiotics, starves the good gut bug. So in a Carnivores diet it's like a broad spectrum antibiotic.

It's not only starving the BAD gut-bugs, but it is also starving good stuff, the probiotics. the ones that you want to take hold in your gut. And so long-term starvation of your microbiome eventually has negative effects, whereby now you become very sensitive even to aged steak histamine accumulation.

Histamine basically accumulates in any food that's not fresh. So the longer it's been cooked, since it was produced, like an aged stick versus fresh steak, now it has more histamines, or like brown beef tends to have more history.

Carnivore Diets, Gut Health, and Long-Term Tradeoffs

Now you start noticing That they lose, the long-term carnivores lose the resiliency against most foods, including the one food that they're eating, which is beef.

And now it has to be freshly cut pieces steak that's low histamine and they can't do ground beef, so it's like this race to the bottom. If you keep doing that, thinking that that is the optimal human diet, Which is what a lot of top carnival influencers are basically preaching.

Yeah. I find any restrictive diet to be short-term at best. Now, as you said, the results year one can be amazing, but what puts you in that position?

Why is your body operating like that? Exactly. Why did you start reacting to plants and other things? And yes, some plants absolutely have toxins in it, oxalates.

They could have more histamine at times. That can have seed poisons in them. A hundred percent. they also have a lot of beneficial things in there. Yeah, exactly.

I just find with this, it's never black and white, simple, one way is the right way. I will say even right now, I am probably more carnivore than your average bear.

Okay. So I have probably a 60% meat diet, but that's not a hundred percent. Yeah. And I still get in a lot of other things. Like my protein. It makes me feel better.

There's still quite the variety of things my fiance is always throwing random things in front of me. Just eat some of this. All right. That's fine. She's like, you need more vegetables.

Alright, whatever. Right? That's good though. You need that microbial diversity, right? You needs to be exposed to more types of plants and more type of food just in general because that increases microbio diversity which is one of the most important determinants of your overall gut health.

And time and time again, carnivore gut help testing, I've done a lot of those, just microbia diversity shrinks so much. It's like the biomass drops and this is why they start having the negative effects and they don't even realize it's from their diet because they just had such amazing results in the beginning that they're hooked on it.

It can't be that because it was so powerful in these areas. How could it possibly be the cause that for example, for me, it slowed down my metabolism?

You need carbohydrates and an insulin spike to activate your thyroid function to convert T4 into T3, the active form of your thyroids function. You need a carbohydrate and an insulin spike to allow the dopamine and the serotonin acetylcholine in your brain to be produced.

The enzymes that produce them, they need that insulin spikes to work, right? And so on every level, there are so many functions that just become very sluggish if we're doing zero carb, very minimal insulin for a long extended period of time.

So your fasting carnivore keto person, it's beneficial at first because it is honestly hard. It's something they probably don't want to do. Decreases certain plants and inflammation, stresses the body which can then cause autophagy which is a big thing that people are looking for it can cause probably even dopamine action initially because it's hard.

Over a long time when it no longer is hard, it has become old hat. It's easy. You enjoy it. Lose the dopamine benefit. Being in keto, again, becomes simple and easy and some of the benefits go off there.

You know, one person told me a long time ago that the biggest thing that we have to do with our human body is change. It's changed. You can't stay one way or any way because the body needs change.

It changed four times a year. If you want to really go back to ancestral diets, it changed for many of us around the world. Four times you had your seasons, which changed your diet, was changed, your lifestyle changed to your habits.

So the buddy got used to change and now when we all try to just lock in on that thing. Yeah. and we lose change, that variability actually causes us more problems.

That's a great point of view. Yes, I agree with that 100%. Initially, it feels so strong and mentally tough that I can resist all the other foods and only eat the meat.

Yeah, but you also need recovery from a stressful event of overcoming resistance and carbohydrates help speed up the recovery process. In your brain, just like it does in your muscles.

So you go all out in the gym, but that's not where you get the benefits in that gym. It's after you recover from that workout that you got all the benefit in elevation and the baseline dopamine.

And what helps you to recover is not just protein, it's also the carbs. It's been an amazing interview. So much for me to think about just as I've now actually learned what the Goggins Huberman podcast actually related to a little bit more because I remember listening to it, hearing, do things that are uncomfortable, not fully understanding how people have been uncomfortable for much of their lives.

Didn't end up with a Goggin's like response that is still surviving, doing well, you know, but not ones that necessarily ended up to some degree being beat down.

My cousin, as an example, lost his mother early in life. Father was an alcoholic, didn't have things easy for him, fought to get an engineering degree, got his life going pretty well, but still has some of these, what seem like as I'm speaking to you, low dopamine responses.

I'll be calling him after our recording here because I think this is going to be a conversation that he's going be interested in because he loves health.

Nice. Thank you for that. Is there, is there anything else that you just want to tell people and maybe give them the rundown of like, Hey, you feel like this could be you?

Practical Steps to Build Dopamine and Close

What are an initial step? If we really want simplify it, just focusing on overcoming a small, small amount of resistance. today is the first building block because you want to build that baseline dopamine.

And while I think exercise is a fastest, easiest way to do that, until you develop that habit, you can start right now.

You don't have to go and get a gym membership today.

There's so many things you could do today that are small and micro-dosed. And that are enough for you to raise your baseline dopamine. So you wake up tomorrow already operating at a higher level, and then you start to stack them one after the other.

And once that habit gets installed, then it's no longer uncomfortable. Now you work on something else where you overcome resistance in something. Which raises your base on a little bit more so on and so forth.

There's literally no limit. to how tough you can be mentally and how happy you could be because it's one and the same. Because toughness and happiness actually are both driven by high baseline dopamine.

So we tend to think of like, oh, mental tough, no, that's too painful. It's just short-term pain, long- term happiness. And in every higher level of short term pain there's even higher levels of happiness and fulfillment.

They're one in the thing. A lot of times we're just paralyzed. We don't want to start doing it because It feels like such a monumental task. to raise our baseline dopamine to do something that's uncomfortable, but that is where we mess up.

We have to go and lift the lighter weight first so then we can lift heavier weights. we don't go straight to the craziest resistance and try to overcome it today.

How interesting this podcast has been. I really appreciate this. It has brought a lot of thought for me even going forward. You waste more time starting than it takes you to something.

Exactly. And I was just like, I'm going to put all over my house, just go. I feel like I am a pretty motivated guy in a lot of ways, but that just hit me because there are moments where I don't want to get up and go do the thing.

It took me longer to think about doing the things than it took to do a thing Exactly. What a waste of time in life. Exactly, and that's why he's in the position he is in because when you were talking about ways to raise baseline dopamine outside of exercise, he talks about this so many times where it's like you're sitting down, you are working on something, You feel like, okay, that is it.

I need to take a break or I have to stop my work day. And it is that moment. where you kind of whip yourself back and you overcome the resistance and discomfort of going an extra 10 minutes, that's what allows you to catch the second wave and then you can keep working for another four hours.

That is exactly what we're talking about, overcoming resistance, whether you want to do it with the exercise like Goggins or the Alex Hormozi way with like the focus on your task or ideally maybe both.

Well, this has been amazing. I really appreciate your time, Dr. Sarah. And how do people find out more about this from wherever you're posting it? Well, thank you, first of all, so much for the interview.

I am so happy that I was able to share my point of view on, you know, your podcasts and with your audience. And congratulations on all your success. People can find me everywhere.

It's very easy. YouTube, Dr. Sara Zaldivar, Instagram at dr.sara.zaldivar website, drsarazaldovar.com. Thank you so Thank you for tuning in to redefining wellness with Dr.

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It helps more people find the show. See you here again.