Activate Your Stem Cells Through Diet: The Power of Food for Regeneration with Dr. William Li Transcript

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Podcast Intro and Guest Welcome

Living to 100 seem like a dream. Like, oh man, it'll be great to live to 100. Well, my great uncle lived to 104. Completely intact. Independent. You know, I went to a 100 birthday party and he planted himself and he walked to it, and he made the guest list, and and he spoke at it.

You know, it was really quite amazing. But, let me tell you, can you guess how many people are alive today who are 100 just like you know, on planet Earth?

How many people do you think actually are 100? Welcome to Doctor Talks, the podcast where every episode leads to a healthier you. Join us as we navigate the world of optimal health, uncovering groundbreaking strategies to conquer chronic disease.

In each episode, we'll bring you the latest insights from leading health experts, medical innovators, and wellness warriors. If you are seeking to transform your health journey, or if you're looking for answers to burning questions, you've come to the right place.

Get ready to unlock the secrets of lifelong health and vitality. This is Doctor Talks, real talk from real doctors on the issues that matter to you most.

Welcome to Vitality Made Simple. This is the podcast that equips you to feel better, look better, and to enjoy better relationships. Well, I've already had fun talking to our guest today.

We have Doctor William Lee. He is a world renowned physician, innovator, scientist and the best selling author of several books, including Eat to Beat Disease, which is, on my desk all the time.

I use it as a reference, and I think you should too. Welcome, doctor Lee. Thanks very much. It's a real pleasure to be on. Well, it's a joy to have you.

You are, such a curious person. You're an excellent communicator.

What Stem Cells Are and Why They Matter

But most of all, doctor Lee, I can tell you, you're truly caring. You, in everything you do, you work to make being healthy enjoyable. And you help give people the why of of making good choices.

So I loved your book. I've read both of your books, but we're going to specifically talk about eat, eat, eat to beat disease. And in that, when you talk about the five areas that protect us from illness.

Now, so just for our listeners, the five areas are angiogenesis, regeneration, microbiome health, immunity and detoxification. So I have a little, acronym for that, you know.

Am I yeah, here I am I'd, I love acronyms, doctor Lee. So, we're going to talk about regeneration. And in that area, you are the world expert in stem cells.

Tell us about stem cells. Well, that's a big topic, a very exciting one. And I like to introduce stem cells to people, in the following way. You might have heard about stem cells.

If you know somebody who had a bad knee or an ankle or a shoulder and they drive to the strip mall, their corner

someplace in their town and get an injection of stem cells, and they might feel better, but, that, to me, is really a not for prime time, not ready for prime time approach.

The stem cell stem cells is a lot deeper topic. Basically, we are all made from stem cells, our bodies. And and a stem cell is a cell, and our bodies are made out of different cells.

A cell that has the ability to turn into any organ that it chooses, that it needs to turn into. Right. So basically, if you have, a bone cell, it's going to keep making more bone.

If you have a heart cell is going to be making more, heart tissue. If you've got a liver cell, more liver, but a stem cell is great because it's like, a ball of clay.

It can turn into anything. All right. Now, why are they important? Is because this cell that can turn into anything allows us to regenerate. That's right.

You heard me. Regenerate as we are getting older, to repair and renew our tissues so we can make more of our cells in a fresh way. The fresh version of ourselves from the inside out.

We don't see it. We don't feel it. But it actually is repair. So how do we know we have stem cells? Well, it turns out that when we were still in our mom's womb.

So I like to introduce this in a way that everybody can relate to. So we're all the same. When your dad's sperm met your mom's egg and got together, you know, and you were just a ball of cells, you had no face, you had no fingers, you had no great toe.

You were no liver or heart, brain or anything else. You were just a ball of cells that were starting to form what ultimately is going to be your body, those cells that from that ball of cell that with that football that could turn into anything or all stem cells.

So we were all originally made from stem cells and over nine months in our mom's womb, we became the little baby that was going to come out into the world.

And when we were born, you know, the doctor will cut your umbilical cord. I'm a medical doctor. I've cut many cords. What we, many of us don't realize is that the baby with the cord cut, taking the first breath, going to get the first, you know, gulp of my mother's milk has about 70 million extra stem cells that haven't been used yet.

Okay. It's like an extra, you know, it's like I always tell people it's kind of like if you've ever actually had, a painting project in your house where you're painting your walls, you go to the painting store, you buy the colors you want or the color you want.

And how many cans of paint do you buy? You always find a couple of extra cans, because what you don't want that happen is that you get to the very end and you've just got a little spot and you ran out.

Okay, so Mother Nature's been really clever. She made sure that we had extra. So when we're born and we, we're pretty much all put together, we have some extras in case we need them now.

So we're born to get 70 million extra stem cells that we don't need at the moment. So then what happens after we're born is that our body packs them up.

It's like if you have shirts, if you fold them up, put them into a shirt box and slide them into your closet. And the areas that where our extra stem cells are stored are in our bone marrow, which is the center of our bone.

If you ever broke up in a chicken leg, you see like this little dark brown stuff in there, we've got osso buco, which is an Italian dish, you know, it's like a, it's a big bone with a little hollow singing it.

That's where the bone. That's where the stem cells that she lived. They live in our bone marrow like bees living in a hive. And there's a few other places that they live to.

They live in our body fat. They live in our skin. They live in our liver and our lungs. You know, they live in a few places, but the most, most, for the most part, they're actually in our, bone marrow.

And when our body needs them as we're going through life. You're a kid, you're an adolescent young adult, your middle age or older person. Whenever our body needs to be regenerate or repaired, it sends us wherever it is.

It sends a signal. Oh, our gut needs to be repaired. Oh, our heart needs to be repaired. Oh, we cut ourselves. We had surgery and there's a part that needs to be fixed from the inside out.

Signals are sent to our bone marrow, and our stem cells come out into our bloodstream like bees coming out of a hive, and they fly to just wherever it needs to be fixed.

They fix it, and then they go high back, and they go back to wherever they need to go. They took wherever they, they started. All right. And that's basically, the whole what a stem cell actually is.

Now, I got involved stem cells because one of the most important things in our body is our circulation. And our circulation is made up of blood vessels.

Our blood vessels grow through a process called angiogenesis. Angio blood, blood vessel. Genesis, how our body grows them. I study angiogenesis. I'm one of the world's experts in the space.

I studied with a pioneer, and I became really interested in the circulation because it needs to be repaired all the time. We always need to have a, really, really great working circulation of your.

Because these are the highways and byways that feed every single cell, every single organ in your body.

How Stem Cells Support Regeneration

And if your blood vessels are healthy, you've got a shot at making everything else healthy. But if your blood vessels are sick, all right. And there's a lot of ways your blood vessels can be sick, worn down, you know, scarred up, plaques blocking them all kinds of things that can actually happen if your blood vessels are sick.

You don't have a chance of optimizing your health. And so I was really interested in this sort of core common denominator of health that we all need to protect.

And it turns out stem cells are really important for fixing and maintaining your blood vessels. Well, we want more stem cells because we want to we want to feel our best while we're here.

And and you know, when we feel our best doctor Lee, we get to interact better with our the people we care about so hard. How do we get more stem cells?

Because you always think about this is so declining and you have to buy stem cells. That's what was so inspiring about your book, folks. Listen, you're going to tell us this is great.

Okay. Well, first of all, I have been involved over the last 20 years with, I run a nonprofit organization called the Andrew Genesis Foundation. It's a nonprofit.

It's a third party group, you know, a kind of a trusted third party group. And we're trying to actually help make better medical treatments happen. So far, we've had about 47 of them.

So in cancer, complications of diabetes, even vision loss. And so, I'm very familiar with stem cells because out of our work at the Angiogenesis Foundation, we were we have been trying to get stem cell therapies to become useful

for repairing spinal cord, repairing heart disease, repairing the brain after a stroke.

Lots of efforts growing in this going in these areas are very exciting, especially for healing like wound healing. None of them are ready for prime time yet.

So when you hear about the stem cells at the corner strip mall or a doctor, a few stem cells, you know, me personally, I would say no, thank you, because I don't think they're we haven't gotten to the best version of what that needs to be for FDA approval and trustworthiness and everything else.

All right. So I personally stay away from those. However, what I will tell you is that we can activate our body's own stem cells, and that's what's exciting.

If we want to regenerate ourselves, we want to be regenerative. All right? Now, look, we can't be a starfish like a starfish can lose an arm and grow new arm.

We can't be a salamander. Salamander can lose a leg and grow a new leg. We can't do that. But what's. But in a way, we can do even better. We can. We can repair and replenish our own internal organs.

By the way, Debbie, if I were to, tell you which organs you could regenerate, do you know which ones are most regenerative in your body? I would guess liver.

You got it. Bingo. The liver is one of the most regenerative organs. In fact, you know, I went to the you know, I went to medical school at the University of Pittsburgh, which is where liver transplantation was pioneered.

It turns out to the liver. If you remove cut two thirds of the liver, removed to two thirds of the liver, throw it away one third left over the course of about two years, at the entire level where you regenerate, grow right back.

Amazing. Okay. The lung also regenerates if you clip off the top of your lung, the tippy top of your lung, the penthouse of your lung snip. It's right underneath your collarbone. Okay?

It'll grow back over the course of a year. All right, now, we do know that nerves will regenerate, right? You know that. Like, if you ever burn yourself and you can't feel on something, eventually you'll look at this and say, she'll come back.

We know that your, oral mucous membrane and you know all about this. I always tell people that will regenerate like so, you know, you ever. We all have eaten some tortilla chips or something really sharp or had, eaten something really hot.

And we burn our mouth, and you feel that little flap hanging out? Well, that's like ripped skin in your mouth. Mucosal membrane. All right. That's going to repair itself. It prepares fast.

Just like overnight. Like you could pretty much be back in shape the next day. You're back in the game. All right. And the reason you're back in the game.

Besides, you know, the natural healing is that the stem cells eventually repair that area. And by the way, the other thing that's really cool about stem cells and this is like right in your wheelhouse, our teeth, we have, stem cells, that are actually present in our teeth, especially the baby teeth.

To be able to help regenerate, teeth. Now, we can't grow our teeth back yet, but we don't do know that, you know, as we go through early life, we start out with little baby teeth that get bigger.

Eventually we lose them and have adult teeth that grow old. You know what the dental researchers, the oral researchers have figured out is that there are these little stem cells that are found, near the pulp of our teeth, and they actually do a lot of different things.

They they help to regenerate the tooth a little bit. They also help to coax blood vessels to grow, to support the health of the root of the tooth and the dental pulp and everything else.

And by the way, that's a it's also a great source of research for understanding more about how we regenerate is in our mouth. All right. So, what I was going to say is that, the there are foods that can help prompt our stem cells to come out, and that's one of the most stunning things when I got started to do research in food is medicine, which is about almost 20 years ago.

Among the things I knew, the stem cells were regenerate blood vessels and other organs as well. But man, when I realized that there were food and the foods could actually, as, stimulate blood vessel growth, when I found out that there were foods I could actually call out our stem cells, my jaw dropped.

So here's some of the foods that can actually do it. All right. Black tea can actually call out stem cells. How do we know that? Well, because human researchers, I mean, researchers have looked at clinical studies in humans where they gave older people who, you know, need repair, like heart disease and stuff like that.

And blood vessels aren't so good black tea to drink. And they measured the amount of stem cells that are bloodstream before giving them tea at the beginning of an experiment.

So no tea for two weeks or three weeks. Then measure your blood, see how many stem cells are there, and then skim tea to drink every day, like two cups of tea a day.

All right, for like four weeks. And then measure the stem cells during the experiment and see how many stem cells are at the end. And man, they've been finding that those researchers could double the number of stem cells in the bloodstream with the only thing different being, drinking black tea.

Now, how do you actually, what could interfere with that process? It turns out that, they found that if you actually put cream in the tea, you know, like the way the English always have, and their afternoon tea, they'll put a little cream or milk in it.

If you put cream in it, the dairy fat in the tea will actually stun the stem cells. So you don't get as many stem cells coming out. So little tip black tea.

Yeah. Everybody thinks green tea is good. Green tea is good. Black teas for stem cells has been proven to be good. But you can have your black tea. Don't put milk in it because that's the dairy fat that seems to stun the stem cells.

Now I'm not anti dairy by any means, but I will tell you that, you know, because there's there's a lot of dairy products like yogurt for example. We talked about this before the podcast.

It's really good for you. There are some even probiotic cheeses that are actually good for you. So this is not about deprivation. My whole research is all about inclusion and and adding things to your life.

But I'm telling you how what you what you combine together, like, so black tea is good. Do it without, dairy milk. I think if you do not know, you're probably fine because it doesn't create the dairy fat doesn't have the saturated fat, in fact, not have not milk such a healthy fat to it.

So, so that's a black cheese one. Another one that is a that is always makes people smile and cheer whenever I say it is dark chocolate.

Foods That Activate Stem Cells

So if you if anybody who's listening or watching this needs another reason to like chocolate because most people go, I don't need to hear about chocolate, I really like it.

But check it out. Dark chocolate has high amounts of cacao. Cacao is a plant based food. It's a seed pod. Comes out of these tropical areas, and you've never seen, what the cacao pod looks like?

It's like a small football. Okay? It can be yellow or brown, like, over, like regular football. And it's heavy. If you ever have one, you can order them online from, like, a tropical fruit supplier.

I think there's one. Somebody sent me a gift once from Florida, a box of cacao pods. That was really cool. They're heavy and when you shake it, you can feel the little, cacao seed pods in there.

All right. And when you cut it open, you wind up having this white, it's almost like a coconut, except it's got little. It's got fleshy stuff around it.

And the seed pods are covered with some fruit, and you can actually eat the cacao fruit. It's like sweet and sour can taste like it. But if you're a chocolate maker, you take the skin away.

You don't eat it, you dry it, then you ferment it, then you roast it, then you grind it. Then you've got cacao, for making chocolate and that's what chocolate is made from.

So when you get dark chocolate, dark chocolate just means it's got more cacao. So you hear about yeah, milk chocolate is got milk and some chocolate 5050, let's call it.

But dark chocolate is like when you had 60%, 70%, 80%, 85%, 90%. I even recently got 100% dark chocolate. Like, it's pretty bitter. Okay. But now you've got like a huge amount of this, like, plant based stuff.

Now, what's in cacao? It's got a mother nature's pharmacy is found in our plant's pharmacy. Not with the pH like pharmaceutical, but that pharmacy with an S like farm.

So in cacao, you've got something called pro anthocyanins. All right. It's a little bit of a mouthful, but just trust me, people like me who study this like, we we got it down.

We practiced how to say it. So pro anthocyanins. These are polyphenols that are found in the plant based foods that are used to make dark chocolate. The more the darker the chocolate, the more of these polyphenols are in their.

In dark chocolate, when you eat, it can actually call more stem cells. So there was a clinical study done looking at older people, older men in this case in their 60s who had heart disease, bad circulation, hypertension.

You know, we hearts and they measured at their baseline like how many stem cells you got. Not too many okay. And that's one of the problems when you have high blood pressure you might eat too much salt and you might not have enough good healthy fats, high blood sugar.

All of these things can stun your stem cells. And aging itself kind of lowers your stem cells. So, you know, by the time we are in our 60s, for example, we only have about 50% of those stem cells left, and they're not as active as before, you know, look, we got 70 million.

We use about half of them over the course of our first half of our lives. That's okay. You know, we used our ammo, right. So but but that's okay. So do you want more dark chocolate can help get more out and and make them robust.

So this study showed that if you gave this is a group of men, you gave them two cups of hot chocolate made with dark chocolate. Twice a day you would actually double the number of the stem cells.

So because twice, sorry, two cups, one cup in the morning, one company after. Okay. So, so one cup twice a day. So, so just two cups a day. Dark chocolate.

A hot chocolate made with dark chocolate. Like 85%, or better. You would actually call out the stem cells and they would actually, flood your bloodstream, double the amount and energy.

Then if you test the health of the blood vessel, there's a test called flow mediated. The dilation. Don't worry if you don't know the details. I just tell you how you do it. We do a blood pressure cuff.

We squeeze a blood pressure cuff. Squeeze, squeeze, squeeze. Just like in a doctor's office. Okay? Make sure it makes it real tight around your arm. And then you take a little probe to measure your blood pressure, to see how resilient your circulation is when you let go of the blood pressure cuff.

So you let it go, and your blood rushes back into your arm. And the ultrasound, a little probe will see how resilient your blood vessels have become. Turns out that the people who are having the dark chocolate had twice the resiliency.

They recovered. The resiliency doubled the resiliency of their blood vessel. So this is quite an amazing thing that you can have things like tea or dark chocolate, but you can also get more and more blood stem cells going with barley, for example.

With fruit peel. Can even do it, with squid ink. If you ever see the black pasta, you go to an Italian restaurant. They've got like fettuccine Al Scipio or whatever.

You know, as a black person, I did a gap year in Italy, so I, I'm very familiar with all the stuff. But, listen, you can go almost anywhere and go to a nice Italian restaurant that wants to cook this kind of traditional foods.

Anybody that does seafood, sometimes you'll see black pasta and anybody who's watching if like you're like, I have no idea what he's talking about, go to Amazon and click black pasta and you're going to instantly see, all kinds of choices that you can order.

It's made with squid ink or actually, cuttlefish ink, but kind of like a squid, cephalopod. Now, what is squid ink? Squid ink is like what, a squid or an octopus or squirt into the water.

It's like it's ink, like dark black. To escape a predator. So a shark wants to eat a squid or octopus soup. It'll actually release a cloud of ink, and it's gone.

All right, it disappears. Escapes. We can eat that. All right. And it turns out that's used to make pasta. In Spain, actually. And in Venice, they actually make it.

They use it to make rice like a black pepper. Twinning paella or a black risotto. A squid ink risotto. Oh. So delicious. All right. But I will tell you, researchers have show that that also protects your stem cells.

So, I mean, it makes my mouth water to think about all the foods that you can actually eat that are good for our stem cells. And that's really the cool part is that, you know, like here we are thinking, oh, man, our health care system is so broken.

And, you know, and I want to feel better. And I want to be in charge of my life. What do I do, you know, to get a little more energy or to feel more of, you know, feel more vitality?

Listen, try activating your stem cells. I just gave you, like, three foods that can actually do it. Oh, wait a minute. Extra virgin olive oil will also do it.

Now you can use it to cook anything. What about coffee? Coffee also has something called chlorogenic acid, and it can also help activate your stem cells, which is really, really cool.

And I drink coffee every day in the morning. I also drink tea in the evening. I'm not that sensitive to caffeine so I can do it and not disturb my sleep.

But coffee will do it as well. Coffee. The chlorogenic acid in coffee will light up your stem cells. So, you know, again, these are not difficult maneuvers to do.

You know, some people that, you know, if you're a biohacker or you're somebody who really wants to pursue longevity, like you try to figure out what supplements do I order and what do I need to track?

You know what the people that are living long and living well today? Very vibrant, are not the people that grew up with technology. They kind of do these long held, traditional things that people already love to do.

And by the way, it's not just like 1 or 2 people like, okay, Debbie, I got to ask you this, because my new research is into longevity. Like, I'm looking at sort of foods and longevity.

Do you know how many people do you know anybody personally who's lived to 100? Yes. My grandmother did. She. And she lived, she lived on the farm. She ate, you know, they butchered the cows.

They butchered the pigs. She grew food. She was active. She had chickens. So she was out. She was out doing things. You know, we joked the granny never went to the gym, but, you know, granny told her she was the.

And she probably had a community of friends that she hung out with her family. She did. So check this out. Living to 100 is sort of like a dream goal.

When I was a kid, I remember thinking, oh, you know, like when I first started to realize what mortality was, you know, because when you're a kid, you don't think anybody dies, like, in your family.

But then when I started to realize, oh, you know, this is like a real this is a real deal. Living to 100 seem like a dream, like, oh, man, it would be great to live to a 100.

Well, my great uncle lived to 104. Completely intact, independent. You know, I went to a 100 birthday party and he planted himself and he walked to it and he made the guest list, and and he spoke at it.

You know, it was really quite amazing. But, let me tell you, can you guess how many people are alive today who are 100, just like, you know, on planet Earth?

How many people do you think actually are 100? Maybe, I guess maybe a hundred thousand. That's that's an uneducated guess. Doctor League. It's 700,000 people are alive today who are 100 years old.

And these are people that are probably like your grandma, who didn't have wearables, heart tracking their glucose spikes and crashes. You know, our measuring the amount of steps they take are not vegans necessarily.

You know, they're probably and and they probably do things like your grandmother did. And so the bottom line is that to live long and live well, there are enough people getting there today by doing common sense things that are enjoyable and they're living their best lives.

And I think that what my research is showing, how do we do that? How do we put some how do we put some science, some data behind what other people are achieving that many of us would like to achieve?

So want to live 100? I think stem cells are part of the equation. You want to make sure you are having good stem cells floating around. Now the people who are 100 today, they probably don't care about stem cells.

But now that we know this and we know that black tea and chocolate and fruit peel and extra virgin olive oil and omega three from seafood, you know, like, look, these are all in vitamin D3.

Like, these are all things that can really be helpful if we have the knowledge, why not apply it to ourselves, right. Well, and you always make me hungry every time I read one of your posts and, and I mean, you have today.

My stem was growing. Doctor Lee, so. So we know some of these things that enhance it. And your book does a beautiful job of that, including recipes. What kind of things hurt our stem cell production?

And very, very good question. Because nobody wants to have their stem cells destroyed or diminished or weakened. I mean, you know, like, if I were to ask the average person to say, look, you know, you you can regenerate and heal yourself from the inside out, everyone would say, like, I want to I want to keep that capacity.

I don't want to be diminishing it. So but there are things that we, that are very commonly done that can diminish it.

What Harms Stem Cells

So here's some of here's a partial list. If we, have very high cholesterol, uncontrolled cholesterol, a lot of fat, especially saturated fat type of fat in our bloodstream, okay.

We eat a less fat that actually stuns our stem cells. You know, think about, you know, swimming in a crystal clear, a water near a beach, you know, some tropical Paradise.

Right? And then think about swimming through, you know, some melted butter, you know, or lard. That's basically, you know, you're not gonna be swimming so as fast.

Right? And that's what your stem cells have got to deal with. And so that's why keeping your lipid levels down is really important. And you know, statins are a drug that medical doctors prescribe.

And they can be important lifesaving. But it turns out that exercise can actually lower your cholesterol levels. Turns out that gut healthy gut microbiome.

And we talked about a little bit about healthy gut bacteria. Your healthy gut bacteria can also lower your cholesterol. And dietary fiber is like a key thing, to be able to do that, which you can actually have, from foods that are obviously fibrous, you know, you have your, you have your broccoli and your cauliflower.

They've kale, they've got a lot of fiber. But, you know, even soft foods have the kind of fiber that, your gut bacteria loves, like avocado packed with dietary fiber, raspberries packed pound for pound.

Raspberries got, like, more dietary fiber than almost any other fruit. Certainly any any of the berry out there and even mushrooms. You know, when you cook mushrooms and they're soft and floppy.

Delicious. I love mushrooms, I love to cook them. Yeah. A little bit of extra virgin olive oil, a little bit of chopped garlic, you know, chop up some herbs.

You just sauteed them up. You're killing me. You're killing me. I mean, listen, the reason I'm talking this way is because I like to cook, and I also enjoy great tastes.

And I think that, you know, like, you know, you can eating in the healthiest cultures in the world, like in the blue zones, like in the Mediterranean, like in places in Asia.

Are you know, something that people look forward to every day as opposed to just eating for a subsistence, like just to have enough fuel on your engine, like you should enjoy it.

It's part of our humanity. Anyway, my point is, you can eat foods and enjoy it that actually contain fiber, that feed our gut microbiome, and our gut microbiome will lower the lipids all by itself.

So high fat content the stem cells number two, high salt if you eat a lot of salt okay. In our hypertensive that kind of environment. Now your, your body does a pretty good job of adjusting the amount of salt in your bloodstream, but you could also have high sodium in your bloodstream.

You can't sustain it very long if you want to be healthy. But high sodium, high salt diets have been shown to stomach stone stem cells as well. Think about like, you know, putting a ton of, rock salt.

In the winter, on your snowy walk. But then you stick some into your garden as well. You're not going to be growing that your guard is not going to look so good in the spring or the summer.

Right, because you got all the salt on it. Well, that your stem cells don't like that either. All right. So I'm just trying to give people examples that they will remember.

So high salt doesn't like high sugar hypoglycemia. Now that is very easy to achieve. And I know, you know, listen, there's a lot there's a lot of stuff out there on internet and social media about glucose spikes and glucose.

Question I never use terms like that. I rarely use terms like that because I those are fear words. Nobody wants to spike or crash. I don't want to spike through my chest.

I don't want to crash into a brick wall. So but that's actually not what really happens for most people. We normally have a stick. We we drive up the hill, we then we, the hill dips down our body naturally, for most of the people that might be hearing this.

And just remember, I'm trying to reassure you that there's a natural wave of glucose of sugar that goes up in your blood, and then it comes back down.

And if you're generally healthy, it's going to go up in this go down. And we need sugar to actually survive. However, what is important is if you are eating so much added sugar that your blood sugars rise.

And we see this in a doctor's office when we do a blood test, you've got high blood glucose, hemoglobin A1, C you're on average. You've got you know, the tide is pretty high when it comes to glucose in your blood.

All right. You got a lot of sugar in there. And hypoglycemia, high blood sugar also stuns your stem cells. So we listen to things that are bad for our health.

High, high blood sugar. Kind of like diabetes or metabolic syndrome. Bad for your metabolism. High salt, hypertensive or cardiac sets up for cardiovascular disease, high cholesterol. Same deal. All right.

Other things that can stun your stem cells. Alcohol. Now, look, I get asked this all the time. Doctor Lee, what do you think about red wine? And, you know, are you against alcohol?

Here's what I will tell you. I will tell you as a scientist and a physician, a doctor. Alcohol itself. Ethanol, the chemical called EPO. Ethanol. All right.

It's toxic to every cell in your body. Not good for you. All right. And too much of it will poison your liver. Have too much of it in your heart. Eventually, you'll actually knock out your heart.

You'll have a cardiomyopathy. You'll. You'll actually poison your heart for your brain. You'll start killing brain cells if you drink a lot of alcohol.

But in moderation, our body can kind of detox itself pretty well. You know? We're pretty well set up for it. It's really the quantity and the volume and frequency, the cadence of drinking that makes a difference.

Now, I also say on the other side that from the time humans grew grains, we've been fermenting them and creating drinks or barley beer, even honey, you know, you can actually make, drinks out of and certainly grapes.

And what I say is that alcoholic beverages like wines and beers, especially champagnes, you know, they're part of our humanity. We have, in the course of human history, raise the glass.

Okay. And holidays to celebrate. Weddings, birthdays, funerals, you know, celebrations, you know, like, it's part of our humanity. And I think that the other part of the conversation I want to actually bring up is, listen, we got to be human. We want to be.

We want to be more in touch with our humanity. So keep your drinking to a minimum and if you want to do it during, some kind of celebration with other people, that's fine.

But if you're drinking, if you find yourself drinking alone and, you know, doing it up, just know that the alcohol is toxic. Alcohol will kill your stem cells. So kill yourself.

So let's not kill them. All right? So you only got 70 million of them. You know, you want to be wasting your bullets. You know you want to have. You want to use those to re refresh yourself as much as you possibly can.

Those are some of the main, enemies of our stem cells. Well, your message is always so inspiring, doctor Lee, because you do talk about. We need to enjoy our life.

You're very much what I would consider addition before subtraction. So add in these good things that you enjoy. Look forward to meal time. Too many people these days are, I think, sort of dreading meal time and not getting to have the feasting that, you know, we're designed for.

It's all a fast. It's not. It's not a feast. So so tell us, tell us, I know we our time is running out, and you've got a lot of things to do. You got into this area, sort of accidentally.

I mean, you really are world force in terms of food as medicine, but you were trained as a conventionally, like conventional physician. Correct? Yeah.

Not only was I trained as a regular doctor, you know, for years, memorize every bacteria, memorize every pharmaceutical, and learn how to write prescriptions and a dose.

I actually, you know, as part of my the work I do with the Angiogenesis Foundation, I actually been involved with drug development, biotech development, gene therapy, stem cell therapy, you know, like, as as I said, I've been involved with developing 47 new approved treatments for cancer complications, diabetes, and even preventing vision loss.

So I'm not a kale waving doctor that has for give for forsworn regular medicine. Quite the opposite. What I realize is that, you know, with all this, all the amazing technologies we have, we've been missing one of the important tools in a toolbox, which is our food, our diet.

Food, Medicine, and Longevity

Because, by the way, you know, pharmaceuticals really only came into being in the 1930s and 40s. All right. You know, just in the last century, about 100 years ago, is when we really began having pharmaceuticals.

Before then, we didn't have anything. We only had our diet and our lifestyle and all doctors were dealing with that all the time. Somehow, in the last 100 years with, you know, all this explosion of the pharmaceutical revolution.

And I look at it as generally a positive thing, like, you know, we're we're able to live as long as we do, in part because we have many medicines that can help us get there.

So, you know, for people that are like Antifa pharma, I would say not so quick, you know, like not. So don't be. So don't judge too quickly. You know, there's, there's good a lot of good that, you know, and there's some downsides as well.

But I will tell you, somehow the medical community lost sight of the fact that food or nutrition is a tool in the toolbox. And one of the most important, because when for me, I went to college, I was a biochemistry major.

I studied really hard core science. All right. But before I went, before I went to medical school, I did a gap year. And in my gap year, I went to the Mediterranean.

This is long before anybody talked about the Mediterranean diet. I went to Italy and I went to Greece, and I lived there and what I did there as a project for me on my gap year is I always tell people, if you're going to take a gap year, that's great.

I'm a I'm a big proponent for, but find something meaningful to do. Find a project, find a mission, find a purpose. Explore something, discover something.

You know, try something new. Don't just slum it, you know, like like get. And it can. And it can be life changing as it was for me. I was there to study food, culture and health.

And how did those connect in Italy and in Greece and then later and went to Asia? Before I started a medical school to see what was what what what is it about them?

And because I grew up in an A in a town, where there were lots of ethnicities going around, and everybody was so proud of the food they came from, and I wanted to see for myself what it was like in the home country right now.

One of the things that I realized is, just how healthy local, seasonal, fresh, Mediterranean cooking actually is. The stuff that we're beginning to discover, like, understand now, like why it's so good for us.

They've been doing it for thousands of years, and I saw it before all the signs came about, the ingredients they were using, the extra virgin olive oil, the beans dried and fresh, the vegetables and legumes, the fruits and vegetables.

I mean, hey, you know what? This has been going on for all time. Yeah, and we're only starting to rediscover it now. So how I, came into this as a medical doctor to study food as medicine is that I went to medical school.

Every professor I had, emphasized teaching about disease and the treatments for disease. One day, I started to ask. I asked something that seemed to be shocking to them.

The professors like, I'm like, okay, I understand hepatitis, I understand Alzheimer's disease, I understand cancer, okay, I understand disease. Tell me, what is health?

And I got like a blank stare, right? Like what? What a what a stupid question that is. You know, like, health is just when you're not sick, you don't need you don't need to know what health is.

As a doctor, I'm like wrong. We need more than anything else to know what health is. And I never got the answer. Medical school. So when I finished, I decided to figure it out for myself.

What is health now? I did do this big push into biotechnology, so I really had tools to be able to understand how do we understand how the body responds to new treatments we put into it, to overcome a disease like cancer.

But one day I did something sneaky. I was involved with the study, looking at putting testing cancer drugs in a in a in a test machine and test system.

And I took half the test materials out there were drugs, put them all in the class, and I'm like, test you later. And instead I substituted them with, vials containing food.

Extracts from food, ran them through the same test system. And guess what? 55 0% of the foods I was testing were as or more powerful in this test system, in a lab, compared to the cancer drugs.

And for me, that was the proof of principle that we could study foods as medicine using the same scientific rigor, the same testing systems, the same methodologies, the same mindset, the same number numbering system, the

calculations that we study medicines and and that made me that like suddenly opened up my birdcage and I'm like, you know what?

I can fly free to do this because let's now not just, you know, if you go online or you listen to social media, like people are always talking about food this and food that, I'm one of the guys who does the actual research and looks at the data.

And so while I think it's really great that the messaging the public is now on to it that, you know, like food is really important for health, we should be paying attention to it.

I always say, you know, the problem is really finding a trusted source of information. And, you know, I'm one of those people that really tries to present the science, the evidence, the data.

I try not to present things that are found only in animals or in fruit flies or worms, you know, like what? What happens in people. So all the example I we've been talking about today, all in human studies, because that's where the rubber meets the road for us.

Thank you for that. And I would invite all of our listeners to check out your TEDx talk. I believe it's called We Can Eat to Beat Cancer. Is that. Yeah.

So it's a it's a, it's a it's actually a TEDx mainstage talk. You can find it on TED.com. It's called can we Eat to Starve Cancer? So feed ourselves in order to starve cancer.

It's kind of like, it's a trick, title because, you know, like to think about eating the starve, right? But anyway, so I talked about the early work, but if you want to come to see my latest stuff, the latest research, come to my YouTube channel, because I have gotten so many inquiries, what I've decided to do is to put out regular content on the latest research, latest subjects, real practical information.

My YouTube handle is Doctor Dr. William Lee Lee. Check it out. And I'm also on social, you know, I mean, and, you know, to just put stuff out there. Yeah.

No, I think that listen, my slogan, my personal slogan, my, my mantra is that you can love your food and love your health. Because if you can line up that, the joy of food with the joy of eating, I mean, and a joy of health, you know, that's the best of all possible worlds.

And that's egg whites right into better relationships. I mean, how much fun do we have around the dinner table? It's just incredible. I would also invite people to check out your masterclass, programs that you do, they're easy to sign up for and they're really worth your time.

Well, thank you, doctor Lee, for being with us today. It's just been such a joy. And listeners, thank you. Share this far and wide. I will put everything in the show notes to help people find you, doctor Lee.

And, and I just appreciate you listeners, I know that you're the reason this podcast has grown. Join me on social media. Join doctor Lee on social media.

We're having fun there because we've seen people get better with simple lifestyle strategies, and we want you to feel better and enjoy your life and enjoy your relationships.

Blessings. And till next time, thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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