Are You Living Out of Sync With Your Biology? Transcript

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Opening on Discipline and Health

In terms of my fitness background, my professional background, my athletic career, it allowed me to prioritize health at a young age. It instilled a discipline in me to live with intention because I was taught when you're sleeping, someone is training, right?

And so every decision matters. The difference between an amateur and a professional is the discipline they approach every day with. That's it. They're sacrificing, you know, friendship.

They're sacrificing sometimes family. They're sacrificing going out, partying. They're sacrificing crap foods. It's a lot of sacrifice, but to me, it's not, I don't see it in terms of sacrifice.

I see it in terms of discipline. I see it in terms of I am hired, worried to perform. Welcome to the To Curious MD podcast. I'm Dr. Ali Ahmed. With the wisdom from holistic, alternative, and these conventional medicines, we are here to challenge the status quo.

We're curious about the connectivity and complexity between diverse fields of knowledge as a relief to consciousness, chronic illness, mental health, resilience, and beyond.

Learning more about the art and science of healing, or listening to stories of extraordinary healing. You're in the right place. Let's dive in. Welcome back to our listeners at Too Curious MD podcast, where we're going to talk with Dr.

Daniel Chile.

Podcast Introduction and Guest Background

And we're always excited to have speakers like him. He is a distinguished health care professional, really bringing in the integrative and functional medicine with a mission to reverse chronic disease and optimize human health through a root cause approach, which is really what we talk about at Too Curious MD as well.

He is the founder of TBDE Fitness, a holistic wellness clinic based in Elk Grove Village in Illinois, and he serves patients both locally and of course across the country.

Dr. Chilly began his academic career at Northwestern University where he earned his degree while also playing NCAA Division I soccer. I'm really excited to hear more about that.

After college, he pursued a professional soccer career in Europe and an experience that shaped his holistic perspective on performance, recovery, and whole body health.

And through TBD, fitness, and his broader clinical practice, Dr. Chilly leads a team of wellness professionals who integrate functional medicine, nutrigenomics, cellular and microbial medicine, and advanced lab diagnostics to deliver high personalized care.

And we're loving to have this conversation with him today. Welcome, Dr. Daniel Schley. Thank you for having me. Did I say your name correctly? You know, it's interesting.

In my years of existence, I think that was only one individual who has said it correctly. And funny enough, I was shocked. And I go, how did you know how to pronounce my name correctly?

She goes, I listened to your podcast. So the C-H is like a K, it's actually Italian. So I have Italian origins, my father

from Rome. So it's chile, like chemistry.

Chile, oh. But that's okay. Well, beautiful. Well, I'm sure you get all versions as my name also changes versions as well. So there's always a story in your name and I often ask patients, what's the story of your name?

they sometimes look at me like, what do you mean? And I said, well, there's always a story to people's names and the story brings so much meaning to you.

So I'm curious about the name TBD Fitness and the work that you're doing. It's an intriguing name. And can you tell us the story behind that name? And of course, your name, if you want, and the core mission of your clinic.

So the whole concept originated back, I want to say circa 2000, 2014, 2013 when I returned back to the U. S.

Origin of TBD Fitness and Family Story

So I was living abroad as you had mentioned, which was quite an integral part of my experience in terms of, I know we were speaking offline, traveling really shapes perspective.

And it also just elicited so many beautiful connections. But ultimately, when I returned back to the US, I had a partner in my mission and he was quite unhealthy.

So the goal and the challenge was really birthed upon trying to help them heal. And we figured it wrong the way we can help others. So it was more of a corporate endeavor when we began.

And he kept asking, you know, what's the name of the practice? What's the name of the practice? And I kept saying TBD, TBD, and then one day, like to be determined, right?

And then one day I was like, I wonder how I can use this as an acronym because I'm a huge proponent of acronyms and we can get into that too. But so eventually I just started playing around with the letters and total body diagnostics.

So we started, I mean, back in 2015 as TBD Fitness, it was very much inclined toward fitness and rehabilitation. and then a couple years later when we evolved more into wellness and integrative care, it too evolves into total body diagnostics and then the holistic health and longevity solutions which we added on because that to me was the epitome of practicing what I consider to be at the time restorative medicine or also preventative medicine using a natural approach and there's time obviously to integrate both practices in terms of allopathic care and what we do in terms of holistic care but ultimately that's kind of how that name started and just from my own personal background as I mentioned briefly is my father being from Rome, my mom being from Odessa which once upon a time was the former Soviet Union so she was trying to flee the oppressive regime and then move to the U. S.

and My father followed suit back in the 79 and it was kind of a true immigrant love story where he left his family and left everything that he knew and schooling and studies to pursue love in the US.

So they came to the US with ultimately nothing, very little language. And I came around and not long thereafter. So it has enabled me to have a sense of not only perspective, but certainly gratitude.

Wow, that is so beautiful. I love how the acronym and it almost like it naturally fit like to be determined, but really it naturally came together for you almost like it was subliminally what you were wanting to express anyways.

I'm curious and we always ask curious questions and I usually ask three questions in my curious questions. So if you pay attention, I hope. One is perspective and your travels.

Of course, I'm also curious about your history as an athlete and that perspective and also your perspective as a physician and then bringing this all together.

So tell me a little bit about what it is that you mentioned perspective brings to you in medicine or into you as a person or as a healer. How did that come together for you?

So interestingly, and this is a keynote part of the story in terms of pain drives purpose and how my travels had shaped who I was. So let's maybe start back earlier on in my journey.

Growing up, we would spend our summers typically in Italy. So my family reside outside of Rome on the sea in a city called Ostia, which is the port city of Rome.

And that, to me, was paradise. We would try to go there every few summers. Again, it didn't come from much. My parents had very little, but the little that we had, we would try to spend always with family.

And if you look at that culture, ultimately, it's very family-forward. It's very food-forward. It's very football-forward. So the timeline fast-forward with my soccer, that definitely shaped who I was as well.

Ultimately at an early age, culturally I was very much shaped by growing up in an environment that was extremely welcoming, that was extremely inviting, and that was extremely natural in the sense of with connection and with a sense of nature, with a sense of quote-unquote organic food, bio-dynamic food as they term it in Europe, which again there was never really a distinction of the organic or inorganic at the time.

But ultimately is I saw kind of how living in terms of our ancestral biology really looked like because I also had a family that lived in Sicily, which is where originally my family from Italy reside.

And this is a mountain top village, extremely remote, no running water, electricity at night. You have to like bow down to go into these old homes. And it was interesting because at the time when I first said what my father had said, I'd say Chau Cochino to everyone there, which means high cousin.

And I didn't understand the time, but later did I realize that it's a village of, you know, 250, 300 people, half of which have my last name, half of which have my grandmother's last name, and it was all family.

which was remarkable, but also the epitome of going back to our roots and really just evolving as I term in congruence with our evolution because that to me is unfortunately really the schism here in the US where we are no longer living in conjunction, as I say, with our illusionary biology in the sense of that we're constantly being exposed to toxins and we can obviously go down that road shortly, but Ultimately, I saw early on what it meant to live off of the land, where it meant to live with connection, where you live with movement, there you only walk.

I mean, it was very little where we would get into a vehicle, right? So we're constantly outside, we're constantly immersed in nature, we're constantly just playing this game of life, but in a way that promotes health.

And that was instilled with me at a young age as I was lucky with my parents growing up in that environment, that health to me was shaped by these natural components.

Travel, Perspective, and Early Health Lessons

And then fast forward, so when I grew up here in the US, Two things that really shaped my trajectory. One is when I had my wisdom teeth removed and I'm going through that process now in terms of removing the cavitations that still persist and the damage that has caused but it was impacted teeth and at the time I mean this was malpractice but the surgeon left a piece of the tooth missing, but there was negligence on his behalf.

And after three weeks of being on several antibiotics and painkillers, I went to a second opinion, my dentist, and he took an x-ray and saw that it was a piece of tooth there because I was in diabolical pain for three weeks suffering and exposed to so many rounds of antibiotics.

And after that, I started developing some GI distress, naturally so. Fast forward when I was in school playing and then in Europe, I was certain that I got a parasite Well, fast forward still, I went back to the U. S.

because I normalized just defecating six to 12 times a day, often loose. Then I went to the Mayo Clinic. They diagnosed me with lymphocytic eclitis. They put me on ammonia or Pepto-Bismol at the time for three times a day for 12 weeks.

I had to abstain after four because severe abdominal cramping. And then for the next several years until I went through this process myself of understanding, okay, there's more to the puzzle here than just, you know, patching with a bandaid or treating a symptom.

I realized very quickly that my suspicion in terms of parasite and dysbiosis, intestinal permeability, et cetera, going down that road of diagnostic testing, which enabled me to leverage a successful recovery, but ultimately share the same sentiment within my patient population, right?

Many of the people that I see, which my kind of background given that my track record with GI history is I think this is the people I attract is people that are suffering similar like I did for many years.

So focus of my practice for last decade largely has been microbial medicine or would I sees the interplay of our microbiome in every biological system.

And so now, unfortunately, we're treating a lot more kids just as a byproduct. I treat adults and they ask me, you know, can you help my child? Right.

And so I know you mentioned that you guys started off with these. I'm going to pause you here because what you're sharing too is your story, which is really critical, I think, because you put the pieces of the puzzle together knowing, you know, that you suffered and you went through all of these things.

In narrative medicine, as a physician, one of the things that I have found is that we rarely get to the story of illness. We talk about the illness, we talk about the condition, we talk about all the facts around the condition itself, but rarely do we really get to the story of that illness.

Like, really, where did it begin? And what is the context of that story like? What does it feel like for you as you were going through all these different things, basically suffering through all the treatments that you were seeking, and no one had ever gotten to, you know, really, where did this begin?

How did this really start for you? And what was it that you actually, that struggle, the story behind that illness? Which is, in a matter of minutes, you told me, right?

It started with that tooth pain and the retention of that, you know, incomplete procedure that led to so many factors in how you came back to it. It's a beautiful demonstration of what we see in mental health as well and in children.

I'm a pediatric hospitalist and it really getting to the story, especially when the child can't tell you the story sometimes, but yet there is so much context to a condition.

So thank you for sharing that. I think it's important that our readers know that the story around the illness is so important and in the context of how it presents itself, not the condition itself, but really what shows up in that experience.

The other thing that I'd like to ask you about is evolutionary biology, which is, I think, a very important concept for readers to know, especially because our diet is so sad American diet.

It's a sad diet that we're all exposed to. I go to the grocery store and I'm appalled at the amount of malnutrition we're surrounded by. And yet, where you grew up and the connection you had to food, the taste, the flavors, the smell, the ground that it comes from is unique to your evolutionary history, I imagine.

Then say mine would be, because I'm from South Asia. and the type of foods that we're grown up with is very different and so vital. So tell us a little bit about this idea of evolutionary biology and how you take care of patients

with this kind of diverse backgrounds.

Let's start again with, again, my bias being microbial medicine is we now largely understand as we decoded the bacterial genome that our ancestors had several thousand species of microbes in terms of diversity.

And while their biggest problem was, you know, scarcity or, you know, dying from some sort of threat or predator, certainly scarcity was another component.

They were largely living off of the land and there was no way to manipulate the food. Ultimately, if we now observe what we have in terms of tribes in Tanzania or the Hajja and some of these indigenous tribes, we see that their diversity of species is roughly half of that of our ancestors.

So now we're talking about in the range of 1,500 microbes. our gut-friendly bacteria and we see that our strain so modern man in terms of I call us domesticated animals as we are in some regard our diversity of species is you know somewhere maybe upwards of 500 to 600 but most of us which again treating our patient population that's unfortunately ill somewhere around 300 maybe to 500 and it's severely depleted.

And so it's in this kind of missing microbial diversity that we confer a lot of modern disease. If you look at the indigenous tribes, it's largely devoid of Alzheimer's or any brain or cognitive related decline, but it's devoid of metabolic diseases such as cancer or cardiovascular incidences.

And let's go one step deeper in terms of N of one, my personal journey. So as I mentioned, my family coming from Wow. Interestingly, I did a nutrigenomic test, so I evaluate, same thing with patients, the intersection of kind of nutrition and our genes, but ultimately any sort of what I call holes in our biology, which are also mainly predisposition, so risk factors.

And within a simple test, we can now plug any hole within our biology when we look at that. So fast forward, I did a test on myself and my father, which This is very similar in terms of my great grandfather's genes, largely yes.

So we have extremely high levels of cardiovascular risk. Okay, so why is this relevant? My great grandfather passed away in his sleep at 104 just from natural causes.

I mean there was no cardiovascular incidence, nothing largely healthy until he passed. My grandparents who moved from rural Sicily, you know, living off of the land, living naturally in congruence with our evolutionary biology, where you're constantly outside, you're constantly moving, you're constantly connected, the water is clean, the air is clean, the soil, the food, etc.

They moved to now urban Rome, where they work in the industrial part of Rome. They both passed away from cardiovascular incidences at 84 and 86 respectively.

How interestingly. So the epigenetic component reigns true here. So while my father and I have extremely high cardiovascular incidences, you put that in the right context and now you have a shortened lifespan.

So ultimately, this is how things become relevant very quickly and where we have deviated as a species is you and I are having this conversation indoors, often enough under bright LEDs in the terms of a hospital when you said your clinical practice or in terms of where we're constantly going from one box to the next, right?

From our office. Denatured, I would say. We're denatured, our DNA is denaturing itself.

Gut Health, Microbiome, and Evolutionary Biology

I'm going to have to refer to you every time I say that. It's denatured DNA. You said it elegantly, right? So we're no longer living in congruence with our evolutionary biology.

And as such, our lifespan is certainly extending, right? We're living longer lives, but I don't find it true to be healthier

lives. And so while we know that our blueprint is set for roughly, let's say, 120 years, that we can live there healthily, When I see my grandparents who passed away in 84, 86, or so many of my family in some regard that are dying younger, or obviously within our patients, etc.

When they're passing in an earlier age, they say, oh, you know, they lived a long life in 84, 86. No, we just lost four decades. but it's being celebrated here because people are getting more sick because diseases is very much on the rise and while technology has come such a long way it hasn't necessarily enabled us to always live healthy lives like we're struggling with modern disease one and two globally are killing us from a cardiovascular incidence the prevalence of cancer right after specific age two is extremely persistent so The problem is our modern environment is denaturing our DNA and polluting our healthspan.

And particularly what you mentioned, the kind of the epigenetic profile say that your family history may have on the Sicilian side. And I'm also curious about your children, I guess, if you have children, what their epigenetic profile might look with the intersection of you and your family and your partner's wife and her lineage and how that comes together.

But particularly you mentioned the epigenetic profile of this cardiovascular risk. and how that, when you migrate away from your evolutionary landscape, how that can activate that decline even faster, say, 20 years before they're supposed to go, correct?

Is that kind of what you're describing here? Let's look through the lens now of nutrition as an example. And you had inquired about my partner. So she's from Eastern Europe in a city called Kazan, which was a independent republic of Russia in the region of Tatarstan.

And growing up, again, very largely in terms of a healthy upbringing where you're living in conjunction with your natural roots, like you're living off of the land, you're eating quote unquote inherently organic food.

And I want to highlight nutrition because to me nutrition is instruction, it's no longer benign, it's going to heal you, it's going to hurt you. And I had the pleasure of visiting your family not long ago and we would go to the market to buy food just like in the old days where you go, like our farmers markets here, okay?

This is where it becomes interesting very quickly. We would go to the market and we would buy fresh produce that morning. By the next day that morning, the food was spoiled.

Not because it was contaminated, but because it was the epitome of organic where mold would grow. I would see mold growing on garlic. I would see mold growing on dried fruit.

things that I've never seen here that doesn't exist. Things just stay in the cupboard forever sometimes. But ultimately the produce was so fresh that the next day it was full of mold.

And I thought, man, if that's happening, we're being poisoned here, ultimately. And it's not necessary through malice. We're just fed this idea, pun intended, that Ultimately, we need to spray our food with herbicide, fungicide, pesticide, insecticide to preserve the longevity of our food within our monoculture, big agricultural process.

But ultimately, it's to our own detriment. And so going back, like I said, within my family and that dynamic is that's what happens when you take a individual with certain predispositions and now you put them in a condition that's not native to their biology and food is a huge instructional component and when you said the sad american diet standard american diet the food pyramid has been inverted but to me it's still a lot of it is crap c-r-a-p completely refined in process remember the conversation i said i love acronyms it resonates oh yeah i love it Crap, right.

We're eating tap food. Let me write that down. Complete, refined, and what's the A? that completely refined and processed. Command process. Oh, wow. Yes, 100%. 100%. So ultimately, that's the, I think, underpinning of the biggest problem here is in the US beyond, obviously, the fact that I think there's upwards of 200 million chemicals in circulation, especially here in the US.

I mean, we never evolved in such a time where our immune system had to deal with a deluge or barrage of chemical intoxicants. And so that's denaturing our DNAs as you had elegantly suggested.

And so ultimately the prudence is on us to really live with intention to mitigate against what's happening. Well, let's go down deeper into this idea of your gut biome and paying attention to your stool as it changes day to day in the type of diet that you eat, but also in where you travel.

I'm sure you've had that experience being an athlete traveling in Europe. having this parasitic illness, what that was like for you. And paying attention to stool, it sounds gross, but if we're talking about stool and the context of how that good biome changes, what do you notice?

So it's interesting because our microbiome, it changes relatively quickly, like within 72 hours, the dynamic shifts dramatically, but not in the sense of you can eat a food and completely, you know, colonizes and now you have such a traumatic shift.

But in the sense of can manipulate quickly in terms of let's say you're you're exposed to a pathogen right and that can be able to take over quickly if your immune system is suppressed and that to me is the downfall of aging.

It's kind of this degradation of or the assault the constant assault on the immune system and so I call it my unlucky seven. People are dying because of infection from bacteria, viral, fungal, parasitic, or now in our modern environment, the ubiquity of heavy metals, environmental toxins, and stress and trauma.

And so while we evolved to deal with some of these things singularly, take a vaccine as earlier on in the CDC schedule, we never evolved to do a triple vaccine or exposure.

We never evolved to now deal with these multiple co-infections simultaneously, especially with our environmental exposures. So ultimately the microbiome is kind of fragile in that regard.

It's constantly responding to the environment and constantly trying to protect us. So we are not what we eat, we are what we feed our gut buddies. And so while we've decoded our bacterial genome, we're only scratching the surface with our fungal genome or our microbiome.

And now the interplay between the bacteria and the fungus and how that has shaped us evolve but ultimately we recognize we're more bacterial DNA than we are human by like a factor of 250 to 1 not in terms of the number of microbes but in terms of postbiotics or these metabolites that these bacteria ferment and produce say short-chain fatty acids as an example which helps with rebuilding the lining of the gut so the epithelial barrier so we understand that Food is instruction.

And unless you are feeding your microbes intelligently, again, in congruence with what we should be. And I always, people ask me, you know, what should you eat?

And everyone is this, you know, the Mediterranean diet or carnivore, keto, et cetera. I always say, eat what your ancestors ate. Why? Because that's what you're going to do best with.

That's your personal signature. We see that now too, in terms of identical twins or partners. So while you and I are 99.98% identical in terms of our genes, our microbes are vastly different.

And that goes within our demographic, your zip code. that goes in terms of eating the seasons as well which we're no longer doing and so while we can shift the good part is when you do eat nothing colonizes otherwise we'd be walking pregnant all day long right so what happens is as we begin to digest our food break down our nutrients and then feed our gut-friendly microbes they begin to feed us and they confer a lot of upstream benefits in terms of immune protection which we understand 70 to 90 percent of our immune function Again, secretory IgA, looking at the level of the gut that the allele bearer is very much protected by our microbes.

And so often enough, we'll run a, again, I'm very heavy on diagnostics. Why? Because I don't like guessing. I like

testing and treating. And so this allows us to be hyper-targeted with treatment, which is why we're so successful in terms of reversing autoimmunity, in terms of reversing cancer, in terms of really allowing people to regain their lives, to be able to live without pain.

both in terms of adults and kids, as we see the problem unfortunately being exacerbating now in children. It's estimated that 290 chemicals in a mom's birthing placenta.

I mean, kids really hold dear to my heart. You ask me, you know, what about my partner and kids? I have three girls, eight, five, and three. That's how the story becomes interesting even quicker.

My first child, was beautiful. Partner was dialed in. So I have a foundation five. You got to eat right, sleep right, move right, talk right, poop right.

If you do that you're gonna feel great, okay? Everything was dialed in. The nutraceuticals were dialed in, the sleep, the stress, our relationship, everything.

Beautiful. Child, happy-go-lucky, smiles at life. Second child, That was not the case. There was loss in the family, a lot of stress, very little exercise, sleepless nights, nutrition wasn't on points, neither the nutraceuticals.

I didn't know what the terrible twos were until I met my second child. And then it was terrible twos, threes and fours. I was like, I got to figure this out.

So I did a microbial test, just a simple stool test, to assess what's happening at the level of the microbiome. Sure enough, first child has the largest richness and diversity in species.

Happy-go-lucky child. Second child, the lowest amount of richness and diversity in species. Same age, same diet? Same parents, of course. Yes, so oldest now, like I said, so five and three.

So there is a little bit of an age gap naturally. And the last one, interestingly, she has in between them both. But the second one, so when we tested this a couple years ago, interestingly, she does not produce gabon.

You're calming your transmitter. So for her to get to bed was war. She's constantly self-sabotaging, self-deprecating. So is it you who are your character or is it actually our microbes that define who we are?

Very much prone to anxiety, very much like I said, self-sabotaging. We give her gab at night to go to sleep. She is two different children. Immediately my partner was like, this is wild.

We can put her to sleep with ease now, but it's the missing microbes that play the risk here, which is photobacteria longum, lactobacillus platerium, two kind of keystone strains in terms of helping the synthesis of our neurotransmitters.

So when people come to us with mental health issues, I'm not a mental therapist. I clean out their, I restore healthy microbial interplay and now they have their health back.

How interesting. It is so fascinating. My neurons are like lighting up right now because I have like ton of questions here. And thank you for bringing this to light.

This is so critical for our audience to hear this. Your gut is your brain. It is 80% of those signaling that's coming from your gut is going to your brain, is going to every part of you.

Most of the production, a lot of the neurotransmitter production is happening in the gut. The gut is not just a system to excrete or make, to get rid of.

It is a system that is an immune system, that is a sensory system, it is a production system, it is a digestive system that breaks down and reabsorbs.

I mean, it's got so many critical factors and it is a nervous system as well. It's sending signals everywhere and directly to the brain. So of course it has an effect.

And wow, what an experiment to have to observe this fact in your own children.

Children, Diagnostics, and Chronic Disease

And I, as a pediatrician, am just like, wow, that is really important for parents to know how important it is, the nutrition that their child gets, but also the history of that pregnancy.

I often ask patients, Well, if they don't, if they say, I never had any trauma, nothing happened to me. And I said, well, tell me a little bit about what was it like when your mom was pregnant?

What are the stories around that timeframe? And there we get to it. We find something, something that triggered that immune system or that nervous system to get a hit in utero or even before from some other condition of the maternal environment may have exposed this newborn baby to.

So it's really, really vital. Give us an idea for our audience about how you approach gut testing diagnostically and how you, as you claim, reverse chronic disease, mental health, cancer.

I mean, think about how many people have the incidence of cancer, colorectal cancer, for one, being such a high incidence in younger and younger populations.

So tell us about that approach and the diagnostic approach that you make. Yeah, going one step back into what you were saying, I mean, we now recognize that neurodevelopmental disorders in our kids, unfortunately, such as autism, ADD, ADHD, pans, pandas, they are increasingly recognized as this micro bio epigenetic interaction disorder.

And so I borrow this from Eliza Song, who in her book, I mean, she elegantly professes how genes load the gun and the microbiome pulls the trigger and so we see that in terms of behavioral disorder in terms of cognitive issues within our young adults and we're still our younger kids and even toddlers we see kind of learning challenges and how when we are doing this diagnostic testing that they are missing so many different healthy beneficial species but ultimately early on in kind of the first thousand days 80 to almost 100 percent of your microbiome should largely be defined by bifidobacterium fantis but yet when we have a c-section baby or babies that are exposed to antibiotics early on or especially if mom was exposed to antibiotics while during the pregnancy or some other of illnesses, we see that in the first six months of life there is a tremendous increase in the risk of every allergic disease by the age of four, including eczema, asthma, hay fever, anaphylactic food allergies, and then antibiotic use in the first two years of life increases the risk of mental health concerns later in childhood.

up to 50% including sleep issues, which is when the body heals and repairs. Certainly you have ADHD, mood and anxiety disorders, and that's why mental health issues within our youth is becoming so prevalent.

It's estimated that one in two kids now have a chronic health condition. This is remarkable. We are setting up our kids for failure and certainly it starts in the womb.

But what is the health of parents before that? What are the health of their parents before that? And taking that timeline, sitting with the parents and having that conversation is that's what we need to understand is because it's it's transgenerational.

So ultimately, we leverage the use of diagnostic testing in order to guide treatment. So when you mention something as severe as cancer, to me, cancer is a hit on the mitochondria.

But we now recognize the very friendly relationship between our microbiome and our mitochondria. And when you're looking at our mitochondria, the ability to output energy and ATP and the oxidative burden that's happening, starting at the level of the gut, we're not designed to constantly have this assault.

And so we're set up at an earlier age for failure because when you look at C-section babies or formula fed babies, their microbiome is largely dominated by Escherichia enterococcus or Klebsiella or some of these very pathogenic strains instead of a healthier bipido species as I had alluded to.

and so early on you're setting the stage up for immune dysregulation or as you said denaturing of the DNA and then impact on methylation and histones which is now relevant to cancer because cancer is a hit on the mitochondria and so when you have this stage being set earlier on how can you intervene so the diagnostic allows us to see okay what's going on under the hood so that we can begin to reverse some of this damage, right?

And to me is autoimmunity, same thing. It's very much reversible. Autoimmunity to me is a diagnosis of seven years. Similar to cancer, that doesn't happen overnight.

This is a constant assault on the immune system, which is now, I see this all the time, the patients, the pattern, their secretory IGA, their immune system is so depleted.

I equate it to the analogy of you've been having to go to war for decades naked. It's a losing battle. So ultimately, we have to change the environment that keeps us sick.

We heal the speed of our nervous system, but we're stuck in that parasympathetic state, that fight or flight, excuse me, that sympathetic state, that fight or flight.

And now we understand that largely digestion starts in the brain with our vagus nerve that intersects every segment of the digestive process. But when you're stuck, you're not secreting hydrochloric acid.

So that's depleted. Unfortunately, you're typically accumulating more H. pylori. You're not secreting your pancreatic enzymes to break down your food.

So you're getting food that's not largely broken down properly and fermenting in the colon. And then worse yet, if we have this sludgy or kind of thick bile, because again, you don't have the same level of instruction to secrete bile, there's a backup and you have this enterohepatic recirculation, you have constipation, you have food undegested getting into the bloodstream and now you're constantly under this hamster wheel of the body needing to fight against every offender and over time, like I said, that's the problem.

And so ultimately is what we try to uncover is where the bottlenecks and start reversing that one layer at a time. And so when I help patients heal, the first step is ensuring circulation and perfusion looking at hemoglobin and the ability for the body to deliver oxygen throughout, obviously to feed the electron transport chain so that we can produce ATP in an environment that keeps us kind of broken and stuck.

That's layer one. Layer two is fuel delivery, looking at glucose. Ultimately, I'm wearing a CGM right now is I need to understand what is someone's ability to use their nutrients because when you're eating food, food is against its instruction.

Three things happen. Number one, the first is toxin elimination. Second is nutrient absorption and third is cellular repair. Our most stick among us are never getting to cellular repair because they're stuck in toxin elimination because their cup is spilling over.

And again, I see the problem starts at the level of the gut or at the minimum, there's a huge, again, interplay there that once we restore our healthy microbes, we are reversing that picture and our patients are getting 75 to, you know, upwards of 90% better somewhere between six, 12 weeks, and even six months, depending on how chronic the issue is, especially now with using some things like peptides.

So we're able to leverage modern medicine, modern treatment plans to reverse the accumulation of damage that's been seen. So in your approach, say, for example, because looking at the biological condition and, of course, the diversity that I'm from a mixed race as well is probably, you know, what you described as well.

How do you do this? How do you do this with the evolutionary history of two, say, two biological, you know, context of food. Immigrant population now conditioned to eat the South American diet who have insulin resistant and IBS.

What's your approach for that patient? So if you're looking at insulin resistance in IBS, to me, IBS is a diagnosis of a question mark, right? In the US here, we have to provide a diagnosis, but then when patients ask why, practitioners are scratching their heads.

So ultimately, the set was staged with insulin resistance. If you're not mitigating the spikes of glucose, eventually that's causing systemic inflammation.

Let's look at cancer as an example. Five things have to hold true. It's a perfect storm. Number one, it's low oxygen. So again, layer one to me, how I help my patients heal, you have to restore that.

Number two is high acid. That's insulin resistance. Number three is low nutrients. So again, you're stuck in that stage of toxin elimination rather than nutrient absorption and cellular repair.

And then four and five is chronic immune suppression and heightened inflammatory burden. which that's how our immune system fights with inflammation. So all five things have to hold true.

But at the root of that, it starts with the insulin resistance. But the question is why are we insulin resistant? It's because we are overworked, under recovered, overfed, yet malnourished because we're eating the crap food.

And so looking at, again, this evolutionary lens is we have to take a step back and understand is we're not eating right, sleeping right, moving right, talking right, pooping right anymore.

because we're prioritizing everything else. Food is a consequence of what we do between activities. I have three kids. I have a practice. I am trying to balance being, you know, a father, a partner, a mentor, a teacher, a practitioner, et cetera.

And so… And a podcaster. And a podcaster. Yeah, absolutely. And so a caregiver syndrome is certainly real. We were never designed to only know one button, go, right?

But when our fuel tank runs empty, what do we do in America? We caffeinate and we press go even further. And eventually we break down and then we're thinking, oh man, you know, now I have cancer.

That's such bad luck. No, that's just the product of our modern lifestyle. But if I look at my ancestral peers in Europe, you know, There's a reason why the biggest meal is middle of the day where they take a break.

They acknowledge family and community and food and recognize that, OK, this capitalistic structure here, which America is incredible in terms of opportunity, but ultimately comes at a consequence of our health.

And so we just have to take a step back and just reflect. How do you feel? How are your connections? How are you trying to live a life of purpose, as an example, rather than one that's constantly reactive?

And that's what we do here is reactive medicine. While trauma care is exceptional in the US, we rank very poorly in terms of proactive or preventative medicine.

Right. So I'm a patient. I'm sitting in front of you. This is really overwhelming. I'm like, where do I start? Do I start at rest and sleep and try to just connect with my family?

But I'm in pain. I can't eat. I'm depressed. What do I do first, doctor? Well, I say now it's interesting when you said pain, because pain to me is a reflection of internal dysfunction.

Pain can only manifest when there's chronic inflammation from immune, heightened immune suppression, right? The body is trying to tell us a signal, but what do we do?

We suppress the signal with painkillers instead of, you know, let's observe and acknowledge the signal. Cause it starts with, Oh, I have this kind of weird toe thing, but I'll ignore it.

Oh, you know, my kind of elbows feel a little bit funky or I have, you know, some tingling on my back. And what's interesting with my practice when we do muscle testing and neuroepatic testing, pain in the body is usually reflective of a specific organ dysfunction or congestion wherever it is in the body.

So now that's going a little bit more into Eastern wisdom, but ultimately pain is a signal. And I say pain is a choice because within peptides, I cannot make this up.

Treatment Approach and Personalized Medicine

The testimonials are remarkable and I tried this on myself too, but I started messing around with peptides back when they were research-grade only about a decade ago, but we recognize the research out of Russia and China where they've been doping their athletes for so many decades now and they were far more advanced than we were.

These very potent signaling molecules, I have people walking into my practice on crutches a week or two later completely off of crutches. We get people out of pain very quickly and that's why I now say pain is a choice.

But that's, I mean, very kind of, I have a stroke patient as an example. She came to me, one side is kind of not functioning. The other side, she was sitting in my office and we were doing the full medical history.

Her knee pain is a level 178 out of 10. I go, oh my God, we got to get you to the hospital. She goes, no Daniel, this is my life. And I said, okay, well, with modern tools, I can help get you out of pain.

After two rounds of using peptides, meaning like I saw her within a span of a week, she comes back to me the next week, her pain levels under 10. It transformed her life.

When I asked her on camera, I said, can I share this? And she said, yes. The only thing I wish, as she was tearing, is like, I wish I found you sooner.

And this to me isn't like, I wish this was my brilliance. It's not. It's just staying at the cutting edge of science today, being able to deliver the best outcomes for our patients.

So where do you start is taking that full medical intake. Like, are they eating right, sleeping right, moving right, talking right, pooping right? And what you'll find is that most people are not pooping right.

They're constipated. or their bowel is as loose or they're struggling and they're straining, they're recirculating toxicity, their nutrition is crap, or at best case scenario, you know, they're not eating at the right time for the right biology.

And so that's now compromising how they feel. Then sleep is overlooked. And that you mentioned sleep, that is the foundation. Light is a nutrient, darkness is a nutrient.

But what do we do? We are more productive. Why? Because we have the invention of the light bulb. So now we push later into the evening to get work done, but at the detriment of our health because that's when the body repairs.

Growth hormone is secreted earlier in the night when the body physically restores itself. So typically just around sunset, but what are we doing? We're going to bed 10, 11 o'clock at night.

If we're lucky, we usually don't make a priority. So when I ask people what time do they set their alarm clock, they say, oh, you know, 6 a.m., 5 a.m.

I don't know what time you set your alarm clock to go to bed. And so our autoimmune patients who wear, you know, exercise as a badge of honor like our the CEOs and you know our top executives that are up early they're prioritizing the workout which is stress which is how they're trying to unwind which is their me time but at the cost of sleeping you know four or five six hours of nothing and yet their body's in so much physical pain i say okay it's calling out it's fighting things pay attention to me you know that's the autoimmune response it's like bring attention to me If you don't slow down, the body slows you down.

So to tie that loop full circle, ultimately, it's starting with taking that full medical history, seeing where those five, you know, the five components are, where that gap is, and help the patient understand what we need to prioritize.

So to me, less is more, right? I don't need to give someone a whole plethora of nutraceuticals or we're still prescriptive medication. It's, can you get to bed earlier?

Can you start eating more vegetables? Because we were designed to eat this, again, fast food convenience culture lifestyle where everything is pre-prepared.

Case in point, I had one patient who was referred to me again. She was in pain. But ultimately, her hormones were way out of balance postmenopausal. I see that's another art and another probably podcast alone.

But ultimately, when I did a neurogenomic test, she was very high risk factor in terms of histamine production and degradation. What was she doing? All her meals were coming packaged paired.

That's high histamine. We take that away. We think by meal prepping, we're doing good, right? We're preparing a great meal for this. That set us for the week.

That was lighting or on fire. So all of us have this slow, great inflammatory burden, which I say is a fire burning within us. We're all toxic. It's our modern environment.

Food now is fuel or gasoline to that fire. Poor sleep, one or two nights of lack of sleep, drives insulin's resistance by about 40%. I see that within my blood glucose levels.

So what's happening is you're not then dealing with the daily dose of your unhealthy intoxicants or your crap food as effectively. And then days, weeks, months, years, now we have disease.

I feel like as doctors we need to be out there campaigning about food, about nutrition, so much more than what we were told in medical school, so much of what we were not told in medical school, I believe.

And going back to the basics, right? How are you living? How are you connecting? How are you sleeping? What are you eating? And why are you eating these other things?

And what's driving you? What's your day like? What is your life like? Really the basics. It goes really to the basics of living. Most of us are just existing and so inject its its purpose like we don't know our purpose and that's a question that we asked in our intake like You're the as the Japanese elegantly term if you guy the reason why you wake up every morning, right?

We're just existing and then we're just reacting Oh, we got to do this. Oh, I got to do this. I got to do this. And we don't prioritize ourselves. So when you're selfless, you lose your sense of self.

So coming back full circle, that true immigrant story, I see how challenges with my with my parents. Why? Because they sacrificed their entire life for my brother and myself.

And so that comes at a cost too. When you said in terms of nutrition, understanding is that we don't prioritize the right food at the right time either.

Ultimately, we're not eating the seasons, we're eating way too late at night. There was an elegant study with Dr.

Sashin's work where mice that were fed a healthy diet late at night versus unhealthy but early in the afternoon, 100% of the mice, which often never happens in the scientific study, all gained weight that ate healthy at night.

Why? Because you're more insulin resistant as melatonin is secreted into the evening. So timing, which matters about quality and quantity, reframe my paradigm, ultimately.

I'm sure there's a history of timing of food in evolution as well, like what latitude you were born in. And of course, this makes so much sense and I think it's really helpful for patients and our audience to really recognize the importance of their evolutionary history.

their diet, as they live, the story around their condition, and of course their, you know, the personalized approach to how to treat that. I imagine you have a lot of data with your diagnostics that you do.

I'm fascinated, I would be fascinated to learn more about what you see in terms of, again, different ethnicities and the diversity of population that you may be seeing in Chicago, I imagine, and what shows up in different conditions.

Why do people get colon cancer and why does one person get pancreatic cancer? What has been kind of an overview of things that you've seen by that diversity alone in different conditions as they present?

Yes, there's certainly patterns and ultimately when you take a subset of the population and you remove them from their specific longitude, latitude or zips code and then you integrate them into an environment that's not native to their biology, this is when things begin to persist but it's the slow degradation that one day as an adult now you wake up with cancer, that one day you wake up with MS or dementia.

going back to insulin resistance in the brain as an example, but also where there are specific co-infections that coincide. A lot of what happens that I find that's overlooked is going back to my lucky seven, it's looking at cancer patients as an example.

I haven't found one cancer patient that we haven't worked with without heavy mental toxicity. How interesting. And now with where you're living, so in Chicago, we have coal plants here in right across the border in Gary and Anna.

So heavy metals, mercury, some of these other lead, cadmium arsenic, very, very typical within our patient population, specific to cancer. But if you're looking at our specific cancers, we'll find a, again, very specific pattern in terms of sometimes very high level of specific gram-negative or pathogenic microbial species that coincide and something with autoimmunity, interestingly enough.

So it's almost like where these infectious agents begin to take stock and denature your DNA but at the level of the microbiome and then obviously this immune system that is compromised because it's impossible to you to age gracefully or healthfully if your immune system is constantly under an assault.

And so now, same thing with mold microtoxins, which we find so prevalent, this fungal burden, ultimately in yeast and candida, which again, very, very typical in presentation of specific cancers as well.

But ultimately, what we have found is that when you have Let's say our Asian counterparts that largely do very well with soy. You have retained an enzymatic capacity to break down the nutrients native to where you grew up and yet myself or someone that's Hashimoto's as an example or perhaps in another context doesn't do very well with soy but yet we're trying to eat a more vegetarian lifestyle or we think we're doing better with health substitutes and yet our blood type now is O positive and yet so we should be doing better with meat but for ethical reasons we're not so now we're kind of like strike strike strike we are no longer eating the food that we were designed to eat.

We are no longer in the same evolutionary zip code that we were designed to live in. And sure enough, when we do a microbiome test, we see what's going on in terms of our healthy commensal species in the shift that begins to happen.

And that sets the stage for chronic disease, cancer, autoimmunity, et cetera. So it's definitely multifactorial. It's not

so simple as, okay, you know, every cancer, autoimmunity has this very specific signature.

There is a common analogy. So looking at men and prostate cancer, right? I think it's estimated one in two men after the age of 55, or like one in three, and then after the age of 65, one in two men with prostate cancer.

Athletic Discipline, Performance, and Contact Info

That almost sounds like an inevitability. That's a concern for me. But to me, when I look at that, the common pattern I see until proven otherwise, it's excess estrogen and dysbiosis.

So translocation of bad bacteria, because now we see every organ has its own biome. How interesting. And so we see the translocation of this bad bacteria, which now afflicts the specific organ.

and now we have degradation and now eventually we have cysts and polyps which to me are never benign yes they can maybe they're not you know it's not a tumor per se but certainly is that's instruction that's the body trying to sequester infection or toxins or excess garbage.

Let's call it that way to simplistic level. And so that the state just said, same thing, you know, when you see polyps and when you're doing a colonoscopy, ultimately is the body's trying to sequester something to keep us alive and safe.

But that to me, the party already started. I call it a pathogen party. The degradation has already started earlier on and it is because going back full circle, we are no longer living in congruence with our evolutionary biology.

Yeah. Well, I've migrated four times, four continents. I imagine my history is, my evolutionary history is really mixed up as such a high prevalence of conditions that I know I'm exposed to and I have the risk factors for.

I imagine that migration has a big impact, as we talked about. Just a final question back to your story of who you are as an athlete. Curious about your history as an athlete and how your athletic background brought you as a professional as well, brought you into healthcare.

So let's tie the knot to come full circle. Ultimately, I was very, very lucky at a young age. I was taught 10-90. Life is 10% action, 90% reaction. So everything is predicated upon the weight you give it.

And that's the same message I want to instill in my children. And the same message I want to instill in terms of the community and everyone listening is one of hope.

So while you have migrated so much, We live in a global society where we can travel, we can see the world, and we were never designed to travel so many time zones in one.

And that ship has an extreme oxidative burden on the bodies, especially traveling so close to the sun. And that's why sometimes pilots and sorties have a higher degree of cancer or predispositions in terms of risk factors, but ultimately is everything is really kind of how much stock you put into it.

And so I want to instill hope that while we have so much, the cards are stacked against us, there's so much benefit. There's so much that we can enjoy in life.

And going back when you asked about providing perspective and in terms of my fitness background, my professional background, my athletic career, it allowed me to prioritize health.

at a young age and instilled a discipline in me to live with intention because I was taught when you're sleeping, someone is training, right? And so every decision matters.

The difference between an amateur and a professional is the discipline they approach every day with. That's it. They're sacrificing, you know, friendship.

They're sacrificing sometimes family. They're sacrificing going out, partying. They're sacrificing crap foods. It's a lot of sacrifice. But to me, it's not, I don't see it in terms of sacrifice.

I see it in terms of discipline. I see it in terms of I am hired, worried to perform. My body is a holy vessel and never do I want to poison it. So I live with the intention of eating right, sleeping right, moving right, talking right, pooping right.

And in this modern age, you go crazy. But I was the person 10 years ago, it's funny because my best friend, she jokes about the story all the time. I was sitting in Ibiza, so in the island of Spain, and we are at a beautiful restaurant.

And I'm asking the waiter, is this wild caught fish? right and she's looking at me like the fish are all caught wild but at the time you know you have to ask that like here or i took my dad to a father's day restaurant and i don't want to name the name of the institution but a very upscale steak house this was almost 10 years ago And I had asked the server, you know, is this grass-fed, grass-finished beef?

And at the time, these were not questions people were asking. And the waiter comes back asking, like, that's a strange question. He goes, no, we proudly serve grain-fed corn or corn-fed beef here.

Okay, we got to leave. And so you get crazy in that regard. And so I'm a little bit less myopic in that, unfortunately, or fortunately is I'm trying to find a balance of priorities.

but also living with mindful intention. And so ultimately how being a professional has shaped my career, it has instilled a sense of work ethic and discipline because as practitioners, to build my practice, I was working 5 a.m.

to 9 p.m. for years and eventually you burn out. And so that's not something I suggest anyone to do. So allowing you then to step back and gain perspective for what really matters because ultimately we share the same fate.

But my goal is not to speed up that process. And my goal is to get there on my terms in a very healthy, in a healthy, controlled way where I'm enjoying life.

And so if the Blue Zones has taught me anything, the common theme is community and movement. At the end of the day, it's finding people that you can connect with, that you can enjoy the moments, that you can share new experiences and constantly be active.

So traveling today is a gift, right? Understand there's a cost. And so I'll travel with my nutraceuticals to ensure that I'm buffering against the oxidative burden.

So boosting immune system when I travel, making sure that I get more vitamin C and magnesium and other such factors. But ultimately being hardwired to perform has enabled me to reach a sense of success, but ultimately a sense of discipline that I have been able to instill within my practice, within my patients, we do sports performance.

So we see a lot of very high level young athletes And it has allowed me to ensure that they too are being set up and nurtured for success. Oh, wow. Well, it sounds like your work really speaks.

You live your work. You speak your work. You believe in that. And it's so evident how intricate and complex, and yet how simply you provided that information today.

And I am intrigued, and I want to find out more about your work. And maybe I'll be a patient soon. Tell us about how people could contact you, also kind of get some more information from you.

So we're going to do a podcast swap here momentarily, but to the podcast's TVD fit. So my goal is to always showcase who's doing best in their category, bring that conversation to light to distill what we can in terms of providing, again, a very informative educational learning curve for our patients.

Ultimately, if someone wants to learn more, the website is same as the podcast, TBDfit.com, like it sounds. So it's Total Body Diagnostics. It's the name of our practice.

I try to answer as much as I can. We have other practitioners on staff to help with that process. So if anyone wanted to reach out directly in terms of email, it's info at TBDfit.com.

And ultimately we love questions because I love educating. My goal is to serve as a mentor, but I realized early on in that my passion is to serve. My purpose is to help.

So however we can in whatever fashion, my goal is always to share knowledge and ultimately sharing this journey together. Yeah. Thank you. Thank you for being here.

Thank you. Love what your vision and love what your passion has provided for our audience as well. And really looking forward to hearing more about your work.

Thank you. Thank you so much. Thanks for joining us on the Two Curious MD podcast. We hope today's episode inspired you to ask new questions and explore fresh perspectives.

We challenge you to ask us those unasked questions that you're curious about in your medical practice, condition, health and wellness. If you enjoyed the podcast, don't forget to subscribe, share it with somebody just as curious and leave us a review.

It helps us keep the curiosity alive. Post a comment with a question or curious inquiry that you have and seek to explore or learn with us. Stay curious and we'll see you next time.