Introduction and Dr. Songu2019s Background

Hey, everyone. Welcome to this episode of the Reversing Type 2 Diabetes Summit, 2.0. I'm your host, Dr. Beverly Yates, and it's my distinct joy and honor to interview the amazing Dr.

Elisa Song, an excellent pediatrician, a mom, and such a smart, caring woman who knows what works and what's completely ridiculous. And so I would love it. Dr. Song, thank you.

To say hello and give us a thumbnail overview of your fantastic background. Hey, guys. Hi, Dr. Yates. I'm so honored to be here. I've known Dr. Beverly for I mean, it's quite a while now.

And really, you know, I've we're we're neighbors literally across the bay. And I'm just so honored to be here because the work that Dr. Yates is doing in really empowering adults and families now to gain control of their health and get control of their blood sugar is so important.

So I'm an integrated pediatrician. And what that means is that I was very conventionally trained. I trained at UCSF for my pediatric residency, did my medical school at NYU and my undergraduate at Stanford, so entrenched in the conventional pediatric world.

And I incorporate I integrate other modalities, including functional medicine, nutrition, homeopathy, acupressure, herbal medicine, essential oils, so that we can really have the best of all worlds knowing that there is a time and a place for just about anything.

Also, recognizing that conventional medications can have unintended and negative and potentially lifelong consequences, especially for children in terms of their developing gut microbiomes.

And we need integrative approaches to restore their health so that is why I do what I do. And I'm all about building resilience in children, no fear, but really giving them the the strength and resilience to bounce back from any physiologic immune or emotional heads.

Yeah, these are important considerations, right? Giving their children the ability to really recover and to be their full selves and to try to remove obstacles that might be in the way of the fantastic development.

They're there flowering, if you will, as they go from their childlike state towards their teen self and then into their adult years. And we know in today's world some things have gotten really complex.

So a question that I have for you now is can you tell us the state of children's health today? Yes. And it's not as good as we really as it should be.

You know, one thing that I always think about is I remember reading an article in the New England Journal of Medicine, and this is back in 2005. So almost 20 years ago, where the researchers and looking at potential life expectancies stated that this is the first time in history that children, our children will be expected to have shorter lifespans than us.

Their parents always exclude, possibly due to our lifestyles and lifestyle related diseases. And so, you know, that should have been a wake up call then we are not really in any better shape at this point.

Now, the current numbers are really that around 40% and climbing. So nearly one in two kids today has a chronic health concern. We know through the pandemic we've seen an increase in obesity, overweight, diabetes in children.

We've seen an an ever increasing emergency in our children's state of mental health, with one in three teenagers diagnosed with anxiety and one in three teenage girls seriously thinking about suicide.

And it's, you know, a whole host of other immune concerns, neurodevelopmental concerns. One in five kids has asthma.

Childrenu2019s Health Crisis and Rising Chronic Disease

One in ten is ADHD, one in 36 has autism, and the rates of autoimmunity are climbing. So, you know, it's really through education, like what you're providing Dr.

Beverly, really with this summit that we will be able to understand. What are the factors that are you know, holding onto our kids health and what are the factors that we have the power to address so that we can reverse this tide and really help our kids thrive?

Absolutely. So reversing this tide and helping our kids thrive, I love that messaging and this is important and now is when we put boots on the ground and make that a reality. Right.

Because this is a big deal. What's going on with the shifts in human health around the world? We have over 500 million people being diagnosed with type 2 diabetes right now.

Many people are still not diagnosed. And the shocking thing and why I invited you to be a guest here on the summit is that we've got a wild rise in the incidence of Type 2 diabetes.

Yes. Children. Now, when you and I went to medical school, the books all said that type two was a disease of later years of older adults, ages sixties, seventies and eighties.

Right. And that Type 1 was something that happened in kids in Now, since the time when we went to medical school, it's criss cross. Now we have Type 1 showing up in adults in their thirties, forties and fifties, which is a shocking thing and Type 2 is happening in kids as young as age eight.

That should never happen. So can you help us to decipher this? Like, you know, what do you think is one of the biggest culprits for this rise? Well, you know, we have a lot of culprits, but the underlying phenomena really has to do with inflammation.

And we need to think, well, what is driving this inflammation? And for our children, one of the biggest drivers of inflammation is ultra processed foods that they're exposed to ubiquitously and unfortunately for many, even from toddlerhood, because we're just not educated, we the kind of general public, are not educated in the ways that these FDA approved food additives are wreaking havoc on our metabolic health and our immune health and our children's neurologic health.

And I would say of of all the food additives that are driving metabolic health. Well, I mean, number one, it's going to be the added sugars, because added sugar is is ubiquitous and virtually everything our kids can be eating.

And so when we think about sugar as a food additive, one of the challenges that I give to parents and kids as a starting on the health journey is to find foods as they're growing grocery shopping that don't have added sugar.

And it's really hard, you know, when you pick up that really high, when you pick up the jar of spaghetti sauce, right, And you're thinking, oh, well, tomatoes are naturally sweet.

Why would tomatoes have to have sugar? Well, some tomato sauce is some marinara. Spaghetti sauces do have added sugar. And I will say one of the most kind of sneaky culprits that, you know, parents, including me, this is I'm going to say, throw myself under the bus, too, because I'm right there with all the mommas, you know, before, you know, you don't know.

And I remember thinking, I'm doing so good by my kids by getting them Greek yogurt for breakfast. Right. Protein, probiotics. What a great way to start the day.

And I was getting them the strawberry fruit filled, you know, real fruit, Greek yogurt. Well, one day it dawned on me, you know, I better just look at this label, right?

Because I hadn't really looked at the label. And in fact, when I looked at the label, I would just quickly glance at the grams of protein. And then when you go and have your eyes trained on the the grams of added sugar, my jaw just dropped.

I mean, this one service serving vanilla, I mean of strawberry Greek yogurt had something like 25 or 23 grams of added sugar. Wow. Added sugar, Right. I find. These spoons of.

Sugar that that is. Yeah, five to six teaspoons of sugar Find a little cup this Definitely. Yes. And, you know, vanilla yogurt often is worse. I found one vanilla yogurt when I started looking that had 31 grams of added sugar.

Wow. Right. So now. So now you know. Right. And you realize, okay, Greek yogurt. Right. But let's get the plain Greek yogurt, Add real chopped berries on top and maybe a little drizzle of honey on top to sweeten it or some, you know, some, you know, granola.

I have this one local granola that only has three grams of added sugar. So I'm like, All right, that's okay. That's great to start the day. So what is the problem with sugar?

Well, sugar in and of itself, it's you know, it's not necessarily that, you know, there's nothing that's all good or all bad, Right. Really? In reality, Right.

It's just that we get too much of it. And for children, this when you were with special we start off their day with a huge load of sugar. They get on the sugar rollercoaster where, you know, their blood sugar goes up.

It's like comes traces of it, their blood sugar crashes, they're hangry, know. I mean, they have their maybe their, you know, Fruit Roll-Ups snack at lunch and their blood sugar goes right up again and then it crash is again.

And so we go on the sugar rollercoaster and that wreaks havoc with their their mood, their focus and attention, their immune health right.

Sugar, Ultra-Processed Foods, and Metabolic Risk

Sugar can be can reduce our white blood cells ability to fight infections by up to 50% within 20 minutes of eating it right. And of course, our metabolic health, which is what we're talking about today and metabolic health is really we need the pandemic has shown us we need stable blood sugar regulation, we need optimal metabolic health to overcome things like COVID or, you know, things, other other infections that come our way.

It's really the cornerstone of optimal health for our future. Yeah, You know, these are these last few years have been such a learning process on many levels.

And one of the things I think that's happening for parents and grandparents, too, and I know a lot of people on the summit, you know, are caring for children in one way or another or perhaps grandchildren.

So I'm hopeful that people are taking notes and listening because we have to be vigilant and guard the health of ourselves and our families, the generations to come.

And the amount of added sugar that is kind of like in the air, it feels almost is pretty stunning. You really do need to read the labels. You don't need to be paranoid.

You do need to be aware. So with that in mind, you know, as we consider our options here, like we know the kids

are getting more sugar, what's some of the biggest culprits for this is a just food scientist run amok is a real taste preference is is it marketing Like what's going on?

Well, you know, it's probably a little bit of both because, you know, this food scientist, it's you know, it is really once you start learning about how food companies make foods that have a mouth feel, that makes you want more.

Right. And they know exactly which which which centers of your brains to target, to get that dopamine rush so that you literally develop then a personal preference, a taste to want more and more and more.

And it's not just sugar because hand in hand, when we think of ultra processed foods, there is more, more added sugar, there's more added salt, there's more added fats.

Right. And so, you know, we have then, you know, this this combination of this, you know, ultra processed, high fat, high sugar diet that wreaks havoc on our kids microbiomes, causes inflammation, increases the risk for type two diabetes and all sorts of lifestyle related diseases at younger and younger ages.

Now, one thing you know, to realize, like I said, it's not not that I mean, our household is not zero sugar. It's just that when we think about, you know, back centuries ago, the average American was eating two teaspoons of sugar a day, right?

Two teaspoons is about eight grams of sugar. Right. Nowadays, because sugar isn't everything in that loaf of bread that you're giving your child like, you know, sandwich bread.

There might be a teaspoon in each slice, even though it doesn't taste particularly sweet to you, because we're used to, you know, a little bit of a sweeter taste.

And so with your child's lunch, they may be having, you know, five to, let's see, two teaspoons in that bread. And then you have a peanut butter and jelly with the added sugar in the jelly.

So it's ubiquitous, right? Nowadays, the average U. S. child eats over 21 teaspoons of added sugar per day, right. Over 21 teaspoons of added sugar. Now, a teaspoon of added sugar is about four little lower, four grams of sugar.

Right. So we're looking at maybe about, you know, 48 to 50 grams of added sugar in a day at I mean, at least. Right. Some kids having are having much more than that.

And what is what do I think is one of the most important sources that it's sugar sweetened beverages they call SB in the food industry sugar sweetened beverages that go down like I mean it's it's liquid sugar, right?

It just it goes down like nothing. I mean, think about I mean, an easy example is orange juice. It may not be added any added sugar to your orange juice, but think about in that eight ounce glass of orange juice that you would need to squeeze maybe five oranges, you know, to get that.

How quickly can you down that 2 seconds and that glass or just, Oh, God, not satisfied, right. You might want more. And how long would it take your kids to sit down and eat five oranges right after one?

Or you get that nice, sweet taste, right? You have the pulp that adds a fiber and now you're satisfied, right? And these sugar sweetened beverages. Think about Starbucks.

Okay? Those rainbow Frappuccino unicorn things. Right? Those boba teas that, you know, the lines are around the corner in the summer. Time to wait for some of those.

You know, I seriously like I ask my kids if they if they're having a boba with their friends, you know going out okay you can choose to have the boba, but know what you're putting into your body and look at the nutrition facts.

And some will have up to 54 grams of added sugar. Right. 54 grams of added sugar. Now when we think about

that, so 54 grams of added sugar, how, how much should kids have in a day, Right.

Kids should have no more than about 25 grams of added sugar. Okay. 25 grams of added sugar. Now, I misspoke before. I just took out my cap to do the math because the average U. S.

child remember I said it's over 21 teaspoons of added sugar. That's 84 grams of added sugar. Right. So it sneaks in so easily. It's like, you know, sugar that's hidden and, you know, plain sight.

And there's over 61 code words for sugar, including barley, malt or rice sirup or fruit juices are considered and add sugar in your ingredients. So I'm not saying never, ever eat out of a package, but what we know.

Okay, let's be mindful. Let's recognize that kids should have no more than 25 grams of added sugar. Their life can still be sweet, but it doesn't have to be sticky.

Sweet, right? And so so we start reading labels and helping our kids to do the same so that as they get older, like my kids now are older. They're on their own, independently buying lunch with their friends and going to the grocery store.

They can make those decisions. And then if they choose to have that gap over that has 35 grams of added sugar, they know, okay, that's that's over. What I really should be having in the day.

So I'm going to really try to make, you know, choices throughout the rest of the day that that serve my body and my brain. And, you know, the next day, you know, maybe choose to have, you know, more vegetables and not have enough other both.

So it's just it's about education. Right. But I do think I think it's where's where's the sugar coming from? I think for grown ups and for kids, it's sugar sweetened beverages.

I have parents who go to Starbucks every day, you know, and get their their caramel macchiato, right? I mean, that's every day, right? But then it's also this ubiquitous just it creeps up.

I mean, I gave the yogurt example. There's, you know, the bread, the sandwich bread. There's just just start looking. You're like, oh, my gosh. Wow. It's it's kind of piling up into every little thing and it adds up.

Yeah, definitely. And it's it's ubiquitous. It's in a lot of places. It's even in things like you pointed out that don't taste sweet. And if some of us don't taste sweet as readily as other people do, some people genetically have a predisposition to not take sweet easily, which will leave you to be more vulnerable.

And it happens inside with perhaps being more vulnerable to pay to diabetes pre-diabetes to begin with. Glycemic dysregulation, insulin resistance. It's not fair.

I know. I know. I know it's. But then, you know, so then we have this, the predisposition, predisposition that we're born with and that we recognize, you know, the food industry is not here for our best interests.

So we just have to be savvy and learn how to, you know, enjoy foods that really are, you know, equally delicious. If we train our food, our taste buds, to enjoy the taste of real Whole Foods.

Absolutely. And friends just know it takes about two weeks for your taste buds to reset. You get a whole new crop every 10 to 14 days. So please be patient with yourself or family members.

Maybe you're trying to assist on this journey. It's going to take a little time for the new taste buds to emerge. And it does. And it does work, right?

Because I remember I mean, this is like a little confession, right? I remember, you know, in my in my younger days, I mean, as an undergrad, I just I had a I would drink coke.

Right. And I mean, just cans of coke. But then to me, it didn't even matter whether it was Diet Coke or regular Coke. And in fact, the diet, the artificial, you know, sugar substitutes can sometimes be worse than the actual sugar.

And there's been no evidence that these that these zero calorie non-nutritive artificial sweeteners reduce any risk for diabetes or metabolic syndrome and may, in fact increase.

Right. Be a higher risk. And so but you know so that once I really discovered nutrition health you know, the foundations of health and you know cut out the sodas and really you know is mindful about the added sugars.

I mean, it was astonishing. You know, I remember being at my friend's house and there was some coke at night and I had a little sip and I had I would spit it out like this is so like it like I can feel the film on my tongue and the sweetness and like, wow.

So you really can, you know, train your taste buds to not want some of that awful sweetness or get used to the taste of real sweetness in fruit's and love that and savor that and recognize that that the super sweetness that is in, you know, in a lot of processed foods.

Yeah, definitely. Definitely. Okay. So we hear more and more information from the news sources, from the media, other places that since COVID people's metabolic health is further compromised.

Right. And in this journey, we're also coming to understand this is for adults and it's for our kids, right? So we can see that more and more children might be having metabolic kinds of problems, you know.

So with that in mind, what is the state of our children's metabolic health? Are there kids in particular we should be screening for looking out for? And then how would a parent or caregiver go about getting them help?

Like how do they get this figured out? So knowing that there's a rise in metabolic syndrome and Type 2 diabetes in our kids, we need to think about, you know, which kids are going to be more at risk.

And what's fascinating is, you know, we have this picture in our minds of of that quote kind of kid or person that develops Type 2 diabetes. And I want to just let listeners know it's not always what we think, right?

I mean, I have I have children who are they look fit. They are there on their sports teams. They're slim. And you're like, there's no way they could have blood sugar problems.

There's no way they could have, you know, pre-diabetes.

Screening Kids for Insulin Resistance and Diabetes

And yes, they can, Right? I mean, absolutely. And I've had some children who are you know, they're are overweight. They have some extra weight. And we're worried about, you know, could they have problems with metabolic syndrome or or blood sugar regulation and they're more metabolically fit than the slimmer kid, you know, on the sports team right next to them.

So we first want to lift those those preconceived ideas of of who could have metabolic syndrome and Type 2 diabetes and recognize you know, it could be anyone.

I mean, and so I think, you know, screening is very important. And I do blood work on many of my kids, you know, as an integrated pediatrician because I'm all about prevention.

And I do think that, you know, just as, you know, fasting, a fasting lipid panel, you know, maybe more routine once kids see teenagers. Well, even when kids are younger, if I have an opportunity to do a fasting blood test, let's say I'm worried about, you know, their nutritional status and I want to check their iron levels, make sure that I need make I will also check fasting labs to assess their blood sugar regulation and their insulin sensitivity.

And so, you know, that's that's something do not you know as a practitioner or parents think that that there's no way your child's could have pre-diabetes or actual Type 2 diabetes because they don't fit the picture of what you're thinking of.

Right. And also, it's interesting, you know, I think a lot of a lot of my my sister is an OB man and she said that she's noticed in her practice that, you know, very slim.

Asian women also, you know, tend to develop signs of type two diabetes at young ages. And so what do I check? And this is I'm sure the same it's very similar to what you check doctor about, but a fasting blood sugar.

So that's going to be in your comprehensive metabolic panel, which I'll check and I'll just have to do a fasting. I always check with it a concurrent fasting insulin.

Okay, I do check a hemoglobin a1c, but I will tell you that in my experience, children have normal hemoglobin A1 CS, And you know, the reason that is is because hemoglobin A1 C, it is an average of your blood sugar.

So your kids are going to like up and down, up and down. Think about it. They may be having high, high blood sugars, low, low blood sugars. The average looks great, right?

Absolutely. Right. Right. And so I do check it. But, you know, the insulin is much more important to me now. I also pay attention. I do do a fasting lipid panel, in part because, you know, I actually worry a little bit less about high cholesterol kids and more about low cholesterol because I want their cholesterol to be over 130 for proper brain development.

So 60% of our bodies, cholesterol, is housed in our brain. Now, I also look closely at the metabolic panel to look at your child's liver enzymes, their AC and their T, just because I want to make sure that they're not tipping over into nonalcoholic fatty liver disease.

And and so I do see that as well. Now with the insulin and this is going to be similar, I think, to adults too, you know, you'll see a range of insulin, of normal fasting insulin of, you know, maybe three to, let's say, 20, right on Quest two.

And I really want children and their fasting insulin to be under five. Under six, right. If they're putting up and I see a lot of kids whose fasting insulins are 15, 16, 17, 18 just hitting against the upper end of normal.

And that's not okay. That to me is a big red flag that this child in front of me is having trouble maintaining an optimal blood sugar level because if your child has not eaten anything overnight, you know, since dinner or maybe they had a snack right before bedtime, but they've not eaten for ten, 11 hours, 12 hours, there's no reason why their their body should be pumping out their pancreas should be pumping out high levels of insulin to maintain a normal blood sugar.

So their pancreas is working overtime to keep their blood sugars stable, which is a sign that that they're becoming more and more insulin resistance and that that I really need to work with this family to help them understand that if we keep heading down this road, there is going to be a risk for developing outright diabetes.

So and some children do have elevated insulin levels. And it's I mean, sadly, you know, when when I've referred some kids to our local pediatric endocrinologists, you know, unless there's an outright, you know, sustained high blood sugars with the high insulin or high hemoglobin 20, there's not much to be done.

You know, from a conventional standpoint, which is unfortunately for for is the case for many things. Right. And conventional medicine, we there's not much that can be done until there's a fire already going.

Right. So so we want to and this is where, you know, Dr. Bev, your your work and really getting this information out there so that we can recognize how do we prevent this from happening too, is really important.

Well, thank you so much. You know, it's one of those things where they say for so many things around parenting and raising children that it takes a village.

And I feel like in order to nourish our children in the nearest future generations, to nourish ourselves, the nourish any of us who maybe are in a mid-life transitions, maybe going through menopause, maybe those of us in our elder years, wherever we are in the age spectrum, it still takes a village, right to be healthy, you know?

Yeah, for sure that in mind. What are your tips for our children? For our kids, and for the people who feed them that includes the parents, grandparents, great grandparents, those I know right here. Right.

How do we help them with reducing their sugar intake? Because this is a real issue. It's a real issue. And I will say as as families work together, the whole family gets healthy together.

And, you know, if you have one child who is having signs of blood sugar, regulation concerns already and another child that isn't yet the whole family should still be on this mission together to lower their blood sugar and lower their sugar intake and optimize their blood sugar levels.

I mean, this the whole family will be healthier for it. And, you know, one of the things that that I talked to kids about is, you know, when they're well, I explained to them first what gets converted into sugar of our bodies.

Right. You know, anything anything that's that's you know, starch. And so if they're having a cracker or they're having pasta, having rice, you know, that's still going to turn into sugar in your in your body, even if it doesn't have added sugar in it. Right.

It gets broken down into simple sugars. And so, you know, when they're eating something like, you know, a package of tortilla chips, we'll think of a how can we pair that with a healthy, fat, healthy proteins so that your blood sugar instead of spiking up, you know, with that just that chip alone, if you have it with guacamole, it just goes up slowly and it's maintained at a at a more even level.

And so pairing it with healthy fats and proteins. So I will brainstorm with them and I'll ask them, what are your favorite snacks if they come home and they have, you know, a package of goldfish after school?

Well, well, how about it?

Practical Ways to Reduce Sugar and Build Healthy Habits

You know, could you have that with some maybe some Turkey Roll-Ups or, you know, what about, you know, some, some peanut butter with, with your with your crackers or some cheese.

Right. And so really kind of stabilizing that and pairing that. And then I you know, knowledge is always power. And so instead of kind of running away from trying to figure out how much sugar actually getting what I have families do is is take a normal day.

Right. Don't change anything yet but do a sugar inventory. Right. You could play some fun games, but do a sugar inventory. Just everything you're eating, just write down.

And you as a parent can do this If you're packing, making breakfast and packing lunches for your kids, just write down like I did, right, with the yogurt.

Oh, let's write down how many grams of added sugar my kid is having in this. If you're having granola with how many grams of added sugar in that serving remembering.

Right. Or if they're having like chicken nuggets with ketchup and some ketchup has a lot of some of them have a lot of added sugar. How much you know added sugar in that you remember on the label it will say the grams of added sugar per serving.

So if your child is having, let's say, you know, a table, let's say a tablespoon of ketchup, and I'm making this up, but let's say a tablespoon of ketchup is one serving.

But your kid loves ketchup and piles of almost, you know, a quarter of a cup of ketchup on to their plate and dips in and well, then you need to add, you know all of that into your added sugar inventory.

Know that juice, you have to count any juice as added sugar, even though I won't necessarily say added sugar. Right. Like, you know, a 16 ounce bottle of pomegranate juice has 64 grams of sugar.

And it doesn't say added sugar, but know that the FDA counts fruit juices, added sugar when it's used as an ingredient in other processed foods. And remember, it's just it's liquid sugar going down.

Right. And so count all that and just do it for a day or two and look to see. Now, when I did that for my kids. Right. You know, I came out, I, I'm like, oh my gosh, my child is having upwards of, you know, 70 to 80 grams of added sugar in a day.

Right. Even with me thinking I was making healthy, healthy choices because I got the whole grain bread. Right. And, you know, the low sugar, you know, jam, you know, strawberry jam for their sandwiches.

Right. And you know, the teriyaki sauce with the added sugar. Right. And so once I recognized that and could look and see how can I make swaps that are still tasty, still, you know, equally, you know, they're healthy swaps, but with lower added sugar, like I mentioned that with the plain yogurt, with the real fruit instead of the sugar sirup.

And then looking for, you know, the multigrain or the whole grain bread that doesn't have as much added sugar looking for the jam. That's that's not. And, you know, no added sugars.

Then we could bring our our sugar intake down and I mean we could get down to under 25 grams fairly easily except for the days where they go out for Boba with their friends.

Right. But, but that way, you know for like most days we are regulating, keeping our added sugars at levels that are below you know, what the what the recommended limit is and we have that wiggle room to play so that when they go to a birthday party or when they go, you know, maybe they go to grandma's house and, you know, grandma's house, there's there's not a similar way of thinking about food that's okay.

You know, then they come back home and then we start lowering the added sugar again. Absolutely. You know, and just being aware and mindful does buy buying some time and opportunity for that wiggle room because this is an important thing as our children grow, our grandchildren grow in their awareness and in their social skills and what they're out, they do have to learn how to make choices for themselves.

Yeah. So as we head towards wrapping up this interview, let's talk about that because we want to make sure we give parents, grandparents, caregivers, afterschool providers, whatever role they may have some more tools here.

What tips do you have for helping out the children in our care? And we put it like that to make stronger choices when they're out in the real world with their friends.

We're in all kinds of stuff that probably is filled with sugar, sugar and yet more sugar. Yeah, yeah. And, you know, I would say, you know, that the most important thing is to really have that mindset shift around around food.

So we don't want to call foods good or bad. You know, we want to really stay away from using sugar as treats. You know, schools, too many schools continue to use sugar as a reward for getting this hundred percent on this test or, you know, and we often will use treats as incentives.

So using other things as the positive reward besides something sugary and then also recognizing, you know, talking to parents, grandparents, educators, children to let them know there is zero nutritional value to added sugar.

All right. There's there's nothing that's to be a benefit for you physiologically, immunologically, neurologically from that added sugar. Now, that doesn't mean not having any added sugar, but just knowing, look, when I have this sugary thing, it's not supporting my like whatever my health goals are.

Right. And then letting kids know, right. Talking to them about how sugar might affect their skin or their immune systems or their moods, their ability to focus, figuring out what their goals are.

I mean, I'll tell you, one of the things that gets teenagers to really have more of a desire to lower their added sugar is talking about how sugar affects your skin, right?

But for some kids, it's like they really want to be the fastest runner on the soccer field or, you know, they you know, they're having trouble sleeping or, you know, they they don't want to get called out in class as much because they're wiggling.

So much. Right. And so, you know, just letting them know, look, you know, too much added sugar, it may be playing a role. And so then we help them connect the dots with, all right, when I had that really sweet sugary thing at lunchtime.

Right. Or maybe I had the fruit snacks, but I touch the rest of my lunch. How was that afternoon? You know, was that did you, you know, Wow, Charlie, I.

I know you said you had a lot of fights with your friends that afternoon. Do you think it could have been me? Because you're on a sugar rollercoaster, you know, or, you know, a breakout like a on your skin like you know, that was the week after you had that huge, you know, outing where you had like the cupcakes in the Starbucks or do you think it could be relates to helping them make those connections?

Because once they understand the connections between what they eat and it's not just the sugar, it's going to be like noticing, too. Wow. You know, when you had that that a mazing, you know, when you actually finished your lunch and you had, you know, your turkey sandwich with the turkey and the the protein in it and you had the fruits that look the afternoon you said it was so much easier to concentrate on your tasks.

Right. So helping them notice both in a you know, in a way that serves them or not serves, you know, how food impacts them will help them then in the future to make those decisions for themselves.

And they may choose right? They may decide, you know what, I you know, today I want to have this the the Takis and, you know, the boba tea and, you know, the whatever it is, I just feel like it.

Okay. But then you know that I understand that they understand. Yeah, I know that the next day I'm getting my tummy is going to hurt, I'm going to be grumpy and tired, but it's worth it right now.

As they get older, they may decide they make different choices, but it's really helping them to take that ownership and their responsibility, not in a judgment away.

But look, it's this is your body. We're trying to help you understand. You know what what benefits your body, helps you feel strong and and you know, and helps you feel the way you want to and what foods make you feel.

Not so great, you know, make you feel kind of crummy. You make your brain feel not so great and help you to make those choices. That's great. Those are practical insights.

And I love the fact that you're lifting up the growing capacity for the children, becoming teen agers into the young adult years to make better and better choices.

Because those gaps, because then once they understand and they can feel it, they'll take ownership of it and start to make conscious, consistent choices.

That's how we help them build those great habits. So thank you for that. That's a wonderful insight. I appreciate you. All right, Dr. Elisa Song, thank you so much for being a guest here on the reversing Type 2 Diabetes Summit 2.0.

Would you please tell our audience where they can connect with you and find out more information. So you can connect with me on my blog It's healthykidshappykids.com or on Instagram.

I swear I'm most active with education and, you know, different informative posts and that my Instagram is @healthykids_happykids That's great. Thank you so much for the work that you do and the wonderful impact that you have in the world.

I wish you all the continued success. You know that for the effort and energy you're putting in, you are changing the unfolding of family's history. And thank you for that.

Oh, thank you, Dr. Bev, Thank you for having me on.