ADDICTION SUMMIT

Your Genes are NOT Your Destiny!
Guest: Ben Lynch

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Dr. Paul: Dr. Paul Thomas here. Welcome to the Addiction Summit. If you live in the United States of America, you undoubtedly have seen in the new that the world is in the midst of an addiction crisis. Opioids are stealing most of the headlines. But for those of us in the trenches, whether it's heroin, meth, alcohol, or some other substance or perhaps a behavior, thousands of people have died. And sadly, more will in the coming months and years.

The latest data here in the United States, in 2016 we had over 63,000 drug deaths from overdose. A 21% increase in just one year. That's 174 deaths per year. One death every 8 minutes. Two-thirds of these are from opioids. We're having more deaths from opioids alone than the combined deaths from firearms, homicides, suicides, and even motor vehicle accidents combined.

What about alcohol? The CDC just released a report this past week. 37 million of us binge drink. And the result is 8800 deaths per year. Alcohol related and half of those are from binge drinking.

Addiction is a chronic disease. And we're bringing you this summit so you can get a handle on some of the tools. Get an understanding, and leave with some real hard fast tips, guidelines, wisdom, to implement in your life if you're affected or how you can help those you love and care about the most.

I am very honored today to introduce to you one of my heroes, Dr. Ben Lynch. Thank you for coming.

Dr. Ben Lynch: Pleasure, Paul.

Dr. Paul: I met Ben, I'm a pediatrician. I'm an addictionologist. I'm an integrative medicine doctor. So I'm always trying to learn more about what is causing these chronic things that we're seeing in health today. And I was at a conference here in Portland, I think it was three years ago, and you were talking about genetics, methylation, single nucleotide polymorphisms, and I was blown away with the amount of knowledge you have. I know you're an avid reader.

This doctor is the person educating us doctors. And so for this summit, you're my genetics expert. I'm actually really thrilled, because this book here, *Dirty Genes*, is authored by Dr. Ben Lynch. And we'll get into it a little more in a bit. But this is a treasure trove of wisdom. And it's probably not exactly what you think.

So, tell me perhaps a little bit about, I know you're a naturopath. I'm an MD. What led you to get into medicine? Maybe you can educate the viewers about naturopathic medicine. I actually go to a naturopath as my primary care. There's good reason for it, I think you'll find out as Dr. Ben, Dr. Lynch shares his story. What led you to medicine? What led you to go into naturopathic medicine?

Dr. Ben Lynch: Yeah, it's a great question. Thanks for the introduction. I really value your book, too, *The Vaccine Friendly Plan*. I'm just plumbing that constantly, and I'm looking forward to your new book coming out, too.

In terms of naturopathic medicine, what led me to it is understanding why. I'm a why guy. I grew up with standard medicine, conventional medicine. I got sick, I got pills. And then I tried that route when I was at the University of Washington. I got sick, I got pills. I had a knee injury, it was surgery. And I was nervous about the surgery, so let's try other things.

I had a cyst in my right chest, my breast. And it was a pretty good sized cyst. And the doctor kept asking me why. He goes, "Are you on steroids?" Because I was big and strong. I was a rower. I'm like, "No, I'm not taking steroids." He goes, "Well, I think you are." I was like, "No, I'm not." But I was taking a whole bunch of ibuprofen, and my liver was trashed. I wasn't probably processing estrogens.

But in short, I'm a why guy. I know that naturopathic medicine really teaches us why. And if you understand why, that allows us to make change. So I believe that naturopathic medicine empowers individuals to understand why something happens and then guide the individual to be able to make the change themselves and feel great.

Dr. Paul: Well put. In his pursuit of why, I have to share something. This is just a little bit of what Dr. Ben Lynch does. So I'm at a conference this last year, and this doctor created all of this. I mean, there are colors that mean certain things. We've got hormones. We've got supplements. We've got nutrients. We've got things that make a particular enzyme work better, or suppress it. Mind boggling.

So my understanding of this sort of biochemistry was pretty limited, and that's when you just blew my mind when I started learning these sorts of things. I know that methylation is critical. I know that you need methyl folate to drive methylation, which you need to drive detox pathways. And I also know that you need methyl folate to make your neurotransmitters, and that sort of ties in with addiction.

But tell us just a little bit. I don't want you to give the doctor version. Sort of the lay-person's version about, what does this all mean?

Dr. Ben Lynch: This is work. This is what the body does. You see patients all day, this is what the body does all day. These are all the different tools that our body uses in order for work to get done. And that's our genes. Our genes perform work, but they also need tools. And they need these green things. Those are their tools. Those are vitamins and minerals.

You won't see anywhere on here medications as a vitamin or a tool. The genes are not born to accept medications as a tool. They want vitamins and minerals. Those are our cofactors.

Then you have things which can speed up the genes to make them work faster, and that's the orange stuff. And sometimes, that can be good. And sometimes it can be bad. For example, over here methylation cycle can be sped up by stress. And over here, this gene can also be sped up by stress. But that's not good because it takes your tryptophan, and it can make something excitotoxic in your brain. Versus if you're calm, then you can take your tryptophan to make your serotonin.

Which ties into what we're going to talk about today with why stress, and what you mention in your book, is so bad for people because it steals. Stress literally steals your tryptophan to go down this way to create a neurotoxin. Versus being calm and making your healthy serotonin.

All of these little oranges and purples are from National Library of Medicine. PubMed. All of them.

Dr. Paul: I know you peruse that. This is really, really big, what you just said here about stress. It is one of the key factors I experience in my clinic. Dr. Lynch spends days teaching doctors what that all means. But that stress piece is huge because if that's affecting your serotonin, your ability to be calm, that's affecting a lot of things that affects addiction.

I've got a question for you. The viewers, if you don't know already, I am 15 years without touching a drink or a mind-altering substance. I had an amazing childhood. Missionary kid in Africa. Never touched it. Never had any exposure to alcohol or drugs. It was just a beautiful life as a child.

I ended up stressed out, in college, on my own—my family is in Africa—and drinking too much to the point where I needed to stop. I tease, and say I crammed my lifetime drinking into a 10-, 15-year period of time. So I was done. I had to cut it off. But there's some genetics in my family history for things like workaholism, alcoholism, and I'm sure had we had the opportunities, drug addiction as well.

So what I'm wondering with regards to genetics. Because you're my genetic consultant for this conference, this summit. Are my kids doomed? Because their mother and I both have some addiction issues.

Dr. Ben Lynch: Well, one it's great that you are aware of that potential, right? Because you and your wife did pass on genes, and also epigenetic tags to your children. And that means that your children are not doomed. But it means that they are susceptible. There's a big difference.

And with your awareness, and with your lifestyle changes. And with your wife's awareness and her lifestyle changes, then your children are more likely to not be doomed. And also with you seeking out ways to mitigate addictive behaviors, then you're going to be a big influence on them. Now, can us parents truly dictate what our kids do? No, absolutely not.

Dr. Paul: You have kids. I have kids. Parents, you have kids. In the beginning of your book, the *Dirty Genes* book, you give a story about, I think it was genetically identical, was it rats or mice? But they looked completely different. Tell us a little more about that.

Dr. Ben Lynch: Yeah. So brilliant study. They've used these types of mice called agouti mice. And what these agouti mice are bred for, is to have increased cardiovascular disease, increased diabetes risk, and increased cancer risk. All three. So then the researchers can purchase these mice and do different tests and scenarios to them.

So what one of the researchers said was, ok, we're going to introduce bisphenol-A to these genetically identical mice. And we're going to split the litter in half. Equal numbers. And then we're going to give them, one with bisphenol-A in standard rat chow, and we're going to give the other group bisphenol-A with methylated nutrients like folate, B12, and so on.

What they found was the rats who had the bisphenol-A in the standard rat chow went on to get diabetes, cardiovascular disease, and cancer. The other rat, the other mice didn't.

Dr. Paul: Right. And some were obese, I think?

Dr. Ben Lynch: Yeah. Some were obese. Their hair color was different. They just did not look right.

Dr. Paul: You have identical mice genetically that look completely different. In medicine we call that phenotype, totally different. The difference was epigenetic, right?

Dr. Ben Lynch: Yes. Their genes were dirty, and the other ones were clean.

Dr. Paul: OK. So this epigenetic piece. And I'm going to ask you to maybe elaborate a little bit for a lay person. Because I'm reading in the news, as you are, every day that there's a new genetic link for this and that. For cancer. For heart disease. For autism. You name it, there's a new genetic link. Are they talking hard-wired? Or are they talking epigenetics?

Dr. Ben Lynch: Well, it depends on the specific paper what they're talking about. What I will say is there's a huge push to identify certain genes because genes do work. And if the body is performing a function that is not good, then

pharmacy, Big Pharma, wants to be able to alter what work is being done. And they can do that by creating a drug.

So all this research has a big incentive for Big Pharma to figure out what's going on at a genetic level, so then they can create drugs which will bind to those genes and alter their function.

But what I look for is understanding which genes are influenced by our actions. Our everyday choices influence our genes. The sun is out right now, my melatonin levels are low. When the sun is down, my melatonin levels should be high. From just light. Plain and simple.

So, we need to understand the epigenetics is what we need to focus on. So that's probably the next question, yeah? Something along those lines.

Dr. Paul: Right. So, epigenetics is how the environment affects our genes.

Dr. Ben Lynch: That's right. And environment is defined as anything that is not us.

Dr. Paul: Ok. Examples?

Dr. Ben Lynch: Food. Water. Microbiome is kind of us. Chemicals. The air that we're breathing. The water that we're drinking. The environment that's around us. Are we in an arid climate, like you were in Africa, I'm assuming. Or are we in dark, dank Portland, no offense. I live in Seattle, so it's similar.

So it all depends on what is around us. And these things really influence our genes. If you're walking next to someone who is a stress ball, who is carrying four rifles, you're going to have a different experience than if you're walking next to four cute puppies on a leash that's being walked by someone who you have an attraction to.

Dr. Paul: Yep. So stress, again, an epigenetic factor. Food, a huge factor. Your nutrients, a huge factor. Sleep, you were talking about melatonin. Light.

Dr. Ben Lynch: Sleep is repair time. Sleep is the time your tools are in the shop, sharpening themselves, cleaning things up, getting the rust off. Sleep is the time of cleaning, big time. So if you're not sleeping, you definitely have dirty genes.

Dr. Paul: I know in your book, well, in your talks that I've attended, and then in the literature all over the place, there's the MTHFR gene. And initially, I was putting a lot of focus on that. And I don't want to say that it's not important. I think it is important. Because of it's role in methylation, right? And methylation is so important.

And I know it's one of the genetic glitches, we could call it that, perhaps. Single nucleotide polymorphisms. That's a big word. Do you guys know what single nucleotide polymorphisms are? Can you put that in lay terms?

Dr. Ben Lynch: Yeah. I don't want to call it a misspelling, because that gives it a bad connotation. But it's basically all a SNP is, which is single nucleotide polymorphism, abbreviated as SNP, is a slight difference in how one person's gene can be compared to someone else's.

And Mike Muscle calls it a flavor. He calls it a flavor. And I think that's a pretty cool way to put it. Because if we are born with things that make our genes faster or slower, or not as responsive, is that always bad? No. It's not.

So we like to think that speed is always great, better. But having a faster gene isn't always good. And having a slower gene isn't always bad. So the MTHFR gene has a SNP in it which makes it slower. So a slower MTHFR gene due to this SNP, which I personally have.

Dr. Paul: I do too.

Dr. Ben Lynch: Yeah. My MTHFR gene is reduced in speed by about 70%. Which is pretty significant. So that means I have about 30% capacity left for my MTHFR gene to do work, compared to someone's MTHFR gene who was born without this SNP.

Dr. Paul: What does that gene do?

Dr. Ben Lynch: It makes methyl folate.

Dr. Paul: And that's important, right?

Dr. Ben Lynch: Yeah. And you hear that word, methyl folate. So methylated folate supports methylation. And you're like, well what's that? Methylation supports 200 other main things in the body. So 200 things going on in your body, that's important. Cell membrane. Neurotransmitter synthesis.

Glutathione stimulation, in terms of production. Which is your body's main antioxidant.

And methyl folate is your body's number one form of folate in your body. Number one form. And we hear about folic acid all the time. But folic acid does not have a methyl group on it. It's un-methylated folate.

Dr. Paul: So it's not helpful.

Dr. Ben Lynch: Not helpful at all. In fact, we were talking earlier about how there's a medication that you like to use in patients for certain types of addictions, and it kind of blocks but it also supports a little bit. Well, folic acid blocks, but supports a little bit. So I equate…When you were talking about that, I was like, wow. That's pretty interesting.

So folic acid, people should avoid it completely.

Dr. Paul: Right. So if I could just try to summarize the MTHFR and the methyl folate story, because you are the world's expert on this. A lot of us carry one gene, where we're what we call heterozygous. We've got one from one parent and not the other. Some of us got it from both of our parents. So I'm a carrier of one. My wife is a carrier of one. Two of my kids got both of C677, the one that's most powerful.

So like you, if my MTHFR function is at 30%, I'm compromised by 70%. I should probably take methyl folate, and I should avoid regular folate, right?

Dr. Ben Lynch: You should absolutely be avoiding regular folic acid. So folic acid is man-made, synthetic. Our ancestors never had access to it. Our body recognizes it, binds it, absorbs it. But then after that, it's chaos.

Now, should your boys and everyone take methyl folate because they have MTHFR. Not really, it depends. But everybody should be eating their leafy greens. And everybody has got leafy greens available to them. Well, not everybody. But they should. You can grow your own pretty easily. And why is that? Because leafy greens provide your methylated folate.

Now, if you're a fan of organs, I'm not talk about musical ones, I'm talking about the ones you consume. I'm not a fan of liver, personally. But liver is a very, very high source of methyl folate, as well.

Dr. Paul: Excellent. So if you eat a supplement that's just got folic acid, it's like putting the brakes on your methylation cycle.

Dr. Ben Lynch: Literally.

Dr. Paul: ON your ability to get rid of toxins. You're actually doing more harm than good. So this is a very important take-home message about MTHFR and methyl folate. And leafy greens, we're talking kale, swiss chard, spinach.

Dr. Ben Lynch: The darker, the more folate.

Dr. Paul: The darker, the better.

Dr. Ben Lynch: Yeah. And folate comes from the word foliage. So just think, foliage.

Dr. Paul: There you go. We want to eat foliage.

Dr. Ben Lynch: Yes.

Dr. Paul: You got it.

Dr. Ben Lynch: With your liver.

Dr. Paul: Alright. In your book, you address a few other single nucleotide polymorphisms, SNPs, that you feel are, perhaps they need to be cleaned?

Dr. Ben Lynch: Yes.

Dr. Paul: The book is *Dirty Genes*, so I'm thinking perhaps we've got to clean these genes.

Dr. Ben Lynch: Yes, you do. Especially when it relates to addictions. There are a number of genes which are discussed in *Dirty Genes* which will predispose one to having addictive tendencies. So you can be born with an addictive tendency. So you can be born with a dirty gene, like you shared earlier, are my kids doomed?

Well, there are over 19,000 genes in the human body. I talk about 7 in the book. So that means there's a lot left untouched. But the general principles are, that if you do general simple things, like breathing, sleeping, all these things, you're going to be supporting your general genes.

Now, the other genes I talk about in the book. COMT, which has to do with your dopamine, your norepinephrine, your estrogen, and your epinephrine. That's very related to addictions. So is MAOA. The MAOA has to do with your serotonin and your melatonin, and epinephrine, I believe, as well. So just those two, very related to addictions. MTHFR too.

And so is the glutathione genes. If your glutathione genes are dirty, which is your body's number one antioxidant, glutathione, if that's not working very well, your ability to make neurotransmitters goes down. And why do we have addictive behaviors? What are we seeking out?

Dr. Paul: Dopamine.

Dr. Ben Lynch: Dopamine. Right. So if your body cannot make dopamine because of a dirty MTHFR, a dirty glutathione, a dirty COMT, those three. Then you're probably going to have addictive tendencies.

Dr. Paul: Yeah. Dr. Marv Sepalla, who is talking on another one of the other talks on this summit has a talk called My Dopamine Made Me Do It. The thing is, if we're in the addiction field, we know that everything that is addictive jacks up dopamine. In the addiction conferences, they teach that methamphetamine, for example, will increase dopamine over 100 times. We're talking a ridiculous flood of dopamine. Well, we make that dopamine from those pathways we looked at. Comes from tryptophan, right?

Dr. Ben Lynch: Tyrosine feeds into dopamine.

Dr. Paul: Tyrosine to dopamine, tryptophan to serotonin. Thank you. And if you don't have, you're not going to have enough nutrients to replace 100-fold flood of dopamine. So anybody who has been on a meth run. Or seen someone who has been days, really just jacked up on methamphetamines, they crash for days. They are just completely depleted.

Dr. Ben Lynch: Well, and they don't eat. Right?

Dr. Paul: They don't eat anything else. They're in this sense of, this is like a rat park studies in addiction. They'll take rats, and if they are in cages, and they give them water and opioids, they'll just take opiates until they day. Or meth, the same way. But if you put those rats in community, they can walk away from it.

Dr. Ben Lynch: And that's a big factor. Community.

Dr. Paul: Is that part of cleaning our genes?

Dr. Ben Lynch: That's a big part of cleaning our genes. Community is super important. If you're sitting home alone, what are you likely to do? Watch TV. Do some activity. And mindlessly eat. Mindlessly drink. Right? Because you're giving yourself that dopamine hit constantly on your social media. Which is anti-social media. Right? So you get the like button. And you look at your likes, and you look at what friends liked what. Looking at comments. So these things are really bad.

And the people who spend the most time on social media tend also to be the most depressed.

Dr. Paul: Mm-mm. Or anxious.

Dr. Ben Lynch: Yeah. And what's Instagram? I read something that was really, really troublesome to me. How to create addictive products. So what's Instagram? It's seek, seek, seek, hit. Seek, seek, seek, hit.

Dr. Paul: Something like a one-arm bandit, almost.

Dr. Ben Lynch: That's right. And it never stops. It never stops. So it's just like you're at the gambling casino and you pull the lever. You don't win. You don't win. You don't win. But then you win. And it's not the win that addictive gamblers want, right?

Dr. Paul: It's the hope that maybe.

Dr. Ben Lynch: That's right. It's that hope that gets it. And I look at my son, for example. He really wants something. "Dad, I really, really want this. I really, really want this." I get it, he's thankful for a few hours, at best. And then he's off. Right? He's off to wanting something else.

It's the anticipation of wanting something is more exciting to these folks than actually having it. So why aren't we treasuring what we already have, versus seeking out these new things?

Dr. Paul: So if you were to summarize for our viewers just encapsulate the wisdom you've found over your career, that's culminated in this book. *Dirty Genes*. I recommend you get it. This was overwhelming, that chart. That was

overwhelming. This is a little overwhelming, but nothing like that. What you did that was so well-done is you took the key single nucleotide polymorphisms that can cause mischief, and a lot of them in this book apply to addiction. And then you give simple solutions. But maybe just summarize for us what those are.

Dr. Ben Lynch: A lot of us try to find the one-hit wonder. We want that home run. But it's actually the base hits which can win the games, right? So these base hits matter. They really, really matter.

So a base hit, I call it the ABCs of clean genes. A is avoidance. Avoid chemicals. Plan and simple. You talked about meth can give this huge flood of dopamine, and then your resources are gone. So if I was to sprint from here, a mile away, I'd be gone, trashed probably, for the rest of the day. So avoidance of chemicals is pretty important.

So filter your water, huge. I know it seems stupid. Why are we talking about this? Because your genes do work. And all the chemicals that are in water, your genes have to clean it up. And if your genes are busy cleaning up the chemicals in your water, then they can't be doing what they need to be doing.

I came here with you. And if I was scheduled to do something, and my jeans were dirty, and I had to be here, I'd be focused on cleaning my jeans, and I might miss the interview. Your genes do the same thing. Literally. Your genes internally do the same thing. So avoidance of chemicals super important. Sauna, sweat. Very useful.

B, breathe.

Dr. Paul: I get reminded to take a deep breath, and you should too.

Dr. Ben Lynch: Yeah. Autonomic nervous system, it's automatic. But we rely on that so heavily that we can hold our breath. So if individuals are breathing through their mouth, they're not breathing through their nose. You've got to be breathing through your nose. Because that supports another gene, which I talk about in the book, NOS3. Nitric oxide synthase. Breathing is super important, I get into that too.

C, chewing your food. Why? Your stomach doesn't have teeth. And how many patients are taking antacids? A huge amount.

Dr. Paul: A huge amount.

Dr. Ben Lynch: So if you're taking antacids, your stomach acid is down. So if you're not chewing your food, and you're on antacids, which is typically a solid relationship. Then your ability to absorb nutrients, which your genes need in order to do work. Your genes are going to be deficient in these, and they're not going to be performing for you. So you have to chew your food so you can absorb those nutrients. You can reduce, your hunger will go down, because you'll actually be absorbing more. You'll lose weight. And you'll have more energy, too.

Dr. Paul: Dr. Lynch. We addicts, we don't chew. We're in a hurry.

Dr. Ben Lynch: That's right.

Dr. Paul: But seriously, this is good food. This is how I used to eat when I was a kid. I still do eat faster than just about anybody, so I must not be chewing enough.

Dr. Ben Lynch: No, you are not. I sit with my kids eating, and my oldest, who also has dopamine issues, swallows food like a snake.

Dr. Paul: That's me. So in addition to chewing the food, do you have any advice on what food to eat?

Dr. Ben Lynch: Yeah. Food that does not have ingredients.

Dr. Paul: So what does that mean?

Dr. Ben Lynch: Well. If you buy an apple, or you pick an apple off a tree, there's no ingredients.

Dr. Paul: There's no label.

Dr. Ben Lynch: There's no label. You go hunting, and you hunt an elk or a deer or a chicken or a fish. There's no label.

Dr. Paul: Got you.

Dr. Ben Lynch: Whole foods.

Dr. Paul: Whole foods. So if it's from a factory, and it's got a label, and there's a whole list of ingredients, that's not food?

Dr. Ben Lynch: Well, it could be food. If it's everything that you recognize. I buy stuff from the store that says lettuce and meat and salad stuff. But if it's got a bunch of chemical names on there, I eat them sometimes. I do. But 80% of the time, I avoid them. Because I'm not supporting my genes.

You can either eat a cookie, which makes work for your genes. Or you could eat a salad, which your genes will say, "Thank you" and be able to perform work for you. Either you give something for your genes work to do, and if they have too much work to do, you're going to have a symptom. And a symptom is a problem. Otherwise, you support your genes and their ability to work and you feel great.

Dr. Paul: Yeah. So I know that naturopathic medicine in particular, your specialty deals with a lot of chronic disease. It seems like a lot of us MD's, we're really good at making a diagnosis and writing a prescription. And you've got an ear infection, here's your antibiotic. And you've got reflux, here's your acid blocker. You've got eczema. Here's your steroid cream. You've got asthma. Here's your inhaler. You've got autoimmune conditions, I've got an immunosuppressant for you.

But when you're looking at the whole person and the whole body as I think of addiction as a chronic disease, you didn't just wake up, bam, you're in the severe throes of end-stage addiction. This is a whole journey to get where you got.

The advice you're giving, I'm just thinking, I've got an office-full of 20-35-year-olds who are struggling with opioid addiction. And I'm supposed to drink filtered water and eat real food and sleep. And I'm thinking, they're going to say, "That doesn't make any sense. I need my heroin." What would you say to that?

Dr. Ben Lynch: Well, they're on another level, for sure. So I would not be making these standard recommendations. I mean, I would be making these recommendations to these individuals. But I understand their need. Because their dopamine levels are up here, or they want them to be up here. My dopamine levels are here.

And I'm fine with that. I'm good. I have never taken a hit of meth, or what have you, to have my dopamine up here. I don't want to do that. So I'm good with my everyday levels here. But I know they're here, and I cannot imagine what that's like.

So by telling them to filter their water, they're just going to be like, "Psh. Whatever." Ok, so let's look at activities which can increase your dopamine right now. Hugging. Sex. Doing sports or hobbies that you really love doing. What is it that these people love doing? And everyone is different. Maybe they want to go skydiving off a plane. They can do a tandem jump. Maybe they want to go surfing. Find something that really gives you a natural lift.

And I will say that a lot of people, this is a generalization, but typically true. Addictive people tend to be more daredevils. Because they're seeking out that hit. Where people who do not want that, I'm a bit more cautious.

I go ski with my oldest son. I just went skiing with him last weekend. He's like, "Dad, take this chute with me." I'm like, I'm good. And I look at the chute, and it's like, it actually wasn't that bad so I hit it with him. But, you know, my middle boy, he's like me too. He's like, nah, I'm good with that. So ski chutes, you know.

Dr. Paul: Well, I want to add to those of you who maybe are in the throes of the struggle of addiction that while you're fighting the bigger fight of maybe just getting through today. So when you're in the early phases of ending your addiction, your relationship with that addictive substance that you've been using to boost your dopamine, not to forget these foundational principles.

I've written a book, *The Addiction Spectrum*. And it's interesting, we're covering the same foundational principles. You need real food. I just say shop the perimeter of the grocery store. There's produce, there's fish and meat. And if you can handle dairy, there's dairy. The aisles are filled with boxes and cans and bags and all those things that are going to make your body stressed and less able to handle stress and also just foul up your genes, as you've pointed out.

So there's a real synergy there, with eating real food. Getting your nutrients. I forgot the chewing, I didn't have that in my book. I'm going to have to start chewing more. And reducing stress.

Dr. Ben Lynch: That's huge. It's so big.

Dr. Paul: The whole piece of stress is huge. And then getting enough sleep. And getting exercise. What you were saying, the extreme sports, the extreme exercise. It's so true. Most of my addiction patients who get this thing and

start getting to the safe side of the spectrum. Start moving from extreme to mild or even put it behind them, it's no longer a part of their lives.

Almost to a person they've gotten involved with something they're passionate about. And it's usually something that involves physical activity. It is extremely helpful in that journey in healing your brain and healing your dopamine. And healing yourselves, which you showed us on the huge chart. It's complex. Those cells, those pathways need nutrients.

Dr. Ben Lynch: Yeah. And the reason our books jive, and work together, is because of that pathway that we showed earlier. Because those pathways demonstrate exactly what our genes want in order to function. So protein feeds dopamine. Carbs typically feed serotonin. So if you're a carb addict, maybe you have a faster MAOA gene. If you're a carb addict, you might have difficulty staying asleep. There are a lot of little nuances here.

You talked about vitamin D earlier in the car, driving over here. And vitamin D is super important for serotonin. So there are certain other drugs that people want to boost their serotonin with.

So there are a lot of things here. And just the simple fact as people are struggling, just the act of putting a smile on your face. Really, try it right now. Put a smile on your face.

Dr. Paul: Smile, you'll be amazed at what you get back. Those of you who know me on YouTube, you will see every time I go into a room, I just blast a smile. I actually feel that way. I feel happy to see a new person. It's genuine, it's not fake. But I'm so rewarded because I get, I mean, little babies are smiling back at me. The parents are smiling back at me. My addicts in my addiction clinic are smiling back at me. They're happy to see me. Good point.

Dr. Ben Lynch: Yeah.

Dr. Paul: It's a huge stress reducer.

Dr. Ben Lynch: I'm in a good mood right now. But just the smile, I felt a different rush.

Dr. Paul: I was driving to work the other day and NPR was on. This was a couple of months ago, a month ago. And they were talking about who had a bigger button. That was a stressful thing. And I turned it to music, and I was immediately relieved. Turn off the news. It's a huge stressor. You don't need it.

Dr. Ben Lynch: News! I haven't watched it.

Dr. Paul: You don't need it. If something horrible is happening, somebody will tell you. Gosh, this is so important. In your book, I think there's something about genetics and destiny. Am I just destined to be an addict? And my kids are destined to be addicts? They're destined for cancer because I have the MTHFR, which messes up my glutathione. Is this my destiny? Am I doomed? Because I seem to be reading that in the press, as well. That I'm doomed. I need pharma.

Dr. Ben Lynch: Yes, that's true.

Dr. Paul: I do?

Dr. Ben Lynch: Yes. You're screwed.

Dr. Paul: I knew I shouldn't have invited this guy.

Dr. Ben Lynch: Yeah. I wanted a laugh. That's what I was going for. I wanted a laugh. No, you're not doomed. Who was the doctor, or the individual who said, "Blame it on my dopamine"?

Dr. Paul: Oh, my dopamine made me do it.

Dr. Ben Lynch: My dopamine made me do it.

Dr. Paul: Dr. Marv Sepalla. Chief Medical Officer of Betty Ford, Hazelton.

Dr. Ben Lynch: Well I love that statement, but it's not true. My dopamine made me do it. Because, who is in control of your dopamine? You are. What are you seeking to drive your dopamine levels up? Are you seeking addictive behaviors? Why is that? Because your dopamine levels are low. If you know your dopamine levels are low, get out and do things that we just talked about earlier to lift your dopamine.

A hug. Hugging someone will raise your dopamine, and theirs.

Dr. Paul: We should set up a hugging shop.

Dr. Ben Lynch: Yes. A hugging shop. And actually, when I was a Bastyr studying, I learned about laughter yoga. And I wanted to set up a laughing

club. And everybody thought I was nuts. I'm pretty much an introvert. I'll hide behind my books and study. But I knew the value. And who has not heard the phrase, laughter is the best medicine?

So no. You are in control of your own dopamine. Your dopamine is not in control of you.

Dr. Paul: That's awesome. Folks, if you're in the midst of a struggle, or you're worried about a family member who is, start doing these things that we're talking about. That Dr. Ben Lynch is highlighting as a way of cleaning up your genes. Honestly, I can't thank you enough for bringing this information to this summit. And sort of highlighting the fact that your genes are not your destiny. You can do wonders to heal from the cellular level with all these simple techniques that we sort of overlook in our pursuit of pleasure. Our pursuit of happiness. And our reliance of pharmaceuticals, instead of just going back to basics.

Dr. Ben Lynch: That's right. And the mindset has to shift, too. The mindset. You've got to believe in yourself. I think a lot of addicts, also, they have lower dopamine, so they tend to be depressed. So they don't believe. They're hearing this, but they're like, oh, I don't believe that will help me. I've tried everything and it won't help me. So they have this depression.

They probably will need additional supplementation or medications to get them out in order to be able to make a change.

Dr. Paul: A very high percentage of my patients are depressed or anxious or both. A lot of them come in with ADD/ADHD. A real trouble with focus, that's in their background. And so many do not have the connected, supportive network of people that are safe to be around. So these are all key factors.

I know you have an entire supplement company. I know I've researched it. It's top quality supplements. If you were to pick, most of our patients who are struggling with addiction don't have this huge budget. But if they had to focus on a few key supplements that are vital for supporting dopamine. Supporting serotonin. Supporting detox pathways. Mention MTHFR support, perhaps, and any others you might think of. What would be the key nutrients that if you're not getting them from food, you might want to supplement?

Dr. Ben Lynch: I want to start with food, first. And I'll be really simple, here. Protein and vegetables. Protein and salads. If they're eating protein and salads, you're not getting that huge sugar hit followed by the crash. Tons of

stories about people just living on sugar, it doesn't work. I switched them to protein and salads, it lifted them. That was my only intervention. No supplements.

Dr. Paul: Pretty simple, folks.

Dr. Ben Lynch: That alone is super powerful. Do not discredit, discount that. Supplements are great, but supplement means to add or enhance something. So you can take a supplement to add or to enhance your food. Start with the protein. Start with the salad. Absolutely important. Start with the breathing, and the avoidance of chemicals.

Then I will also add things like glutathione. Liposomal glutathione. This is a very, very powerful nutrient. And it's the scrub and the soap of all your genes. If your genes are dirty, glutathione will be there to clean them up.

Another one that is a big one will be folate. Both folinic acid and methyl folate, the combination, can be a game changer for a lot of individuals. If someone takes it and they feel great, I tell folks, once you feel great, stop the supplement. You don't keep going. And if you slide and it's like, what if I start feeling depressed or blue again? Well, if you start feeling those symptoms that methyl folate helped you or the folate or any supplement, then take it again. But you can drop the other side. You can go from depressed to anxious. You can go from anxious to depressed. So when you feel good, stop.

Dr. Paul: I know you have that in your book. There's a little graph where, with any supplement, you start low. You start increasing. But then, what do you call that where you're getting too high?

Dr. Ben Lynch: I just call it the pulse method.

Dr. Paul: Pulse method, yeah.

Dr. Ben Lynch: Just too high. I don't have a term for that. But yeah, just when you feel great, stop it.

Dr. Paul: There are certain nutrients that you need to keep replacing. If you don't get any sunlight at all, you're going to need vitamin D support. Because we make that when sunlight hits the skin. You really don't get that one from food. But the rest you can get from your food.

Dr. Ben Lynch: Yeah.

Dr. Paul: Terrific. I really want to thank you. Do you have any final wisdom you'd like to share with our summit viewers?

Dr. Ben Lynch: Believe that you can do it. I know if you think you've tried everything, you haven't. I'm excited for your book to come out. I look forward to reading it. And recommending it. But believe. Because if you believe something, then actions will follow from that. So believe. And be hopeful.

Dr. Paul: Wonderful. Follow us in our next episode of the Addiction Summit. Thank you, Dr. Lynch.

Dr. Ben Lynch: Thank you.

Dr. Paul: I appreciate your time.