



Dr. Drew Sinatra: Genetics...towards the end of the 20th century, we finally decoded our genome, and now we're able to map our own genetic code. But what can this tell us? How do we know what is actually important? It's all so new to us.

Dr. Drew Sinatra: Today, we're joined by Dr. Ben Lynch — naturopathic doctor, author, educator, and epigenetics expert. We'll be talking about how understanding your genetic map can help you immediately, what to look out for when considering a genetic test, and what he recommends if you want to know more about your genetic predispositions. If that's not enough for you, we'll talk about my genetic report! All of this and more on today's **Be HEALTHistic**.

Narrator: Welcome to **Be HEALTHistic**, the podcast that's more than just health and wellness information — it's here to help you explore your options across traditional and natural medicine, so that you can make informed decisions for you and your family. This podcast illuminates the whole story about holistic health by providing access to the expertise of Drs. Steve and Drew Sinatra, who together have decades of integrative health experience. **Be HEALTHistic** is powered by our friends at Healthy Directions. Now, let's join our hosts.

Dr. Drew Sinatra: Hi folks...if you like what you hear today, and you want to listen to future conversations on all things integrative and holistic health, subscribe to our podcast at **BeHealthisticPodcast.com**. Also, check out and subscribe to the Healthy Directions YouTube channel, which features video versions of our episodes, plus extra videos you won't want to miss. And finally, we have more with me, Dr. Drew Sinatra, my dad, Dr. Steve Sinatra, and other health experts at HealthyDirections.com.

Dr. Drew Sinatra: Hey, everyone, welcome to another episode of **Be HEALTHistic**. Today on the show we're joined by fellow naturopathic physician, Dr. Ben Lynch. Dr. Lynch is a bestselling author of *Dirty Genes*, and is the president of Seeking Health, a company that helps educate both the public and health professionals on how to overcome genetic dysfunction. You could say that Dr. Lynch is an expert in epigenetics, which is the science of understanding how your genes are expressed, and how you can use diet, supplements, your environment, and lifestyle to shape your genetic destiny.

Dr. Drew Sinatra: Dr. Lynch developed the StrateGene genetic test, which we'll be talking about today, which is a DNA test that gives you a literal map of how your genes are built. I recently took this test myself. So together, we're basically going to look into this test, and what makes it different from other genetic reports, and what the results can tell you. So, Ben, what a pleasure to have you on the show.

Dr. Ben Lynch: Awesome to be here, Drew.



- Dr. Drew Sinatra: So, there's lots of genetic reports out there. These programs online that you can put in your genetic data and get a whole print out of what's going on with your genes. Why did you develop StrateGene? What is so important about it? What is so good about it? And how can it benefit our listeners?
- Dr. Ben Lynch: Yeah. Well, I only develop things if I see that things have to be improved. If someone is doing a really good job at, say, a joint support supplement or a genetic test, I'm not going to go into that area. I'm going to recommend them. I'm going to say, "Hey, use this joint support." That's why Seeking Health doesn't have a joint support supplement, you know? There's other ones that are doing really well.
- Dr. Ben Lynch: And the genetic industry is a huge mess. And to be fair, we're all learning. It's a very new introduction as a tool into disease prevention, into guiding specific treatments. For example, if someone goes to the emergency room for some type of injury, and the doctors say, "Oh, they need to put on a blood thinner right away, like Warfarin." Nowadays, they can do on-the-spot genetic testing to see someone's response to Warfarin, and then adjust the dose accordingly, so they don't kill them from a bleed out. Which just happened to a friend of mine's grandmother, actually, because they didn't use genetic tests for Warfarin and they bled her out.
- Dr. Ben Lynch: So, my reason for jumping in and developing StrateGene was because people are looking at genetics only. And when you introduced me, you also say...you know, you may call me as an expert in epigenetics. Well, I kind of think that almost all naturopathic physicians, and almost all integrative or functional medical doctors are experts in epigenetics.
- Dr. Drew Sinatra: Right, you have to be.
- Dr. Ben Lynch: All I am doing is incorporating specific genetic variations of the individual, and applying those epigenetic controls for those genes — which is extremely powerful. So StrateGene, from my understanding, is the only genetic report that exists that looks at how genes work together, not in isolation, because we have to stop that reductionist mindset. And, not only that, you are going to see how those genes are affected by lifestyle, food, supplements, and the environment, and medications. So it's a lot to go through, it's a lot to digest, it's a lot to learn. But ultimately, it is your map. It is you on paper, and it's very, very insightful and empowering.
- Dr. Drew Sinatra: Well, I think a key thing that you said there is that the genes work together, right? They work in unison.



Dr. Ben Lynch: Yep.

Dr. Drew Sinatra: And I think one of the problems with a lot of genetic testing out there is people are asking the question, “Well, I’ve got this SNP, I’ve got this single nucleotide polymorphism for MTHFR or for (muffled) or whatever it is, or sorry, DAO gene.” And so people get so attached to, “Well, how do I treat this SNP?” Right?

Dr. Ben Lynch: Mm-hmm.

Dr. Drew Sinatra: But they’re not looking at more of the global picture of, these genes are actually working in concert together. And that’s what StrateGene is showing you in a visual map, too, of how each gene is working, and the different co-factors involved and everything. So, that’s it right there, because I feel like people haven’t heard that before, is our genes are working together.

Dr. Ben Lynch: Yes. And there’s 18,000 of them or so. And I first started out with one particular gene called MTHFR, which is associated with so many different things. And I just went, rabbit-hole deep in this one, and cardiovascular disease, pregnancy complications, infertility, cancers, mental disorders, neurological disorders. I mean, it’s associated with, almost, you name it, it’s there. And you’re thinking, well, wow, that’s powerful. And so, if I have that genetic variant or SNP in MTHFR, that means I’m going to get all those things? That’s what I originally thought.

Dr. Ben Lynch: And I’ve since learned that is far from the truth. And when I was...a really important point here to understand is StrateGene looks at genes that are very common in the population. I mean, genetic variations that are very common in that population, and have an impact on how the gene functions. We do not look at genes that, if you have them, you are screwed.

Dr. Ben Lynch: So, for example, there are genes out there that if you are born with, you’re probably alive on the planet for two or three days, maybe a week or two. And then you are going through major issues, and doctors will run genetic testing, and find a specific gene that is associated with your serious illness. And then you have to be going to a genetic counselor, and going to specific treatments for the whole rest of your life. That is a different ball game for genetics. And lot of genes are ignored, because they have not any disease causation, per se, but they increase susceptibilities for things. So, there is a lot of talk from the genetic counselors that MTHFR is not a problem at all. It should be ignored, don’t worry about it, just take your folic acid, it’s not a big deal, it’s not associated with any conditions. Disease causing, it’s not disease causing.



- Dr. Ben Lynch: And so StrateGene does not look at genes that are disease causing. StrateGene looks at only things that may increase susceptibility to things. MTHFR does not cause cancer, MTHFR does not cause high homocysteine. It's associated with these things and may increase ones' susceptibility. And if it does so, what actions do you need to take in order to optimize your life and reduce that susceptibility — and you can.
- Dr. Drew Sinatra: Right, and then going back to the epigenetic piece, you had...I think this was on your website or something, but I got this quote yesterday. It was, "Change the environment, mindset, and nutrients — and these genetic susceptibilities become only that: susceptibilities."
- Dr. Ben Lynch: Yes.
- Dr. Drew Sinatra: So, that's beautiful right there. I mean...
- Dr. Ben Lynch: Yep, that's right. And I think that was the first page of StrateGene. And we want people to welcome genetic testing in their life, if it's the right one. And we want people to feel empowered, not disempowered, when they get their genetic information. And that is a huge difference with StrateGene. You are not going to see that you are "red" in these particular list of genes — because red means caution, warning, danger, stop. And then the first thing you...your instinct is to, "All right, how do I fix that?"
- Dr. Ben Lynch: Well, it might not be bad at all. Drew, you've got a number of "reds" on your report, just like I do. It doesn't mean they're bad, it means they're functioning different than what the typical population is. And I almost said normal. And that's the other thing that we have to understand is, when we get our genetic report back, all we're identifying is what make and model we are, and what year. That's it.
- Dr. Ben Lynch: So, I could be a Volkswagen Minibus...you know, a Volkswagen Bug. And Drew, you could be a Hummer. And both of those vehicles are totally fine, and they have their purposes and their functions. We just need to know that, Drew, you're probably going to be uncomfortable on long freeway rides and not be very efficient at it. But if you're in a war, or fighting, or going four-wheel driving, you're going to be doing way better. Now on my side, freeway driving is better, it's more efficient. But am I going to go to war in my Volkswagen Bug? I probably shouldn't.
- Dr. Ben Lynch: So we just need to know, because if I'm that Volkswagen mini and I am...or that Bug, and I'm going to war, and driving on roads that should be four wheels, I'm going to be struggling throughout my life. And nobody knows what make and



model car they are, they have no idea. So, when you do a StrateGene, you're starting to get that insight, and then you are starting to make lifestyle decisions that support you. Not what other people tell you that you should do — you're actually supporting you, based upon how you're built.

- Dr. Drew Sinatra: So it's personalizing your health, it's optimizing your health in that way.
- Dr. Ben Lynch: Yeah, yeah. And it's...looking over your report this morning, I found a number of things in there, and it's awesome that you are doing what you are doing, because you'd be in trouble if not — and the same for me. But I think if you go back and look at how your life has evolved, and the things that you've moved away from. You've probably moved away from certain lifestyle choices or foods because you probably did those things and didn't feel very good. So you naturally moved away from them because you felt better when you did, but you did not really understand why you were feeling that way, maybe because...but now, with StrateGene, you're going to be able to say, "Oh, that's why I can't do that very much compared to my brother Jack, who can do it just fine." Right?
- Dr. Drew Sinatra: Right, right. Well, before we hop into my StrateGene results, really quick, I wanted to have you describe...in your report, so in the StrateGene report, there's certain SNPs that you're really focusing on. But like you said, I mean, there's thousands of genetic variants or polymorphisms out there. Why did you choose those specific ones to focus on?
- Dr. Ben Lynch: Yeah, I'll lead with a conversation I had with one of the top doctors out there in the realm of genetics, and that's Dr. Robert Naviaux. He is a major researcher in autism and mitochondrial dysfunction, and he's based out of University of California San Diego Med School. And he's brilliant, he's so brilliant. He wrote seminal papers on a subject called cell danger response...
- Dr. Drew Sinatra: Yes.
- Dr. Ben Lynch: ...phenomenal guy. And he wrote the first ever prescription for the whole genome in the world, and he did it for the former CEO of Illumina, who is the largest chip manufacturer for DNA testing in the world. Which is what StrateGene uses as a core, is Illumina. So he knows his stuff, and he and I talk a fair bit, quite a bit, and he said, "Ben, you know what you do, you work on genes that we refer to as eco-alleles. You work on genes that have been selected by natural selection over time to support that particular individual, in their particular environment."
- Dr. Ben Lynch: What's happened is our ancestors lived in a particular environment, and we've moved away from that, and our environment has changed so radically — with



EMF and pesticides and chemicals and processed foods and sitting and staring at screens all day. So those genes that we've inherited for various reasons and benefits, really allowed us to survive and thrive a 100, 200, 300 years ago. And now, those particular genetic variations that we've inherited are now acting up, per se, in our current environment. StrateGene is looking at genes that are very common, i.e. greater than five percent in the population, or have some identified functional variation, meaning that research shows that this particular genetic variant has an effect on the human body.

Dr. Ben Lynch: A lot of genetic testing out there looks at just a bunch of SNPs. They just look...they just want to report you as many SNPs as they can, because more is better. Well, the problem is you start researching a particular SNP, an MTHFR, and you go in the literature, and there's no evidence of it. It exists, but there's...they don't know what the effect is. And so StrateGene looks at only genetic variants that have researched, identified effect, and that are common in the population. And the cool thing is, they're also modifiable through your lifestyle, diet, and environmental action. So, if you have a genetic variant and it's on StrateGene, you can modify the effect of it through making changes or improvements in your choices.

Dr. Drew Sinatra: Well, I've been waiting for you to say dirty...dirty genes, but you haven't said that yet. So, please tell us about why you named your book, *Dirty Genes*? And how it can influence and talk about the things we're talking about today?

Dr. Ben Lynch: Yeah. So, when you order StrateGene, you will also get a copy of the book, *Dirty Genes*, it comes with it. And you also get the online course, the *Dirty Genes* course. So our goal is to educate you in understanding how your body works. Because in health class, you never got this type of information, and it's really needed. I mean, if people really knew that their signs and symptoms were associated with dirty genes, and they can clean their genes, that's pretty powerful stuff. So a dirty gene is simply a gene that's not acting...it's not functioning at its best. That's it. So, you could inherit a gene that is slightly a slower performer in, say, supporting your cardiovascular health. But at the same time, even though your specific gene, as described in *Dirty Genes*, it's called NOS3, nitric oxide synthase 3 gene, this particular gene's job is to produce nitric oxide. And some of you may be taking the drug called nitroglycerin.

Dr. Ben Lynch: And if you find out from StrateGene that you have a slower nitric oxide synthase 3 gene that does not produce as much nitric oxide, then there's things that you can do in your lifestyle, instead of just depending on nitroglycerin, which you need and you don't get off of. But there's things that you can do to enhance its effectiveness and continue to make it work. So the dirty gene is simply a gene that's not functioning at its best, it's misbehaving. And someone called them



naughty genes...and the publisher really wanted me to name the book, *Seven Deadly Genes*. I was like, "No, no, no, no, no. These seven genes are not deadly at all, because people can make lifestyle modifications and thrive with whatever, however they've inherited them. It doesn't matter."

Dr. Drew Sinatra: Even with the word dirty, you know that you can clean it...

Dr. Ben Lynch: Exactly.

Dr. Drew Sinatra: ...you can help repair them.

Dr. Ben Lynch: Yeah, and the first cover rendition was interesting, because they took bites out of the letters. The letters had holes in them, and chomped up. And I was like, "That's not...doesn't look really repairable." And my wife looked at the cover and I shared with her my thoughts, and I said, "This cover is not representing what *Dirty Genes*." She goes, "Well, why don't you just have it like a dirty dust cover, and somebody takes a rag and dusts it off?" And so that's what we've done. So half the cover of *Dirty Genes* has got this dust on top of it, and the other half is just a hand wiping off the dust on your table.

Dr. Drew Sinatra: Yeah. I almost thought it looked like a windshield wiper, so it's like, poofh, cleans everything off.

Dr. Ben Lynch: Yep, that works, too.

Dr. Drew Sinatra: Well, let's jump into my report then and, kind of, go over some of my potential issues that I would have if I didn't live the lifestyle that I did.

Dr. Ben Lynch: Yeah...and one that really struck out to me was your kiting, and...man, I wish I could do that!

Dr. Drew Sinatra: You will someday, Ben, you will.

Dr. Ben Lynch: Yeah. That's on my list, man. There you go.

Dr. Drew Sinatra: We'll make it to Hood River someday.

Dr. Ben Lynch: Yeah. So, there's a particular gene that you have in here that enhances dopamine transport and dopamine receptors. So, you can make all the dopamine you want. You can take all the dopamine medications you want. And dopamine is one of those neurotransmitters that increases when you get hugs, or you do things that excite you, or you have addictive behaviors, like crazy downhill skiing, down triple X runs, black diamond runs. Or from smoking,



alcohol, sex...all these increase dopamine. And there's one particular gene that Drew has that binds dopamine, and it's a bit faster, from what I recall. So, it can bind more dopamine. And it's associated with learning, as well.

Dr. Ben Lynch: And so, if people who have this higher dopamine levels, they tend to perform better with memory and learning, when they're doing more active things in life. So, if you have a child who is struggling with ADHD or focus, and they just sit around all day, well, that might be a problem. And now you start doing sports, and you start noticing that their learning is improving, and they're starting to excel. Well, that's because exercise is associated with this particular gene, and it enhances learning.

Dr. Ben Lynch: And another one is, if you have too high of dopamine, now you can become too anxious and nervous and almost irritable. And so, if you're stuck in a classroom that has 40 kids in there, or 30 kids, and the teacher isn't telling people to behave and pay attention, then these kids who have these higher levels of dopamine in their brain, they're going to be anxious and they're not going to be able to focus. So, they've found out that these kids perform better in quieter environments.

Dr. Ben Lynch: So my son, Theo, is similar to this, and he has a similar gene as Drew, where he performs better in a more quiet environment. And he will actually wear...he wore headphones when he was in school to block out the noise, and his test scores went up. So I want to ask you, Drew, do you notice that...have you ever looked at and said, I do learn better after exercise, or moving in some regard, or hiking — and I do perform better in quieter environments. Whereas, my wife or someone that I know can just continue to learn in noisy environments just fine.

Dr. Drew Sinatra: All of the above.

Dr. Ben Lynch: All of the above.

Dr. Drew Sinatra: All the above. I mean, I'm a very active person, I need to move my body regularly. I need to be out in nature. And I read on that analysis there, that those who have this — you're talking about the COMT gene, right?

Dr. Ben Lynch: Well, there's COMT gene, but this is DRD2...

Dr. Drew Sinatra: Oh, okay. Okay.

Dr. Ben Lynch: ...dopamine receptors, and then there's an SLC, a dopamine transporter gene. So, these are new for me to learn, and we're actually optimizing the write-up a little bit more. But yeah, your COMT gene is also slow, as we described in the



book. But when you saw that you were born with a slower COMT, what did that...how'd that make you feel?

Dr. Drew Sinatra: Well, of course you think there's something wrong when you see that it's slow, as compared to normal. But in reading about it, I believe you said there's some positive qualities that go along with that.

Dr. Ben Lynch: Absolutely. And what were those positive qualities?

Dr. Drew Sinatra: I believe it was the ability to focus, wasn't it?

Dr. Ben Lynch: Um-hum, yes.

Dr. Drew Sinatra: So when I need to, I can certainly focus very...I can be almost like a Type A personality, where I can just focus, focus, focus. And then I need to take a break though after, or else I burn myself out.

Dr. Ben Lynch: Yes. Right. And that's the beauty of a slow COMT. The slow COMT, it's not...when you said, you see that you're slow and it's not normal. And we have to remove that word, normal, from our language.

Dr. Drew Sinatra: Yes.

Dr. Ben Lynch: Because what you are is you, and we need to understand that it's different than what's typical. So I love to use the word typical versus normal. So what is typically found in the population is a COMT gene with a "typical" speed — and you vary from that. Your COMT gene is slower. The benefits of that is, like you said, you can focus, you can concentrate, and you're driven. The problem is you will just keep grinding and grinding and grinding until you burn yourself out, and freak yourself out. And you won't be there for...your health will go down, and your relationship with your family will go down, and so on, and you'll cut everybody out.

Dr. Ben Lynch: And the cool thing is once you identify that you're a slow COMT, it's going to give you an understanding of why you might be so driven, why you might be Type A. And at the same time, honor yourself and say, "God, you know what? I need to go kiting more. I just accomplished this, I'm going to go kiting, or I'm going go hiking with my family, or I'm going to go on vacation." And when you start understanding that, it's very, very powerful. And it's also very effective in terms of understanding your partner and your spouse. Because if your wife sees that you're a slow COMT, she's going to know that, "Drew, are you taking care of yourself? You're driven right now, hey, let's back off a little bit." So there's other advantages.



Dr. Drew Sinatra: Yeah. So I think...I would love it if she would listen to this, too, because we differ so much in how we go to sleep at night. She can go to sleep with the light on, there can be noise around. I have to have complete quiet and darkness in order to fall asleep.

Dr. Ben Lynch: Yes, yes. And I see why. I mean, your histamine pathway is slightly slower in various areas. Your dopamine pathway is slightly slower. Your serotonin conversion to melatonin is also slower, so your ability to synthesize melatonin is reduced. And I know that you love wearing those blue-blocking glasses, I remember seeing you wearing those things, right? And so, when you start noticing these things...because you and I are wired similarly. You have MTHFR variant, you have a slower COMT, your MTHFR is slower, your ability to synthesize melatonin is slower. So you're going to be staring at the ceiling, looking at the sheep play, not jump over the moon, and you're going to be wanting to join them. And so, when you understand that there's things that you can do to help speed those genes up, so you can clear out that dopamine, and there's lifestyle choices. For you, you should really cut the amount of protein you have for dinner.

Dr. Drew Sinatra: I wanted to ask you about that.

Dr. Ben Lynch: Yeah, you should really cut that, and have your protein in the morning and at lunch, if you have three meals a day. If you have two, the bulk of your protein should be at your first meal, and your second meal should be a salad with a little bit of protein, maybe some fat for fuel instead of protein. So maybe an avocado in there, too, and that way, if you reduce the amount of protein...the building block for dopamine is tyrosine, and tyrosine comes from protein. So if you reduce your intake of tyrosine, then you're not building as much dopamine, and you're going to burn through it throughout the day, and you're going to do better.

Dr. Drew Sinatra: Got it, got it. Okay. And Ben, I've been really curious, for me, being out in nature is probably the best medicine possible, going out into the woods and just sitting there and being present with nature. What have you found in your research that would support nature, in how these pathways might function more optimally?

Dr. Ben Lynch: Every single gene, every single one. I presented once at a conference in Banff, beautiful area, and there was this wise old doc sitting right in front of me. And I felt a little on edge because I knew this guy was a lot wiser than me. And so I finished my presentation and he comes up to me and he goes, "Ben, I just want to thank you." And I said, "For what?" And he goes, "You are legitimizing everything that we've been saying for decades about why we should live the way we should live, and why we make all these natural recommendations for



people to reduce your exposure to insecticides, to get out into sunlight, to move more, to breathe fresh air.” And he goes, “You’re demonstrating that genes are affected by these things. And if you surround your gene with healthier choices, they’re going to survive and thrive.”

Dr. Ben Lynch: Every action that you take, or don’t take, is going to have a genetic response, period. And so, if you choose to stay up until 3:00 in the morning, and you do that for five nights in a row, and you’re sucking down caffeine, and you’re eating HoHos, and Ding-Dongs, and Twinkies, your genes don’t get any of the love or the support they need. Because genes have jobs to do, that’s it. Genes have jobs, and they have tools that are needed to do those jobs. And so, if you give a carpenter a hammer with a slightly broken handle, and only four nails, and you say, “Hey, go build me a deck.” They’re going to like, “No.” But if you give them all the tools and resources they need, they’ll build your deck.

Dr. Ben Lynch: Your genes are the same. And so, if you do not give your genes fresh air, filtered water, or whole foods without pesticides or herbicides, your genes are not going to get the resources they need. And as a result, they’re going to say, “I need help.” And their cry for help is symptoms — headaches, irritability, insomnia, weakness, fatigue, depression, anxiety. All these are wake-up calls and signals that your genes are telling you, “Hey, don’t forget about me. We’re asking for here.”

Dr. Ben Lynch: And a lot of people say...they utilize conventional medicine for everything anti — antidepressants, anti-anxiety, anxiolytics, antacids, antibiotics, everything’s against the body, antihistamines. And so, when you look at your StrateGene report, you will quickly see that acute stress, smoking, caffeine, infections, aluminum, inflammation, nitrous oxide, arsenic, cadmium, lead...and we’ve also got excessive exercise, acetaminophen. So all these things are affecting how our genes work, and insecticides are a big one. So, you have one particular gene that is associated with, I think, what were the...with serotonin.

Dr. Ben Lynch: So, your ability to synthesize serotonin is quite good, your ability to transport your serotonin is quite good. Now, your ability for, this is where it matters, your ability to bind serotonin to the receptor — to actually make it work in your brain — is good in some areas, and slower in other areas. So it’s faster in some areas and slower than others, and what slows it down are pesticides.

Dr. Ben Lynch: So if you’re out in nature, and you live by a golf course, or maybe you’re an exterminator for your living, for your job. And you find out that, god, pesticides are really affecting your mood but you don’t really put that together, and you find out that you have a slow gene for serotonin, and you’ve been depressed. And you find out that organophosphates are slowing your ability for PON1,



which is your homocysteine and your cardiovascular disease risk. And your doctor's been telling your cardiovascular disease is sky high. You or your loved one has been working in insecticide industry forever, or using it in your home. Like, "Damn, I should cut that stuff out."

Dr. Drew Sinatra: Yeah. Well, this is where...you're describing in detail how the environment is affecting our genes, how the environment's dirtying our genes. Can you talk quickly about stress, and how stress can either speed up or slow down a SNP?

Dr. Ben Lynch: Yeah. So stress is a...Dr. Bruce Lipton talks about how you perceive the environment is going to control how your genes perform. So, if you perceive that you're going to be...you're nervous about speaking on stage, and you step on stage, and you see a bunch of people in the audience, and you're scared about that, you are going to increase the stress response, which is then going to tell a bunch of genes in your body to say, "Hey, produce a lot of dopamine, norepinephrine, and epinephrine to increase your alertness and focus, and possibly, be more aware, but also get out of danger," these same genes are using up nutrients to do that. And now your body also has to break all that stuff down. So it's work. Stress is what's called catabolic. So, if something is catabolic, it means it requires energy to do in a big way, and stress is exactly that.

Dr. Ben Lynch: Stress isn't bad, it's a natural response. But if it's persistent, you are depleting yourself, and you're using up the nutrients that you're taking way faster. And you've probably noticed that if you've had a big stressor in your life, that you're exhausted after, you're trashed. And if you're not taking a multivitamin, you're not taking a multi-mineral, and you're not eating well, and you handle your stress by drinking more alcohol, like, "Oh, I'm going to have three drinks tonight, just to take the edge off. I usually don't have three drinks, but, man, today was such a stressful day and now I'm going to have some drinks. And maybe I'm going to run extra hard, because I'm all pissed off at how my speech went." And now you go and exercise really hard, you've depleted your genes even more, now the resources are even lower. So now you've increased your susceptibility to sickness or infection.

Dr. Ben Lynch: So again, genes have jobs to do. They need tools to do so, they need resources to do it. And if you are doing things which are requiring extra work for them, all you need to do is provide them additional resources. That's it. If you're out on vacation, or if you're out kiting, or you're doing something you love, you're out working in the garden, and you just love doing these things. Or maybe you love speaking on stage and it's great for you, it's not tiring, it's enlivening — then you don't need as much support, because you're feeding your genes.



- Dr. Drew Sinatra: Yeah. Well, Ben, I'm just so happy you came on the show today, because I feel like for our listeners, my dad and I are always talking about stress, and high glucose levels, and pesticides, and metals, and all sorts of stuff from the environment that can affect your body in a negative way. And now I feel like there's a visual that people can have, if they have this report done, that will show them how certain stress or stressors are affecting their body. So this is going to be great for our audience to do, I highly recommend that people get this report done.
- Dr. Drew Sinatra: As we wrap up here, we're going to share some **Wellness Wisdom** with our listeners, as we always do. So in keeping with our discussion, what is one "pearl" of wisdom that you would talk about in regards to epigenetics and genetic testing?
- Dr. Ben Lynch: There's a lot of focus on things that seem important, but we forget the big picture — i.e., sunscreen. You're looking for organic sunscreen, you just want the zinc oxide, you don't want all those other chemicals. You're looking for a good clean toothpaste, you're using Tom's of Maine, or something else, or you're using deodorant without aluminum. That's all great. But we breathe 11,000 liters of air every single day, and without air, we're dead in a few minutes. So I want you to tune in right now and feel how your hands and your feet are. Are they cold? Are they sweaty? Are they hot? So my hands are slightly cold, and how are yours, Drew?
- Dr. Drew Sinatra: Mine are warm.
- Dr. Ben Lynch: Yours are warm, fantastic. So, this is described in the book, *Dirty Genes*. For the particular gene called nitric oxide synthase 3 gene, Drew has a slower nitric oxide synthase 3 gene, and a slower MTHFR gene, and a slower glutathione gene — and all these genes reduce blood flow. But despite having slow genes in all these things for blood flow, Drew's hands are warm. Why? Because he's calm, he's breathing properly, and he's making the lifestyle choices that he needs. Despite having "dirty" ability to synthesize nitric oxide in multiple genes for Drew, he's doing just fine.
- Dr. Ben Lynch: And the opposite could be true. You could be born with typical MTHFR genes, typical NOS3 genes, typical glutathione genes, they're all spot on — but your hands could be freezing. If your hands are cold, your nitric oxide productions are low. How do you fix it? You focus first on your breathing. So breathe through your nose, and when you breathe through your nose, you don't want to really feel the air rush in. You just want to breathe in, and not too fast, not too slow. And then you exhale throughout and use your abdominal. I'm sure you've talked



about this before, but start focusing on your breathing, and notice what happens to your hands and your feet. They're going to warm right up.

Dr. Drew Sinatra: Yeah, I love that, Ben. And what I like about everything right now, I'm going to summarize it, is this — you can take charge of your genetic destiny. You don't have to be a victim of your genes, you can change them, you can improve them, by all of the things that we talked about today. And particularly having the StrateGene report done, so you have a roadmap to use. So, thank you.

Dr. Ben Lynch: Yeah, my pleasure. And every choice matters. I remember I was doing a discussion about food, and people are...it was like, "Well, can I really change my blood sugar that quickly? Or improve my diabetes Type 2 or Type 1 quickly through diet?" And I said, "Yeah, your next bite matters."

Dr. Drew Sinatra: Um-hum, there it is. Well, thanks, Ben, for coming on the show...appreciate it.

Dr. Ben Lynch: You're welcome, Drew.

Dr. Drew Sinatra: That's our show for today, folks. If you have a question or an idea for a show topic, please send us an email or share a post with us on Facebook. And remember, if you like what you heard today and you want to be an active member of the **Be HEALTHistic** community, subscribe to our podcast at **BeHealthisticPodcast.com**, or on Apple Podcasts, or wherever you download your favorites. You can also find more great content and information from us and the Healthy Directions team at HealthyDirections.com.

Dr. Drew Sinatra: I'm Dr. Drew Sinatra, and this is **Be HEALTHistic**.

Narrator: Thanks for listening to **Be HEALTHistic**, powered by our friends at Healthy Directions, with Drs. Drew and Steve Sinatra. See you next time.