

# **THE MODEL HEALTH SHOW**

**EPISODE 470**

## **What's Really Causing The Susceptibility To COVID-19? - With Guest Dr. William Li**

**With Guest Dr. William Li**

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**SHAWN STEVENSON:** Welcome to The Model Health Show. This is fitness and nutrition expert, Shawn Stevenson, and I'm so grateful for you tuning in with me today. This is an incredibly important episode. We just got a new CDC report coming out as of this recording last week denoting that 80%, approximately 80% of the folks hospitalized with COVID-19 were either overweight or obese. This is a huge underlying susceptibility, but the question is, why? Why is this susceptibility existing when we have conditions like diabetes, hypertension, obesity? What creates this susceptibility?

So I want to bring on the top person in the world in this subject matter and looking at what's actually happening behind the scenes, what's really the causative agent. And he was there on the frontlines at the very beginning of this, collecting tissue cultures and seeing what's actually happening, what is generating these specific symptoms that we relate to this new virus that's on everybody's mind. Most importantly, though, not just how this is happening, what the susceptibility is, but what can we actually do proactively to increase our resilience. Not just with defending ourselves against a viral infection, but also, what can speed our recovery should we happen to contract a viral infection from this virus or many others that can have tragic or suppressive side effects for us?

And it's important to understand that the side effects experienced from a viral infection, it's not the virus itself, it's the human body's reaction to the virus. The symptoms of sickness come from our immune system. That's what's so overlooked in this process in having a healthy intelligent immune system, is of the utmost importance right now. This should be something we've talked about in the very beginning. Matter of fact, we should have been talking about this prior to any of this even happening, so that we all have a foundation of understanding of how this works, how our incredible bodies work, and how we can make them more resilient. But of course, in recent decades, our resiliency has just declined, it has tanked because we've become more of an unhealthy society.

Here in the United States right now, as mentioned, we already hit 43% of our population being clinically obese, but right now, we are on track within 10 years to hit 50%, but with what we've experienced with this pandemic and all these shutdowns, we're going to hit that 50% mark so much faster, probably within the next two to three years. There's this term being kicked around, the COVID-19 pounds or the Quarantine 15, and all these little terms we throw around, but seriously, we've been so disconnected from the things that have, for some people, been their lifeline of health and fitness. Having gyms shut down, and not having community support, and not having access to money to be able to provide for their family, and food, and all these

other things that really have not been taken in consideration. Of course, we've been talking here on The Model Health Show for months on end, and we're not going to stop any time soon.

So again, I am truly, truly excited about this episode today, to expand the conversation and to talk about how our nutrition really relates to that immune function. There are so many things, clinically proven. We've got study after study, thousands of studies related to different aspects of controllables with our nutrition, with our sleep, with our stress management, the list goes on and on, that have a direct immuno-modulating facet to them with helping to control and fortify our immune system. There's so many.

And just one of the things that I had today is one of my favorite things that I just keep in my superhero utility belt because of all the really interesting randomized controlled trials and other peer-reviewed evidence on how effective they are. And one of these things... This was published in the Archives of Virology, the journal dedicated to the study in communication education of viruses. And they noted in this peer-reviewed study that a specific compound called polyphenols... Polyphenols are abundant in certain types of food, but it's specifically in this one I'm going to share with you. Polyphenols were noted to be significantly inhibitory to the activity of Coronavirus, specifically that Coronaviruses, the one that we are aware of right now, this isn't a category of a certain type of virus that it's been around for a long time. Oftentimes, people relate and keep in the conversation of a common cold. Of course, there's a different dynamic here, but Coronaviruses had been around. They're interacting with human cells for quite some time. Polyphenols are able to inhibit the activity of Coronavirus.

The reason I'm bringing this up is that there are over 300 active compounds in what I use called propolis. Propolis, which is from bees. The majority of these 300 active compounds are in the forms of antioxidants, specifically polyphenols that not only have been clinically proven to inhibit Coronavirus, but also have been found in real world clinical studies to reduce inflammation. This is a pro-inflammatory condition with a tropism towards lung tissue. If we're already inflamed, if we already had this kind of chronic inflammation that so many people in our society are experiencing, you put these two things together, a pro-inflammatory condition with a pre-inflamed individual, what do you think is going to happen? Worse health outcomes. This is another thing that helps to reduce inflammation also.

Another study, and this was published in the peer-reviewed journal, Antiviral Chemistry & Chemotherapy, revealed that propolis has significant antiviral effects, specifically in reducing viral lung infections. You should have this in your cabinet. Put this in your superfood cabinet, your medicine cabinet. They have an incredible propolis spray at [beekeepersnaturals.com/model](http://beekeepersnaturals.com/model). That's B-E-E-K-E-E-P-E-R-Snaturals.com/model and you get 10% off their propolis spray, and also, they have a little kid's version too. That's what I give to my youngest son. He has his own little propolis spray. And also, their incredible, award-winning,

world-class honeys and their B.LXR, which is this incredible blend of nootropics and royal jelly. It's just amazing. And by the way, honey is no joke, especially if you're getting really high quality. And they do third party testing for 70 different contaminants that are regularly found in honey. They're doing stuff the right way.

Honey polyphenols... Specifically honey polyphenols, and this was published in Evidence-Based Complementary and Alternative Medicine, found that honey polyphenols were found to have direct anti-inflammatory activity for brain cells, so reducing neuro inflammation. We've noted for years as decades of research affirming how honey has these anti-inflammatory capacities, but it's not just for burns and things like that, and reducing inflammation, even systemic inflammation, but now we have data finding that honey is able to reduce brain inflammation, which hypothalamic inflammation, for example, is one of the contributing factors to excess hunger and obesity. It's kind of a double-edged sword, when we're talking about the regulatory mechanism determining your body's absorption of calories governed by your HPA axis, your hypothalamus, and your pituitary, and your thyroid, and all the things along that super highway. Alright, so these are incredible, these are simple things that people have access to that, often times, we just don't realize. But for us with The Model Health Show, we want to get the best of, the most high quality, and that's going to be coming from beekeepers naturals. So again, go to B-E-E-K-E-E-P-E-R-Snaturals.com/model and you're going to get 15% off everything that they carry. And now let's get to the Apple Podcast review of the week.

**ITUNES REVIEW:** Another 5-star review titled "So Good" by 555701. "Wish I had started listening sooner. One of the best shows out there. Even as a functional nutrition counselor, I still find I'm learning new valuable information from the show that I'm always excited to share with my clients!"

**SHAWN STEVENSON:** That's what it's all about. Thank you so much for sharing that review over on Apple Podcast and leaders inspiring and supporting leaders. That's what it's really all about, to really make a big transformation in our world today. That means so much. And if you have yet to do so, please pop over to Apple Podcast and leave a review for the show, and on that note, let's get to our special guest and topic of the day.

Our guest today is William Li, MD, and he's an internationally renowned physician, scientist, and author of The New York Times best-selling book, "Eat To Beat Disease," the new science of how your body can heal itself. His groundbreaking work has led to the development of more than 30 new medical treatments and impacts care for more than 70 different diseases, including cancer, diabetes, blindness, heart disease, and obesity. His TED Talk, "Can We Eat To Starve Cancer" has garnered more than 11 million views, and Dr. Li has appeared on all forms of major media, including Good Morning America, CNN, The Dr. Oz show, and he's been featured in the USA Today, Time Magazine, O Magazine, and the list goes on and on. He's the

President and Medical Director of the Angiogenesis Foundation and a leading researcher into COVID-19, its health ramifications, and its solutions. And now, let's jump into this conversation with the one and only Dr. William Li. Welcome back to The Model Health Show.

**DR. WILL COLE:** My pleasure. One of my favorite shows to be on.

**SHAWN STEVENSON:** Awesome, man. Listen, you're coming in right now from warm and toasty Boston... Boston area, is that right?

**DR. WILLIAM LI:** It's like two ends of the candle, right? One end is warm, and that's your end, and one end is cool. That's my end.

**SHAWN STEVENSON:** Hey, we got to have both ends to make a candle happen, though.

**DR. WILLIAM LI:** That's exactly it.

**SHAWN STEVENSON:** You know what I mean? But I'm really excited about talking to you today because you're somebody who has incredible insight into the big thing on people's minds right now. Obviously, our world has really been turned upside down, but a lot of folks don't really understand what's happening in the body. As a matter of fact, a lot of people on the frontlines, a lot of researchers, don't understand what's happening in the body. So first and foremost, I want to ask you what's actually happening in the body with severe COVID infections, and on top of that, which I really think they connect, why are issues like diabetes and obesity, increasing the susceptibility to COVID so much? How does all of this tie together?

**DR. WILLIAM LI:** You know, Shawn, you and I start from the same plane, which is that we were all working on how do you stay healthy and how do you get healthy long before this pandemic hit. So a year ago, when we got blindsided by this whole thing, and I'm talking... When I say we, I'm talking about humans living on planet Earth. Nobody expected it to happen when it actually happened. One of the things that actually... I think that you and I shared offline, is that those of us who actually are engaged in understanding health, dove right into the data as it was unfolding to try to understand why are we getting sick to begin with. The planet is filled with viruses. We don't normally get this sick.

We're not scared of viruses normally. We get a flu or a cold, not a big deal, but what was so special about this? So I'm a physician, an internal medicine doc, and almost a research scientist, and that's what led me to start thinking about health, and diet, and lifestyle, but first and foremost, when I'm actually confronted with disease, I go back to my wheelhouse to say, "What's the physiology? What's the biology? What's the mechanisms of what's going on?" And I'll tell you as a doctor, something that was really bizarre in March 2020, when I watched the

whole world start to seemingly implode, emergencies were filled, ICUs were overloaded, bodies were building up, and the thing that was really odd was that this was... The Coronavirus was supposed to be a respiratory virus, you breathe it in, but there was a lot more going on than having the lungs get filled up with fluid and inflammation. That is a big problem by itself, but you started seeing all these other bizarre things.

People were having strokes. People were actually having smell problems. Their hearts were having issues. In addition to their lungs, I even saw kidney problems, and even the toe would turn beefy red. That is not your typical garden variety virus, not even a serious virus was doing this. So one of the things that I dove into, literally into the deep end of the pool, as a researcher, was to try to figure out what was going on, so I wound up...

This is what medical researchers were able to do. I wound up getting autopsy tissue from people who died of severe COVID. Most people were running away from that burning house, I ran into it to try to get the tissue, and then we were able to actually put some very sophisticated research techniques to look at what was actually happening in the body. When you and I have always talked about health, we're saying it's not just about your lifestyle and your diet, it's actually how your body responds, that's the physiology, the clues are in there. So what we found was really astounding. Not only did I look in the lung and find inflammation and infection, but I saw the Coronavirus invading the circulation, the blood vessels, the vascular cells making up blood vessels in the lung, and as the infection was hitting the blood vessels, you can imagine what could happen. Our blood vessels have to be slippery like an ice skating rink to allow all those blood cells to keep cruising through, delivering oxygen and nutrients to every cell in our body, and once those blood vessel cells are infected, the blood vessel itself starts to be damaged.

And what I have once described as a smooth ice skating rink... After the Zamboni cleans up that ice, you could throw a sweater on the ice and it'll go all the way across the rink. Once after a game... Hockey game going on, you can barely skate on the ice at all, it's like clumpy. And that's what was happening inside these lungs we saw in people who had acute severe COVID that you couldn't actually get blood to actually flow through this. It was getting caught up, it was clotting, and these little micro clots in the micro vessels were happening everywhere. And suddenly there was an explanation, at least one ray of light that we started finding, and that's what was happening in the brain, in the toe, in the heart, in other areas. So we published it in the New England Journal of Medicine to try to explain at least one layer of this onion peeled back, and I'll tell you, we are still peeling layers back from this onion.

**SHAWN STEVENSON:** Yeah, that's fascinating. So this is really... What we're thinking about is that this virus has a tropism towards the lung tissue, but it's not just the typical things you would think as far as a respiratory cough, that kind of thing, fluid, but this is translating over

into the capillaries. We're talking about our circulatory system is really what's causing all of these kind of downstream effects that... And even that in and of itself is, I think, really contrary to what people are thinking about. So how does the endothelium really play into this situation when we're talking about folks with pre-existing conditions, like diabetes, for example? Maybe this is starting to explain why diabetes and obesity makes you so susceptible.

**DR. WILLIAM LI:** Yeah, it's a great point. And again, and the scenario that, as a researcher, I'm still working on. So we knew very early on that if you were an older person, or obese, or if you had diabetes, they call it diabetes sometimes 'cause they go hand in hand often, why were these people more vulnerable? Now, they're not the only people that get COVID, but they were more vulnerable, especially at the beginning. And it turns out, if you look at... Correlate what we found in the blood vessels, the infection goes into the blood vessels, and even if you're super healthy, that will let you put you at risk, but we do know when you get older, and if you have diabetes, and if you are morbidly obese, your endothelium, the cells lining the blood vessels, are especially sensitive and not functioning really well. In fact, we call it... Endothelial is actually the name of the cell, the endothelium are the cells lining the blood vessels, but in diabetes, obesity and in aging, we tend to see endothelial dysfunction.

So you've heard of erectile dysfunction, right? So everybody understands that. Endothelial dysfunction is that your blood vessels can't get it up, and so basically, what happens now is that your blood vessels can't get good blood flow going, and now, if you add a virus infection on top of that, that destroys and damages that endothelium, you're in big trouble. So we think this is why the people with diabetes, even pre-diabetes, who are overweight or obese, and older are particularly vulnerable. It's not the only reason, but it's clearly one of the smoking guns.

**SHAWN STEVENSON:** This is incredible. And of course, this is why I'm so excited because not only do you understand some of the root causes, like really looking at what's happening with our biology, but also looking at how we could, in no better terms, what are the nutrients and foods involved to basically provide some Viagra for our endothelium. So we're going to get into that in a moment, but I really want to dive a little bit deeper here because I think, first and foremost, especially talking with someone like yourself, there's a lot of points of contact with viruses. Like you mentioned, we have more virus particles on planet Earth than literally anything else. We're just swimming in virus particles, but we're constantly interacting with them and even sampling them, and I think that... Especially when you see a lot of folks who don't have symptoms or maybe they don't even take the infection on, how is that happening? And I think there's... One of those inception points or interception points, should I say, kind of like Deion Sanders coming in and blocking the reception of the virus interacting with your cells, is our nose, for example. So can we talk a little bit about that? What do you think about that?

**DR. WILLIAM LI:** Yeah. Well, you know, so even though viruses are too small for us to see, we are literally... When we step outside of our house or even in our houses, we are actually walking through clouds of viruses, and viruses are also inside our body. And just like bacteria... We've got good bacteria, we got bad bacteria, there's viruses that are actually not harming us and probably helping us. In fact, the term microbiome, everybody thinks about good bacteria and bad bacteria, but there's also a microvirome that lives inside us as well. We basically don't understand it, but my guess is that we rely, we depend on viruses that can continuously interact with our bodies, trigger interactions that actually help, frankly, stimulate our health, is probably the way it goes, and there may be even interactions or reactions by the viruses that live in a harmless way inside us that might actually even benefit the body. So I think all of this, there's a black box ahead of us that this pandemic has now opened our eyes to. We need to look into it. We always think about the bad guys, but I tend to think about, "Well, what are the good guys doing too?" If you had more good guys than bad guys, you tend to have an orderly society.

**SHAWN STEVENSON:** And what makes bad guys go bad as well?

**DR. WILLIAM LI:** Exactly. Exactly.

**SHAWN STEVENSON:** There's usually a story behind it. So in talking about this point specifically, that it's like... I think a good analogy would be our bodies sampling a virus or bacteria from the environment, and it's happening with our points of contact, being our skin, our nose, but primarily, I think our respiratory organs, especially those front-facing parts, so our mouth and our nose. So is there a potential for, for example, having healthy sinuses or just healthy functioning of the nose, for example, playing a role in stopping an infection in the first place? Why are some people not getting infected?

**DR. WILLIAM LI:** Yeah, well, I think that this sampling and ballet... Maybe it's more of a tango that goes on at the interface between the air we breathe in and our body, is being monitored, moderated, emceed by our immune system. And even though everybody talks about the immune system, I think one of the things we've learned from this pandemic is that our immune system is much more complicated than we ever thought. So what I've been trying to explain to people is our immune system is like an army of super soldiers, and like soldiers, every group within these armed forces have their own weapons, their own skill set, their own fighting skill set, and they report to their own commanders. At the end of the day, the different branches, Army, Navy, Marines, and then the sub-groups, the SEALs, the rangers, they all, at the end of the day, are all fighting on the same team, and that's Team Me or Team You. A team body.

So what's happening is that when we actually have good sentries, these are the guards that are just sitting there waiting to... With binoculars, like our immune system, in our noses, in our



mouths... And by the way, I want to also point out 'cause I do research on the eye, when our eyes are open, we got a lot of sensing going on right by the skin, the conjunctiva. We tend to think about the eye as just receiving light, but it's also sensing the atmosphere around us, which is why when there's a lot of pollen, you rub your eyes. So there's all kinds of sensors, right face-forward, exactly what you were talking about, and we've got antibodies, and we've got immune cells, our innate immunity that's sitting right there at the front gate. This is the front gate of our defenses, our... One of the inter-mediators, the guard, the sentry that actually samples who's coming to the gate and decides if they like them or not. You know, "Let me see your passport." And so passport control, our TSA, Homeland Security of the body, actually is that very front gate.

Now, when we talk about the super soldiers, once you let... It's kind of like going through passport control, once you go through your passport, you keep on going. There's still more cops on the other side, there's still more security on the other side checking you out, making sure you're doing all the right things. And I think that's what's also happening in the body, is that most of the bad viruses and bacteria are held at bay; no entry, banned. Or we got to take you off to the side and tackle you, and that's basically how this front gate innate immune system works. Our antibodies, we've got IgA, Immunoglobulin A, which is one of the different types of antibodies that our body makes, they're non-specific. They are just sitting there, armed and ready to take down a virus or bacteria that might be coming up, and they just are looking for any kind of bad guys that need to stay out of the body.

**SHAWN STEVENSON:** I love that so much. So we want a good security system, of course, and I love that you pointed this... That's such a great analogy of having the different pieces of the armed forces, one of those being that front-facing portion, one of those being where today, we know the vast majority of our immune system is hanging out in our gut and our gastrointestinal tract, for example. That's another point of contact and work, and so definitely we're going to talk more about that. But I just want to reiterate this again because we're experiencing something incredibly challenging right now, but this isn't the last thing. We're continuously going to be exposed to novel viruses, novel strains of bacteria, and ultimately, of course, the place that we are really trying to get to today, and why I'm having Dr. Li on, and so excited about this, is getting our citizens more resilient for what is definitely imminent.

And so just to reiterate this point again, you mentioned we have this virome, this microvirome, the human virome, we have over 400 trillion viruses in and on our bodies right now, and some of them are pathogenic, they can make us sick, but also... Again, this got me back into the data early on, looking at the human genome itself, when that was mapped out and all of the surprises that came from that, we just thought we would have so many different genes, especially compared to flies and things like that, but we come to find out we've got 20,000-ish genes that we're all sharing, but we have this dramatically incredible array of epigenetic

influences that can change what our genes do so much, making us so different in our appearance, making us so different in our performance, in our health. And one of those big pieces I saw in the Human Genome Project, eight percent of the human genome itself is endogenous retroviruses.

So when Dr. Li is stating the fact that this is a part of us, that in some ways viruses help us, but in other ways, we do have these experiences of having new things that we have to adapt to, and we need to get ourselves to a better place for us to adapt. So with this said, I want to talk about this intersection point of the gut and our food, and how that might play a part in our susceptibility. And specifically, you talk about something in your incredible book, New York Times best seller, Eat to Beat Disease, the body's defense systems. So can you talk about what that is, the body's defense systems, the body's health defense systems, and how activating these systems can really help in situations like this, and everything else in our lives that we're challenged with?

**DR. WILLIAM LI:** Yeah, you're so right, Shawn. This isn't the first mass illness that we have to deal with. There's others coming. But even before we were even talking about Coronaviruses, we were talking about cancer, heart disease, diabetes, arthritis, dementia and Alzheimer's, a number of autoimmune diseases, all of these other things. Listen, I went to medical school, I spent four years memorizing thick textbooks of every single disease that has been discovered in over 4000 years of Western medicine. You know, the one thing they never taught us actually how to do, that actually has formed the body of my work is that... So as a doctor, you're trained to ask, "Okay, what causes the disease? What's going on with the disease?" But I wound up actually building my career asking the question, "Why don't we get sick more often? Why don't we get sick more often?" So that's the way of answering the question, "What is health?" Health is what? If you ask most people, health is the absence of disease. I'm not sick. "How do you know you're healthy?" "Cause I'm not sick." Well, okay, so then what is health? Not being sick? That's not a very satisfactory answer. And if you're really operationalizing it, you can't operationalize a negative. You can't do something about the absence of something else. Really it kind of twists your mind when you think about that.

So I started asking, "Well, what is health?" Well, health, if it's not the absence, or not only the absence of disease, what is it the result of? Our health is what my research has shown, is a result of our bodies' hard-wired health defense systems that we're born with, they formed in the womb. When we were developing in the uterus, in our mom's uterus, we were forming these health defense systems that stay with us from the time we're born to our very last breath. Even when you're dying, your health defenses are still trying to resist disease. So now, turn it right back to that question, how come we don't get sick more often? It leads your mind to think something else, like, "Yeah, that's a really good question." Let me throw a couple of examples of why that question matters. So we know cigarette smoke causes lung cancer, and

how many of us has breathed cigarette smoke coming out of a bar, or a restaurant, or a bus stop, and that cigarette smoke went into our lungs, and how come we didn't develop lung cancer ourselves? It's not like, "Oh, yeah, the smoker is going to develop it, but how come we didn't? We breathed it."

When you're actually out at the beach, we know that bright sunshine, sunlight, ultraviolet radiation could cause skin cancer. So almost all of us have gone out and laid out in the sun, our skin darkens, our pigment darkens, we get a tan. Now, how come we didn't get skin cancer? Yeah, sure, people that burn do get skin cancer, that's an explanation, but how come the rest of us didn't get that skin cancer? That wound up becoming the body of my work. And one of the things that I wrote about in my book, Eat to Beat Disease, is, and this is the subtitle of the book, the new science of how your body defends itself... And how do we do this? We do this with five health defense systems. There's probably more than five, but I'll tell you, five is what keeps us alive. And it's angiogenesis, our circulation keeps us alive. Without a good healthy circulation, we die because our blood vessel network, we talked about endothelial cells, actually bring oxygen and nutrients to every single cell and organ of our body, so we got to keep that in perfect shape, and foods can boost that.

Number two, our stem cells. Now, you know, when we were only an egg plus sperm and fertilized into an ovum that started to develop into this early cluster of living cells, we were all made out of stem cells. And as we got turned into a human being that looked like an arm and a leg, a couple of eyes, and we were born, we kept some of those stem cells around. Where are they? They're in our skin, they're in our bone marrow, they're even in our hearts and in our brains, we now figured out. And the fact is that when we're adults, those stem cells defend us against disease because they repair damaged organs. We don't even know the damage that goes on in our organs, and these invisibly come out and behind... While we're sleeping, they're coming out, and they're actually repairing our damaged goods. Our microbiome, which we started talking about already, defends our health, our DNA. And everybody thinks about DNA as our genetic code. It's not like it's a Rosetta Stone and you just kind of read through the code. No man, our DNA is active, it's dynamic, it's changing. You talked about the viral integration in the DNA. Our DNA it's about as alive as you can think about it, like an octopus in an aquarium, it's doing all kinds of things.

And one of the things it's doing, is dividing, replacing itself, but our DNA makes 10,000 mistakes every single day in the typical human body, and each of those mistakes can lead to a cancer. So how come we don't develop cancer all the time? 'Cause our DNA fixes these mistakes. It's got its own spell check, it can actually look for the typos and fix them automatically, it's got its own... When there's big damage, like not just single letters that are misspelled, not just misspellings, but big chunks that are damaged, think about that. The last time you went out and got really burned in your skin, and I'm not talking about sunburn, now,

I'm talking about like a candle burn, an oil burn, something in the kitchen maybe, now think of all the mutations that occur with that injury. Well, guess what?

It fixes. It knows how to repair those potholes, it can fix it. And as we age, our DNA naturally is at risk for more damaging 'cause the telomeres that protect the caps of our DNA, burn down like the candle itself. I call it a life fuse. When that fuse burns down, you're right at the powder keg, and bottom line is that we can actually slowdown that burning with food and fix the DNA with food. And then back to home base, what we just talked about is our immune system. It turns out that our immune system is our final defense system that I wrote about; angiogenesis, stem cells, microbiome, DNA and immunity. These are five legs of the stool of our health. We sit on this, this is what props us up every single day that keeps us from getting sick more often.

**SHAWN STEVENSON:** Powerful. This is so good. So powerful. So I got to ask you about a couple of things before we dive into what are some of the things that we can help to do to support our health defense systems. I want to ask you about vascular endothelial growth factor, and how does this play into this equation. And we're going to do that right after this quick break, so sit tight we'll be right back.

One of the biggest issues facing our world today is the health of our immune system, and our immune system has many different dynamic parts. We have an innate immune system, and we also have an adaptive immune system. Our adaptive immune system has an intelligence that helps us to adapt to any pathogen that we are faced with, and our nutrition is a big part of this equation because our immune cells are made from the foods and nutrients that we consume. And one of the most powerful nutritive sources proven to help fortify our immune system is highlighted in the study published in "Mediators Of Inflammation." They discovered that the polysaccharides in Reishi medicinal mushroom were found to enhance the proliferation of T cells and B cells of our adaptive immune system.

These were found to have the capacity to be immunomodulators, helping to up-level the function and intelligence of our immune system, or if our immune system is overactive, to help to reduce and bring down that immune activity. Again, this is called immunomodulation. And also, inflammation of many different viruses that we might be exposed to is one of the big issues, and one of the viruses that we're facing right now has a tropism or target towards inflammation of our lungs. In another study published in Patents on Inflammation and Drug Discovery revealed that, the renowned medicinal mushroom, Reishi, has potent anti-inflammatory and anti-allergic action, plus again, it possesses immuno-modulating capabilities. Super remarkable. It's one of the things that's been utilized for centuries that we have access to today, but we want to make sure that it is dual extracted, meaning that it's a hot water extract and alcohol extract, so we're getting all of these benefits that are noted in studies like these.

And the place that I get my Reishi from, that does it the right way, organic high quality Reishi without any nefarious substances coming along from these random companies that are putting these formulas together, is from Four Sigmatic. Go to [foursigmatic.com/model](https://foursigmatic.com/model). That's F-O-U-R-S-I-G-M-A-T-I-C.com/model, and you're going to get 10-15% off all of the medicinal mushrooms that they carry.

And by the way, Reishi is great for your sleep as well. This is another peer-reviewed study published in Pharmacology, Biochemistry and Behavior, found that the renowned medicinal mushroom, Reishi, was able to significantly decrease sleep latency, meaning you fall asleep faster and increase your overall sleep time and also increase your sleep efficiency. So much good stuff. And this is one of the things about real foods that have a storied history, is that they're not just good for one thing, they're good for many things. That's why I'm a big fan of Reishi, and I have a cup many nights of the week before bed, about 30-45 minutes before bed, definitely helps with improving sleep quality, but also beneficial for our immune system. Maybe have it with a little bit of whole, natural source, high-quality fats, like MCT oil, coconut oil, maybe a little bit of ghee, whatever it is that you're into, to cut the bitterness, maybe a little bit, a couple of little drops of some stevia, some English toffee stevia, chocolate stevia, just to make it nice and palatable, or some folks have their Reishi tea all by itself. Either way, it's one of the most effective things right now when immune health is a top priority. Check it out, [foursigmatic.com/model](https://foursigmatic.com/model). And now, back to the show.

Alright, we're back. And we're talking with New York Times best-selling author, an incredible researcher, Dr. William Li. And before the break, I asked you about vascular endothelial growth factor or AKA VEGF. This might be a new term for a lot of folks, but when talking about the endothelial component of this, it just really got my wheels turning in how this might be playing a role here. So can you talk a little bit about that?

**DR. WILLIAM LI:** Yeah, so first of all, VEGF sounds like a superpower, right? Like a Marvel Universe, right? And actually, it is one of the body's natural super healing protein. So we got a lot of proteins in our body, and we haven't researched them all, but we know some of them are super important, like insulin is really important, thyroid hormones, these are all proteins. VEGF, vascular endothelial growth factor, is one of the more recent discoveries. Now, I got to confess something, which is, I was working in the lab that first discovered VEGF and this was... Man, so many years ago. I don't even want to talk about it.

But we were hunting for this invisible factor that we knew if we had blood vessels growing in a plastic dish, if there was a drop of this substance X that was in there, that's how we thought about it, we knew that the moment that drop hit it, and it would be like... Imagine a video of this, like a drop coming down, hitting the water, causing that ripple effect, and once that drop

got in there, blood vessels would be activated and a single blood vessel would start to branch out, sprout, you'd get a whole spider web that would come out of a single drop of this VEGF. It took time to figure it out, but here's what it is. It is the body's natural blood vessel growing factor. Vascular endothelium are the cells lining blood vessels. This is the growth factor that causes them... It tells them, "Hey, wake up, dudes. Time to go to work." It is like that alarm in the morning, that's what VEGF is, and it gives very specific instructions.

It doesn't just wake them up, it actually tells them exactly what to do, and they sprout, they divide, they extend, they form arcades, beautiful arcades, and they start from thick blood vessels down to the skinny ones. The thick ones... The biggest blood vessel in our body is called the aorta. It's the big one that pumps blood. We've got two big ones in our neck, carotid arteries, but the amazing ones are the ones that are harder to see. They're smaller than a human hair, and that we have 19 billion of those things, and those are actually what bleeds when we cut ourselves, even a paper cut. You're not cutting a big artery, you're not jetting blood out, but that blood that comes out when you get a paper cut, that's 'cause you cut through some of those 19 billion capillaries, that's actually what keeps us alive. So VEGF is a great thing, until it's a bad thing. And it can be a bad thing in some diseases like cancer, those mutations that our body can't repair enough is, which is why we want to eat foods that can help our body protect the good blood vessels and not the bad ones.

When cancers actually start without a blood supply because of mutations, they can't grow bigger than the head of a ballpoint pen. Let me see if I can see a ballpoint pen around here, and actually show you just how big it is. Well, this isn't really a ballpoint pen, but you can kind of see... This is a pen. That little tip there, that little nub, that's it. That's how big a cancer can get without oxygen. But a few of these cancer cells can figure out how to hijack our vascular system and selfishly grow blood vessels to it. It's like a bank robber going in there to bust out some cash. Well, how does a cancer do this? It copy pastes VEGF. It learns how to actually make the healing factor, and instead of healing, it drops some of that good stuff to wake up the vascular endothelial cells, the blood vessels, and the vessels are tricked into feeding the cancer instead. And the moment that blood vessels touch that little nub that couldn't grow without a blood supply... We've done research to show once angiogenesis or blood vessels touch a tumor, a tiny little tumor can grow 16,000 times in size in two weeks. So this is the trigger for tumor growth. Without angiogenesis, without VEGF, tumors are essentially harmless.

**SHAWN STEVENSON:** Oh, my goodness, this is fascinating. The body is so amazing, and there's so many different things going on. So not only is your body repairing, spell-checking DNA mistakes and doing processes to prevent angiogenesis to cancer cells, for example, and defending your body against novel viruses, and the list goes on and on, it's all these multifaceted roles. But in this role specifically, I would imagine that somebody with a severe

COVID infection, for example, that their VEGF would probably... Shooting up pretty high, it would be another indicator that something's going on. What do you think about that?

**DR. WILLIAM LI:** Well, that's a great question. I'm not aware yet that we've actually studied circulating levels of VEGF in people with COVID. In fact, you've actually sparked a new research idea because we should be doing this, Shawn. We will document it on your podcast, this is where this idea began, and we'll have to acknowledge it if it turns out into anything positive out of the research study. But I will tell you, we're still grappling with acute COVID infection, obviously. We're trying to get vaccinated, so that we can prevent getting the COVID, but the other problem that's occurring is long COVID or people who have gotten the infection and they seem like they've gotten... Their lungs have gotten better, but then months later, they wind up having all these same bizarre things all over again; head brain fog, and smelling problems, and racing heart, all kinds of muscle, skeletal weaknesses.

And we know that there's chronic inflammation, we know there's vascular damage, I've been studying that, and I'm wondering maybe a biomarker for the damage actually would be high levels of circulating VEGF because inflammation, not only cancer, but inflammation also triggers VEGF to come out because usually... And you know, thinking about it, we started talking about VEGF as a good guy. It is. You need it to build all of the muscles, you need it to build your heart, you need it to keep your circulations good, but in the case of disease, the body responds and sometimes gets tricked and inflammation can cause a lot of VEGFs to go out, which can also cause chaos. Good idea.

**SHAWN STEVENSON:** Yeah, yeah. Thank you, yes. You know what, I just thought of something else because in speaking about folks who come down with a severe case of this, and then they recover, and they're trying to battle back, I know there's so many different things that people just aren't aware of that can assist in that. Because again, we're talking about healing vessels, blood vessels, we're talking about healing capillaries. This is where the real mess is taking place and the body is trying to fix. What do you think about something like hyperbaric oxygen, for example, to aid in that?

**DR. WILLIAM LI:** You know, I have been thinking about this because I'm working with multiple groups now trying to figure out how to help people who have survived COVID, but they're really struggling. And in some of the work I've done, we've been able to document literally people who are six, nine months out of COVID, they're missing blood vessels, sometimes up to 50% or even 80% of their micro-circulation, those tiny little blood vessels in their lungs are missing, probably damaged by the virus itself, and how do you grow them back?

Well, one of the things that I've been thinking about is we need to heal up that injury caused by the virus, by COVID, and one of the things that we might be able to tear a page from the

playbook of is wound healing. So hyperbaric oxygen is one of the tools that we use to be able to help people with chronic wounds that are not healing fast enough, and they're at risk, to really prompt them to stimulate new blood vessel growth. And guess what hyperbaric does? Hyperbaric oxygen stimulates VEGF. It stimulates the super hero growth factor, the protein that grows new blood vessels. So I'm going to score two for you because that's another way that might correlate with that growth factor as a biomarker in people who are actually trying to recover from long COVID, if we actually get hyperbaric on them.

**SHAWN STEVENSON:** When you put me in the study references, make sure to put "That handsome guy from The Model Health, Shawn Stevenson."

**DR. WILLIAM LI:** Listen, I think you should be a co-author on it. I'll make you read the manuscript.

**SHAWN STEVENSON:** Absolutely, absolutely. Now, I think it's a good point for us to dive in and share some of the things that you shared with me that was just so eye-opening and refreshing, but proactively, what can we do? Because for me, and you know this about me as well, and everybody listening, one of my fundamental principles, one of the big tenets that I'm trying to integrate into our culture is the fact that our bodies are literally made from the food that we eat, and also the ability to run processes, it's all dependent upon food. When we're talking about blood vessels, they're made from food. They're made from your food, the things you're consuming with water, the oxygen you're breathing, it's creating the cells themselves. This stuff matters so much, and it hasn't been a big part of the conversation. And we can just add some things in here, some health defense systems to be more on the offense. So you shared some things with me as far as food that was just so powerful, and let's talk about some of those right now. What are some of the foods that we can be targeting, and eating, and integrating to really to help us to build up some more resistance and resilience during this time right now?

**DR. WILLIAM LI:** Well, listen, I think that if our body's health defenses are strong, that old adage of the best offense is a strong defense, is really the lead that we should be all thinking about, every single one of us, whether you get the vaccine or not, whether you've had COVID or not, whether you're just going about your way, it doesn't matter your belief system, you got to believe in yourself. Regardless of your philosophy, your body can never lie to you, which means that when you're actually... Your body is not... When you don't believe in your body... By the way, ultimately, the biggest religion that we can have, all of us, is really believing in ourselves and what we're actually made out of. So that core, our cellular integrity, and our ability to be able to defend it is, in fact, what I think you were talking about. So what are some of the things that we can do, pandemic or not, but especially during a pandemic, that we can actually fortify our defenses?



I'm going to come to the immune system at the very end, but because we were just talking about some of the damages that can occur when you get COVID in the lung and damaging blood vessels, or even in long COVID... By the way, people who have survived COVID, but having these damages, they call themselves long haulers, like truckers that are driving across the country. Man, after 48 hours, still driving, still having this problem with COVID, that's what they call themselves. Long COVID is what the British were calling this 'cause English people like to put nice titles on things as much as possible, but the NIH recently created an official scientific and medical title for it. They call it P-A-S-C or PASC, and that stands for Post-Acute, meaning after you've already had, Sequelae, meaning consequences of, what you had to deal with afterwards, COVID-19. So Post-Acute Sequelae of COVID, PASC, is basically what some of these people are having, and because I told you we just had vascular damage, let's start with what we can do to protect our blood vessels.

Good circulation, probably more resistant to virus infection, but definitely if it's been damaged, you want to be able to heal that baby up. So one of the things that can actually help us have a better vascular health defense system. We know that fruits and vegetables are actually healthy for us. And by the way, I don't know if you saw this, recently, there was a major study that came out, looked at two million people, and showed exactly how many servings of fruits and vegetables you should have for optimal health. It turns out to be two servings of fruits per day and three servings of vegetables a day, is actually what they, just studied real world people and figured out that actually seems to optimize health. So what are some things about fruits? 'Cause I actually really like fruits. It turns out that there is a natural substance called ursolic acid, and ursolic acid tends to be found in fruit peel, fruit skin. So in the fall, when I actually eat fruit, I love to eat the skin, it's got a lot of fiber in it, extra micronutrients. And by the way, this would be the kind of the situation where I would tell people, "If you're going to have the fruit skin, you'd probably want to have organic or organic-like grown because you don't want to have that pesticides on it. You can't scrub that off very easily."

But ursolic acid actually stimulates, guess what? VEGF in your body to help grow blood vessels. So this is like a whole story we're telling in this podcast. Every point actually connects to another point, and that's really what health is all about. Fruit skins. Now listen, you want to eat some fruit skin. You can eat a whole apple and you can get a fair amount of fruit skin, but here's a... I'll give your viewers and listeners a super simple tip of how to eat a lot of fruit skin. Create a trail mix with good healthy nuts, but have dried fruits in it. Dried cherries, dried cranberries, dried blueberries, dried apricots, that's a way of shrinking down a pretty big mass of fruit into tiny little things you can just pop. You can throw that down the hatch, and get a lot of that fruit skin. So that would be one example of how we can do it. Barley is another example of a food that actually has this bioactive in it that actually stimulates angiogenesis, and mushrooms also have Beta-D-glucan that can also help groom our vascular endothelium, those cells around our blood vessels that keep it healthy.

**SHAWN STEVENSON:** Oh, that's perfect. So this is addressing one particular area, and it's incredibly insightful. And my son, Jorden, he's a personal trainer now, he's creating his own programs, helping people, working with kids. He's amazing. One of the things that he's always doing on social media is showing people the unique ways that you can eat fruit, so he's eating the whole kiwi, which you would think just to peel off that kind of fuzzy skin, but this is another thing that you could take advantage of.

**DR. WILLIAM LI:** Yeah, that's right. There's all kinds of little tips. One of the things that I love about food... So I always tell people, I'm not one of these doctors that rejects modern medicine, and I somehow got on the veggie craze, so I will stand up on a podium and wave a kale leaf. I'm not one of those guys. Actually, I helped to develop biotech drugs, so I'm a big believer in the right medicine for the right person, at the right time. That's important. But the missing tool in the tool box is our diet and our food. When it comes to food, I tell people, I actually love food. I wouldn't say I love eating, I'm not... I don't love stuffing my face, but I love food. I love food, Shawn, because it tells us something. Everybody's got a connection to food. It's intimate. Food tells us something about our upbringing, how we grew up, what we remember, our earliest memories with our families, our moms, our kitchens that we grew up in, the smells when we were coming back from school, it tells us something about our families, our communities, our culture. So everybody has this very complicated, very personal, intimate connection with food, and that's the great thing about it, is that you can always find, explore something new about how to eat foods.

And if you're someone who's like me, curious about cultures, you can go out and explore new cultures. And in today's digital world, you can pick up a food that you don't know much about, like I'll give you one. Bitter melon. The heck is a bitter melon? Well, it's a South East Asian... It's kind of like a cucumber, it's a little hairy, it's got grooves in it, and if you were to eat it and taste it, and you don't know how to prepare it, man, is that thing bitter. But if you want to actually skin it, seed it, chop it up, put it in some vegetable stock, slowly simmer it to soften up the melon, and then cook it with some fish or some chicken, and that animal protein complements the bitterness, and cooking it, mellows the whole thing up. Guess what that turns out to do? It actually stimulates your stem cells, protects your DNA, and boosts your immunity at the same time. And guess what? Bitter melon has always been a traditional medicinal food in South East Asia. Man, I love that kind of stuff. And today, you can go on YouTube and search bitter melon recipe, and you can watch somebody cook it for you.

**SHAWN STEVENSON:** So good, yeah. I haven't thought about bitter melon in quite some time. That's one of those foods that also has some benefit with insulin resistance, for example.

**DR. WILLIAM LI:** Exactly.

**SHAWN STEVENSON:** That's the thing too is, it's typically not just one thing that a food is good for because your body is not compartmentalized. If it's good for one thing, it's probably good for a lot of other things. You said something to me the other day when we were talking about broccoli sprouts that really tripped me out. Can you share that?

**DR. WILLIAM LI:** Yeah. So another defense system that we want to boost these times is our immune system. So one of the first things I did at the beginning of the pandemic was go back to my playbook to say, "Okay, so what can actually amplify, amp up, that front line of defense?" We're talking about those sentries, that passport control that can prevent viruses from coming in. Well, here's what I did. I figured out, well, we didn't have a vaccine at the time, but I wanted to know what actually can naturally, not vaccinate yourself, but to up those... Ramp up those natural defenses. And it turns out that sulforaphanes, which are a class of chemical that tastes a little sulfury... By the way, that's what kale, broccoli, cauliflower, they've got a lot of that sulfury kind of, that little taste to it. Actually, it's kind of part of the palate, let's say, the palate stimulator... That broccoli, actually adult broccoli, the tree tops and the trunks, they have a lot of it. And I thought, that's really cool 'cause I had done research looking at the biological properties of broccoli, and we tested the tree tops versus the stems, and we found the tree tops are very active, we found that there was twice as much activity in the stem.

So I thought, "Okay, well, maybe I should be eating some broccoli stem," but then I started to take a look further, and I was blown away by something, Shawn, which is that as much as broccoli stems have these sulforaphanes, those are grown up broccolis, that baby broccolis, broccoli sprouts, we're talking about three to four-day old broccoli... You can see them in the markets now, like just a regular supermarket. If you go to the sprout section, I remember they used to have just only bean sprouts, now they got all kinds of sprouts; alfalfa, broccoli. The broccoli sprouts are just growing up, they're three to four days old, you buy them up and you got to kind of peel them apart. It's like turf, like astroturf a little bit, peel them apart, wash them up and you eat them. They don't taste like broccoli, actually they taste nutty, which I love. I love a little kind of nutty flavor. It's unexpected, honestly. And you can sprinkle it on almost any food that you're actually preparing, and it makes it taste a little bit better. But here's the crazy thing, the sulforaphanes that are in adult broccoli, the baby ones have 100 times the concentration. It's almost like the broccoli was born with all the sulforaphanes it's ever going to have, and then the tiny little sprout, and as it grows up and extends in terms of this gigantic thing... Think jolly green giant, it's big...

It distributes all of the broccoli, the sulforaphanes that started in the entire body of the broccoli. So broccoli sprouts have a lot of sulforaphanes, and then here's really the punch line. Turns out, research has been done showing that if you drink a shake made out of broccoli sprouts, a couple of shakes actually a day, and just a cup of broccoli sprouts, put it into a shake,

and then you get actually a flu vaccine... So this isn't COVID, this is just a regular old garden variety flu vaccine, which everybody should get, and you also drink the broccoli sprout shake, the shake... The broccoli sprouts will amp up your body's response to a vaccine 22 times. So you wind up going kind of like ordinary vaccine responder to a super soldier yourself. You just really amp your defenses. And when they actually studied it in these people, these are young people, healthy people, their T cells and natural killer cells, they were amped up beyond... More defense cells, immune cells, and more killing power within each of those cells against the virus.

And then, when they actually swabbed to look for viruses... Everybody was like, "Oh, my God, not the COVID swab in your nose," but when you do research, you actually do swabs to just look for influenza, just a regular flu virus. We don't have to go deep, just go even in a regular nose... People who were on a placebo drink, so this is a placebo-controlled study, still had flu virus in their nose, but in the broccoli drinkers, shake drinkers who got the vaccine, zero, zed. And so this is like the proof of concepts of just how powerful Mother Nature is, and our body can respond to it in equally powerful ways.

**SHAWN STEVENSON:** Incredible, incredible. Alright, I know we're getting tight on time here, but I would love if you could share with these health defense systems... Again, there's five that we need to target, and there's a lot more that you can learn from Dr. Li, and we'll talk about that in a moment, but if there's maybe one or two more foods that we need to target right now to help with our body's defense systems?

**DR. WILLIAM LI:** Yeah. Well, look, let's go through five, okay. So angiogenesis. We talked about fruit peel to help the endothelial cells stay healthy. Immune system. We talked about broccoli sprouts. Let's talk about regeneration stem cells. It turns out that cacao, dark chocolate, the stuff, not the sweet stuff, the stuff that's actually kind of slightly bitter, it comes from Mother Nature, it comes from a pod, actually can double the number of stem cells in your blood stream if you were to have the equivalent of dark chocolate, like 80% or higher. So it's pretty bitter. I actually like it. And you have it as hot chocolate twice a day, research has shown you can take people with cardiovascular disease, impaired blood flow, and you can drink that and it'll mobilize your stem cells. You can actually measure with a blood test, the kind of blood test you go to your doctor's office, instead of looking for the usual suspects in a blood test you get, you look for stem cells, you can double the number of stem cells in your body by just drinking dark cocoa, 80% or higher, for 30 days. And then you double the body's ability to healthier blood vessels because they've been repaired, regenerated. That's stem cells.

Now that did that for your blood vessels, think about what it did do for your brain, think about what it did do for your heart, think about what it did to your kidney, your liver, and by the way, your skin and your hair, and all that other kind of stuff, important. So that's the third defense system. Let's talk about microbiome. Something that people might not have expected

because... Alright, look, if I were to meet expectations, what am I going to say about the microbiome? Have some fermented foods, go ahead and have some yogurt, sauerkraut, kimchi, all that kind of stuff, absolutely do that, but what about kiwi? What if I told you... 'Cause you talked about kiwi earlier, it made me think about it. Now, what if I told you that having kiwi is a great source of vitamin C, which is good for your immunity and lowering inflammation, but it's got a lot of fiber in it, and a surprising amount of fiber in just the green stuff. If you eat the skin, it's got a ton of fiber, but just the green stuff actually has a lot of fiber and you can taste it when you're eating a kiwi, if you actually chew it, you can taste the fiber, although it goes down really easily.

Turns out eating just one kiwi a day will quickly start to change the number of healthy gut bacteria in your body, and it only takes like 24 hours to cause that benefit. So this is a quick, I wouldn't call it a fix, but it is a quick way of getting your gut to actually repair itself, and so microbiome, kiwi. Now let's go for DNA repair 'cause I love the idea of DNA, fixing your DNA, your own gene therapy. Here's something that most people will take them by surprise. There's a lot of things, like antioxidants, do all that kind of stuff. What if I told you that sunflower seeds can actually slow down the degradation of your telomeres. So these are the life-fuse, that thing that protects your DNA, that burns down slowly as we get older. You want to slow that burn down. Who wants to get older? Well, we do all want to get... We want to age great, and we want to make sure as we're aging, our DNA is not burning down too fast. What are the things that happen as we age and our DNA gets shorter?

Our hair starts to fall out, starts to turn grey, our skin gets wrinkly, our heart function gets less vibrant and powerful as before, so we tend to towards heart failure, our eyesight goes down, our retina, the neural retina which receives light and transmit it to our brain, starts to fade. What's the common denominator of aging? In all of those cell types, our telomeres are getting shorter, and shorter, and shorter, and shorter. Remember that powder keg I was telling you about? When you get down to the powder keg, man, game over. You can't run away from that blast far enough. So basically what you want to do is slow that fuse down. It turns out that sunflower seeds can actually naturally slow down telomere degradation. And so that's another one. So five health defense systems. I'm trying to see if I can remember this quickly. Angiogenesis, a dried fruit. Regeneration stem cells, dark chocolate. Microbiome, kiwi. DNA, sunflower seeds. Immunity, broccoli sprouts. I write about more than 200 different foods, but I was trying to bring up some stuff that most people might not have thought about for this podcast.

**SHAWN STEVENSON:** So many good ones, so many good ones, and also throwing in here some insights about bitter melon and VEGF throughout the episode. So many incredible things, and Dr. Li actually has a deep dive into all of these different health defense systems that people can get access to. And number one, this is something coming from a researcher, scientist like

Dr. Li. This is something to share with our friends and family, something to share with our parents right now, in particular, our grandparents who, again, when we talk about this level of susceptibility, really, what are the things that we can do to address all five of those health defense systems? And you have an incredible new online course that you put together. Can you let everybody know about that and also how they can get access to it?

**DR. WILLIAM LI:** Yeah. Listen, when I wrote my book Eat to Beat Disease, I never set out to create an online course, but what happened was I got hundreds and then thousands, and then tens of thousands of people contacting me, asking me for more information. And my book is pretty thick, Eat to Beat Disease, but you can only put so much into a book. And so what I decided that I needed to be able to do is to take the information, the research I did, and I'm still doing that, went into writing the book and figure out a way to share that in a scalable way. And as of last week, I was counting on a typical week, how many places people contact me from. Last week, I had people from 15 different countries coming at me asking me for lots of questions about food and health. And so I decided to create an online course... By the way, so I don't just write books, and do online courses, and do podcasts, I'm a researcher, I'm a physician. I'm trying to do pandemic research and COVID research. I'm doing this because I really felt like it was... I need to be able to share this information out. So I created an Eat to Beat Disease online course. It's a four-week program. It's got weekly videos. It's got a workbook I developed that really engage people with tons of lists of foods.

One of the things that I really wanted, I believe in, seriously, is in actually to create live time with me. Office hours, I call it. 'Cause I used to teach in colleges and high schools and in medical schools, so I have weekly office hours with me where people can actually interact and ask me questions. And I have something called QANS, Q-A-N-S and it's exactly what it sounds like, questions and answers, where people can ask me questions, I answer them. I'm so grateful, Shawn, that you and I share this common passion about getting information out that most people might not know, but everybody can use. So I wanted to offer your Model Health community a special offer. You can find my course through my website, drwilliamli.com, D-Rwilliamli, L-I.com, and enter a coupon code called MODELHEALTH, all in capitals, MODELHEALTH, one word, all caps at check out and a special offer for your community. But that's actually how you find me, at drwilliamli.com MODELHEALTH, I'm on Instagram. And the key for me is really sharing this information. I am so grateful that we can actually have offline conversations, which then sparks this idea for us to peel off some of the tips of the iceberg that we have to share with your group. So thank you for that.

**SHAWN STEVENSON:** Alright, it's my pleasure. This has been amazing. Dr. Li, I always love talking with you. Can't wait to do so much more in the future. We've talked about getting into some education programs to really help to shift the way that our medical system is even being built and educated, so that we can really focus on getting our citizens healthier, not just doing

things to Band-Aid treat symptoms, but to really work on overall health. And thank you so much. Earlier, you're asking that question, "What is health?" And coming from that place, and I haven't shared this with you before, but that's one of the things that really sparked this aspect of my career, and in this way is asking, "What can I do to become healthy?" When I was battling with a so called incurable condition, I was dealing with this arthritic condition when I was just a kid, and asking... Because I've got this diagnosis, but what can I do to get healthy? What does that look like? And it just really shifts our direction and our focus. So I appreciate you so much for all the good work that you're doing. Again, can you let everybody know where they can check you out online? Give that website name again, and also that code.

**DR. WILLIAM LI:** So you can come find me and learn more about me, and sign up, again, all kinds of free information that I regularly give out on a weekly basis at my website, drwilliamli, DRwilliamli.com, and sign up for my Eat to Beat Disease online course. It's a four-week course, I run it throughout the year and enter for a special, really discount, I'm giving just to the Model Health Community. Enter in the coupon code, MODELHEALTH, one word, all in caps, and I hope to see you in the course 'cause then you'll actually meet me live.

**SHAWN STEVENSON:** Awesome. Dr. Li again, I appreciate you so much for coming on and hanging out with us.

**DR. WILLIAM LI:** Thank you, Shawn. My pleasure.

**SHAWN STEVENSON:** Dr. William Li, everybody. Thank you so much for tuning in to the show today, I hope you got a lot of value out of this. There are so many powerful insights to take away from this episode and things that we can do proactively to really get ourselves healthier, our family's healthier, our communities healthier and more resilient, help to get our immune systems to a place where they're more capable of handling the intrusions that we're going to be faced with throughout the rest of our lives. We've got to do this now.

Use this time as an opportunity to really learn a lesson. It's not going to be just sitting back on our hands waiting for the next new drug to come along, and then waiting for the next new drug after that to come along, we need to do something proactively, which again, is just to address these... I love that he packages these in these five powerful health defense systems. And one of the things that he mentioned in talking about the diversity, when you look at different cultures, having the opportunity myself to work at a university for many years, I would ask the people coming in to the University, coming into the gym, about their culture, specifically what kind of cultured foods that they have... And listen to the name cultured foods and cultures because...

And then I would hear like, okay, this culture, they have some fermented bread, that's a staple. This culture has this fermented Kefir-type beverages, culture has this fermented vegetable, but every culture, and talking with people from all over the world, historically has had some form of fermented food. And the question today is, are we having more fermented foods or are we're having more SpaghettiOs? Because I know for myself personally, me coming up until the age of about 22, SpaghettiOs were my jam. I'd get the family can and that's a meal. Fermented foods, never. Maybe a random pickle. Better get the hot pickle from the corner store that's in this bag of fluid that has all these different chemicals in there, not the same thing as a traditionally fermented pickle, which you could really pickle just about anything. So the question is, are we doing the things that our genes expect us to do, that our DNA has been associating throughout generations, or are we really not just experiencing novel viruses, but novel foods that are abnormal in creating a hyper-susceptibility? And you already know the answer to that. So these are shifts towards what's real, towards resilience, towards making us more robust and healthy human beings, and really tapping in to being the best versions of what we can be.

So again, thank you so much for tuning into the show today. I hope you got a lot of value out of this, and if you did, please share it out with your friends and family on social media. Tag me, I'm @shawnmodel on Instagram, and on Twitter, and at the Model Health Show, on Facebook. And listen, you should watch the video of this episode so you can actually see the images that Dr. Li collected in talking about what's happening with the capillaries with COVID, and seeing what healthy lung tissue looks like and the capillaries involved in that. It's just really eye-opening to see that. And by the way, you should just be subscribed to the YouTube channel anyways, The Model Health Show on YouTube. Go and subscribe right now. We're doing exclusive content there every single week that you don't want to miss out on.

Alright, I appreciate you so much. We've got some game-changing episodes coming your way very soon. Take care, have an amazing day and I'll talk to you soon.

And for more after the show, make sure to head over to [themodelhealthshow.com](http://themodelhealthshow.com). That's where you can find all of the show notes, you could find transcriptions, videos for each episode, and if you got a comment, you can leave me a comment there as well. And please, make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome, and I appreciate that so much. And take care. I promise to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.