



CANDIDA SUMMIT



MTHFR, Autism, COMT, and Sugar Cravings

Guest: Ben Lynch

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Evan: Hello, this is Evan Brand, certified-functional medicine practitioner and nutritional therapist, operating worldwide via phone and Skype consoles from EvanBrand.com. Now, on to today's guest. Dr. Benjamin Lynch received his cell and molecular biology degree from the University of Washington and his doctorate in naturopathic medicine from Bastyr University. His passion, for identifying the cause of disease, directed him towards nutrigenomics and methylation dysfunction.

Currently, he researches, writes, and presents worldwide on the topic of MTHFR, methylation defects, and genetic control. He just released a new book, which you, guys, should check out. I had him on my podcast to discuss this, too, but since you're here, you need to know about it. It's called *Dirty Genes*. So look up *Dirty Genes*. You'll find it. And go support Ben and his work.

He's the president of SeekingHealth.com, which is a supplement company oriented towards disease prevention and health promotion. He also founded and directs SeekingHealth.org, which is an educational institute providing specialized training for health professionals and consumers. He lives in Seattle with his wife and three boys. Dr. Ben, hello! Welcome.

Dr. Ben: Hey, a pleasure to be here, Evan.

Evan: Yeah, so I'm glad to have you on this because we have not discussed genetics. As you have probably assumed, most people don't discuss that. How could you possibly link candida and genetics, right? But you gave me some astounding bullet points. And I thought, *Man, this is a great, great, great conversation* because many people have discussed heavy metals and Lyme disease and parasite infections and sleep problems and sugar in the diet, and carbohydrates, and blah, blah, blah. But no one is discussing methylation and the influence of the whole epigenetic piece. And how people and their decision making with foods could be influenced by their genes." So I thought that was just fascinating. And I'm definitely honored to have you here.

Dr. Ben: Yeah, a pleasure. Yes, definitely a unique angle on it. It's one that it always ties back to what came first—the chicken or the egg, right? So what came first, the genetic propensity towards carbohydrate binging or addictive personalities for high-caloric dense foods like ice cream and cakes, doughnuts, pastries, which then leads us to candida?

And then, they go on all these candida treatments. And they beat it. And they're all happy again. But then their genetic propensity drives them yet again for the yeast overgrowth and the food binging. So it's an important topic to hit.

Evan: Let's hit on the food piece. Well, maybe, just like self-medication, in general if maybe you could just give us like an overview. People don't realize that what they're doing is they're self-medicating their genetic issues. So it could be alcohol that they're using to maybe help support GABA or serotonin. Or maybe it's the sugar, as you mentioned. Can you just give us some details? Like the average person, let's zoom out and look at that person as just a biological being. What are they doing to try to help themselves feel better?

Dr. Ben: Well, we're always seeking the dopamine hit, right, Evan? We all know that the reward mechanisms in our lives is pretty, pretty strong. We want the ding on our phone for social media and the Facebook likes. And we post something on Facebook. We check it like every 20 minutes to see how many likes we got and how many comments we got.

And then you go out with your friends and you go dancing. And some people love that. And some people don't. You and I, not so much. We'd much rather go on a hike for our dopamine. So, for example, if you're down and out, a lot of people will hit the carbs. They'll hit the chocolate. They'll hit the doughnuts,

the ice cream to make them feel good. And what these do is they spike your dopamine.

And you're not really aware of it, but you just do it. And you know you shouldn't do it. But what happens here is, is some individuals, they have genes, which eliminate their dopamine out of their body pretty quickly. So this gene is called COMT. And one of its jobs is to move dopamine out. You don't want to have neurotransmitters always in your brain. That's not good.

So some of these folks are born with a COMT gene that actually works faster, which is really good because they can calm down really quick in stressful environments. They can perform at a high level in stressful situations like surgeons, or EMT, or firefighters, or policemen, policewomen. They strive in these high-risk, highly-attentive situations.

But when they come home, everything's a low normal. And they need that hit of dopamine. So they might come home and binge on sugars and carbs to drive their dopamine back up. And that's a significant one.

And another one is MAOA. And MAOA is a gene that deals with our serotonin partially. And if you have a faster gene, which moves through your serotonin, then you are craving carbohydrates, and you're craving pastas, and breads, and all the things that candida love, and beer. So these things which increase your tryptophan levels, support your MAOA, and thus your serotonin. So these are two major foods that our candida love. And these are two very, very common genes in the population which predispose us to having these issues.

Evan: It makes sense. Are you in beer capitol of the world? I'm guessing you've probably got more breweries there than you do Starbucks. Is that true?

Dr. Ben: We have a lot here in Seattle. In fact, where the headquarters for Seeking Health is, it's a smaller town called Bellingham near the Canadian border by Vancouver, BC. And they have the highest number of microbrewers per capita in the U.S.

Evan: So that's good for business. In terms of helping people get rid of their candida, you've got an endless supply of people with yeast problems, I'm guessing, over there.

Dr. Ben: Well, yeah, plus, we have dark, grey skies for many months of the year, which also drives people to their coffee, which is why Starbucks is doing

so well because they need the stimulant in the low sun environment. Plus, you have the pastries that go along with it so a candida haven.

Evan: For sure. Well, let's talk about light a little bit. Now that you've brought it up, can you speak on that? What is light doing? We know that cortisol and having adequate levels and having your batteries fully charged is important. But I think people don't really appreciate the importance of outdoor light and what that can do to neurotransmitters for this context.

Dr. Ben: Oh, man, light and neurotransmitters are huge. And there's a couple hormones, too, that sunlight helps us produce. And the feel-good endorphins, and I'm forgetting some of the others, the specific names of them, but the sunlight definitely increases our feel-good mood. Absolutely. So getting out in the sun and exposing yourself, appropriately with clothes, to the sunrays is very useful for mood.

And that's also partly why I believe that vacations are so useful for folks. We try to go to Hawaii during Christmas breaks here with my family. And that really helps our mood. It helps our vitamin D levels. And you just come back recharged. And you can survive these long, grey days.

And then, there's another component with sun, which I learned from Alessandro Ferretti, who's really big into learning about lights and so on. And that is the more you're out in the sun, the more you can tolerate blue light. And so if you have more direct sunlight, when you're sitting in front of the computers, like you and I now are, Evan, then our abilities to still fall asleep at night is good.

You can have all the blue light filters you want on your glasses and your computer screen, but as long as you get a huge dose of natural sunlight, then your ability to neutralize, if you will, the blue light effect on your melatonin secretions is pretty powerful. And so I don't know how that works, but it's like you have some type of receptor in your brain that fills up that allows you to secrete your melatonin later. I don't know how it works though.

Evan: That's amazing. Yeah, even if you don't know the mechanism, I think that's still profound. I'm still going to do the blue-blocking stuff at night. I don't do the glasses. I'm always wondering like all these people...And there are some name brands out there that I won't call them out because I don't want to support them because they're selling a \$5 pair of glasses for \$100. It's like, "Get out of here. What's wrong with you?"

Dr. Ben: Right, yeah.

Evan: But what are these people doing up at midnight anyway looking at your cell phone? Why are you not just going to bed?

Dr. Ben: Yeah, that's a big one. And people say, "Well, I want the escape." And as Shawn Stevenson also talks about—he wrote the book like *Sleep Smarter*. And he basically said that people have FOMO, fear of missing out. So they push themselves to stay awake.

And what also happens, when you stay awake, Evan, is you munch. You eat. And you were tired. You want to go to bed. But you say, "You know, I want to watch that show." So now the cortisol which wasn't being secreted is now secreting to give you that extra lift, that second wind, if you will. So you retire. But you're like, you're pushing through.

And so now, you'll watch TV or watch a show or stick around on your phone. But now that cortisol's higher. And then you finally say, "Oh, gosh, you know, I'll go to bed. I need to go to bed." So you turn the light off, but now the cortisol's high. And plus, you ate some food while you were up because you were hungry now. And so now, it's just like the double vicious circle.

Evan: Wow! You've like did a double whammy to your chemicals here. Let's chat about genes. I love how you use this term, "dirty," where I can't think of a better word honestly. I don't know if you came up with that. Or you did a think tank on it or what. But the concept of a dirty gene for me, it's like this epigenetic switch that's been hit. I love the concept of that because people understand, when something's dirty, it's like, "Okay, I'm doing this. It dirties my genes."

Can we chat about maybe candida? So let's like lay out maybe an order of operation for like a domino effect of what can happen. So you talked about like the smartphone use, the sugars. You're eating the sugars. You're eating the carb cravings. And then, that's affecting brain chemistry and all of that. So can we say chicken or egg? Is it that you've got a genetic predisposition first?

Then, you eat the sugars, which affects you further. And then, you get the candida overgrowth. And then, your brain is foggy. So then, you go to caffeine and screw yourself up there. Like, I know there's a million ways that this could happen. But maybe you could just paint us a couple of pictures of how you think this is happening.

Dr. Ben: Yeah, for sure. So there's definitely a few. So an individual who has a faster COMT, I call it in the book. So you take a quiz in *Dirty Genes*, the book. And you say, "Okay, I have a fast COMT. And I have a fast MAOA." And so you seek caloric-dense foods to lift your depression, and to give you more focus, and attention. And that can lead to yeast overgrowth, right.

And then, you have, on the flip side, you could have a slower COMT or a slower MAOA because these individuals are real go-getters, type A-driven type folks. They tend to be introverts, too. In getting a lot of stuff done, they tend to burn themselves out, which is a problem. They tend to have insomnia, as well. So they're the ones staying up late.

So what they do is they're stressed out. And then, since you're stressed, you also gravitate towards these foods to make you feel good. You turn towards the carbs or the caloric-dense foods to make you feel good, to calm down. And so you, basically here, you're trapped both ways. You're trapped when you're stressed out if you have these slower genes. Or you're trapped because you can't focus or pay attention. Or you're depressed. And you go the other route. So it's just awareness from both ways is important.

Then, you have the yeast. And then, the yeast is growing and feasting. And then now, you're stuck, too, because as the yeast die, you feel badly. And then, you not only get the lift biochemically of your dopamine, serotonin from these foods, but now the candida starts surviving and thriving. And you don't feel their chemicals that they're releasing when they're dying. So now, you're even more trapped.

What happens though, too, Evan, I think that a lot of people don't talk about is, is people need to understand that candida is not just a bad thing in their microbiome. It's not just something that you kill. This is a living thing. And it's utilizing our nutrients that we are consuming. It's utilizing our own vitamin B1, which is thiamine, which we need in our mitochondria.

It's using our own pyruvate, which is feeding into our Krebs Cycle to give us energy. So it's stealing our energy, literally. And then, it's also using up our magnesium, as well, at this pyruvate decarboxylase gene, until I have this pathway sitting in front of me called the Fates of Pyruvate. And when we eat, this yeast will have its own anaerobic metabolism using our pyruvate to generate acetaldehyde. And acetaldehyde blocks our methylation cycle.

Evan: Oh, wow!

Dr. Ben: So it just gets worse and worse. And so you've got all these people struggling with all these really...Mood disorders is a big one. I interviewed Dr. David Berger in a Dirty Genes summit. And he works with a lot of autistic kids. That's his focus. And he said the number one treatment, across the board, no matter what, is treating their yeast because their mood gets so much better. Yeah, that's the number.

Evan: Holy smokes. I figured it would be parasites and bacterial infections and glyphosate.

Dr. Ben: No, no, the number one is yeast.

Evan: Oh, my, gosh.

Dr. Ben: Number one because they're very picky eaters. The parents are struggling. They're frankly at a loss. And the kid becomes quiet and pacified from eating junk. And they're put on a lot of antibiotics at a young age because they're constantly sick. And then, it's a fight to get them to eat, but they'll eat carbs. And that's all they'll typically eat.

Evan: That's insane. Oh, my, God! So basically, this yeast...And I'm sure there's the chicken or the egg. I'm sure there's a million different orders of operations that this could happen. But just the fact that the yeast is affecting, not only the Krebs Cycle, the mitochondrial energy production goes down. This is why a lot of people that you and I see with chronic fatigue, they're going to have a yeast problem.

But the methylation thing is just huge. So can you just educate us a bit on methylation? What is that? And what's happening? Let's just say in this context, maybe you can bring up the genetic defects that affect methylation here, too. But when you have that going on, what's going on? Systemically, what's happening to you?

Dr. Ben: Well, methylation is a process in our body that is occurring the day the sperm hits the egg. It's the moment of conception is when your methylation in your life starts. And it stops the day you die. And so it's a very, very important, vital process, which does over 200 different reactions in our body. Plus, it turns our genes on or off. And so it regulates gene expression. And it also produces things and eliminates things. So it's massively important. There is research papers that say...ATP, Evan, is our energy, right?

Evan: Yeah.

Dr. Ben: So without ATP, we're dead. So ATP does a tremendous amount of jobs in the body. And the same paper said that ATP is the number one thing that our body needs. Number two was methylation. They said that methylation is a close second to ATP in a number of important, vital reactions that occur in our bodies. So number two, the energy production, that's pretty big. And candida affects both.

Evan: Yeah, so we can say, if you're not addressing your candida and you have symptoms, you have to look into this because, once again, conventional doctors are going to be clueless on this. We did interview for this summit a gastroenterologist who's in a conventional practice doing endoscopies and colonoscopies. And he says, "Oh, man, candida only comes up in conversation."

If you've got somebody with AIDS or cancer or some immunocompromised person and we see it so bad that they're entire esophagus is lined with candida, but these like sub-disease level states of pre-candida, which are probably most of our clients and listeners that have yeast that's overgrown but not that bad, those people are going to get disregarded by the conventional medical practitioners.

Dr. Ben: Correct. And it's why do we have to wait until it's that bad? Why can't we address it while it's just still localized in the colon or the large intestine? Why do we have to wait until it's just horrific? And it doesn't make any sense.

It's like you get a little bit of athlete's foot. And you treat it. You don't let it until your toe gets super infected. And now, you've got to deal with your whole foot. You just treat the little problem at the time. It's like you have a slight headache. Well, you go to bed. Let's not wait until it becomes a migraine. It's just dumb how we wait in this conventional medicine.

Evan: Well, I think a part of it, too—maybe you could speak on the brain chemistry piece of this—I think most people, they're so busy. They're so distracted. They're so stressed that unless they hit rock bottom, or unless there's somebody who's just a little geeky like us, and they're interested in pursuing health further, they're going to continue to brush off these symptoms that you're speaking about.

So energy's dropping due to mitochondrial effects. We know that brain fog's happening. We know there could be like bloating and other GI symptoms. I

think those things can just get pushed off because, why not? You can do another cup of coffee and throw some butter in it and call it a day, and you're going to be just fine, right.

Dr. Ben: That's what most people do. It's changing your lifestyle habits and your behaviors. It's a full-on modification. And you also have to trust that that modification's going to work. And what's easier? Is it easier just to get a cup of coffee or some caffeine of any type and just chug that down to give you this temporary energy? Or is it to change your lifestyle?

And for a lot of people, they're so busy that they don't really dedicate enough time for themselves. They're so outward versus inward. And I think that's a huge problem for most of us. And even if you think that you're saying, "Oh, I have enough time for myself," most people are being underscreened.

And I was just driving from our rental house here. As our home is being remodeled. And our home is only, literally, five minutes away. I'm driving the boys over there to go visit the house. And they immediately get on their phones. I was like, "Fellas, really? Get off your phones!"

They literally just got off their screen. And they sat in the car just looking at a different screen. I said, "You have to not just be sitting and responding to a screen telling you what you can dictate and what your life is." It's so bad, Evan, in terms of people cannot escape it.

Evan: We can't. Here's what's scary. I'll tell you, my wife and I, we've got a—well, she just turned 20 months, but last week 19 month old, now turned 20 months old girl—and we're driving around. Now, we drive a Tesla. So it's supposedly the safest car ever because there's no engine in the front. So we could get crushed, and hopefully survive and be just fine.

But everywhere we look, I'm not joking—and maybe it's worse in Seattle. I don't know. That's known like Tech Capitol. But even here in Kentucky, one in three people, we did a count. We survey basically every time. It's like a little car side game, the survey people—one in three people are on their phones while driving. They're calling. They're texting. They're swerving.

You're like, "Why the hell is this person swerving?" You look. They're on their phone. Sometimes they're on their phone while they're doing their makeup or reading the paper or smoking. It's like, "Are you kidding me?" What is wrong with these people's brains? Is it the dopamine? Why can't they just drive the car and get off the phone?

Dr. Ben: It's the dopamine.

Evan: So they're addicted to it? Or their receptors are burned out because of caffeine? And so that's exacerbated. Or like, what all's going on mechanism wise here?

Dr. Ben: There's a book that I bought that I haven't read yet. But there's a couple of books actually, but it's basically how to make addictive products. And you look at Instagram feeds. They're a perfect example. They swipe. They look. They swipe. They swipe. They swipe. And they don't win. It's like gambling. You play. You don't win. You play. You don't win.

And then you find a photo that you really like. And you're like, that's a dopamine hit. Then you seek again. And then, you get rewards. So it's seek, reward, seek, reward. And that is what's happening. And they've got it dialed in. And these kids don't understand it. They don't know that that's what's happening.

But it's like back in the day when we were all cave people and we're walking around looking for berries. And we found them. And we ate them. And we got a dopamine hit. We're like, "Oh, that's great! I want to do it again." So we're walking, finding berries. And we eat another one. And do it again. But now, we have screens that do it for us. So it's unbelievable.

And I keep trying to teach my kids, but they can't escape it. So I'm literally at a loss because its, either they have a phone and I can regulate it or I'm the punk dad that says, "No, you just lost your phone." And you can't control it. So I'm not alone here. And all these Apps, like the Moment App, I thought it was going to be so great to help control their phone, the kids can disable it superfast.

So it's just, it's a joke. And then you say, "Okay, well, I'm not going to babysit." Well, we're busy. So electronics are feeding the beast. And then, it allows us to make decisions that you're on your electronics. And you just grab a bite to eat. And that bite to eat is feeding your yeast. And then, you're so busy that you're like, "Oh, I'm tired. I'm going to have some caffeine." And so people aren't even thinking that candida's the problem. Candida and electronics, they're so bad.

Evan: Yeah, well, I'm glad that you tied it back because people will think, "What are you, guys, talking about? You're going on your technology rant." It's

like, “Well, no, listen.” My younger brother is an example. He’s a Starbucks employee. And he’ll come home. And he’ll bring his big old Frappuccino. And guess what? He’s sitting over there scrolling on Instagram and Snapchat. So he’s getting the dopamine hit from the sugar and the caffeine and the social media. So to say that these aren’t linked or that these shouldn’t be in the same conversation, you’d be crazy to say that.

Oh, my, God, I never thought about Instagram being like a slot machine. I used to live in Vegas for six years. You see the little wheel. Now, they’re all digital screens. But at the time, they were the wheels. And the wheels coming, coming, coming. “Come on, give me a lemon. Give me a lemon, oh three lemons, five hundred bucks.” It’s the same thing with Instagram. It’s literally like a gambling wheel. What a trip!

Dr. Ben: Yeah, it is. It’s so smart. And it’s so scary. And it’s—

Evan: Well, I don’t know about you, but I had to delete Instagram from my phone. So I’ll share what I’ve had to do over the past couple of years. So Instagram first came out. And everybody’s like, “Oh, it’s the greatest thing ever.”

I got Instagram. And then, what would happen is you go on the Explore feature or like you click on the Search box. And it just shows you all sorts of random things: mansions and Lamborghinis and cars and women in bikinis, and whatever. It’s just anything you think that is going to give you that dopamine hit.

And I would just get lost in the App. And 15/20 minutes later, I have zero reward. I feel burned out. I’m exhausted. And then, I was depressed from the App. I’m not joking when I say I was literally depressed from it. And I closed it out. But then, I would do the same thing the next day. I would look at the App again. So then, I uninstalled it. And then, I think I missed out. I think my brain was starving for that--

Dr. Ben: It was. It was.

Evan: stimulation. So guess what I did? I reinstalled the App. I get back on there. I do the same thing over again. Just like a heroin addict. Guess what? Now though, I’ve got zero social media Apps on my phone. Except, I do have a Twitter App because if I ever do need to use my phone at night, I have the little OLED screen because I’ve got the new Google phone. So the pixels turn off.

And so the Twitter, they have a dark theme where it's basically a black screen. So if I ever, ever, ever have to use Twitter at night to write a post, or share a blog article, or something, I use the night mode, which you can't use on the mobile version of Twitter. So the App, itself, is the only thing you can use to have the dark theme. All other social media Apps—Facebook, Instagram—it's all gone. I literally was sabotaging myself with these Apps.

Dr. Ben: Interesting.

Evan: It's crazy.

Dr. Ben: Interesting.

Evan: It's crazy. Not to say that you need to do the same thing or that the listeners need to do the same thing, either. But I'll just say, if you, guys, feel like, "Okay, where is my productivity going? Where is my happiness going? Where is my contentment going?" for me, it was going out of Instagram. It was literally robbing me of my fulfillment.

And now, like I told you before we got on the call, I'll just go outside instead. Go in the woods. And go play in the woods like I did yesterday. And put it this way, I came back in. And I was like euphoric. What's going on there nature wise? Is it just dopamine? I feel like there's got to be other stuff happening, too.

Dr. Ben: Well, there's a whole slew of things. When you're getting fresh air, you're getting the energy from the nature. I don't mean to just go woo-woo on us here, but life is all about energy. And you're feasting on living things around you. Phones are taking away your energy, whereas, the forest is providing for you. And the air is providing for you as long as it's clean. So you're in your natural element.

We forget that we're all animals, Evan. We're all animals. We're just advanced or stupid, depending on how you look at it. But our technology has really propelled us, but we are all animals. And we're the only animals on the planet, too, that make trash. That's it. We're the only animals that make trash.

And so I would have to say that you're getting the electrons from nature. And you're getting grounded. You're just getting a sense of clarity. How many genes are influenced by that? It's staggering, staggering.

Evan: Well, it's a nature deficiency, right. There's that author—I don't know if you've seen his work—Richard Louv. He wrote, I believe he called it, the *Last Child in the Woods*, basically about the technological era. And how he's concerned that basically kids are no longer going to...They're not.

I think what he was writing about has already happened, which is the fact that the youths are going to be so disconnected from nature that we will just lose touch. And we will lose touch of reality that we're on a living spaceship. And there was another book he had, too. I think he called it something around nature deficiency. I don't know. But he calls it *Vitamin N*. Vitamin N as in Nancy, for nature. And he said, "You've got to have adequate levels of vitamin N. That segues to--

Dr. Ben: I love that.

Evan: Yeah, that segues us into this other question I knew I needed to ask you about, which was when we're talking about candida, or yeast overgrowth, and maybe some of these other things co-existing in the gut here, we hit upon the neurotransmitters and stuff, so mind blowing, what about vitamins and minerals? You mentioned that the candida's stealing your nutrients. So what's going on there? What are we losing nutrient wise? And how is this happening?

Dr. Ben: Well, you're losing your pyruvate. So and pyruvate is your building block for making your ADH, which feeds into your mitochondria. It also feeds into fatty acid synthesis. So for people who are trying to be Keto, so if you're trying to go Keto and you have the Keto flu, maybe you're actually starving a bit. And you are trying to go Keto, but your methylation cycle's wrecked and the amount of chemicals that are being released from the yeast are not allowing you to utilize enough pyruvate. But pyruvate is a very, very important fuel.

And so if your muscles are sore and your muscles are tight and you work out, and you have long, delayed post workout, long post workout soreness...I mean, having it a day or two when you're first working out is okay, but after that—you should be able to work out and not be very sore.

And if you have a long recovery, then that's also not good. You're burning a lot of lactate. And that's staying inside of your system. So pyruvate is a big one. And the yeast will steal that. And as they steal it, it's going through a gene called BDC, which the candida has is pyruvate decarboxylase. And that steals your thiamine and your magnesium. And the thiamine is the exact same

compound you need to burn your own pyruvate. So you can't even burn your own pyruvate without your own B1.

And magnesium, we all know is super important. It does like 400 different genes in the body. And one of which is helping us calm down. Magnesium is wickedly important for also moving out your dopamine and your norepinephrine. So now, you've binge eating for your depression and for lifting your dopamine, but now you're getting anxious and irritable because now you're deficient in magnesium.

And the acetaldehyde is blocking your MTHFR gene from working and your methionine synthase MTR gene from working. So now, your homocysteine levels are going up. And as a result, your entire neurotransmitter production is just becoming a whole slew of mess. So it's so huge. And then, aldehydes not just wreck your methylation, but they also destroy your glutathione. Aldehydes will destroy your glutathione. So now, you become even more sick and more brain fogged. So candida's a huge, huge problem.

Evan: Wow! Now, I've heard of different supplements and nutrients, whether I'm hearing about like bioactive carbons and activated charcoals and volcanic clays and all sorts of binders and such for soaking up these aldehydes, and some of the molds, candidas. Can you maybe hit on that a bit just some of the nutrients? And even if it's nothing I just mentioned, just nutrients that you would recommend having in your toolbox to support, either the removal or the killing of the toxins that the candida's are producing.

Dr. Ben: Yeah, I would. Some of these, I'm not entirely sure about. And you also have to be careful of heavy metals in them. There's a lot of heavy metals in some of these binders because that's what they do, they bind. So they're going to bind metals, too. So are you actually introducing more heavy metals in your system, or not?

Evan: That's a great point. Great point. Now, if you see like organic, certified, whatever, does that actually mean anything because something organic could still have heavy metal contamination, correct?

Dr. Ben: Correct, it doesn't mean anything. It just means that there is no sprays or certain chemicals applied. The organic standards have been really, really diluted to allow big business and big AG to mess with that. So you need to ask about certificates of analysis.

But I would say fiber is a big one. You've got to keep your bowels moving. And the best fiber source is vegetables, salads, steamed greens, steamed veggies, or not. If you have a difficult time digesting your foods, then steam them. And you will get fiber from these things. You should be really bulking up your fiber so you can move your bowels through. And if you don't do that, you're going to get fermentation, which also feeds the yeast. So you got to do that.

Evan: Let me ask you this before I forget. Can you quantify like, "Oh, man, I'm fermenting?" Would that just be the gas, the bloating, the burping? Or is that just if you're not eating enough veggies? Or let's just say if you're not pooping more than, let's say once a day—I'd say would be like a minimum—if you're not pooping once or twice a day, could you say right there that you're not moving things enough and maybe you're fermenting?

Dr. Ben: I would say if you're not pooping once a day, you're fermenting, yes 100%. Yeah, so you have to poop once a day minimum. And you should try to find the time that works best for you. I'm a morning guy. I wake up and that's the first thing I do. And other people, it's like afternoon or evening.

So find that pattern and stick to it. And then, your body will be trained and moving forward. If you're really irregular on your doing number two or you don't value it enough, you hold it because you're busy, well, as you're holding your stool, you're absorbing more water because that's what your colon does.

The job of your colon is to absorb water. And the longer you hold versus go, the less water is in your stool. And then the stretch receptors are not going to be stretched because now your stool's getting smaller. And now you become constipated. So now you're really in trouble. So go. When you have the urge, go.

Evan: It's so easy. You got to go poop, people. I've had people where they're just like, "Oh, I don't want to poop in public." And it's like, "I understand your concerns, but look, trust me." And also, you mentioned this whole like absorbing effect, too. Poop is waste. So let's say you do have heavy metals. And you did bind something up, or you do have the yeast or some of these other fungal toxins, you don't want that stuff sitting in your colon.

Dr. Ben: Let's put it this way. And I'm going to be really graphic here.

Evan: Please, please.

Dr. Ben: So pardon me, but not really. You've got some horrific mucous. And you cough up a big one. You've got a big loogie in your mouth. What are you going to do? You're going to find a convenient moment to discharge that? Or are you going to make it happen? You're going to make it happen however it needs to happen. You're not going to walk around with a loogie in your mouth. You've got to get rid of it. Or you have sinus congestion. And you sneeze. And you've got this big booger hanging off your nose. And you got to deal with it.

So poop is the same thing. It's a loogie. And it's a booger. Get rid of it. And don't wait for the moment. I don't care that you don't like pooping in public restrooms. Your body wants you to. So do it. And I have pooped in places that you would not even want to dream of. They've been horrible. I've been to Southeast Asia. I've pooped in holes. I've pooped behind fences. You just do it. And it's horrible. The "public bathrooms" in India, first you had to pay money for them, which is—

Evan: Oh, my, gosh.

Ben: ridiculous. And I had very little money at the time. So I was always arguing with the people. They didn't understand me anyway. And then, you go in. And there's this...Seriously, Evan, just a little tangent here. But you walk in to this bathroom. And there's stalls with holes in the ground. And there's no toilet paper. There's no running water. And there's this big tank in the middle.

And every stall has like this little Yuban coffee can. And you walk to the tank. You fill it up. And you bring it back to your stall. That's what you wipe with—your hand. And you rinse it in the water. And you rinse it again. And then, you dump the water down the hole. So if I can do that, you can poop in a public place.

Evan: Right, right, with toilet paper.

Dr. Ben: With toilet paper, yes, with a closed door, usually, and a seat.

Evan: What a luxury experience in comparison, right?

Dr. Ben: Yeah, I did that for five months, too.

Evan: Oh, my gosh. My dad, yeah, he went to China and said the same thing that you're very lucky if you got to poop in peace. And then another thing he said, too, there's no ice. Like, ice is like not a thing. So you would go to

restaurants. And you would get just lukewarm water. And he came home with just the worse gut symptoms. I'm sure he's got tons of gut bugs. He won't listen to me to get a stool test. But I guarantee, he brought some stuff back with him. Let's say that.

Dr. Ben: Oh, for sure, yeah. And you don't want ice anyway when you're in India because they probably just used river water to make the ice.

Evan: That's true. That's a good point. That's a good point. So we chatted about the vitamins, minerals piece. That was really cool. And I run organic acid's testing on every client. And what I'm seeing, too, is that vitamin C levels, those tend to be depleted in like 95% of the people. I see lactic acid levels go up a lot of time with candida. And then, just the candida markers. In general, you've got the arabinose and the tartaric acid, those gases that are being produced. There's just all sorts of reactions. I don't even if we could quantify all of them.

But just what you've mentioned alone are enough mechanisms for me to say, look, if you've got these symptom...Brain fog could be the only one. Some people don't have the bloating and the other GI symptoms. It could be all cognitive, which I'm glad you mentioned this whole methylation piece, too, energy levels—these are warning signs that things aren't right. So this doesn't mean, "Go do an extra shot of espresso. This doesn't mean scroll on Facebook another 10 minutes before you go do your task.

What's crazy to me is, luckily, I'm fortunate in the fact that I don't have to wake up to an alarm clock, but you've got these people that they'll tell me, they literally have to get on social media to get themselves stimulated enough to get out of bed. Have you spoke with people like that before?

Dr. Ben: Oh, yeah. My boys, they do the same thing. And it royally drives me crazy. I would always ask them, too, I'd say, "Guys, what are the top things I fight about?" And number one is electronics. And number two is food.

And I think number three is acknowledging when your mother or I ask you to do something. So if we say something, you have to acknowledge that you heard it. It's not like you can just walk away. You have to acknowledge it that you listened. So that is a big one in the home.

But yeah, look, dementia is a diabetes-type 3. There's type 1. There's type 2. And dementia/Alzheimer's is diabetes type 3. And it's basically glucose fuel. ATP is not being generated in the brain. And we just talked about a pyruvate

steal by your candida that's not generating any of the ancient fuel for your brain. So that's a huge one.

And there's a couple of articles that I've written. One, if you type candida, MTHFR, Ben Lynch, you will see the article on diagrams—and I'll email this for you, Evan, so people can see that—but acetaldehyde, it inhibits your methylation. Yeah, that's a big one. And that affects your neurotransmitters. But not having enough pyruvate for your brain, that's a big problem. That's a huge problem.

Evan: That's scary.

Dr. Ben: And it is. It's very scary. And you will become demented, hands down. And your brain becomes toxic. So dealing with yeast is big. And I don't care what conventional medicine says. If you feel that you are having dementia, or not dementia, but your brain isn't sharp, your energy is down, you're not pooping regularly, you are binge eating, or binging on electronics, or you're always seeking out some reward, or you're slightly depressed, or your moods are all over the place, candida should be way up on your list. And it's pretty easy to take care of, really. And it's a little bit of self-discipline.

There's another great video called the *Pleasure Trap* by Doug Lisle. It's a TEDx Talk. And the *Pleasure Trap* is basically people, they know that they shouldn't eat garbage. They know it. But it increases their dopamine levels. And they feel good.

And then what happens is, they say, "Okay, January 1st comes. A New Year's resolution, I'm going to eat healthy. I'm going to do it." And the healthy food doesn't spike your dopamine as much. So you're eating healthy, but you're depressed.

And you're like, "Well, why am I depressed because that shouldn't be right?" So then, their dopamine levels drop. And then, they binge again. And they feel bad. And they feel guilty. And they're stuck in this pleasure trap. And they can't get out.

Evan: Wow! Yeah, and I think, we'll have to probably save the continuation of this conversation for Part II so people can go stalk your work. Look up DrBenLynch.com. And then, they can just Google your name. They'll find you. And they can look up, if they type in like, "Ben Lynch, Evan Bran," they'll find the podcast we did together.

But we should do a whole nother piece of content on this topic because I believe talking about mitochondrial supports nutrients and then some of the neurotransmitter support. So let's take all these pleasure trap people you just mentioned. And what if we added in some tyrosine to the picture or some DL-Phenylalanine to rebuild endorphins? I feel like there are strategies that are in place and that are possible to hijack or naturally boost up brain chemicals to where we can succeed on removing those foods. Would you agree?

Dr. Ben: Yeah, I do it all the time. I recommend that all the time—DL-Phenylalanine, tyrosine, 5-HTP—to help people get out of that trap. And then, they can reduce their supplements as they normalize their dopamine. But if you're stuck on electronics, then you still won't normalize your dopamine.

Evan: Let me ask you a quick question before we go. With amino acids, are you using those in isolation often? Or are you typically combining those?

Dr. Ben: It depends on the individual. So if you take the quiz in *Dirty Genes*, and you find that you're a fast COMT, I recommend tyrosine. DL-Phenylalanine could be a good one, too. If you're a slow COMT and you're anxious and you're eating to calm yourself down, then tyrosine will make you worse. So in these folks, I recommend magnesium SAME sometimes, but not always. There's a test I describe in the book to help you see if SAME's going to work or not.

Evan: Let me ask you this before I forget. SAME, when I took it, I felt like I was crazy. I felt like I was manic. And I didn't know whether I wanted to go skydiving, or jump out of a building, or rent a Lamborghini and go 300 miles an hour.

Dr. Ben: Right. That tells me that your SAME fed into more homocysteine. And that you probably could use some more folate or B12. Or your methylation cycle is a little bit sluggish. You're a grinder. You are a high performer. And high performers tend to have a slower COMT. And a slower COMT can tend to do favorably respond to SAME if the methylation cycle isn't blocked.

So I'd be considering glutathione. And if you don't do well with methylfolate or methylcobalamin, I would definitely start with liposomal glutathione and open that up. Because if you look at the strategy and report, the genetic report, I have pathways there. And if you're low in glutathione, your cycle won't work. It just won't work.

Evan: What about the magnesiums and such? Would those help as well in that situation?

Dr. Ben: Yes, yes, because magnesium helps clear your dopamine, and your norepinephrine, and epinephrine via the COMT gene. Plus, you also need to reduce protein a bit. Protein intake would be another one. Basically, don't have protein in the evening.

Oh, and, duh, you can mop up the SAME with niacin. So if you feel like you take SAME and like it makes you worse or feel a little bit more manic, then you take 50 to 100 milligrams of niacin. And it should neutralize it pretty quickly.

Evan: Oh, good. Would it matter if it's a flushing version or not?

Dr. Ben: I prefer the flushing version, personally. But, no, it does not matter.

Evan: Okay, cool. Wow, that's just awesome! Well, as you, guys, know we're out of time, but this was so much fun. And we could probably do this again for hours. And I look forward to keeping the conversation going with you. It's so fun. I tell you, it really gives me hope to be able to speak with people like yourself because sometimes I feel like I'm so isolated. I feel like there's no one I could actually have conversations like this with. And I could joke around with you and say, "Oh, Ben, my dopamine's low today." And you would understand.

Dr. Ben: Yeah.

Evan: And other people, they're going to look at me like I've got a snake for a head. So I'm just so grateful for your work and all the education that you're providing and the content and the books and webinars and the summits and everything.

So I just want to say thank you. I'm really grateful and appreciative of you. And I hope people check out your work and continue to stock all of the things that you do so that they can take back their health and take charge of their health. So thank you so much!

Dr. Ben: I appreciate that, Evan. And thanks for your work, too, man.

Evan: Bye-bye.